

# FARMSTEAD MAGAZINE

## Home Gardening & Small Farming

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*Half A Cow  
Can Be Better  
Than One!*

-page 62-

Magic of Cast Iron  
Cookware

Home Meat Canning  
and Butter Making

How to Run a Roadside  
Stand

Inside the Home Root  
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Grandma's Sour Cream  
Recipes

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—page 24—**

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	Tirol 7N	Tirol 7ht	Tirol 7zh
width of stove, inches	35.4	35.4	35.4
depth of stove, inches	23.6	23.6	23.6
height of stove, inches	34.8	34.8	34.8
oven thermometer	yes	yes	yes
cooking surface, square inches	666.5	666.5	666.5
appr. output boiler w/coke II, btu	—	30.000	51.200
appr. output boiler w/wood, btu	—	31.740	56.300
radiated power wood:			
insulating cover open, btu/h	—	11.950	15.000
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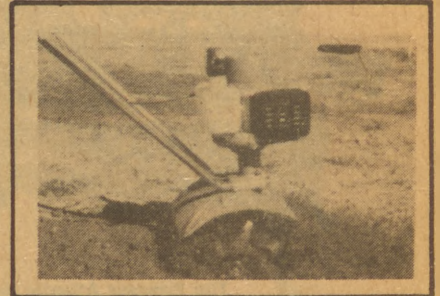


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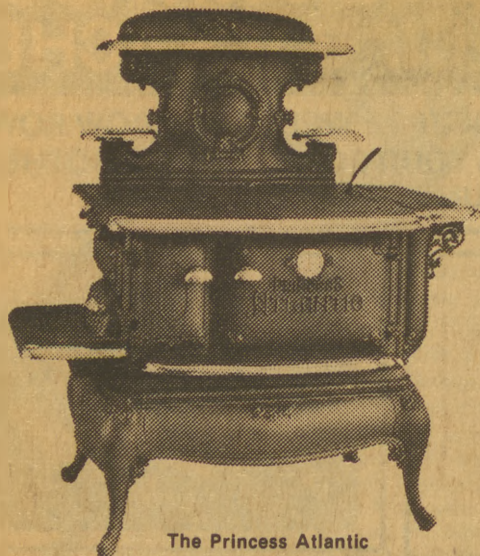
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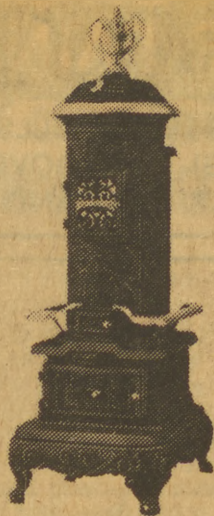
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Home Gardening & Small Farming

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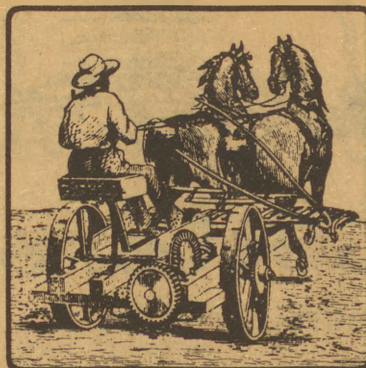
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# FARMSTEAD



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COVER PHOTO: *Kate*, by Jacqueline T. Manning. Mrs. Manning lives in Cheshire, Connecticut.

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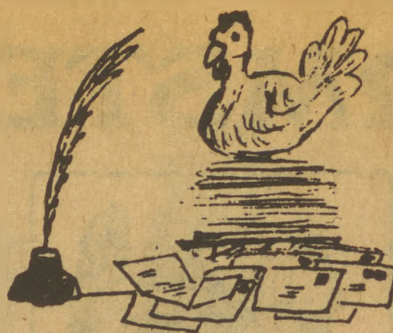
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# Letters

## FOWL PLAY

Dear FARMSTEAD,

I'm writing in regards to an article written in the Farmstead Magazine, Early Summer edition. The article was "Raising Pigeons." It was well written on feeding, building and the history of pigeons. But when it came to the part on butchering, it really made me furious.

The description said to put the young squab upside down in a funnel, pull its head through the small opening, take a sharp knife and slit its throat to let the squab bleed out in a bucket. I wonder if other people who read this article had the same sick feeling in my stomach as I did. Doesn't anyone have any feelings or compassion for God's beautiful creatures anymore? Its appalling and cruel. Please print this in the next issue and any one who feels the same way as I do please voice your opinion.

I'm a nature-lover and I've seen so much cruelty to animals being slaughtered that its time someone stood up and told these people that there are other quick ways applicable if you have to slaughter these beautiful birds. Your Farmstead Magazine is wonderful with many excellent articles in all the issues, but this one really made me sick. Please continue to write this great magazine. I hope author Kent Brown has second thoughts when he reads this article. He needs a prayer.

A concerned bird  
and animal lover.

## REPLY TO FOWL PLAY

Dear Concerned Bird and Animal  
Lover,

Don't stop reading Farmstead because of my article. What I'd like to

do is explain why I wrote the article in the manner which I did.

The procedure I diagrammed in my article about butchering squabs is the exact same procedure used by all the squab farms of the world. They have been slaughtering squabs in this professional manner for decades. In order to make the meat palatable and safe to eat, a bird (and all livestock) needs to be "bled out." This blood can be returned to the soil via the compost heap. When I wrote the article I wanted to give the readers a complete, "how-to," approach. Deleting the method of butchering would have left the article incomplete.

I hope this explanation will relieve some of the personal contempt you are directing at me.

I never realized that my article could offend someone as much as it did with this person. It's just another learning process to adjust to I guess.

Concerning the moral aspect of butchering, which you feel is cruel: I would like to say that I haven't seen one slaughtering method used to date, that I could personally say is totally humane. The way that I described is as humane as any. Hanging an alive bird upside down in a funnel, causes the blood to go to the squab's head and numbs and quiets the bird before slaughter.

One thing I'm accused of too often is that I'm too blunt and direct when I speak. I did the best I could. We all see things differently in this world, and I'm in no position to say if you are wrong or right. But it is your opinion, and I respect you for that.

Also whether a person is omnivorous or vegetarian, a life has to be taken in order to eat. The plants in the garden are as much alive as a lamb, calf or chicken. It has been proven that plant life does have feelings and can in fact feel pain.

In order to exist we must butcher animals or harvest plants. In both cases there is pain. The rules of nature are hard set and clear cut.

Neither side has the right to judge the other. Say a prayer for all of us, and make it a joyous one.

Kent Brown  
Mukwonago, Wisconsin

# Garden Way's Country Wisdom Bulletins

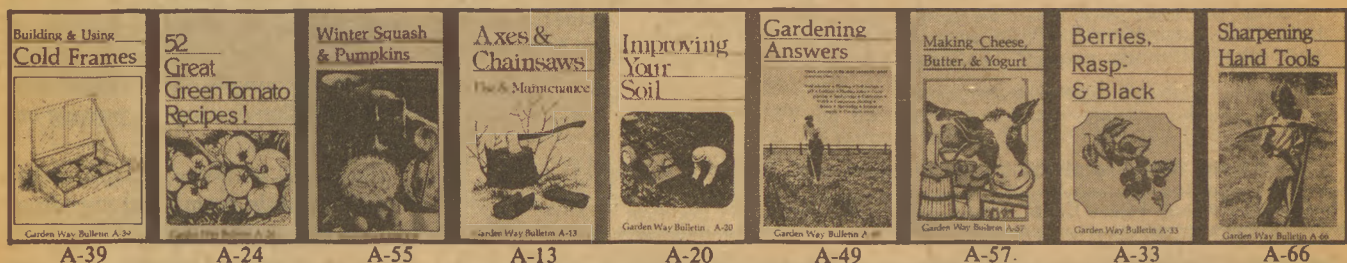
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## COMPOSTING: CRATES ARE GREAT

Dear FARMSTEAD,

I'd heard and heard about composting till I was green in the face. But every composting device I read about seemed to run into more blueprints and carpentry than a chicken coop for a Jersey cow. So I said, forget it! But not so firmly that I didn't experiment.

I scavenged a cardboard carton that had formerly hosted a refrigerator. With a stout stick hammered full of spikes, I started beating the box, to give it proper ventilation. My son was glad to take over, as it was so much like hitting home runs. I filled the well-ventilated box with leaves and unwanted plants. But as soon as the green stuff had its quota of water the box took a loose lurch over on its side.

So I stepped down to a washing-machine carton. But the bottom fell out when I tried to move it. Smaller cartons scrounged from local trash bins were likewise tops at putting on a bottomless act.

Then I hit on wooden fruit crates, freely available from local supermarkets. Advantages: No big-time construction project necessary, and they are light and strong enough to be turned over anytime. So I figure to be in costfree compost equipment as long as people can afford store-bought fruit.

To save water, I pile up the crates three high. The excess water hosed onto the top one soaks to the second and on down. I place the crates under a tree, so the excess water from the last crate gives the tree a free drink. The compost should be hosed down every other day and the boxes turned 180 degrees at least once a week.

Thin, wide pieces of waste lumber or plywood make adequate covers for the turned-over crates. You can tie or wire each cover on or, more simply, just hold it on with your hand as you flip the crate over.

When my compost has ripened to its squishiest best (about six weeks), I give it back to Mother Earth, though I leave some of it sticking to the crates to speed production of the next generation of vegetable manure.

This whole operation may sound pretty Robinson-Crusoe, but it beats any adventure-in-carpentry installation I've run across.

R. Davis  
Los Angeles, California



# Test the best dehydrator

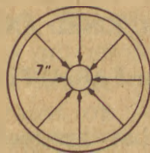
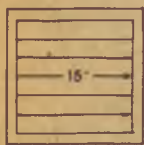
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Many people have decided they want a dehydrator and are now faced with this tough question...

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## ROUND IS BEST

Comparison testing proved to us the ultimate shape for a dehydrator is round. With virtually all conventional square dehydrators we experienced uneven drying. Food dries fastest near the side where the air enters the chamber and slowest near the side where it exists. Not so with the Harvest Maid Preserver's patented **Converga-Flow™** system. Air enters from all sides of the round tray, flows horizontally and exits through the center. The air has to travel only 1/2 the distance, the food is surrounded and the drying is even.

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Harvest Maid offers the only expandable dehydrator we've ever found. It can be perfectly sized to your exact needs; you can't get stuck with one too small or one too large. You start with the basic four tray unit (four sq. ft.). With the accessory **Add-A-Trays™** (two per set) you can expand your Harvest Maid to a total of twelve square feet. Your initial investment is low and you expand your square footage only as the need arises!

## REAL ENERGY SAVINGS

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## EXPERT'S OPINION

Deanna Delong is the premier author in the field of dehydration. In fact, a Saturday Evening Post review (Oct. 1979) said Deanna Delong's book How to Dry Foods "is a book that tells you everything you need to know about this subject." When we asked Deanna Delong about the Harvest Maid Preserver dehydrator she said, "I have seven different makes of dehydrators and it (the Harvest Maid Preserver) is the one I use the most all year round. It is the one that I keep in the kitchen."

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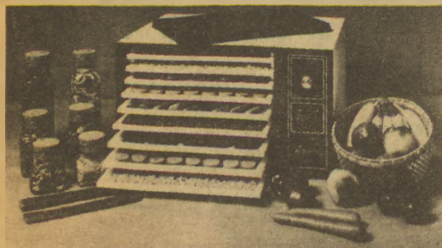
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## HOMEMADE YOKES AND BOWS

Dear FARMSTEAD,

I'm wondering if you could help me out. I have a pair of steers and I'm very interested in making my own yokes and bows.

Do you or maybe your readers know of a place or someone I might write to in order to get any patterns or information on this lost art? Any help at all would be greatly appreciated. Thank you!

Leroy G. Cronkrite Sr.  
P.O. Box 206  
East Livermore, Maine 04228

\*Read Farmstead, Spring 1981, "Yoking Your Oxen Calf."

## FARMSTEAD AND SHUT-INS

Dear FARMSTEAD,

I just ran across an old issue of I found it very interesting. I am enclosing a one-year subscription and can hardly wait for it to start arriving.

Also, I am in the business of writing to shut-ins. Many of them are the kind of people who would enjoy reading Farmstead. If any of your readers have past issues they wish to donate, we could sure use them. If anyone is interested in writing shut-ins, I will be happy to send you a list. A little gift or card or letter can do wonders for a shut-in. And sending it can do wonders for you!

Thank you for publishing a fine magazine!

Mrs. Pat Castle  
3212 Mark Circle  
Indep., MO 64055

## HANDLE WITH CARE

Dear FARMSTEAD,

After reading the articles "Milking Your Goat" I thought "tailing" sounded a bit excessive, although maybe necessary in extreme cases. Being new to goats and having a first kid doe (as well as a first calf heifer) I'm feeling my way around udders. We got a doe for free because the previous owner couldn't handle her during milking. My husband built a milking stand with the addition of a strap to go under her belly so when

she tried to lie down she couldn't get her backside down. When I was finished milking her I gave her a carrot or an apple and a pat on the neck. In a week she was standing quietly to be milked, now I don't need to close in a stanchion on her neck.

I had trouble with our cow when she first freshened. She tried to kick me, looking back out of pain, not because she's nasty. We tried tying a hind foot back, but she resented that. I asked a dairy farmer friend what to do and he said to tie her head tight so she couldn't move it and to milk with only the thumb and forefinger because the teat is very sensitive at first. It worked beautifully. Not one flying foot.

Then the realization that this was our goat's problem, or could have been. Both our goat and cow are doing fine, though, our goat prefers a thumb and three fingers instead of four when being milked.

Betsy Salvati  
Turner, Maine 04282

## SURPRISED AND AMAZED

Dear FARMSTEAD,

I have just received my first issue of Farmstead Magazine. I am surprised and amazed at the amount of information in just one issue! I haven't even finished reading all of the articles and I have learned quite a bit from the ones I have read!!

I hope to relocate to a small farm in the near future and will look forward to receiving future issues to help me decide on the right property for me. Thank you!

Paul Roth  
2517 Ogden Avenue  
Akron, OH 44312

## MILK STRAINER?

Dear FARMSTEAD,

I enjoy your magazine very much. The articles are understandable and interesting.

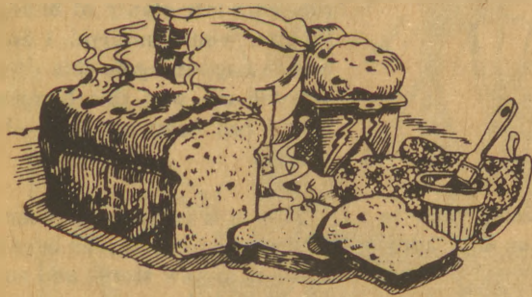
I have been trying to find a milk strainer. None of the places I have tried have them. (Cumberland General Store, Lehman's Hardward, Glen Bel's). Do you know of a source of milk strainers?

Thank you for any assistance you can give.

Bob Gray  
Route 1, Box 332  
Allen, Oklahoma 74825

# The best kind of bread comes from fresh whole grains.

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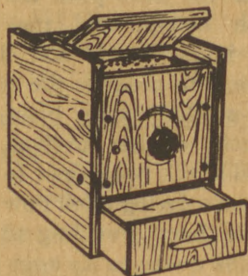


Storebought whole wheat bread costs upwards of 80¢ a loaf. Additives and all. Or, you can buy the flour and bake it yourself for around 30¢\*. But storebought flour loses over half its nutrients in just two days after milling: can you be sure how old it is?

Whole grains, on the other hand, keep *all* their nutrients safely locked inside until the moment they're ground. Baked right away, they make the most delicious, nutritious bread your family ever enjoyed. Better yet, whole grains cost less than flour!

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\*Organic Gardening, Jan 1981



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# ASK FARMSTEAD



an overall lower reproductive rate than those in moderate flesh to fat condition.

--Oklahoma State Dept. of Agriculture

I lost my whole bee colony even though I left plenty of honey in the hive for winter survival. I don't want this to happen again this year. Could you tell me why this happened and how I can keep my bees alive next winter?

This is a common problem. If the winter was too cold, the bees couldn't move onto new stores and so starved in place.

Some of this sort of kill is possible even if the winter is mild by most standards. Cluster size simply may have been too small and, therefore, the population not efficient in producing and conserving enough heat to survive the cold.

Cluster size also has a corollary. The fall bee population is made up of winter bees which are programmed to be energy and food conservationists. Their summer sisters produce and consume resources far more extravagantly. A reduction in cluster size, therefore, also means fewer of these more efficient kinds of bees, ultimately contributing to less successful wintering.

Late honey flow can be the culprit. In their frenzy to get the last drops of fall nectar the bees pack the brood nest with honey, and the queen becomes honeybound. She literally has no room to produce the quantity of sorely-needed winter bees necessary for cold weather survival.

It benefits the beekeeper to watch their colonies during a fall flow and to manipulate them, providing adequate room for the queen to lay eggs during those critical months (October and November) preceding winter.

We have a patch of black raspberries which give us a nice yield every year, but large canes seem to dominate. Can they be cut out early or will this injure our bush?

Pruning is one of the most important practices of raspberry culture.

Does the condition of sheep prior to breeding affect conception and reproduction?

Yes and no--depending mainly on the breeding season, says Dr. Joe Whiteman, sheep specialist at Oklahoma State University.

The relationship between how fat ewes were and whether they conceived and had single or twin lambs or triplets was significant at only one time of the year--during the spring.

Ignoring differences in breeds, Whiteman said research "found that ewes producing triplets averaged a little heavier than ewes producing twins, which in turn were a little heavier than ewes producing singles."

Otherwise, the only significant factor appeared to be the season in which ewes were bred. "There was a strong tendency for fatter ewes to be more likely to conceive during the spring season and produce more lambs as compared to the thinner lambs," Whiteman said.

No clear relationship was evident between the condition of ewes, their conception and their lambing rates when mated in September and October, the sheep specialist said.

During the breeding season in January and February, fertility was higher overall but appeared to have no relationship to how fat or thin ewes were.

The single exception to all of these findings was ewes who ranged from skinny to emaciated--or a score of 4 points or below on the condition scoring chart used by Whiteman. These skinny to very skinny ewes had

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HA81

However, it is often neglected entirely or improperly done. Proper pruning of raspberries makes fruit picking easier and individual fruits will be larger. The shortened canes are not as likely to break under the weight of a fruit. According to Dan Kinzler of the North Dakota State University Cooperative Extension Service, the pruning method you choose depends on your type of raspberry growth system. There are two types of raspberry production systems: The continuous "hedge row" and the "hill" system.

In the hedge row system, spring pruning consists of thinning the canes to six inches apart of leaving eight to ten canes per two feet of row. The row should be only 18 inches wide. The remaining canes should be cut back to a height of three feet. This spring pruning should be done in early spring before any growth takes place.

If you are using the hill system, spring pruning consists of selecting six to ten canes and removing all others. The remaining canes should be shortened to three and a half to four feet in height. The object of the hill system is to keep "hills" spaced so that you can cultivate on all four sides of the raspberry plants.

In midsummer, after the raspberries have finished fruiting, all canes that bore fruit should be removed at ground level. These old canes will die the following winter since the canes of raspberries live only two years. During the first year, each cane grows from a short starting from the root. The second year cane will fruit and die. The canes that fruited compete with young canes for moisture and nutrients. These canes also harbor insects and diseases. Destroy all refuse removed in pruning.

**I have been making butter in my blender, going strictly by the book--letting the cream stand at room temperature for only an hour--and then washing the butter extremely well. But no matter what I've tried, the butter always tastes perfect when first done, but then develops a strong taste and smells like cheese. No one in the house will eat it.**

The reason why your butter in storage develops a strong taste and a cheese-like odor is due to a high bacteria count in the milk (cream). We suggest you pasteurize your milk in order to correct this problem.

**Can rhododendrons be propagated easily? I have a lovely bush and was wondering if I could take a cutting.**

Doug Routley of the University of New Hampshire tells us:

Although it's not a common practice, I recently propagated one of mine by division. Perennials, ground covers and some shrubs are propagated this way but not rhododendrons. Nevertheless, I dug up one of my plants and ended up with four.

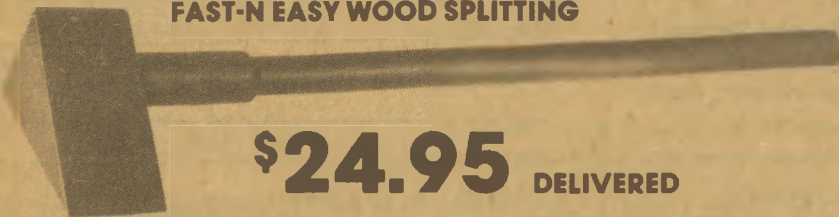
Actually, I was separating branches of the main plant that had formed independent root systems, a process called layering. Branch rooting often occurs naturally on plants the branches of which bend to the ground rather than grow upright.

I was moving a fairly large plant to give more space to its neighbors when I discovered the layers. Each branch was cut from the mother plant, saving as much of its root system as possible. The top was cut back severely to encourage branching. Lined out in a woody place, they will be moved to the garden when they are larger.

You can inspect your rhododendrons, especially if they are large, to see if layers are present. If not, you can provide some encouragement.

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Four steps are required in the process called simple layering. First, select a branch that can be bent to the ground. Second, slice some bark off where the branch will meet the ground. Third, treat the wound with a rooting hormone. Fourth, bend the wounded section, pin it to the ground and cover it with soil or mulch.

If conditions are favorable, which means the wound stays moist and the top gets light, roots should form the first summer. The branch could be examined for roots in the fall and either cut from the main plant or left for another season.

Layering will work with many plants as long as the branches are supple enough to be bent to the ground. When pegged in place, the branch should look like an "S" lying down.

When we went to get our baby pig, we were warned to watch out for signs of scours. What causes this condition and how can it be prevented?

The incidence of scours or diarrhea in newborn pigs varies dramatically among swine operations. Some producers expect to see an outbreak within three to five days after a litter is farrowed. Others claim the problem seldom occurs. Prevention of this baby pig killer is largely a matter of management, says University of Delaware extension livestock specialist Dr. Richard Fowler.

Baby pig scours, E. coli scours, or colibacillosis are some of the names used to describe an intestinal disorder in newborn pigs characterized by liquid feces. There are several possible causes, including viruses and bacteria. Transmissible gastroenteritis (TGE) is typical of a severe virus-borne disease that is one cause of the condition. Tests should be run to be sure what the organism is, says Fowler. Treatment can be effective once you know specific facts about the organism.

The cause of coliform scours is the bacteria E. coli, a normal inhabitant of the large intestine. The incidence of E. coli scours is influenced by herd management and the facilities provided for the newborn pig.

Given the right conditions, certain strains of E. coli multiply in the small intestine. These organisms produce a toxin that causes large loss of body fluids. These are lost through the gut in such quantities that pigs become dehydrated, develop acidosis, and may die.

Large numbers of E. coli are

present in the newborn pig's environment whenever it is dirty and wet, the ventilation is poor, and humidity high. An important source of infection is other pigs with the disease. These can shed up to one billion E. coli per cc of manure.

The most important factor influencing whether or not a pig gets the disease is environmental temperature. It's the easiest to control. Young pigs are very sensitive to chilling.

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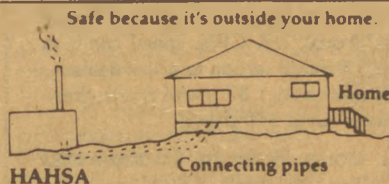
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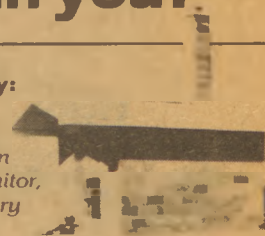


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Prevention is the key to success against colibacillosis, he says. There's no substitute for cleanliness. Central farrowing houses must be cleaned so that all organic matter is removed. Then they should be disinfected and allowed to dry before putting pigs in them. The sow should also be cleaned—especially on the underline. Other types of farrowing facility must be dry, well-bedded and have adequate ventilation to keep them dry.

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### where has all the soil gone?

"Losses of 30 tons of soil per acre each year are not uncommon today in many farming communities, and on some unprotected farms as much as 150 tons of soil may wash away in a single season," says Norman Berg, chief of the USDA's Soil Conservation Service. "When our topsoil is gone, our capacity to produce goes with it," he warned.

Soil erosion robs America of enough soil each year to cover the State of Iowa with a layer an inch thick, says the USDA. Erosion often takes the richest soil, too.

### detergents unsafe on udders

The use of household liquid dish detergents as bovine udder washes prior to milking is not sound practice.

Dr. Brown, Technical Director for Bio-Lab Inc., says that research by his firm has established that liquid dish detergents are not sterile products. If they are examined for bacteriological contamination as received, or just "off the shelf," most will show one or more types of bacteria resident in them.

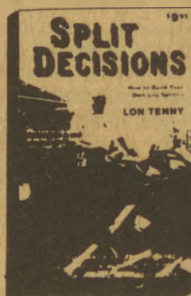
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Preparation of udder wash solutions too far ahead of milking time compounds the problem. Detergent washes prepared in the morning for use in the afternoon, show high bacterial counts by milking time. This is a direct consequence of the fact detergents are not sterile products and the water and containers used to mix them are not sterile. At ordinary barn temperatures, many of the organisms present can multiply fairly rapidly.

### research on pig disease may help humans

Studies of a genetic disease that causes death in hogs may help scientists understand Parkinson's disease, according to an Iowa Agriculture and Home Economics Experiment Station researcher.

Lauren Christian, professor of animal science at Iowa State University, said porcine stress syndrome (PSS) in hogs may "serve as an excellent model to study Parkinson's disease."

PSS causes pigs to become stiff because of muscle rigidity when under stress, such as traveling, Christian said.

Donald Draper, professor of veterinary medicine at Iowa State and director of the PSS research, explained why scientists feel there may be a correlation between PSS and Parkinson's disease.

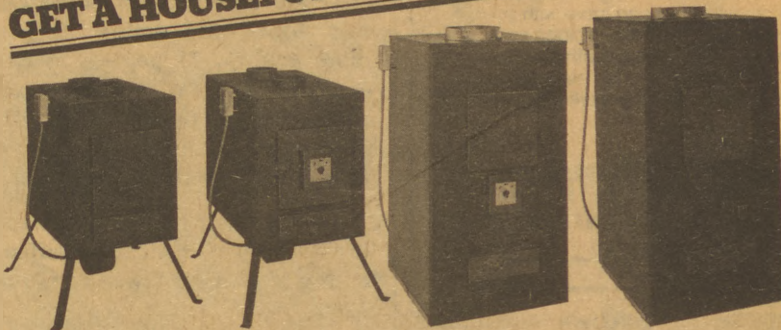
"Pigs with PSS have less dopamine (a chemical that helps in the transmission of nerve impulses) than do normal pigs in two parts of their brains. Humans with Parkinson's disease have similarly reduced levels of the chemical," he said.

Hog producers lose about 15 percent of their PSS pigs on the way to market because there is no treatment for the disease. PSS also is expensive for farmers because the pigs are lost after farmers have maximum investments in them. Even if the PSS pigs do not die, their meat does not meet quality consumer standards. Meat from PSS pigs is more acidic than in normal pigs. This acidity isn't bad; in fact it probably impedes the development of bacteria in the meat. But consumer acceptance of the meat is lower because it looks pale and soft, so it is used for lower value foods like sausage.

PSS research should help alleviate some of the conomic loss farmers suffer. "We also hope PSS research will lead to better treatments of Parkinson's disease," Christian said.

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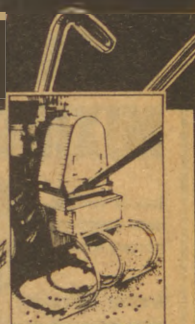
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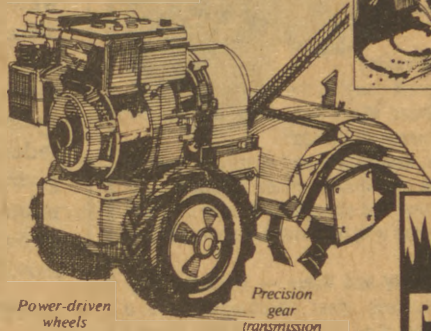
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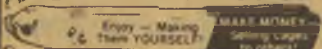
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## america's eating habits

American's eating patterns have changed since 1960, according to U.S. News and World Report.

And the magazine reports Americans are drinking 176 percent more soft drinks and eating 79 percent more poultry, 71 percent more cheese, 29 percent more processed vegetables, 28 percent more fish, 26 percent more sugar and other sweeteners and 24 percent more beef.

On the other hand, Americans are drinking 26 percent less coffee and eating 15 percent fewer eggs than in 1960.

## horse talk

More than four million Americans own horses and spend an estimate \$15 billion annually caring for them, according to the American Horse Council.

The Horse Council also contends that equestrian events attracted more spectators in 1980 than football, baseball or other big league sports. Of the 112 million spectators, the Horse Council estimated 75 million attended horse racing at 185 tracks across the country.

## federal water subsidies

The General Accounting Office (GAO) has issued a report showing six western water projects are receiving hefty federal subsidies. Irrigation water from federal projects is priced according to the farmer's "ability to pay." That's what remains from an average farmer's gross income after deducting for production costs (except federal water) and for allowances giving a positive return to capital, management and owner's labor—an amount much less than the cost of providing the water.

"When GAO analyzed the increases in net income possible with full-cost water at the 7.5 percent interest, it found that costs associated with increasing yield using irrigation were greater than the income produced," the report stated. GAO recommended that the Congress, during deliberations on water projects, recognized that "even seemingly full repayment of federal costs does contain a very large subsidy."

## getting rid of weevils, naturally

Most granary weevils would rather enter a trap than hang around wheat that was treated with soybean oil, A U.S. Department of Agriculture scientist found. And who could blame them? Most weevils died within a day if they were confined with wheat that was laced with the oil at a rate of 10 milliliters per kilogram (ml/kg).

That rate is about the same as one cup per bushel. Scaled up it would be about nine quarts per ton of wheat. However, at one-half the lethal dose the weevils could be effectively repelled.

"We're trying to learn how the oil kills and repels the insects and we hope to identify the oil fraction that is responsible," says entomologist Wendell E. Burkholder of USDA's Science and Education Administration. "Then we may be able to reduce the application rate and cost."

The study may someday help grain owners with modern grain handling systems reduce their dependence on costly chemical insecticides which may cause buildup of genetic resistance in insect populations and pose problems of toxic residues for consumers and dangers to workers. A more immediate application of the oil treatment, however, may be on small farms and in less developed countries, especially where grain is stored in bags, Burkholder says.

In tests involving five replicates of 100 grams of treated seed and seven pairs of adults that were introduced to the seed 60 days after treatment, an average of 9.4 weevils survived two weeks. The researchers then removed surviving adults and monitored the wheat for progeny. Virtually no progeny emerged on wheat that had been treated with soybean oil or cottonseed oil. Few progeny emerged on wheat that was treated after weevils had oviposited, or laid their eggs in it.

As the vegetable oils may help control insect populations they also may help reduce the amount of insect-generated grain dust in grain storage environments where the hazard of grain dust explosions exist.

--Research News

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# The Magic of Cast-Iron Cookware



by Soc Clay

**T**hey came drifting slowly on the soft air currents--delicious smells that took my mind from the work at hand. Straightening up from the back-breaking job of digging post holes, I traced the source of the marvelous aroma that was cramping my stomach with the desire to feast on a truly scrumptious meal.

Up the hollow in the cabin surrounded by a carpet of blossoming wildflowers, I could see smoke trailing from the low shed roof of my Aunt Myrtle's kitchen. A glimpse at my watch said it was eleven thirty a.m.. My aunt fixed dinner early, I remembered, as I set the post hole digger aside and walked to the branch to wash off some of the grime accumulated by the morning's labors.

Sure enough, in a moment the big brass bell that sits atop the pole by the kitchen door, sounded the invitation to come eat. It didn't have to ring twice. I had eaten at my aunt's before.

Country cooking over slow-burning, wood-fueled stoves is a tradition in

the Northeast that dates back for as long as our ancestors have made this beautiful land their home. It is also a tradition, I'm sorry to say, that's been lost by many of today's modern cooks.

There are a number of reasons for this. One, not everyone cooks over the low heat of wood-burning stoves anymore. Second, not all of us prepare the same type of food that our grandmas and their moms did--fresh from the garden, pickling barrel, smokehouse, cellar or from the drying room where they had been preserved at the very moment of their prime. And I mean, foods that had no additives, no pesticides, no fungicides, no fertilizers or weed killers to help them grow.

Another important reason that our foods don't taste like those the old grannies cooked is because we have lost the art and skills of using black ironware in the kitchen.

Well-seasoned iron pots and skillets are hard to beat--even by the fancy cookware on today's market. Enamel, porcelain, copper, aluminum or stainless steel simply cannot compare with ironware, because a

seasoned cast iron pot leaves a distinct mellow taste where the others aim to leave no taste at all.

Perhaps you are one of the few fortunate ones who still know the old-fashioned way of cooking. If not, maybe you can remember those meals of yesteryear when you visited your grandma's house to find stewed apples simmering gently on the back burners of the wood stove, a big hunk of country butter just starting to melt, adding its pure flavor to the pot.

No doubt there would have been the smell of baking cornbread in the oven--cornbread made of freshly churned buttermilk, ground wholegrained meal, country eggs with a yoke as gold as morning's sunrise and lard freshly rendered from Thanksgiving's butchering. All this was baked together in a cast iron pan with the scent of wood smoke adding its little bit to the masterpiece.

At the right time of the year, there would be a pot of freshly broken green beans bubbling with a mess of tiny, graveled-out new potatoes. Maybe some tender wild greens would be

cooking along with a skillet of smoked country ham on the front lids. Mercy!

Another reason is that we are finally discovering what those low heat markings mean on our stoves. Today, folks are also rediscovering the art of cooking over wood fires. In winter, they use the top of their wood-burning stove to create exotic flavors in soups, sauces and brown and white beans. The foods closely resemble those of their early ancestors because they are using iron pots in much of their cooking.

**A**lmost every cook in the country has at least one cast iron cooking utensil. Generally, this will be a skillet that has been passed down from mother to daughter. Rarely will you find other iron pots in today's modern kitchen and there's a reason for this--seasoning new iron cookware is assumed to be a difficult job, especially pots that will be used to boil foods in.

All too often an iron pot is tried out, but the cook discovers the food prepared in it has turned black and has a very distinct bitter taste to it. This is caused by cooking in a pot that has not been properly seasoned.

"Sweetin' a pot," as the old-timers called it, is a job that requires know-how and only a bit of patience.

Wash the skillet or kettle inside and out with a mild dishwashing soap. Dry thoroughly. Heat the oven to 350 degrees Fahrenheit. Using unsalted shortening or lard, grease the ironware inside and out. If there's a lid, do the same with it. Bake the greased ironware for five hours. Remove from oven, allow the pot or skillet to cool for a few minutes then wash them again in hot, soapy water. Repeat this greasing-baking. After several applications of shortening, heating and washing test the pot to see if it's broken in.

A "sweetened" pot will not stick when used for frying, nor will it give off iron deposits that turn foods dark when boiled. If your pot doesn't pass the test, repeat above procedures until it does.

After the pot has been seasoned, never allow it to sit in sudsy water. This will cause it to rust and stick. And finally, never place cold water in a hot skillet or pot!

Other suggestions for breaking in your new cast ironware is to use the skillet or pot as a french fryer for a month or so, keeping the grease level near the top as close as possible. Still others fill ironware with grease and

set in an oven with low heat (150 degrees) for as long as two whole days. Some completely cover the pot with grease (including the lid), place in a two hundred and fifty degree oven for an hour, turn the oven off, and allow the pot to remain in the oven overnight. None of these seem to work as well as the first method, however.

**W**hen you've cooked with a well-seasoned skillet or pot for a while, you begin to understand the value of "aged seasoning." Pots that have been used for twenty five years seem to cook better than those used for one year. To a country cook, it is nearly a sin to throw a seasoned iron pot away or store it in a place without using it. All too often pots that have been handed down to the young wind up this way. It may be a good idea to never give an iron pot away unless the receiver has a knowledge of black ironware cooking and appreciates using it.

After you have "sweetened" your pots, take good care of them so that they perform well for a lifetime or two. Always wash with a mild dishwashing liquid. Rinse and dry thoroughly. Never scour or wash in the dishwasher! (This will certainly remove the seasoning.) It is best to cook foods with little water content the first several times you put your pot to use. Uncover hot foods when

you remove them from the heat as steam can remove the protective coating from the lid.

Cast iron cookware turns shiny black when properly seasoned. The pores in the iron will be sealed in use, providing a durable coating. If rust or a metallic taste or discoloration of foods occurs, this means that the seasoning on your pot has been removed, most likely through misuse. If this happens, wash the utensil and start the seasoning process all over again. Since cast iron heats evenly, always use a low or medium heat in cooking. It takes a little while longer, but it's worth it.

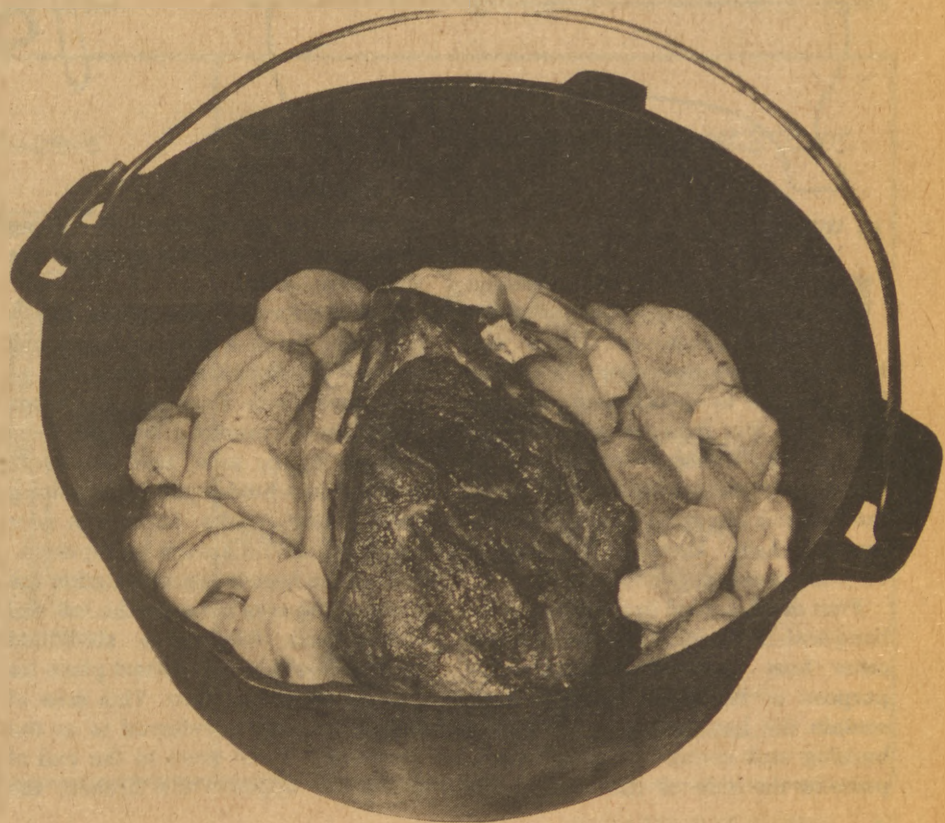
Finally, when storing ironware, always do so with the lid off. It's a good idea to grease the pot well if it is to be stored for long periods of time. In fact, some cooks never wash an iron frying pan. They simply wipe them clean and hang them up. For pots, it's a good idea to place a paper towel inside when storing them, to absorb moisture.

If you've missed the country cuisine of yesteryear, you can restore the magic to modern kitchens by discovering the art of cooking with black ironware over low heat. You'll be delighted with the outcome. □

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Soc Clay is a free-lance writer who loves the outdoors. He lives in South Shore, Kentucky. Photos by author.

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# The Capable Cookstove



by William Huey

People often ask me questions about the operation of their wood cookstoves. Those who have used these stoves for a long time have learned to operate them by trial and error. But many of you are just starting out. I'd like to share my cookstove experiences so that you'll enjoy the fun and the great cooking adventures I have known using these versatile home appliances.

First of all, a good firebox should be lined with fire brick, cast iron or some other heat resistant material. The purpose of lining the firebox is to contain the heat within it for better burning and control. A good lining protects the side of the stove from

excessive temperatures. A lining allows you to place the stove nearer walls if need be.

Furthermore, if the stove has a porcelain finish a firebox lining will prevent its chipping or the metal of the stove from warping. A firebox lining also prevents a hot spot from forming in the area next to the oven, which would hinder you from getting good baking results. Linings in poor condition should always be repaired.

Because heat is concentrated in the firebox, the area between the left and center back lids on a six-lidded cookstove will be the hottest place for cooking on the surface. This area of the stove is often referred to as the "hot top." From there to the end of the stove, opposite the firebox, the

heat should diminish. This is one great feature of a wood cookstove. The cook has a full range of temperatures to choose from and can merely slide pots back and forth for warming or simmering or boiling. Warming ovens or trivets are handy places to have bread rise, to keep supper warm, or to dry mittens and socks!

The woodstove is so versatile you can even cook in the firebox! When the wood has burned down to glowing coals, level the bed and grill a steak, chicken or lamb chops over them. Or, try baking a potato in the ashpit!

The inside face of all outside surfaces of the stove can be insulated with either insulating brick, a silica fiber blanket or even ashes added to

the inside of the stove. This insulation quality maintains the heat within the stove for long periods. When the heat is allowed to dissipate easily throughout the stove, it requires more fuel and increases the temperature of the surroundings considerably. Insulation is a praiseworthy feature--especially in summertime.

### Fuels

There are three things necessary for good burning. First is fuel; second is a high enough temperature to burn it; and third is a sufficient air supply. Changing any one of these three will change the burning characteristics of the fire by either slowing it down or speeding it up.

Coal, coke or charcoal (for a cookstove so adapted) will produce a very short flame with a very high concentrated heat around the firebox. The stove top cools more rapidly and the bottom of the oven will stay cooler longer. Wood produces longer flames. Hardwoods produce a shorter flame than softwoods, particularly the pines which have a lot of resin and pitch. A wood-heated stove will make the entire top hotter, with less extremes of temperature between the firebox and the opposite end of the cookstove. In other words, wood's larger flames give you less heat in the firebox area but heats more evenly across the stove's top. These larger flames will raise the oven temperature more readily.

The best stove wood is white or rock maple, beech, white birch and white or red oak. Ash makes good kindling. Birch is good for quick hot fires. Maple and beech give long-lasting flames for a hot, slow fire, once the bed of coals has been established.

An unsplit hardwood log can be put into the firebox just before bedtime and banked with ashes so coals remain by early morning.

Coal, and softwoods such as pine, which contain resin and pitch, have a tendency to produce sootier flames. A dirty flame gives off gases between the oven and the cooking surface, and since insufficient oxygen will be present, soot or carbon compounds, which are still combustible, will be formed. This means that the stove will have to be cleaned more often in order to get sufficient draft for combustion and also to prevent a chimney fire or uncontrolled fire within the stove.

One quarter inch of soot can cut heat transfer by approximately 50 percent. Usually the grates for a stove that is burning coal are closer to the stove top. For wood, grates are lower to deepen the firebox so a larger supply of fuel can be contained in the firebox.

Generally speaking, pound for pound, coal will give you twice the heat that wood will. Consequently, it takes less fuel in the firebox to produce the same amount of BTU's as with wood. Wood is bulkier than coal and more porous, which does allow more efficient air flow.

Incidentally, there are many manufacturers who offer wood/coal combination cookstoves. Some of them are: Atlanta, DeVille, Enterprise, Oval, Franco Belge, Jotul, Monarch, Pacific Princess and Tirolia.

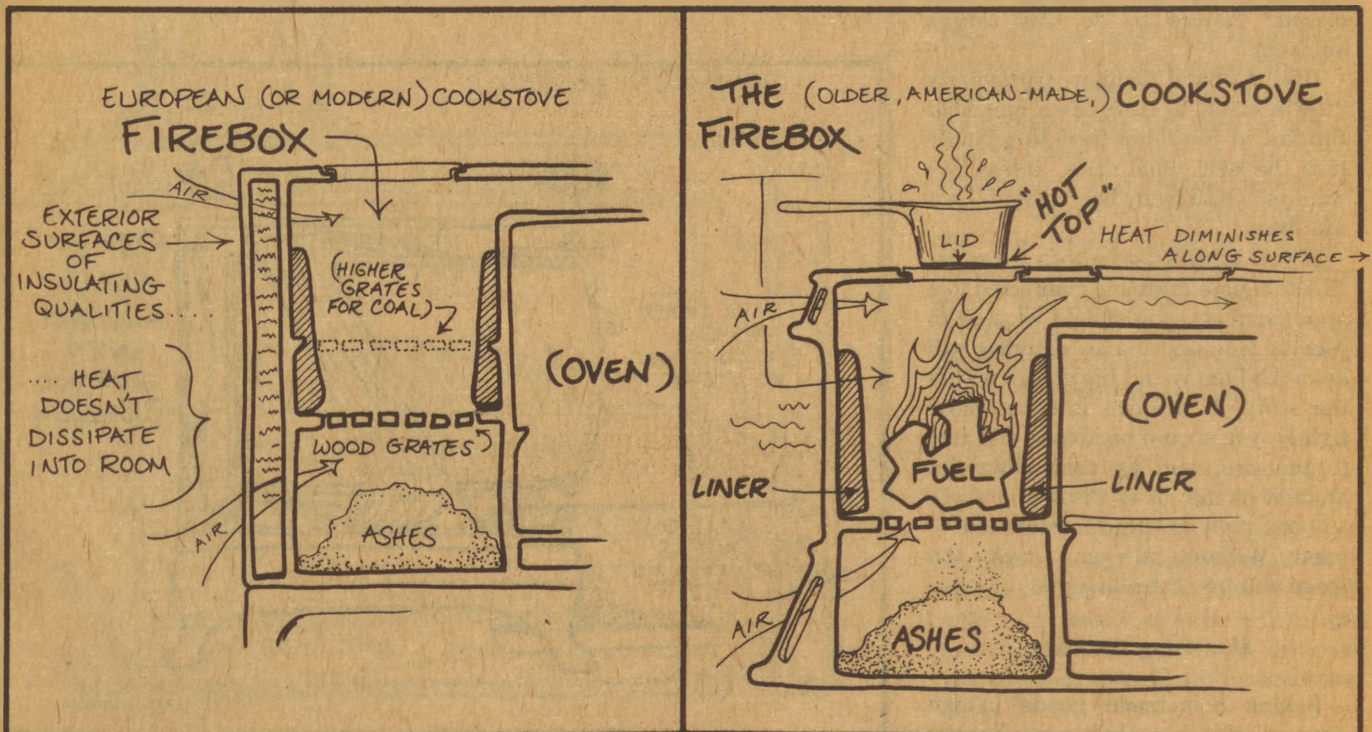
### The Dampers

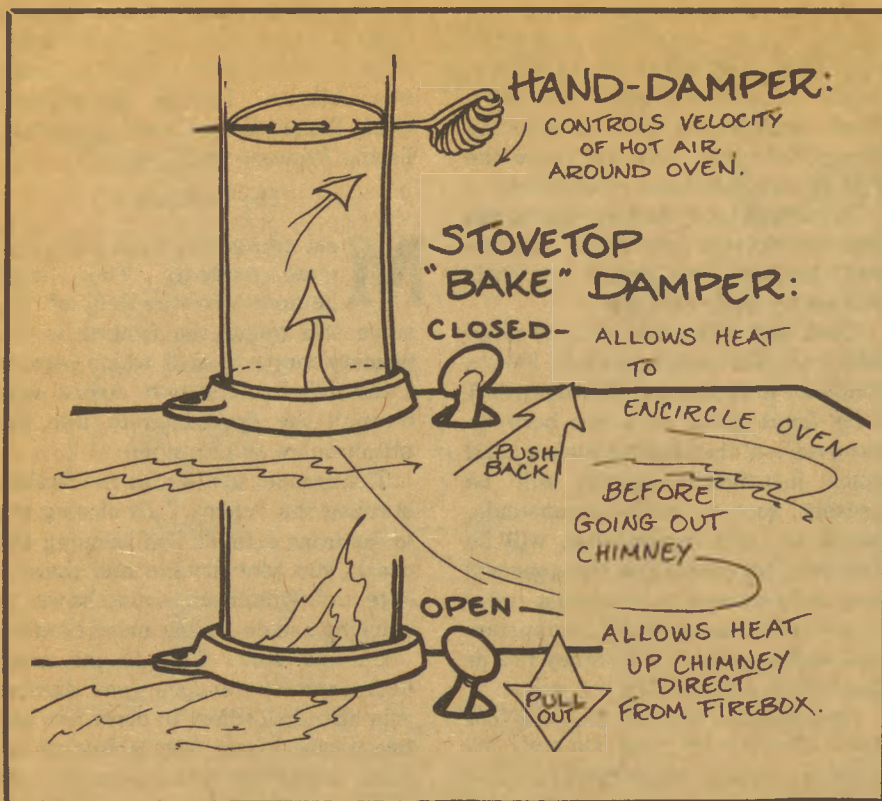
**M**ost cookstoves have four separate dampers. The "front damper" to the left of the stove and below the firebox is the primary source of draft which permits a controlled combustion. Ashes drop through the firebox grate into the ashpit below this damper.

The damper just above the firebox is called the "check." By closing the lower front damper and opening the check, you cool the fire and thereby save fuel. This check is another way to keep your oven baking more evenly.

On the stove pipe is the hand damper which you open when starting your fire and adjust to control it and keeps excess heat from going up the flue. Using the hand damper can change the velocity of air going around the oven. Remember, the higher the velocity of gases, the hotter the stove top.

Lastly, there is the oven damper--located in the back of the stove--to the left or right, depending upon your stove model. When this damper is open, the heat goes directly to the stovepipe and it cuts down on the surface heat of the stove. When closed, heat circulated over the top and around oven walls before it goes





worth the effort. Homemade bread and pie baked in a wood cookstove have an incomparable flavor. Bread should be baked in a hot oven that is allowed to cool. Shut down the front damper, the flue damper and open the check damper slightly. Remember, the hottest side of the oven is on the firebox side. You may have to turn loaves and pies if the crust browns too quickly on one side.

Baked beans, often a costly dish if made in an electric or gas range--can be left to simmer in the cookstove oven all day, heated by a steadily burning hardwood log. While the beans prepare themselves, you can also be simmering a hearty soup or stew for hours without adding more to your fuel bill.

When cooking a roast (which should be hot on the bottom), soft wood can be used for a greater surge of heat which will penetrate the bottom of the oven or, adjust the hand damper for a greater velocity of hot gases. This same effect can also be accomplished using coal by increasing the air over the top of the fire. Opening a lid over the fire an inch or two will allow air and hot gases to quickly move around the oven, thus increasing the oven temperature on the bottom. If this is not desired, then close the lids. If the heat is concentrated across the top of the stove, then the bottom of the oven will become cooler.

up the flue. The heat is also spread more evenly beneath the stove lids.

Most wood ranges have seven inch stovepipe. Many people reduce this to six inches, if the chimney will accommodate it. But a seven inch pipe will give you a better draft. The hand damper installed on this pipe should be worked in conjunction with the front damper. Never close the hand damper in the top until the draft control at the front damper is also closed. Failure to do this causes smoking.

Use the hand damper, particularly after a meal, to slow down and hold the fire so you'll not have to rekindle it at the next meal time, unless you want to keep a lively fire going to heat the room.

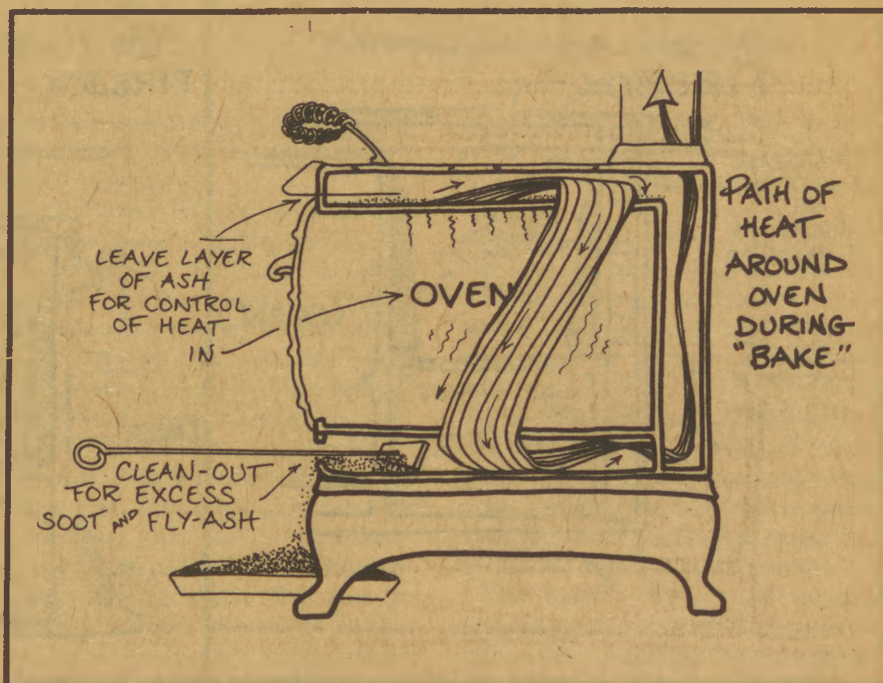
If you have a stove with a proper and adequate draft and connected to a good chimney, you should be able to remove a lid and the air entering will keep the flames and the smoke within the stove. If a stove is constructed tightly, you should be able to add fuel to the fire, and by controlling the amount of the air or draft, the stove will maintain its warmth from meal to meal. Without adequate draft, the stove will be controlling you.

### Mastering the Oven

Baking homemade goods in the oven is the big challenge for the

woodstove cook. A gauge set in the door or hanging from a rack inside, is most helpful, but you can also put a scrap of white paper in the oven and learn to judge the temperature by how long it takes to turn brown. (Paper ignites at approximately 450 degrees Fahrenheit.)

It does take skill to keep a steady temperature, but the results are well





One of the problems people encounter with older types of wood ranges is caused periodically when they clean the ashes over the top of the oven. The ashes serve a purpose, which is to insulate the oven, particularly the top. This is one of the means of balancing its heat. If there are too many ashes, however, heat will be restricted from flowing to the top of the oven, which will eventually force it to the outside of the stove, or to the oven bottom. This may create undesirable conditions for baking. Secondly, ashes which are too deep will pile up between the oven and the lids, thus causing the draft to be restricted.

If the top of your oven is cool, or foods do not brown properly on top, then it is time to remove some of the ashes above so heat can penetrate into it. If the ashes are completely removed, however, the top of the food will still be pale, or undercooked on the bottom.

If wood is burned rather than coal, coke or charcoal, ashes will accumulate in time. Much of this is caused by "fly ash" from the high draft on the wood stove. About once a year will be sufficient for a check for the depth of these ashes, or you can check now and then while you're baking. Once you

find a good ash depth for baking, try to maintain that constant amount.

One mistake often made in baking in a cookstove oven, is to put food in as soon as desired oven temperature has been reached. In an early firing, when the stove is coming up to heat, you will have areas which are cool and some exceptionally hot. The stove has not had a chance to "level out" and you should let it burn at least forty-five minutes to an hour so the stove and oven become heated more evenly.

Don't forget the clean out underneath the oven. This clean out may easily have a heavy accumulation of soot hanging there which will prevent the floor of your oven from heating properly.

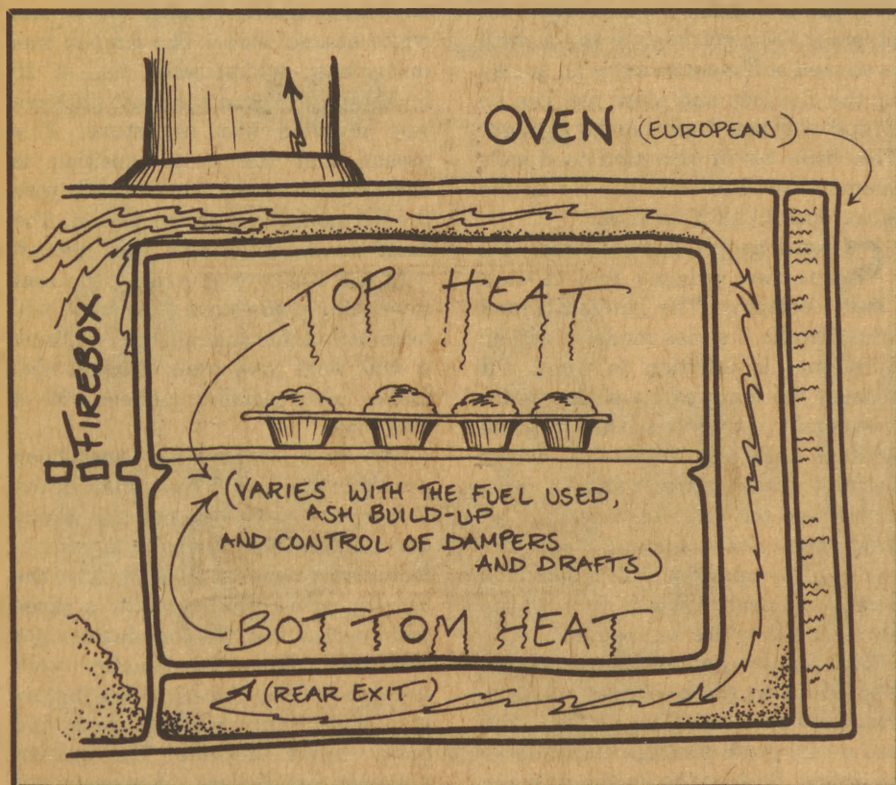
Another very simple way to balance an oven from side to side and from top to bottom, is to set a rack in its center and place there four slices of bread—one in each corner. When the oven is about 400 degrees, brown or toast the bread. After the bread has been browned, remove the entire rack and let it cool. If some of the slices have charred or are too dark, this means that the top of the oven is hotter than the bottom. Ideally, the bottom should be slightly hotter than the top. If the bread is too dark on the top, add ashes; if it is too dark on the bottom,

then remove ashes from the top of the oven to balance the heat.

Always keep in mind that the side towards the firebox is the hotter side and additional ashes may be needed in that one area. Or, if you show a "hot spot" in the oven, add ashes to that area so that heat does not travel through as fast.

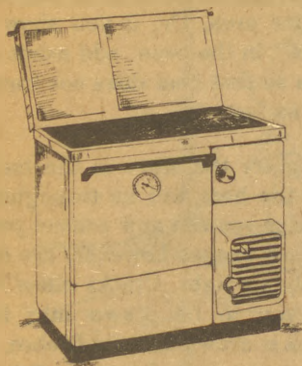
The tighter the stove is the more efficient the heat will be throughout the stove as you can now control your stove. Most ranges however, are not absolutely air tight. Cracks allow air and oxygen to be drawn into the stove. If it is drawn into the firebox, it is going to increase burning; if it is drawn into other areas of the range, it will cause uneven heat, possible warping and great strains on the stove itself. One way to check a stove for air leaks is to place an extension cord and a light bulb in the firebox when the fire is out. Doing this in a darkened room allows you to locate cracks by leaking lights. If you can see light, you know that air is passing into those areas. It is advisable that cracks be plugged with fire clay or asbestos furnace cement to seal the stove as tightly possible.

You must remember that a pan on the top of a wood range is heated not only by conduction but also by radiation. Many people mistakenly think it is necessary to have a cookstove top red hot. The electric stove, with the cal rod units being spaces apart, may become red hot on high heat. But we must stop to consider that the heat is only in strips, and that it's not the continuous, overall heat on the bottom of the pan such as occurs with the wood range. A gas range heats mostly by convection which is a flow of heated air around a utensil. You can develop many of your own personal techniques for producing those delicious meals that are so characteristic of cookstoves in the past. By doing so you rekindle the gourmet cooking of the future. □



William G. Huey is a teacher of science who has experimented with various ways of heating for over 20 years, from raw crude oil to different types of wood. He makes his home in Atlanta, Michigan. Stove illustrations by Liz Buell.

# Your 1981 Cookstove Buyers' Guide



by Albert A. Barden III

**T**here are, in my opinion, six heavyweight contenders in the quality cookstove race and market at the moment. They are the Tirolia 7-ZH, the Stanley, the Findlay Oval, the Deville 8546, Portland Stove Foundry's Queen Atlantic and a brick cookstove made on site with castings from the Upo foundry in Finland.

At this time, the Tirolia cookstoves, built in Austria, are leading the way in cookstove design for this country. We have used a Tirolia 7 ZH model in our kitchen for three winters and two summers now as our primary heat source, as our only domestic hot water source and as our cookstove. We sell and distribute Tirolia stoves with customers as far away as Washington and Florida, so you may want to take my rave reviews with a grain of salt, but you shouldn't because they are true. The ZH is a wonderful machine. It has an insulated top ideal as a back splash when up. When down it keeps the heat in the oven and the stove, focusing the energy exchange into the water jacket and the oven rather than into the room. When supper cooking is finished in the summer we can lower the top, drop the grate and put all the remaining energy into domestic hot water production. The huge water jacket in the stove puts out 56,000 boiler BTU's max., which will heat our 80 gal. domestic hot water tank in 1-2 hours depending on the rate we're firing at and it will heat our house in all but the most severe weather.

The only trade-off of the stove's design is its downdraft flue passage. In cold weather this never presents a

problem. In warm, humid weather, starting the stove in the morning takes a bit of skill because the smoke would prefer to rise, but to exit the stove it has to flow down around the oven and out the lower corner of the stove. There are two ways to overcome the problem: One is to "prime the draft" by lighting a sheet of crumpled newspaper and inserting it through a port behind the cleanout panel below the oven or by having a "t" and plug for the same purpose on the stovepipe. The second, which is my own discovery, is to lay a small amount of paper and dry kindling in the firebox and light the paper but close the air supply setting to zero so that the fire has to draw its supply air literally from the chimney. With this very gradual burn, the stovepipe and chimney soon get heated and a draft is started sufficient to carry all smoke up the chimney and more fuel can be added and the draft can be opened. This little bit of attention to details seems a small price to pay for all the stove does to earn its keep.

**S**ome people want to burn coal as their primary fuel in their cookstove. The Tirolia ZH (and other Tirolia 7 series models) will all burn coal in addition to wood but without the feature of a shaker grate (you can't combine a shaker grate with an infinitely adjustable height feature). Clinkers aren't shaken down if they are too large to pass through the grate slots. Instead they are removed by opening a little cast iron gate door inside the ash door on the stove and they are scraped out.

The Stanley has a coal model. Its wood burning model should not have coal used as a fuel. The Findlay Oval has a coal grate package available as an option. So does the Portland Queen

Atlantic. The French Deville 8546 has a shaker grate as its standard grate. It is what I call a coal biased stove and should be considered by someone wanting to burn coal as their only or primary fuel. Like the Tirolia it is also a central heating boiler cookstove. It has a whopping 75,000 BTU boiler capacity, a cast iron top, a back splash lid, and a glass oven door panel with an in-oven light. We bought our first Deville 8546 for a customer who needed a bigger boiler than the Tirolia offered and who was certain that coal was to be his primary fuel. We ordered the stove blind after numerous conversations with the importer and perusal of an operating manual. The stove, when it arrived, turned out to quite handsome with a chocolate brown enamel front and white enamel sides. The firebox was quite long, taking wood almost 20 inches long. A summer grate package was supplied with the stove. This means that the grate position is changed seasonally, not instantly with the fire going as with the Tirolia. The draft on the cookstove was updraft with the smoke pipe exiting the rear top center of the stove. The stove will be installed this summer and we think it will work very well. Deville also makes other smaller models with a coal bias.

The Irish Stanley has now been available for four to five years in the U.S. and they are very popular. Many dozens were sold annually in Maine, including those that we sold, until the Stanley prices doubled over a three year period and several dealers got cold feet. Then the Stanley went through several importer-distributors in a short time, making stove and parts supply unstable. The current importer-distributors, however are

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## New Free Catalog

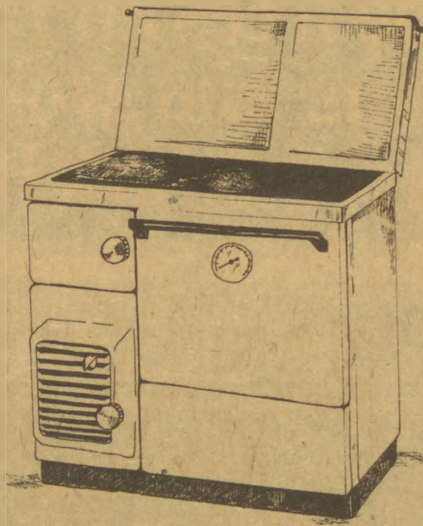
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now quite stable and have put all the parts and ordering info on computer providing us with good basic service and reliability. The wood-burning Stanley is essentially a remodeling of a peat-coal Stanley that has been the standard stove in Irish homes for many years. The Stanley folks have now evolved a domestic hot water jacket, which works well. I wish they had made it to mount on the side rather than the rear so that the firebox depth wouldn't have been affected, but cutting shorter wood in exchange for hot water is a decent trade-off. The Stanley is available in an enamel finish as well as the matte black. A matte black casting is likely to look rough and unfinished in a stove which is sold domestically (in Ireland) almost exclusively with a smooth enamel finish. Getting the old fashioned American stove "look" by subtracting one step from the standard European manufacturing process doesn't necessarily benefit the customer. If I were ordering a Stanley, I'd go for an enamel model with the water jacket. We tested the Stanley in our own home. It bakes well, cooks well, looks pretty and is a real workhorse of a radiant heater, able to hold a fire overnight. It does exactly what its supposed to--so don't write the Stanley off, at any price.

The Findlay Oval is a Phoenix rising from the ashes story. Ovals have been made a long time, but only in the last two or three years have they offered an air tight model. Now, after a delay of a couple years, they offer a domestic hot water jacket as well. Customers of ours using the Findlay Oval with the water jacket report complete satisfaction with their stove. I am very impressed with the Findlay Oval people's awareness of the changing nature and needs in the woodstove-cookstove market and they seem more responsive to these needs (as reflected in their design changes and improvements) than any other cookstove manufacturer on this continent. The Ovals are available with or without chrome, in black or in almond or in a simpler, less expensive matte black version. The Findlay is a good choice for the lovers of traditional styling and chrome coupled with quality and high performance. The radiant heat from the stove may make it a bit less flexible in the summer than its European counterparts, but like the Deville it offers a summer grate.

# Your 1981 Cookstove



*tirolia*

Tirolia of America  
169 Dunning Road  
Middletown, NY 10940

Tirol 7ZH -- \$1630.

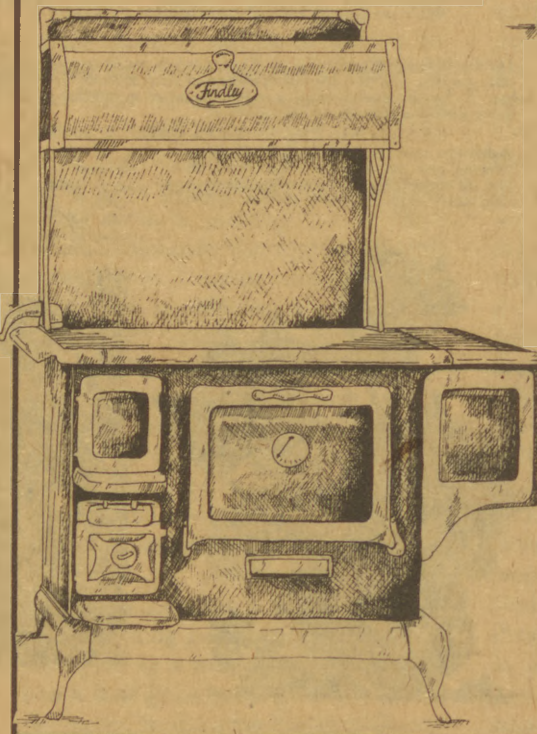
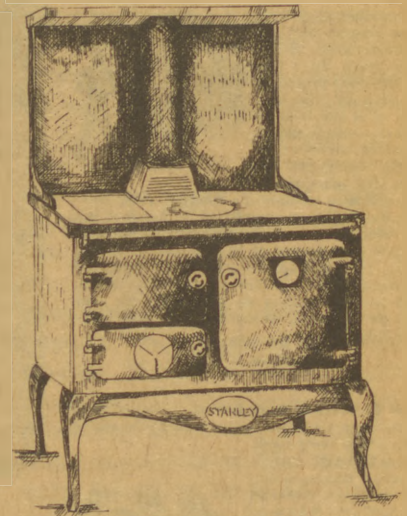
Colors: White, Coppertone  
Firebox: 15" x 8.3" x 13.8"  
Insulated & Adjustable Grate  
Dimensions: 34.8" x 35.4" x 23.6"  
Central Boiler Output: 56,000 BTU's  
Summer/Winter  
Over Size: 13.8" x 15.7" x 19"  
Wood or Coal

*stanley*

Capitol Export Corp.  
8825 Page Blvd.  
St. Louis, MO 63114

Waterford Stanley -- \$1550.

Colors: Black, Black Senoterm, (Black & White Enamel options available at higher price.)  
Firebox: 17" x 10" x 12"  
Insulated Sides  
Grate not adjustable  
Dimensions: 34" (54" to warming tray) x 35 1/2" x 21.5"  
Summer cooking possible  
Domestic hot water boiler option  
Oven: 13" x 15.5" x 15.5"  
Wood only



*findlay-oval*

Elmira Stove Works  
22 Church Street  
Elmira, Ontario, Canada N3B-1M3

Findlay Oval -- \$1895-1995.  
(higher price indicates water tank)

Colors: Black with polished castings, nickel chrome trim. Plain black, min. Chrome, almond, option.  
Firebox: 22" x 9" x 12"  
Insulation: limited  
Dimensions: 32" x 39" x 24"  
Optional domestic hot water jacket:  
Copper reservoir on right side of stove, optional.  
Summer use: limited  
Oven: 14" x 18" x 20"  
Wood or Coal. (Can order coal grates)

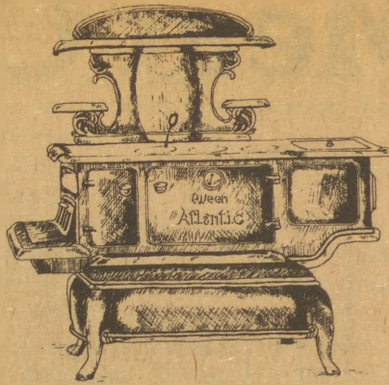
# Buyers' Guide

*atlantic*

Portland Stove Company  
57 Kennebec Street  
P.O. Box 1156  
Portland, Maine 04104

Atlantic Queen --\$1500.

Color: Black cast-iron  
Firebox: 7'' x 8 3/4'' x 23 1/4''  
Uninsulated  
Dimensions: 30'' x 52'' x 32 1/4'' to cook top.  
Optional domestic hot water jacket.  
Fall/Winter/Spring use  
Oven: 19 3/4'' x 18 1/4'' x 11''  
Wood. (Coal grates & liner optional.)

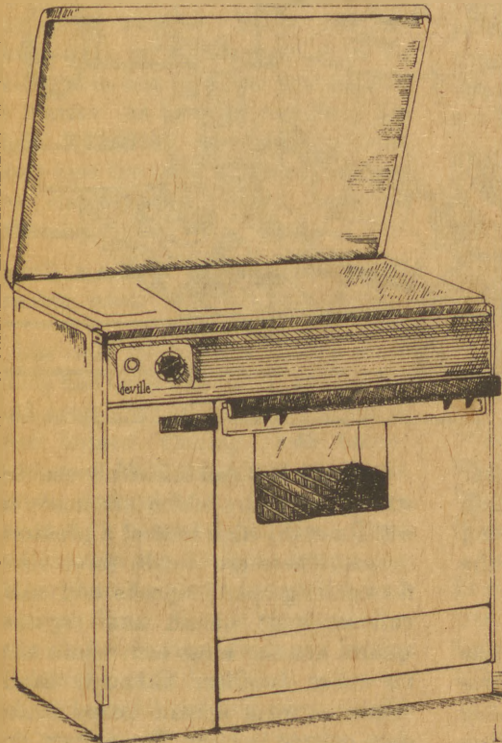


*deville*

Covinter, Inc.  
70 Pine Street  
New York, NY 10270

Deville 8846 -- \$2150.

Colors: Chocolate brown enamel on front. White enamel sides. Cast iron top.  
Firebox: 20'' x 8'' x 18''  
(for summer use, firebox height can be raised by a half.)  
Insulated. Lid Uninsulated.  
Dimensions: 33'' x 33'' x 24''  
Central Boiler Output: 75,000 BTU's  
Summer/Winter  
Oven: 14 3/4'' x 16 3/4'' x 11''  
(Glass insert in oven door).  
Wood or Coal. (Has Shaker grates).



*masonry*

Maine Wood Heat, Co.  
RFD #1  
Box 38  
Norridgewock, Maine 04957

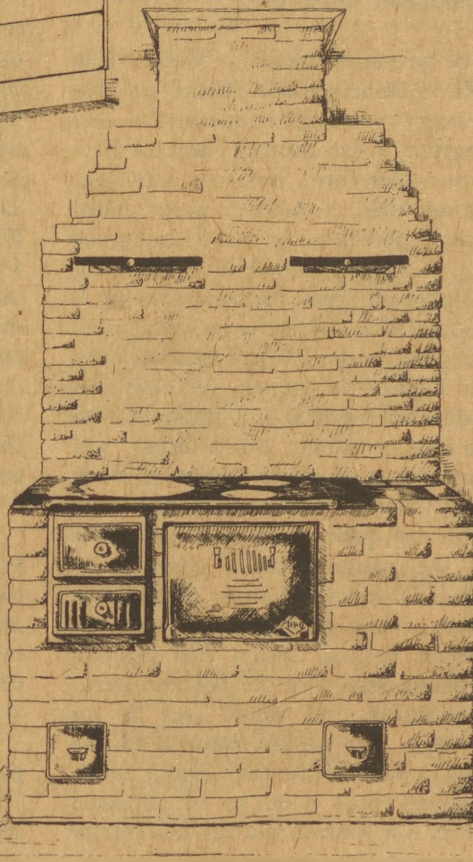
Cookstove Castings -- \$1000. per set

Each set includes:

Cook top: Cast iron--39'' x 26''  
Oven: (inside) 13'' x 10'' x 20''  
Loading & Ash Removal Doors:  
Cast iron grate  
Two clean-out doors

Firebox: 8 1/2'' x 17'' x 7''  
Dimensions of Stove: 50'' x 27'' x 34''  
Heat Sink: 17'' x 50''  
Cast iron sliding dampers -- \$20. each

Please mention Farmstead Magazine when you contact these stove manufacturers.



The Portland Stove Foundry's Queen Atlantic is the same Queen that Portland has made for generations. A couple of years ago they had stopped making her and the Foundry itself almost floundered, but I'm happy to say the Queens are back and quality is improving. The Queen is the only survivor of American top quality traditional cast iron cookstoves. Domestic water jackets and coal grates are now available options. The grate is not placed deeply nor is the firebox huge, but the stove does for new owners what it has done for generations of Queen users. It heats, it bakes, it makes hot water. It serves as the centerpiece of the kitchen and home. The Queen lives on!

The last cookstove I want to mention bridges both the cookstove and masonry heater category. It is a brick cookstove with a cast iron top, loading ash and clean-out doors and a cast iron oven. We import the castings for these cookstoves from Finland and we built one in our home this last fall next to our Tirolia cookstove, placing the brick cookstove on the old fireplace hearth and rebuilding the chimney behind it into a three vertical run heat sink which serves both the Tirolia and the masonry cookstove. When either or both cookstoves are running we can vent the smoke directly up and out the chimney or run it through about 15 feet of labyrinth and store heat in this mass.

That's the latest news on cookstoves. There are lots of European manufacturers out there that I haven't mentioned because they aren't represented in this country. Some of their products may surface in the future when the cookstove boom really gets under way. I hope that some of you won't wait any longer to see the writing on the wall. Today's cookstove is the ideal wood-burning machine. They are not too big, can help heat a whole house and can make hot water. In short, they're a fine multi-purpose home appliance--economical, romantic and incredibly efficient.

Albert A. Barden III is the author of "A Guide to Woodburning Cookstoves, Part I and II;" Farmstead Harvest and Fall 1980. He runs the Maine Wood Heat Company in Norridgewock, Maine. Stove art by Melissa Sweet.

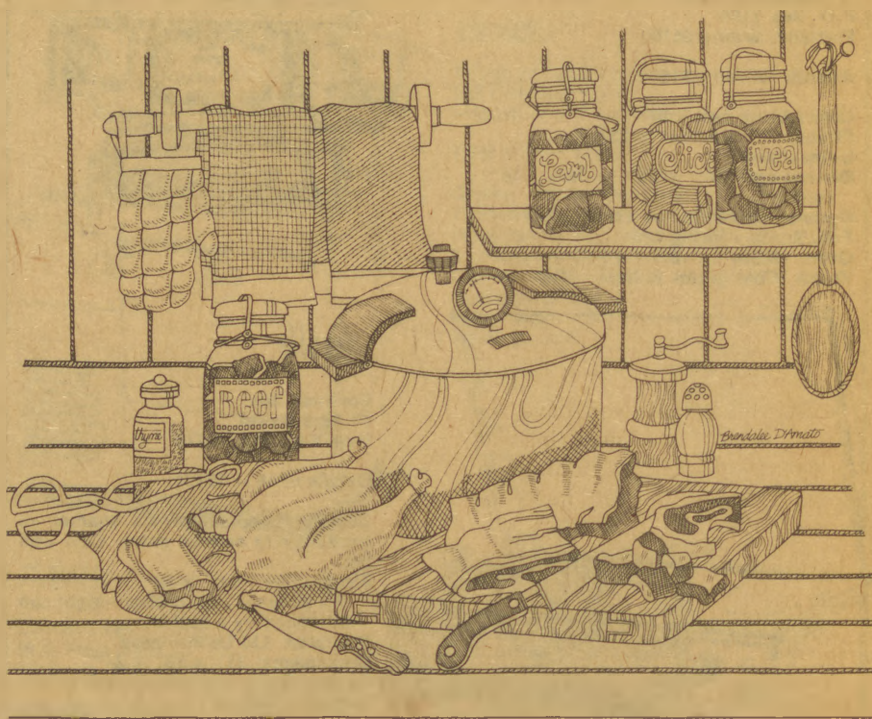
# Home Meat Canning

by Jo Ann Gardner

Ever since we canned the extra string beans from our first garden almost 25 years ago, we have been fans of home canning--of fruits and vegetables, that is. It never occurred to us that canned meat could be a tasty way to store the family's protein, until, by chance some ten years ago, we tasted canned moosemeat a friend brought to us from Newfoundland. We were amazed at the tender chunks of meat swimming in a dark, rich tasty broth, so we tried the process on some of the beef from the next steer we raised. The results were so good that we turned to canning pork and chicken as well.

What we discovered about home canned meat--a distinctly different product from store canned meat--is that it is not only a viable alternative to freezing, it is a prized product in its own right. Not only is canned meat delicious, but pressure cooking ensures tender, juicy meat bathed in its own rich-tasting juices. It is both convenient and energy-efficient. No outside source of energy is required to maintain the perfection of vacuum-sealed meat, unlike freezer meat which stays frozen only so long as the freezer is plugged in. And while freezer meat deteriorates in quality the longer it is stored (pork has a recommended freezer life of three months), canned meat can be stored for years. And once you have the hang of canning, you will enjoy having 'instant' stews, soups and sauces ready to heat and serve when unexpected company shows up.

There is no mystery about meat canning anymore than canning other home processed foods. The technique involved is easy to master as long as you follow directions accurately. Don't forget, home canning has been around a long time--ever since 1858 when John Mason invented the glass canning jar. It wasn't all that long ago that millions of ordinary folk were processing tons of meat, vegetables, fruit and even fish to feed their families. Every household was, in effect, something of a miniature food factory.



When butchering time draws near and you want to turn your kitchen into a little food factory for processing your farm-raised meat, here's the equipment you'll need:

**A pressure canner.** Meats, like other non-acid foods should be processed at very high temperatures--240 degrees F.--to destroy harmful bacteria. therefore, **pressure canning**, rather than a boiling water bath, (which processes food at 212 degrees F.), is recommended for processing all meat products. Pressure canning is fast, efficient and safer as well, for all non-acid foods. Even if you pay a lot for a pressure canner, and they can cost at least a \$100, it's worth it if you do much canning. Don't forget, you can cook in them too. Maintenance is easy. Always clean the pot and cover after use, taking care not to get water in the gauge. Run a sharp knife around the pot and cover rims to free them of debris which could cause the canner to leak steam and prolong cooking time. Dry the pot and cover thoroughly, but don't seal it for storage. The easiest canners to use lock in place rather than clamp down. Sealing rings need to be replaced every few years if you use the canner frequently.

**Canning jars and lids.** Only use the strong glass jars which are made to withstand the high heat of a pressure canner. There are usually three sizes for canning: pints, quarts and half-gallons,--wide mouth and regular. Quarts are the most convenient size for most families, although head-cheese--a meat spread--keeps better once opened in pints. Remember, the jars will be used over and over, for many years, so the cost is worth it. The lids should only be used once, while the rings that surround them can be re-used unless they become rusty. These are removed from the jars once they are sealed. Rubber jar rings for the older type bail jars should be used only once. Chipped jars should not be used at all. Store herbs or dried beans in them.

**A wide-mouth funnel.** This should fit in the neck of your jars, where it makes pouring liquid and chunks of meat less messy than spooning. Invaluable for all canning and preserving.

**A jar lifter.** Used for removing hot jars from the canner--very useful.

You will also need some miscellaneous large pots, for storing the pieces of meat until you are ready to process

them. If you decide to pre-cook your meat before canning, rather than packing it raw, large pots are handy to keep the pieces warm on the side of the stove until you are ready to pack the jars.

**W**henever you tackle something new like canning or butchering or hay-making or building or any of the innumerable practical farm tasks with which one has had little previous experience, the job seems almost impossible to master. I remember when we slaughtered our first pig over 20 years ago. How we labored over the instructions, reading, re-reading, even making a precis for quick referral. Home canning skills, once so widespread, must be re-learned, but they are not difficult to master. As long as you have the right equipment and clear instructions (use the ones which accompany the canner) you should have no difficulty.

**Here's a simple guide to the art of canning meat:**

- Use only fresh, high quality meat which has been thoroughly chilled for 6-48 hours after killing. The red meats need longest chilling--24-48 hours. Goat and lamb requires 18 to 24 hours; turkey 8-14. Other poultry needs 6-12 hours of chill time. Beef and venison can be hung longer (no longer than a week) to tenderize and improve flavor. Frozen meat may be canned. Let it thaw gradually in the refrigerator at 40 degrees F. or lower.
- Cut pieces for canning as you would for serving. Slices for steaks and chops should be one half to three quarters of an inch thick. Stew meat should be cut in small pieces no more than two to three inches in diameter.
- Use less tender cuts for sausage or ground meat. Shape ground meat into patties for most convenient use in various dishes.
- To pre-cook, either boil, fry, or roast under the broiler. I use the fry method with a little fat in the pan. Only cook meat partially. Do not brown in flour.
- All scraps and bones, particularly from beef, can be cooked together in the canner, then the broth can be strained off and canned.
- Use either one teaspoon of salt per quart of meat or season meat as you pre-cook it. Salt is for taste only.
- Trim gristle and excess fat from meat before cooking. Always trim venison fat altogether and use beef or bacon fat to cook.

- Pack meat loosely and add a little bit of the pan juices to each jar. More will come out in the processing.
- Wipe the jar rims with a clean damp cloth before sealing to wipe off the grease which could interfere with processing.
- If any jars don't seal, reprocess or use right away.
- Store jars in a cool, dark place.
- Always boil meat in a covered saucepan for 15 minutes before eating or tasting.

Always check jars for signs of spoilage before opening the jars. Look for gas bubbles, bulging jar lids or rings and leaks. Dispose of all bad jars safely. Meat does darken or change color after canning and the metal lids often discolor. This should not be cause for worry.

#### BEEF, VEAL, LAMB OR VENISON

Cut meat into edible chunks (soak older venison for two hours in salted water). Brown quickly in a small amount of fat, simmer a few minutes, season if desired or add one teaspoon of salt to each quart. Keep browned meat hot and pack into scalded jars. Add some pan juices to each jar. Adjust lids and process at 10 pounds for 90 minutes (quarts) or 75 minutes for pints.

#### SPARERIBS

Cut spareribs into pieces that will fit easily in the jars. Use wide mouth jars. Brown ribs in hot fat and pack hot in scalded jars. Add pan juices or a little hot water and salt to each jar.



Adjust lids, process at 10 pounds. Quarts for 90 minutes, pints 75 minutes.

#### FANCY STEW

- 6 pounds meat in small chunks
- 6 tablespoons fat
- 6 onions, chopped
- 2 carrots, chopped
- 1/2 cup celery, chopped
- 6 cups tomato juice
- 1 tablespoon paprika
- 1/2 teaspoon pepper
- 1/4 teaspoon thyme
- Salt to taste

Brown meat, add onions and simmer until onions are golden. Add the rest of the ingredients and cook thoroughly for 10 minutes. Pack hot in scalded jars to within one inch of the top. Adjust lids, process at 10 pounds. Quarts 90 minutes, pints 75 minutes.

#### CHICKEN SOUP

Use two-year old fowl. Cut up around five birds and cover with cold water adding salt, pepper, celery, carrots and onion. Cook for 15 minutes in the canner at 15 pounds pressure. Strain broth, adding as much of the de-boned meat as you want. Fill jars. Adjust the lids and process at 10 pounds. Process quarts for 25 minutes, pints for 20 minutes.

Chicken breasts can be processed separately, packed in hot broth and processed for 30 minutes at 10 pounds pressure. The soup can be heated and served as is or mixed with rice.

Note: Duck, turkey, game birds, goose, guinea, fowl and Squab can be canned like chicken. Rabbit should be soaked one to two hours in a solution of 1/4 cup salt to one quart of water. Drain, rinse, dry and proceed as for chicken. □

Jo Ann Gardner is the author of "Plant Gifts," Farmstead, Garden 1981. She lives in Orangedale, Nova Scotia. Illustrations by Brenda D'Amato

#### A Guide For Estimated Yields of Meat

Product	Pounds of Raw Meat	Number of Quarts
Rib roast	7½	3½
Round steak	5	2½
Stew meat	10	4
Hamburg patties	5	2
Pork sausage patties	5½	2½
Spareribs	6	3
Chicken	4½	1 (boned)

# Old-Time Butter Making



by Pamela Boersma

**S**erving a delicious home cooked meal is made even more satisfying when it includes fresh home-churned butter.

The churn was the primary tool used in the butter making process. There were numerous types and sizes, but the earliest churn was a cone-shaped section of coopered wood. It had a wooden plunger or dasher which was forced down

through the cream again and again until butter was formed. The coopers, or barrel-smiths who fashioned these barrel-shaped churns were our early American wood workers.

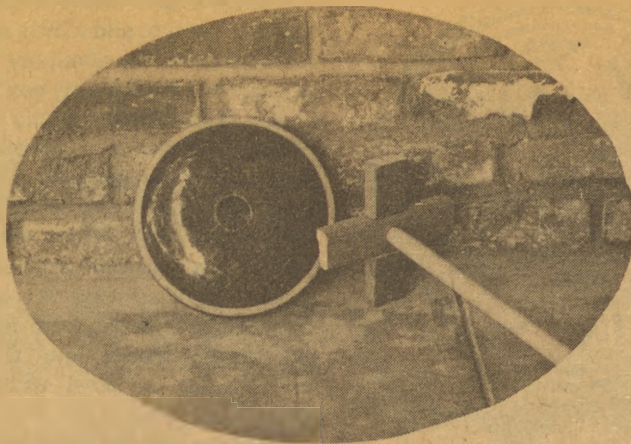
Some farmers made their own churns. These homemade items took on many shapes; some resembled boxes and a few of these were even set on rockers. Some farmers used a little more imagination by making the barrel of the churn revolve instead of

using a dasher. Sometimes the family pet operated the churn by walking on a treadmill.

Besides wood, stoneware churns were also popular and used frequently. These were usually salt-glazed having a variety of tones such as light brown, buff or blue gray. The glaze was formed by throwing salt into the kiln when it reached the maximum temperature.

Both wood and stoneware churns varied in size. Some had a five gallon





**Be sure your churn has a lid [left] and a dasher [right].**

capacity or more. In later years, there were some churns made of glass which held smaller amounts of cream. These table models had a rotating dasher operated by a hand crank.

Many churns were left in view, so to make them more pleasing to the eye, some were decorated with carving, poker work, or were hand-painted with floral patterns.

Most of the farms churned their own butter; many of them made extra to sell or trade. Butter was usually taken to the general store and sold in one of two ways--in stone crocks or in rolls.

As the weather warmed, the butter was placed in stone crocks so it would retain its shape. When the climate cooled, the butter was made into rolls which sometimes weighed three pounds or more. Either way, it was usually impressed with a design to identify the maker.

Many farms made exceptional butter which was judged on four criterion. First it had to be good tasting with no aftertaste and there could be no hint of staleness or rancidity. In addition, it had to be good colored and uniformly salted. Many people favored the butter of one particular farm and would only purchase butter with that farm's stamp.

Molding or stamping butter was done for decoration as well as for commercial purposes. Butter that was used for the home was sometimes shaped in one inch thick patties and impressed just before serving. This added beauty to the table as many of the designs were quite intricate.

Buttermolds were usually carved by hand out of a solid piece of wood, but some were machine made. Hardwood such as maple or walnut were commonly used because the print had

to withstand the scalding water necessary to clean it.

The buttermold, which many consider a primitive art form, took on many shapes such as the paddle, square, rectangle and round. The rectangle and paddle are the oldest. The round was the most common shape and measured between three to five inches in diameter.

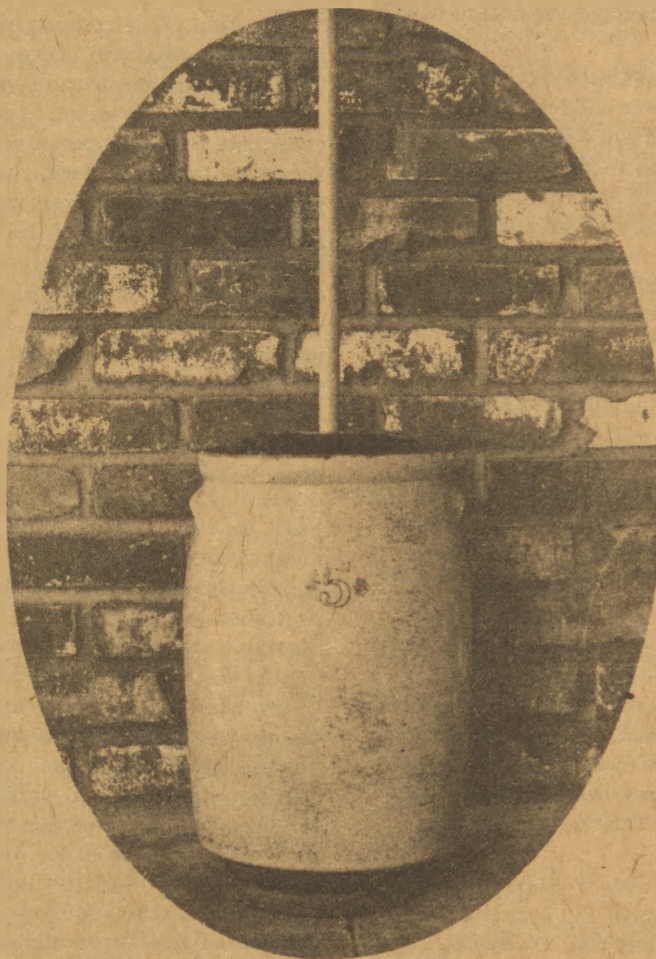
There were several types of molds. The "plunger" type was a three part device. These were ordinarily made of

soft wood such as pine. It had a bowl which held the butter or shaped it and a handle which fastened onto the stamp face. These were produced in the mid-nineteenth century until more recent times.

Another type of mold was the two-part box mold. These were normally made to hold one pound of butter and consisted of the box which formed the butter and the printing device.

Buttermolds came in a variety of prints and patterns; there are about 200 different motifs in all. Flowers, especially wildflowers, were the most common subjects. These designs were typical of Pennsylvania German decoration, with the tulip considered scarce. Grain, fruit and nuts were also featured on stamps with wheat found most frequently. Acorns were also used as were leaf and tree designs as well as geometric patterns.

In addition to the churn and mold, there were two other tools used in the butter making process. One was a round bowl, and the other was a paddle. These were used to extract the buttermilk.



**This stoneware butterchurn was purchased at an auction.**

The paddle was plunged into the butter in a back and forth motion until all the liquid had been expelled. These paddles were made very smooth, often with a knot at the end of the handle so they could be hung up after use. Paddles sometimes took on a fancy shape such as a heart. They were made out of hardwood because it was tightly grained and had long durability.

Whether or not you choose to use all the primitives mentioned above, you can still make butter at home. The type of churn you purchase is up to you. If you have a small family, the glass table models are available such as the "daisy" churn. If your family is large or you want to give butter to friends or relatives, you can buy a large wood or stoneware churn.

An antique dealer may help you acquire one at a fairly moderate price or you may be able to locate one at a local auction. Condition is very important however when selecting a churn. Before you make a purchase, ask the shop owner if you can take the churn outside and fill it with water. Check for leaks. If there are, see how extensive the damage is. You may be able to have it repaired.

Be sure the churn is complete, with original dasher and top. This is imperative if you want to purchase your churn as an investment. Most of the churns are good investments, and the blue decorated stoneware is perhaps the most valuable today. If you don't want to purchase an antique churn, there are many fine replicas on the market.

First you have to start with fresh raw milk. It usually contains about five percent milkfat, although it varies from animal to animal. For a rough estimate, you would need two and one half gallons of whole milk to get one pint of cream. Ten quarts of whole milk should yield one pound of butter.

Fill several shallow pans with the milk and place covered in a cool place for about 24 hours. This ensures that the cream will contain 30 percent milkfat. Skim off the cream carefully and place it in your sterile churn. You may want to pasteurize the cream at this time for sanitary purposes.

Whatever size of churn you are using, you must kill it at least one third to one half full; otherwise, there will not be enough "action" to turn the cream into butter. The cream



This machine-made acorn print shows beautiful workmanship and detail.

must be around 60 degrees, so it might be necessary to cool it in the refrigerator first. The butter will be a bit greasy if the cream is too warm, and brittle if too cold. If butter doesn't appear in 15 minutes, the cream is probably too cold. Try placing the churn in warm water for a short while.

If you want to acquire a buttermold or two to use, or you want to start a collection, the leaf and three designs are plentiful. They're fairly easy to find and are relatively inexpensive. Geometric designs are still obtainable and can be quickly added to your collection. If you happen to come across a strawberry motif, you might want to purchase it, as this is a very rare design and could still be hidden away in someone's garage or attic. Some motifs also considered rare and a "find" include, the eagle, bird, ship and tulip patterns. Those handy at carving can make their own family motif.

The churning process takes anywhere from 15 to 45 minutes depending on how much cream you have, the temperature of the cream and how fast you churn. The cream will take on a foamy appearance at first; then it will slowly start to resemble cornmeal. When the lumps are the size of peas, it is about ready. Churn a few more minutes and chunks will form. Take the butter out and place it in a large pan. Add a little cold water and begin to work it. You can use a paddle, a wooden spatula, or if you don't have either, your own fingers will do. Work the butter by hand, pouring the liquid out as you go, until all the buttermilk is expressed. If any buttermilk remains, the butter will turn sour.

After you have finished working it, you may want to add a little salt. As a rule of thumb, use about one tablespoon of salt to one pound of butter. If your butter is pale yellow, which you'll find during the winter months, you can add food coloring. Long ago, saffron was added to get the desired bright yellow color. Saffron is a vegetable compound and a natural food coloring. It comes from the stigmas of the autumn crocus and can be purchased in liquid form. It is very strong, so start with a small amount.

After the salt and coloring are added, you are ready to mold it. If you don't have a buttermold, you can shape it into any container you want, or you can form it into rolls with your hands. Store the butter in your refrigerator, it will keep for about two weeks provided it is well wrapped. You can also freeze it, but no longer than six months.

When you take your home churned butter out of the refrigerator or freezer, try serving it on an antique butter dish or any one of the new styles and patterns available. Or, you might want to slice your roll in small patties, one for each guest, and impress each one with a different design. You can even set your molded butter, garnished with grapes or parsley, in the middle of the table for a wonderful centerpiece. But no matter how you serve it, home churned butter is a delightful addition to any meal. □

Pamela Boersma is a free-lance writer who is especially interested in country collectables. Buttermold designs by Sherrie Manpin. Photos by Karen Michele Yates.



Birds, such as the swan, were common subjects used on molds. These are now considered "rare."

# Fruit Leather

by Shirley Bock Testi

**F**ruit leather is an old and tasty way of preserving fruits. Dora D. Flack, in her book, *Fun With Food Preservation*, wrote, "Fruit leather was made when people had to crush it in hollowed-out rocks, as they ground grain, and then spread it out in the sun to dry on leather." Pioneer women used this method when canning and freezing were not yet developed for preserving foods.

Leather can be made any time of the year. The sources are as varied as your imagination. One source I discovered by accident because I could not afford to waste a batch of cherry jelly that would not jell.

Other sources are the home canned fruits that darken in the jar. They are perfectly good to eat but they are too unattractive to dish up and serve. During canning season there are always those pieces of fruit which don't add up to a full quart or a full canner. Then there is the fruit that is too soft or too ripe to either freeze or can. Of course, fruit leather can be made with perfectly good, just-ripe fruit bought especially for the purpose.

Fruit leather is easier to make if you own a food dehydrator, but it can be made by cheaper methods. It can be dried outdoors in the sun, indoors on a sunny window sill, in the oven, over the radiator, or even in the front seat of a closed-up car.

To prepare the fruit for drying, wash and put it in the blender. Set the blender on puree for about one minute. The fruit can be mashed and sieved or mashed through a colander.



The idea is to make sure the fruit is smooth and free of lumps.

The addition of sugar will depend upon the natural sugar content of the fruit and your taste.

Use a cookie sheet with a built-up edge and line it with plastic wrap. This wrap should extend beyond the sides of the cookie sheet and be pressed down on the under side to hold it in place.

Pour the pureed fruit in a thin layer over the sheet. Generally it will take two cups of puree.

When drying leather outdoors, cover with a copper screen or cheesecloth for sanitation. This drying takes nine or ten hours. The leather is dry when the color darkens (although strawberry leather is always a gorgeous bright red color) and it feels and looks like pliable leather.

When using a gas oven, leave the door ajar eight inches. My husband measured and cut a piece of wood to eliminate the guesswork. An electric oven should be left ajar six inches. This allows the moisture to escape. Be sure the kitchen is well-ventilated during this drying time.

The oven should be set at its lowest reading. Since my gas oven's lowest reading is 200 degrees, I turn it below that level, checking the flames visually so the oven isn't too hot. Oven

drying takes from six to ten hours. That unset cherry jelly took much longer than pureed fresh strawberries.

Watch the leather closely towards the end of the drying. Do not overdry. Roll it while it is still warm. When it becomes cool, the leather is not as pliable.

Remove the plastic wrap, roll the leather, and place in clean jars. Seal it in the oven for about half an hour. Like all preserved foods, the best place to store leather is in a cool, dry, dark place.

Or leave the leather in its plastic wrap, roll, and store in clean cloth bags where it is cool, dry, and dark.

Leather may also be rolled up in the same plastic wrap it was dried on, sealed, and frozen.

If mold appears, the leather was not dried long enough or your storage area is not dry enough.

Fruit leather is a tasty, healthful snack. It is a thrifty way to use up otherwise wasted fruit. It is a good backpacking food to carry as it is lightweight and nutritious. It also makes good lunch box additions.

Fruit leather is so easy and so good to eat that you may not have much left to store! □

Illustration by Brenda D'Amato.

# Apple Cidering

by Shirley Bock Testi

If your product were free for the asking and the cost of manufacturing it nominal, would you be interested in a seasonal, small-scale business? Probably you would. If you are also a believer in natural foods, you'd be glad of the opportunity to provide others with an additive and preservative free product. This product that can be made and sold only in the fall is apple cider--the juice of pressed apples.

Apples grow abundantly whether cultivated or wild. If you do not own an apple orchard of your own, drive through the country in late summer. You will see many trees laden with apples that are growing in fields and along the road. Most of these apples are yours for the asking, but do ask.

After the first frost, take your bags and baskets to the trees you've been given permission to glean. You may also need a ladder to pick the apples off the trees. Or you can spread a blanket or tarp under the tree, then knock the apples down with a shake pole with a hook on the end.

Be sure to gather best windfalls. Pick out any sticks, leaves, or rotten apples you find. One bushel of apples will make four or five gallons of cider. **From apples to cider**

Almost every area has a cider mill. The cost of pressing apples depends on the location. Close to Erie, Pennsylvania, the cost of pressing one gallon of cider ranged from 50 to 60 cents a gallon last season. On a dirt road far from any town, an Amishman charged 20 cents to press a gallon of cider. Near the small town of Corry, a newly-remodeled mill charged 30 cents a gallon for small quantities and 25 cents a gallon if 50 or more gallons were pressed. You can also grind small quantities of apples in your home at your convenience with a hand-operated cider mill.

If you haven't been washing and storing plastic milk containers or last year's glass cider gallons, you will need to buy containers. The cider mills in our area charged 25 cents for



each plastic gallon jug with cap. But a local dairy sold them for 20 cents a container.

The exact layout of a cider mill varies with the owner, but the general procedures are the same in all of them.

The apples are first dumped into a hopper. Most mills then put the apples in a washer, although some small mills eliminate this step. The apples may be washed with a continuous spray or put into a vat of water and pushed around gently with wooden paddles.

From the washer the apples move on an elevator or conveyor belt to the grinder. Here the apples are chopped into a soft, pulpy mass. This mass is pumped into a chute directly over the press. A sock made of vinyl, often bright red or yellow, hangs below the chute. A handle moves the sock out of the way when not in use. It guides the

slush, or pumice, into blankets below. Under the chute is a bed on which a four-sided box is placed. An acrylic blanket is laid inside the box, its four sides laying over the edges.

The pressman pushes the switch which releases the flow of ground-up apples. This pumice pours into the blanket and is raked smooth with a wooden hoe. Then each side of the blanket is folded over so it looks like a very large apple turnover. This is called a cheese.

The four-sided box is removed. A slatted wooden frame is laid over the cheese. Then the wooden box is set in place on top of the slatted frame and another blanket put in place. The cheeses are built up in this fashion until all the apples are ground up. The stack of cheeses then moves on rollers until it comes under the press. Some presses operate by screws, others by hydraulics.

The screw press at the mill we go to uses 150 tons of pressure. Below the press is a wire mesh frame in which a fine nylon mesh is placed which acts as a filter. The pressman will remove and wash it several times during the pressing. It removes the sludge and particles of apples that escape through the fine-meshed/ acrylon blanket. Some mills do not use filters at all, or do not change them during a pressing.

The apple juice, or cider, is then pumped into a stainless steel holding tank. From this tank comes hoses with nozzles for filling the gallon jugs. As the jugs are filled, the pressman usually lets you cap them yourself.

**N**ow that you have put an investment of time, effort and money into your jugs of cider, how do you sell it? We find we do a certain percentage of repeat sales to people who know and like our cider. But of course that isn't a large enough amount to take care of the 100 gallons of cider which come from one pressing.

In our town we have several small plazas that allow off-the-tailgate selling. We also have a Farmer's Market where produce can be marketed at no charge on Saturday. To advertise our cider, we take a large piece of cardboard on which we print--FRESH PRESSED CIDER FOR SALE. \$2.00 Per Gallon.

We find that people like to know what kinds of apples we pressed so we make up a sign that lists them. Since we use the old-fashioned varieties such as Northern Spy, King, Baldwin and Winesap, we mention them by name. If the cider was pressed the same day it is being sold, we mention that: PRESSED TODAY. We try never to sell cider that is more than several days past pressing.

Cider must be kept cold to keep it from turning hard. Because there are no chemical additives, it must be used quickly, even if refrigerated.

#### Preserving Cider

We can or freeze the leftovers for ourselves. Cider may be frozen in the plastic jugs after first removing a third of the contents. This allows for expansion as it freezes. We keep such a full freezer that we usually can our cider.

Cider can be canned in quart jars and in glass gallon jars if the gallon jars have screw-on lids. Set the jars on a rack in a large kettle. Fill the kettle

with lukewarm water up to the hips of the jars. Cap the jars, then give them one backward turn so they are loose enough to let the steam escape.

Bring the water in the kettle to boiling. Boil the water for seven minutes for quarts and ten minutes for gallons. Remove the jars from the water and tighten the caps. These will seal as they cool. The cider will be as sweet six months later as it is when it is canned.

Since we do not like to sell cider as "fresh" if it is more than several days past pressing, we sometimes have leftover cider. We have a farm sale near us every Monday. There are always those who prefer cider with a tang so we sell any leftover gallons there.

Also, vinegar is a good by-product of cider. Vinegar can be started with cider that has begun to turn sharp. It can be made by setting a jug of cider in a cool, dark place and forgetting it for a year. A quicker way is to put a mother from an old vinegar into a jug of cider and keep it in a cool, dark place until you're ready to make pickles. This homemade vinegar is natural, with no additives.

A mother is a silmy brown membrane of yeast and bacterial cells that develop on the surface of

alcoholic liquids that are undergoing acetous fermentation. Added to a jug of cider, a mother produces vinegar. Often customers would rather buy pure vinegar from you than make their own.

You can make as much money on cider as you have apples and energy to use. Based on last season's prices, we paid \$50.00 to press and jug every 100 gallons of cider. We sold those jugs for \$200.00, leaving us with a profit of \$150.00. This does not put a dollar value on our time and effort and gasoline in getting the apples, but with the plentiful harvest of apples, it made a nice profit.

For the time and effort involved, making and selling cider each fall is a good source of income. It also gives you the opportunity to provide the customer with a pure, natural food to drink. Nature's beverage is good for you and good for your pocketbook. □

Shirley Bock Testi is the author of "The Gathering In," Farmstead, Garden 1981. She makes her home in Corry, Pennsylvania. Art by Carol Varin.

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# Pride o' the Cabbage Patch

by Nancy C. Ralston

**T**wo of this country's most popular cabbage dishes have a common Germanic heritage. Cole slaw, or simply slaw in some areas, means literally, a cold salad. Sauerkraut or sour kraut is sour or fermented cabbage.

Home production of either dish will result in slaw or kraut of excellent quality, far surpassing fast-food or commercially processed kraut and slaw. Homemade kraut, for instance, does not have that inescapable "tinny" taste as that which is processed and canned. It has a more delicate flavor than any found on market shelves or served in mass production settings. Fresh, homemade cole slaw, shredded or chopped by hand, seasoned to taste and laced with a favorite dressing will outdo any side order of cole slaw purchased anywhere.

Traced by historians back to 2500 B.C., cabbage is grown in most parts of the world. It grows wild on the chalky seacoasts of England, in Denmark, in parts of France and in Greece. Hard heading types were not documented until 1536 and were first introduced to this country in 1541. It is probably the most important crop of the genus *Brassica*, which includes such other interesting varieties as Brussels sprouts, cauliflower, broccoli, kale, turnip and kohlrabi.

Chinese or celery cabbage shows up in more local gardens every year. The term Chinese cabbage actually covers a lot of territory referring inclusively to several different varieties. Wong Bok, frequently found in supermarkets; Michihli and Bok-Choy are the most popular of these oriental vegetables. All are popular for use in soups, sukiyakis and for stir-frying. Also, as in the

case of the more familiar Brassicas, these vegetables may be wedged and boiled and served with meat or shredded and served with a slaw dressing. The larger leaves may be stuffed and rolled.

Gardeners who grow cabbages eat slaw until it starts coming out their ears. Since there is an infinite number of cole slaw recipes, at least there can be some variety.

Get out grandmother's slaw cutter; buy one at the next county auction or brandish your own sharp chopping knife and get with those products of the cabbage patch. A bowl of authentic cole slaw made from either red or white cabbage will make a hit with the entire family and a jar or crock of fermenting kraut will tempt everyone to engage in tasting experiments long before the brine has completely "ripened" the sour cabbage.

Cole slaw, made with a vinegar rather than a creamy or mayonnaise dressing, may be frozen for future use. The cream-style, however, should be eaten right away and it is so good, there should be no problem about leftovers. When you have had your fill of these more common varieties, there are always interesting experiments for the adventurous.

## WILTED RED SLAW

1 medium red cabbage, shredded  
Boiling water  
1 Tablespoon salt (uniodized)  
1/4 cup salad oil  
1/3 cup cider vinegar  
2 teaspoons sugar  
1/4 cup onion, chopped  
1/2 cup apple, chopped

Pour boiling water and salt over shredded cabbage. Let mixture stand for 15-20 minutes. Drain well but do not rinse. Combine remaining ingredients and mix with cabbage. Toss thoroughly. Chill before serving.

**S**auerkraut generally is produced by placing shredded cabbage and brine in a large stone jar where it is allowed to ferment for three or four weeks. Jars of brined cabbage are at work in many basements producing the mounds of homemade kraut which will be combined deliciously with ribs, sausages, corned beef and other favorites until the supply is exhausted. When fermentation has ended, the kraut is spooned into canning jars and processed in a boiling water bath.

A somewhat more convenient system involves mixing shredded cabbage with salt and placing it directly into canning jars. Use four teaspoons of pickling salt for each quart of shredded cabbage and mix very thoroughly. Pack the salted cabbage very firmly into each quart or pint jar. Cut rounds of cheesecloth to form pads on top of the cabbage and secure these with two wooden sticks cut to fit the inside of a regular (not wide mouth) jar opening. The pads and sticks should hold the cabbage beneath the surface of the brine which soon forms. Place lids loosely on the jars. Set jars temporarily on sheets of newspaper in an area where the temperature does not exceed 70 degrees. After 10 or 12 days, the brine level will drop. This signals the completion of fermentation. Remove sticks and pads. To replenish brine, combine one tablespoon salt and one quart water. Refill brine to within one inch of top. Seal and process for 30 minutes in a boiling water bath.

For the sauerkraut enthusiast, there are many choices to make. Kraut and spare ribs, kraut and sausage, kraut and pork chops, corned beef, short ribs, frankfurters, pork loin, Canadian bacon, etc.. There surely is a sauerkraut dish to suit everyone's taste.

Stuffed cabbage recipes abound. When you have had too much slaw and fresh cabbage is still available in the garden or at bargain prices, drag out the old cookbook and enjoy a favorite stuffed cabbage recipe or dream up a new one of your own. The possibilities are almost limitless. There is the familiar recipe using ground beef and rice.

Invent some new combinations. Use other ground meat such as veal and pork, including ham and bacon. Try chopped spinach with grated cheese, tomatoes, onions, raisins and barley as other possibilities. Experiment with herbs and spices for different flavors. Honey, lemon juice, brown sugar, curry and paprika all deserve a chance to enhance your cabbage dishes.

One of the simplest and most delicious ways of preparing cabbage is to steam cabbage leaves until they are tender. Melt four tablespoons of margarine, add one teaspoon of curry powder and one fourth teaspoon of paprika. Pour mixture over cabbage. Add salt to taste, serve and enjoy.

What about cabbage croquettes, cabbage souffle, cabbage soup or even cabbage pie?

## CABBAGE PIE

2 8-inch pie crusts  
1/4 cup butter or margarine  
1 medium cabbage, shredded  
3 hard-boiled eggs, chopped

Make own pastry. Saute cabbage in melted butter until tender. Place cooked cabbage in one pie shell. Spread eggs on top. Cover with additional pastry. Bake 35 minutes.

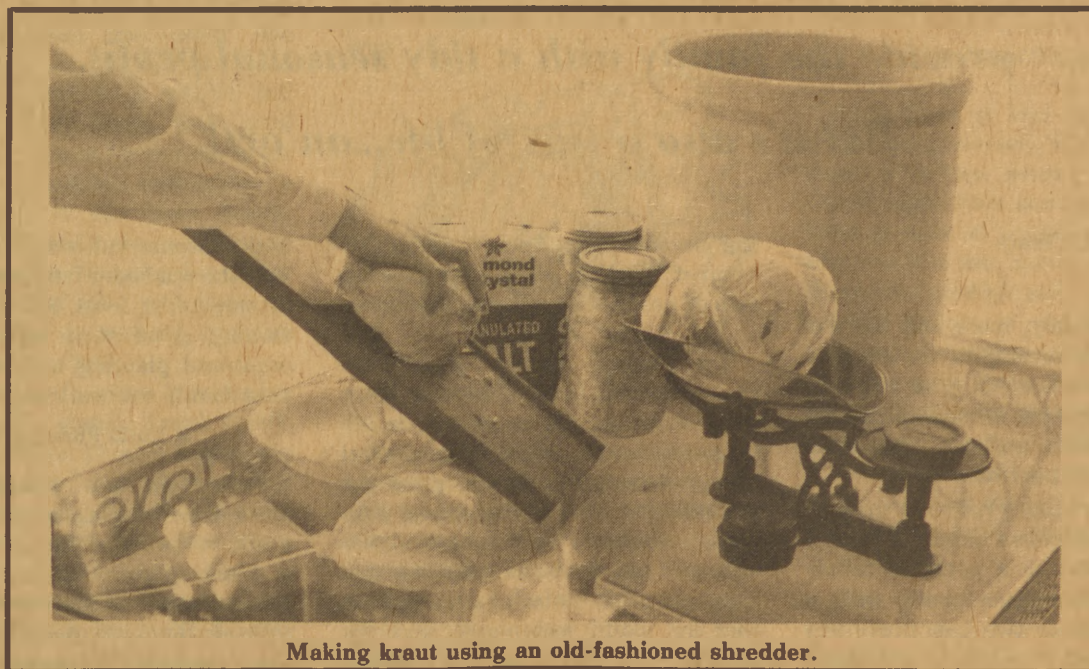
There are so many different ways to use cabbage that there truly is no excuse for becoming tired of it. A shortage of recipes and a shortage of storage space are the sole causes of an oversupply of homegrown cabbage.

Perhaps because of space limitations you did not plant cabbage this past spring. Next year, put it in as a border to the flower garden. Include savory and red cabbage for contrast and color. Even just a couple of cabbage plants are better than none at all. □

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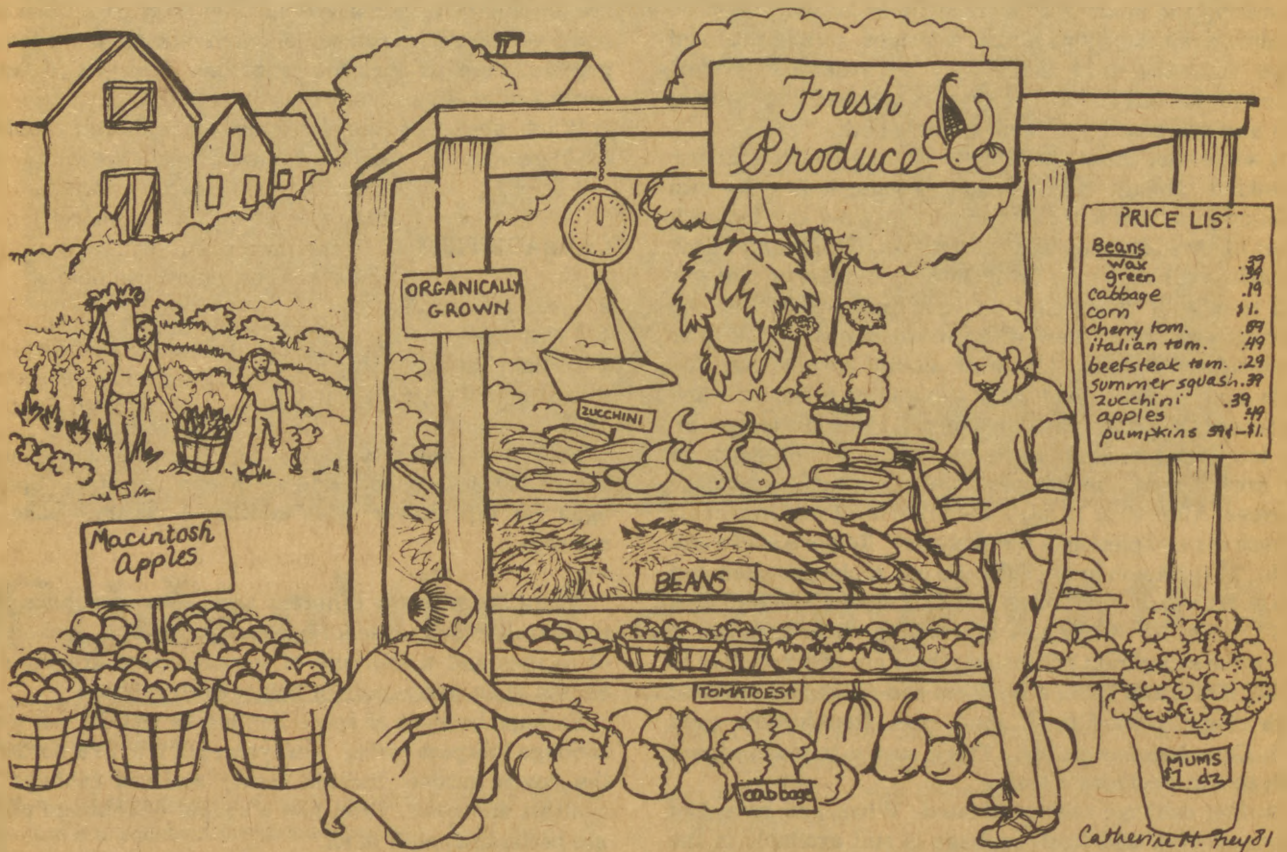
Nancy Ralston is a free-lance writer. She lives and harvests her cabbage patch in Bloomington, Indiana. Photos by the author.

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Making kraut using an old-fashioned shredder.

# How to Run a Successful Roadside Stand



*Roadsiding your home-grown fruits and vegetables can provide the family with a tidy seasonal profit.*

*But it's also a way of life...an art!*

by Dennis J. Cleary

**F**ortunately, more and more of us are turning to the use of a plot of land to grow our own produce, strike out for self-sufficiency for our families--and put some extra income in our pockets.

How much money you want to make selling home grown produce from a roadside stand is a personal family decision. Basically, a family with at least an acre or two can make anywhere from \$1,000-\$10,000 per grow-

ing season from April through November. You can sell a general selection of produce or you can specialize.

The general system of a large variety seems ideal until you learn more about specific crops and decide to specialize in sales. The general system merely means you plant the old reliables such as tomatoes, peppers, eggplant, dill, basil, canteloupe, beans, beets, carrots, onions, potatoes, swiss chard, squash, rhubarb, corn, asparagus, and the various varieties of each. One acre

under intense cultivation should provide the roadsider family with a gross income of at least \$1,000-6,000 assuming good road traffic and an organized planting and selling plan your family can work with.

### A Little Philosophy

But setting up a roadside stand is more than earning a nice seasonal profit. It is a way of life, or if you may, a philosophy of using your own resources and land to share good food with all the good people one meets along the way. For the past five years,



my family and I have been learning the art of roadsiding. From a two acre piece of fertile land, we have built a home, erected a simple roadside structure, and treated both land and customers with respect.

Good food works this way. Growing and selling fresh produce begins with the premise that living food is best for our bodies. So often, food processed en masse is dead food. Dead food is uncared-for food that comes from heavily sprayed fields and thinning top soil. Generally, it lacks freshness. But living food has living cells and fresh enzymes. It still feels firm and smells good. Juice still oozes from the cut stem. The skin and stem are still intact. Furthermore, if we are careful to can, freeze and preserve this alive food, we end up with a tastier and more healthful product.

### Getting Started

Plans begin with your basic property, your location and the use of your time. Let's look first at the property.

Hopefully, your land has fertile, tillable soil. Soil tests for any land save you much time and trouble. Some crops may not be suited to your soil type or condition. Check all this at the local agricultural agent's office. He usually has aerial maps and past soil history for almost any land in your county. If your property is subject to salt spray or heavy, prevailing winds, or other local weather deviations, you'll have to plan what you want to plant and sell accordingly.

Ask yourself some hard questions before you get plowing and planting! Why waste lime and other soil conditioners when you may not need them as indicated by a reliable soil test. Why plant crops that need neutral soil if your soil is heavily acid? Why plant vegetables susceptible to wind damage if you have heavy, prevailing winds in your area? Do you want to grow mostly annual crops or perennial crops? Do you want to include berries or orchard crops in your marketing plan?

Don't discount location in regard to your roadside stand. Good traffic means easy sales. Though consumers will seek you out if you advertise or if word gets around, being on a heavily-travelled road can't hurt your business venture. Good road traffic actually saves on advertising costs if you have your stand in an isolated area. We managed to have our home built

200 feet back from the road so the front field is a perfect model garden for customers to see. This is our preference. Some readers might prefer the stand and home to be close together. Sometimes you have little choice when you buy ready-made property.

Check the zoning ordinances to see if you will have any problems with on-the-road sales in your community. If you are in a rural-zoned area or community, then you have no problems. However, license fees might be involved. If you are in a suburban area with some open spaces, you should have few problems running a stand. The denser the population per square mile, the more zoning requirements will work against you. Sometimes even neighbors will object. Check out all of your options.

It's obvious that the rural or open land suburbs are the best bets for getting your stand started. While you're thinking about location, think about parking and traffic and customer access. Determine if your stand will create traffic hazards or problems. Manage to set up your stand so people have quick access or can even park in your driveway. If you have rural property or acreage, this is usually not a large concern. But the closer you get to inhabited and travelled areas, the more consideration should be given to traffic flow and related problems. Some problems may be the speed zone around your stand, parking on neighbors' frontage or driveways, and general impact of your enterprise on the immediate area.



Your life style is another important ingredient of success in running your own family stand. Time commitment is a factor. All family members should figure out just how basic duties will be split during the roadside season. Most stands are open during the good weather months from June through

early October. How does this time frame match family activities or commitments?

Many roadsiders have either one adult working outside the home or even dual income producers. If the husband and wife both work, then your weekly time for the stand and the garden might be limited to weekend hours. But don't fret. Weekend stands can be very successful. If one spouse is at home during the day, then the stand can have regular hours. Some factors to consider before you set hours are adult work schedules and outside activities, children's interests, and general family vacation needs and plans. Figure out these hassles before you open.

Our family has an ideal setup since my teaching year goes from September to June. As a result, we set our stand up from July through September. We close shortly before school opens. We take vacations in the fall, a few ski trips in the winter, and another family trip at Easter. We even manage to sneak in a quick weekend trip in late June. So we know and agree to what our time commitment is before we open our stand.

Our stand hours are set from 10 AM to 5 PM, Tuesday through Friday. For most people, Sunday is an excellent sales day if religious convictions don't interfere. But we decided to set our standards for time first, and make the stand conform. Once customers or commuters know your hours, they adjust. If you have good produce, they will be there when you open. Quality is a sought-after commodity. Roadside sells quality.

### The Crowd Pleasers

Regardless of how you see your fields being planted, it's essential to make a written master list of just which vegetables and varieties you want to raise on your land. You may even want to mix herbs, shrubs and flowers for possible sale. One cardinal rule to follow is you can't plant everything! Another important rule is to grow only those vegetables and plants that grow best on your soil type. An important selling rule is which varieties will go over best in my locale based on road traffic, customer preference, local competition, and other factors.

One year I was determined to educate the public about Chinese vegetables. Though a few gourmets

loved the opportunity, most customers made funny faces and wondered why people would eat such items. Some crops are just plain institutions.

Tomatoes are the over-all money-maker. Peppers and beans follow a close second. Corn is always a crowd-pleaser though you need plenty of space, care and attention to go into this treat.

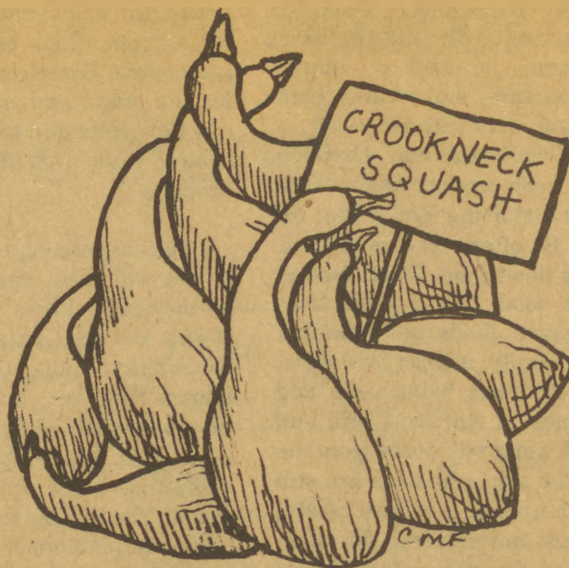
Secondary money-makers that help your roadside stand revenues are various varieties of hot peppers and sweet peppers, eggplant, various types of squash, swiss chard, cucumbers, celery, and even white eggplant. Herbs, shrubs, and any gourmet items such as Chinese vegetables should be planted with only limited sales expectations. Berries, fruit, and asparagus will sell extremely well if you can plan these items into your five-year plan for improving your roadside business! Generally, we don't sell onions, potatoes, and loose leaf lettuce since we reserve these items for family use. However, feel free to sell these money-makers if you have the will and extra space to do so. They'll sell well.

#### Should You Specialize?

The general plan will keep any family busy. But the basic idea is to plant your acreage so you will have plenty of customer traffic and repeat business. For instance, our stand does a large pepper business so we plant at least five varieties such as bell, cubanelle, hungarian, sweet banana, and chilis. Typical sellers for tomatoes are bush hybrids such as Big Boy, Ramapo, Rutgers, cherry varieties, and plums for paste such as Roma. But variety is the key word.

However, many of my friends who started out with the general system have now converted over to a specialized crop such as berries, gourmet vegetables, fruit or flowers. The general plan will tell you quickly which system is ideal for your family's time and efforts.

Specialty items have many advantages. One type of labor is sufficient to maintain a harvest. Fertilizing operations and types of fertilizers are specific. For example rhubarb plantings require heavy manure mulching in the winter or late fall after the first hard freeze. If you have a close, free manure source, you're ahead of the profit game.



Specialty items that do very well are canteloupes, watermelons, pumpkins, and two important herbs--dill and basil. Dill and basil are two of our consistent money crops since they go with so many other vegetables in the cooking process. Also, local supermarkets often do not supply these two perishable items. Dill is excellent for cucumbers, pickles, and soups while basil is excellent fresh or dried for tomatoes and eggplants. We plant two large rows of dill using the Long Island Mammoth variety. I stagger one row two weeks after the first planting so I have added insurance in case of a sudden drought or other weather setback. We also plant the dill close to the stand so we can pick it fresh for the customers. Basil stands in the field longer so we can plant it next to the tomatoes, peppers, and eggplant as part of the trap crops to discourage insect invasion.

One type of crop culture does not require the extended time required in the general system. For instance, asparagus needs picking attention from late March to early June. Then it's a matter of a bit of watering and weeding. However, if you use the year-round mulch system like our family, it's no-work asparagus! You can make a couple of thousand dollars in a few months without worrying about your precious summer vacation. And remember that asparagus is a perennial. After you get through with the hard work of the initial planting, the beds last over 20 years with decent care. That's a lot of extra income for one planting. Just think about it.

One friend who started with a general roadside stand has discovered that he can make \$2,000-\$3,000 in just one month of selling giant chrysanthemums while he had to sell tomatoes for three months to make that same amount of money. So each year, he adds more rows of his "famous mums" to sell to repeat customers. Most of his business is during the month of September. During the early summer he spends a limited amount of time pinching the mums back, watering the plants and generally watching his harvest up to sale time.

What can you expect from a specialty crop? Let's look at a few examples. One acre of ground can produce an astounding yield! Asparagus plantings with proper spacing, time, and care will eventually yield 200 crates weighing 30 pounds each. At one dollar a pound to your customers that's almost a guaranteed gross profit of \$6,000 from March to early June. That's two tons to the acre! Even if you sold the asparagus to the local supermarket for half price that's still \$3,000 or more for your crop. Not bad!

Tomatoes are a steady cash crop. With good soil, an average yield on one acre should be at least 200 bushels weighing 56 pounds each. That's 11,200 pounds. At five pounds for one dollar, you can add \$2,240 to your income not counting other items on the side menu. Of course you have to deduct the cost of plants but growers will sell you pull plants and even tell you exactly how many plants you need for one acre. One important footnote on the specialty system is in order. Check your local competition.

Don't plan on making money if everyone around you is growing the same fruit or vegetable or flower. This strategy of smart marketing includes getting into the right item. Right?

Allow special areas for short season crops like beans, as opposed to tomatoes or swiss chard which stay in the ground almost the entire season. Keep your fields productive by replacing a harvested crop with a succession crop. As a result, your bounty will be constant and your harvest a solid money-maker. Soon after your entire plots are harvested, you'll be thinking of next year's crop already.

With proper planning and good common sense about planting, you should have a successful planting system taking shape. Every year you will learn more and more short cuts to help your roadside system function more smoothly.

### Ready, Get Set, Sell!

The basic roadside stand can take on many forms and styles. Our stand is a simple shelter--four large cedar posts with a framed roof of two-by-fours covered with aluminum roof paneling. Ideally, the direction of the stand should be set up so the rising and setting sun does not shine for long periods on your fresh produce. I had to erect an extended roof section in the front of the stand to deflect the afternoon sun that was wreaking havoc with leaf vegetables, eggplant, tomatoes and peppers. So check the sun's direction before you begin to set up a permanent stand. It's a good idea to paint the roof white or use a white roof sheathing to repel and reflect the sun as much as possible. It does tend to get quite warm under the roof if the summer temperatures exceed ninety degrees.

As far as the different types of construction, we have stands in our area that range from planks on cinder blocks with a large umbrella to the sophisticated, enclosed small building with electric. If your stand is close to the house you might want to run an extension cord or electric line to the stand so you can keep a small refrigerator on the stand premises. Or try an icebox. Leaf lettuces and other delicate items can be kept fresher here. To display produce, you can use planks on cinder blocks, three or four-tiered steps or even a set of used mobile home steps. There are many ways to set up the basic display area.

One friend even manages to display all of his produce in baskets on top of a flat bed hay wagon that he moves in and out from the front of the property every evening. Use your imagination and by all means build a stand that meets your own needs and pocket-book. Our tendency is to keep the stand simple with an extended, portable roof. I merely take down the extension by removing a few well-placed nails and store the lumber in the back barn until the next season.

Another consideration is whether you want to make a sturdy, permanent structure or you want to make a stand that can be disassembled if you decide to build a larger structure or expand. As I mentioned our stand is merely framed out on four large cedar posts that were sunk in the ground. This avoided the tax on a permanent structure.

In addition to our central display area consisting of a used set of mobile home steps that we repainted with dull, white paint, we keep a large work table in the rear of the stand so we have ample space to sort, grade and box the different vegetables and fruit we bring from our fields. We use a commercial-type of scale that hangs from the ceiling of the stand. Make sure you buy a decent scale that will hold up to frequent use and is permitted by law to be used for commercial sales. We have a rule that no customer can place produce in the scale. We take the items from the customer. Some customers can break a scale faster than you can pick a tomato!



Whether the scale is new or used, it should be in good working order and able to pass an inspection. An inspection is essential for reason. You don't want to get in the position where the customer thinks he or she may be getting short-weighted. Reputation is equally important in the roadsiding business too! So buy a

strong scale, get it inspected before the season starts to get hectic, and guard it from customer use.

We take our scale in every night to prevent theft and keep bad weather from rusting the springs or mechanism. The scale should last for years if you give it proper care. A good one can cost anywhere from \$40-80 depending on the type. Make sure the basket or tray that comes with the scale is large enough to hold ten pounds of tomatoes and other types of regular size produce. A word of caution. Don't try to weigh watermelons or other large items in it. You might have to get a new scale!

Assuming you're ready for the customer to shop at your stand, double check to make sure you have an ample supply of bushel or peach baskets to bring in from the field and to display basket sales on the stand. We favor the peach basket because it is not too large or bulky when full with tomatoes, peppers, eggplant, or other standard items. In addition, you can use the peach basket to display produce by laying it on its side and letting the produce spill out a bit.

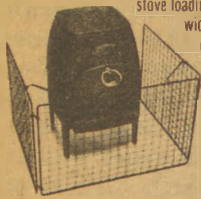
It's best to buy solid, used baskets or, if you must, new baskets. Shop around at farmer cooperatives, flea markets, or even supermarkets. Some supermarkets just throw out produce baskets. If you ask someone to save them you might get them free. But you need enough baskets to get through the entire season. We find that fifteen to twenty peach baskets are just enough for picking and general display work. But it depends on the type of crops and the basic setup of your marketing plan.

In any event, we never sell our baskets or even give them to customers even if they buy by the basketful. When people buy a basket of tomatoes, we place the produce in a grocery bag or cardboard box we get from local merchants. Save your baskets! They get scarcer than hen's teeth as the garden season rolls on.

Here are some more packaging basics. In addition to the stand and baskets, you'll need to have smaller packaging units such as half peck trays or baskets that can be purchased from local farmer supply stores. We also buy a large roll of plastic, tear-off bags preferring the two-quart size. One bag holds a tray or small basket of tomatoes quite easily. We use small plum trays we manage to get free of charge from a local supermarket. If the customer makes several

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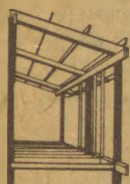
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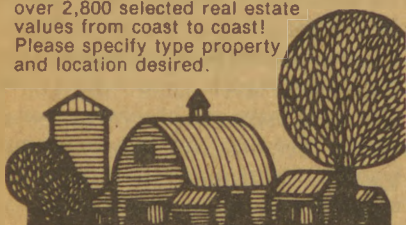
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purchases, we use the standard strong kraft grocery bag that we get from relatives and neighbors during the winter months. By the time we open our stand we have more than enough bags saved up. During the season, we put up a sign on the stand asking for used grocery bags. The customers will give you plenty.

A basic customer rule is to sell only attractive, fresh-looking produce. If a few items get soft, take them in the house and cook them up for the family. They still taste great but customers want the best looking stuff their money will buy. If you run a fresh-looking stand, the word will get around quickly and you'll have more business. There's no substitute for quality. We even go so far as to clean off muddied or soiled produce with a cloth if the produce detracts from the general stand display.

If you want to increase sales for a new business, it might help to advertise your stand and its location. We run small ads in the classified section of a weekly shopper and get excellent results. Some ads run specials on tomatoes, peppers, basil, and dill. Be creative! But remember to run ads that advertise what most people will buy.

Some stands in the area manage to run off one page fliers advertising types of vegetables and prices. And of course give your roadside business a name or logo. We call our country place Dover Farm. A good name makes it interesting for the customer to remember. The word will spread faster than you think. If you think you can stand the notoriety, get the local paper to run a feature on your new roadside venture. It's better than free advertising!

As far as pricing goes, remember to price all your items competitively with other stands in the area. Of course you can have specials and a few bargains, but don't think that you have to give your fresh vegetables away. If you have fresh, tasty produce, you're entitled to a fair price. In the spirit of bargaining, some customers try to down grade your produce or compare it with the local supermarket. Merely smile and insist on the marked price. Make no apologies for quality. There isn't that much around.

We make it a firm practice to post all prices of items sold on the stand. You can price by the pound or by the

container. We find customers like it if containers have a uniform weight in them. For instance, three pounds of tomatoes is just enough for the customer to use up in a day or two. Odd or larger items like eggplant, okra, peppers, etc. are sold by the pound rather than containerized. In any event, try both systems and find out which one works best for you. We also check our prices based on the local supermarket prices. We can beat them on freshness and taste so we stay pretty close to their price guidelines. Remember you don't have the high overhead a supermarket has, so your profit margin is healthier.

### Prepare the Soil...for Next Year!

To me, the roadside stand really starts with the first cool, crisp days of October. The harvest is complete. After storing away the last of the peach baskets, I look to the soil. First I brushhog or mulch the entire surface of the garden areas to pulverize left-over crop debris. This provides good surface trash for next year's crop. Before this mulching operation, all remaining produce is picked clean from the rows. It's a good idea to run a weekend pick-your-own offer so all produce is put to good use. Keep prices low. We have an annual pick-your-own operation where on one or two weekends we let customers go into our fields with baskets to pick the last fruits and vegetables. The customers have a great time picking as well as thinking that this is the best bargain in town. Usually we close our fields while the canning season is winding down. Customers appreciate this last chance to get good produce for a long winter!

Green tomatoes can be put in the basement for ripening, peppers sorted into hot and cold types, celery pulled and stored complete with roots, and finally the whole field surveyed for rocks, wire and other damaging items left over from the gardening season.

After a good pulverizing of the surface, one can lime or manure the entire field areas for next year. Make it a light coat to add body to the soil surface. At this point, your fields are ready for the essential blanket to protect it from the winter winds and frosts. It's best to disc or rototill the top three inches. Some prefer to plow deeper but I would rather keep the top soil on top even though a bit of

surface trash still seems evident. The discing cuts up the plant debris into smaller pieces while the rototiller rips up and also cuts old plants, rotten fruit, and late summer growth from dropped weed seeds.

Our experience has been to choose one of two types of cover crops to cover the disced or plowed surface: winter wheat or rye. Though rye seems to be very popular, I prefer wheat since the growth seems to be shorter in the spring prior to tilling or plowing. If you don't have a cover crop on your roadside fields, by all means do so next year. The cover crop is essential for the home truck garden since it protects your valuable top soil from wind erosion, general damage to soil structure and texture, and general loss of green manure for the following growing season.

If you rough disc your fields and sow rye or wheat, you should get a very solid covering for your fields. The secret is not to extend your garden season too close to the first fall frosts. I pack up my stand two or three weeks before the first expected frost. Then I sow my cover crop early so I get a thick, lush growth. Several of my neighbors try to push their gardens and fields into late October and early November. But this may prevent your cover crop from getting the necessary heat to sprout and make growth properly.

### Keeping Tabs

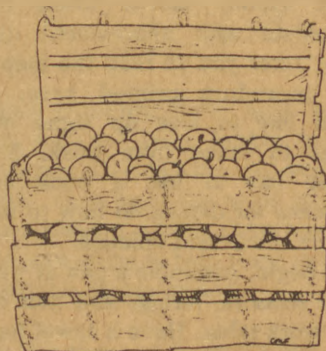
After the stand is closed down, it's a good time to take a careful accounting of how much money you may have made for the season. Since roadsiding is a business, you should always keep a log or book that shows all receipts and expenses for the season. Keep accurate records of costs for fertilizer, water, seeds, machinery, etc.. Remember there are many tax deductions allowed to the part-time farmer or roadsider. A portion of your real estate taxes can be deducted based on your use of the land as a roadside business. Every year, our accountant attaches the Schedule F, Farming Income and Expenses to our basic Form 1040. The Internal Revenue Service even allows you to take five years of losses before you are required to show a profit.

Typical deductions can be taken for equipment, seeds, containers, scale, farm truck, gas and oil used in farming, tools, etc.. Since the tax laws

change frequently, it's best to discuss these matters with your favorite accountant or tax person. But don't neglect careful record keeping since you can write off quite a few legitimate deductions even related to your general property upkeep, electric for running your well or sprinklers and other items. Just as long as all deductions relate to your roadside activities, all of them are incurred expenses. Equipment gets regular depreciation. A farm truck and related expenses along with general maintenance can be added to the Schedule F deductions. Seeds, tractors, tillers, fertilizer and related equipment are all allowable deductions.

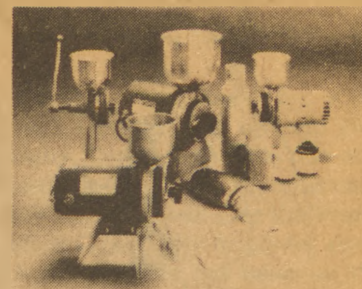
I also recommend that you register as a part-time farmer with the U.S. Department of Agriculture. This sets you up as a legitimate farmer and you will get annual federal surveys about farming and other related matters. We also fill out all state surveys to establish ourselves as bonafide farmers. You may also be entitled to a farmland assessment tax break depending on your state laws. Trucks and vehicles used for farming purposes can be registered with farmer's plates. Insurance and registration is much cheaper. Again check your state laws. They vary quite a bit. So keep careful records each season.

So when you add up your yearly receipts, you might be pleasantly surprised how much money a small piece of land and a simple roadside stand can make for the family. Growing good food, making a fair return on your labor and efforts, and generally living the good life are the big payoffs for the roadsider. What more can you ask from life! □



Dennis Cleary and family own and operate Dover Farm, where each summer they sell flowers, vegetables and everlastings. The Clearys live in Toms River, New Jersey. Art by Catherine Frey.

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# Make Your Own...



by Ruth Wendorff

Interest in original American crafts has revived cornhusk doll-making. This authentic American Indian art dates back farther than our written history. The early American settlers, making dolls for their children from anything available, quickly adopted cornhusk as a natural material for this purpose. Many years later, corn was exported from America; now, we're importing cornhusk dolls! Sweden, Czechoslovakia, and Taiwan, as well as Canada and Mexico, all contribute their own styles to these interesting dolls.

If you live in the cornbelt, you can probably get husks for nothing. Most farmers will gladly let you husk their field corn for them, as long as you leave them the corn. The husks from one ear of corn will make one doll. So figure how many ears of corn you'll need, then multiply by three--once you start making dolls, you won't want to stop.

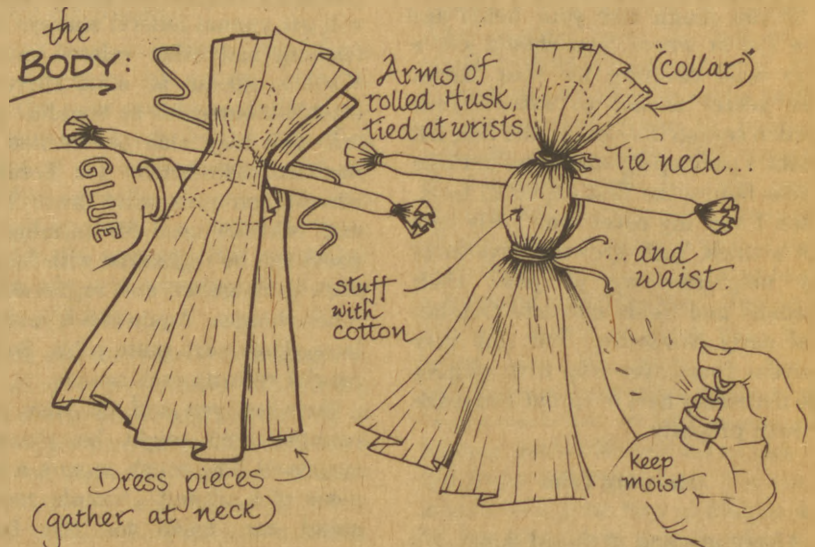
After you get your husks home, cut them from the cob bases. Pick out any that are mildewed and soak them overnight in a solution of one part liquid bleach to eight parts water. Next day, wash the bleach out of the husks by rinsing them thoroughly in warm water. Spread the husks out on newspapers to dry.

If you'd like to color some of the husks for dresses, hats, aprons, or capes, mix up some Easter egg dye or vegetable food coloring. Soak your husks in the coloring bath for between 15 minutes for pastel colors to one hour for darker shades. After dyeing, rinse well, and spread to dry. When all the husks are bleached, dyed, and dried, store them in paper bags until you are ready to make dolls.

Cornhusk dolls come in many shapes and sizes and there are books in book stores and libraries with



1.



2.

detailed instructions on how to make them. Hobby stores often carry pamphlets with abbreviated directions. After you've read the step-by-step procedure printed here, you might like to look up some other things to make from husk. Many people like to use a book as a reference for details on how to make flowers, birds and animals.

To begin, assemble a pan of water, some scissors, string, and hair clips on a work table. Have a towel handy to catch drips, and some household glue for seams and stuffing. Soak husks in water for about five minutes. Always work with wet husk.

There are many different ways to make the head of a cornhusk doll. An easy way is to cover a nut, wooden bead, or plastic foam ball with husk.

(We used a hickory nut.) Tie a knot in one end of a piece of husk. Turn the knot to the inside, and put the nut next to it. Now, pull the husk evenly around and over the nut, covering it completely. Gather the husk at the opposite end from the knot, and tie tightly with a piece of husk or string to make the doll's neck.

To make the arm piece, take a six-inch long piece of husk, roll and twist it tightly, then tie at both ends. Now, gather the dress pieces around the neck and tie, allowing about an inch to extend over the head. (This will be turned down later to form the collar of the dress.)

Place the arm piece up under the dress pieces, and anchor it there by dropping in some glue. Press firmly

# Corn Husk Doll

pieces down. Trim the bottom of the dress, and put the doll in a safe place to dry overnight. An oven with a pilot light is an ideal drying chamber.

When she's dry, take her out of the cup, turn her right side up, and glue all seams. Remove the clips one at a time and replace them as soon as each seam is glued. Spread glue the length of each seam and hold firmly for about half a minute with one hand on the inside of the doll and all five fingers pressing on the outside. Cut off the string that was holding the collar husks down, and trim them neatly. Run a line of glue under the collar and tie them down again with string. The glue will dry quickly, but allow at least two hours for a strong seal.

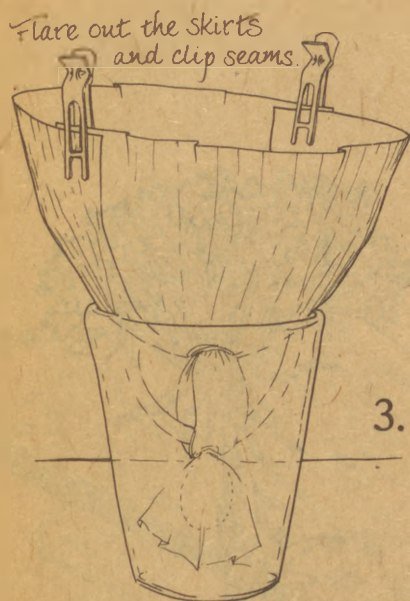
When the time is up, remove all clips, smear the inside of the dress with glue and stuff scraps of husk into the base of the doll. The stiffening helps protect the skirt. Push a lightweight bowl up under the skirt and turn the doll over onto a glass. This arrangement will keep the doll up high, protecting the delicate skirt while the stuffing glue is drying. Press each dress seam again, this time against the bowl, reglueing any that didn't seal the first time.

Glue hair made of corn silk or yarn to the head. Make a hat or scarf. You'll find yourself thinking of different types of hair and headwear as well as accessories like bouquets of flowers or dried weeds, baskets full of corn, etc.. Imaginations will produce unique ideas, and the dolls will take shape quickly and beautifully.

Many people take pride in using only natural materials in their craft projects. Cornhusk can be used as the doll material, tying strips, hair, stuffing and accessories. If you'd like to use absolutely nothing but cornhusk in your doll, even the inside of the head can be made of rolled-up husk.

Whether you sell your dolls or give them as gifts, you'll love working at this craft handed down to us by the American Indians. □

Ruth Wendorff is a writer, photographer and craftsperson in Euclid, Ohio. Illustrations by Liz Buell.



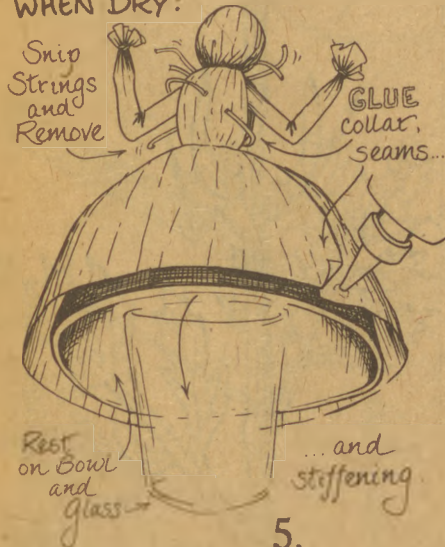
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..... LET DRY.

WHEN DRY:



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with fingers for a few moments. Add more glue, then push in some cotton or tissue to shape the bosom area. Pull the dress husks down, gather them at the waist, and tie with a piece of husk or string.

If your husk has started to dry out, moisten by dipping in water or spray with an atomizer. Arrange the skirt pieces in folds, flaring them out as far as they'll go. Sometimes it's easier to work on your doll upside down. Put her in a cup or wide glass, and work your way around the hemline, placing a clip wherever two pieces of husk meet to make a seam.

Most cornhusk dolls hold something, such as a baby, basket, broom, or bouquet. Decide what you want her to hold, then bend the arms into the proper position. Clamp them together or tie with string to hold them in place during the drying period.

At this time, while she is still wet, check your doll carefully. Make sure that the body from the waist up is straight, not leaning. Turn down the husks around the neck and spread them out to form a collar. Wrap string around and around the shoulders of the doll, then tie, to hold these husk

# A Fast 'n Easy Flower Press

by Rho Weber Mack

**A** cres of weeds? Wildflowers along the roadside? Add one easy to construct homemade flower press, and you have all the happy ingredients for hours of fun—even perhaps the beginnings of a profitable hobby. The dried and pressed flowers make lovely wall collections and gift items arranged into bouquets of your imagination.

Gathering wildflowers and weeds is a wonderful and creative hobby. Suddenly roadsides are transformed into sources of discovery and nature walks into treasure hunts. Who notices otherwise that the wild carrots have such varied and fernlike appearances? Who notices how many common weeds burst into flower? It is a very short step for the curious mind from the flower press to the *Field Guide Wildflowers*, and a summer to remember.

Ferns form a lovely background for a pressed-floral arrangement. Ferns unfurl their fronds all summer long, clumps of lacy green to the casual observer. But to the aspiring collector with a flower press to fill, the varied forms of the fern family leap into notice—the fronds of the cinnamon fern grouped in clusters like graceful bouquets, the ostrich fern with fronds resembling an ostrich plume, the crisply ruffled edges of the Christmas fern. And can that be a maidenhair spleenwort growing up through the rocks?

Growing plants for the press can open the young collector's eyes to the varied forms of nature: the whorl of unfolding leaves, the spiral arrangement of leaf and flower around a stem, the tight bud, the dark seed pod. Discovery leads to experimentation with success and failure. Will the Indian paintbrush still look like a paintbrush when it is pressed? Will the Queen Anne's lace fall apart when it's dry?

To make the flower press, cut out three identical squares of half-inch

plywood or other wood. Thicker pieces work also, but you may need longer bolts to hold everything together. A 12 by 12 inch square is quite a workable press, and even smaller squares of four by four inches can accommodate a good amount of flowers. If you are thinking of turning out a really voluminous amount of pressed flowers, it is better to work with two or more presses than to make one overly large one, because the wood will tend to have less pressing force in the center.

Drill matching holes in the corners of each square, to accommodate a three-inch bolt. Cut out four squares of ordinary blotting paper, snipping off the corners to leave room for the bolts.

Assemble the flower press in this order: wood, blotting paper, a layer of flower heads, blotting paper, wood, another layer of blotting paper, flower heads, blotting paper, wood. Place the bolts from bottom to top, and tighten each one down with a wing nut, turning down against the flowers as tightly as you can.

Place the dried flowers carefully in a tray or other undisturbed location, as the more fragile ones may shatter easily. You may want to sort your inventory as you stock it, to prevent having to go through the entire pile for that elusive assortment of daisies.

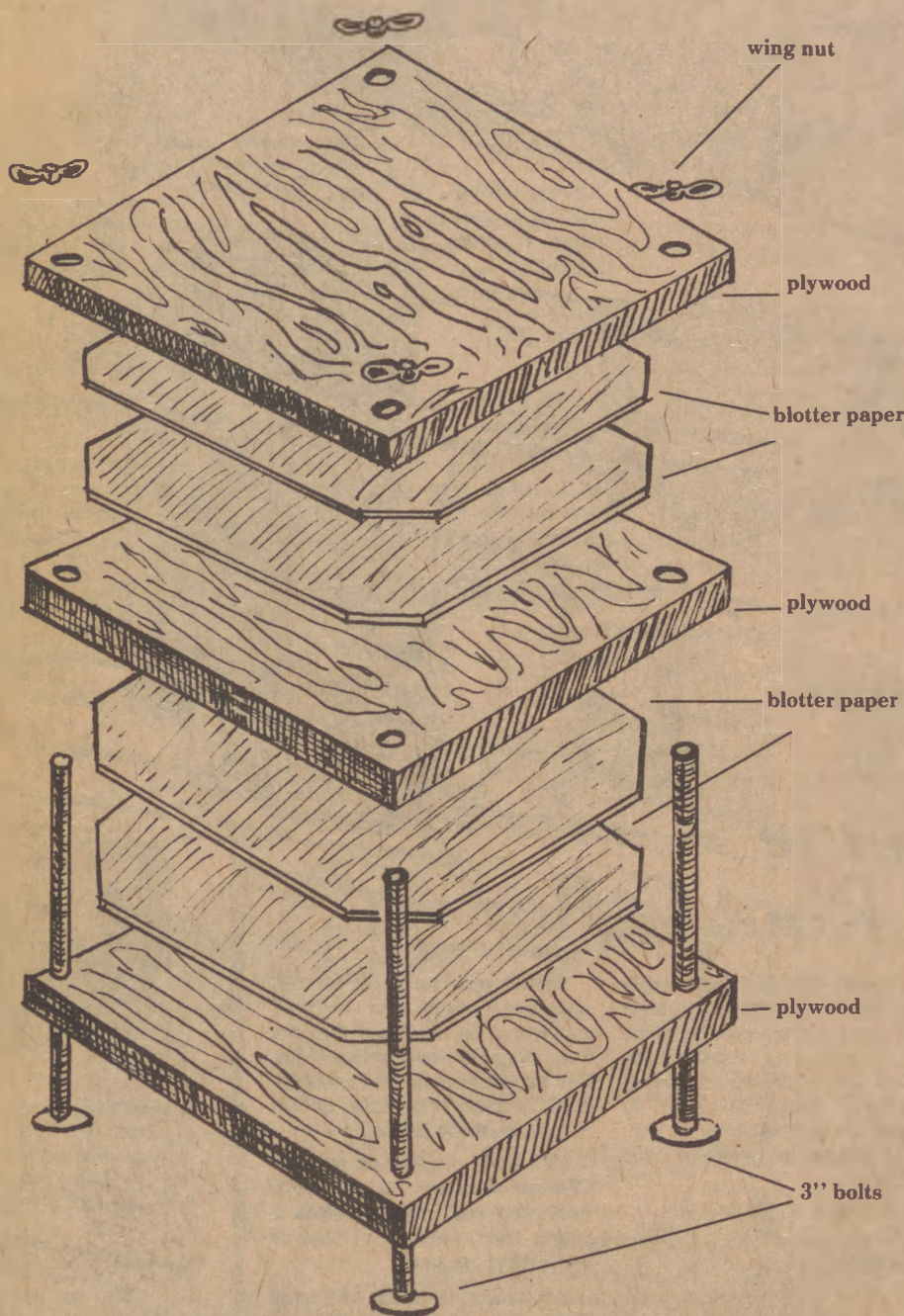
Depending on the thickness and moisture content of the flowers, as well as air temperature and humidity, it will take one to four days for the flowers to dry out completely. Arrange the materials to be dried in a single layer.

To assemble into arrangements for sale or trade, choose an appropriate backing of non-fading mat board or other paper. This is where your creativity provides the alchemy that turns the pressed flowers into greenbacks. Listed here are





*When dried and pressed, roadside weeds and wildflowers can be arranged into beautiful gifts, making the harvest of this flower season one to remember.*



Flower Press Assembly

some suggestions to start your imagination flowing.

Arrange the flowers into a simple bouquet, with a vase sketched or painted in. Study books for floral arrangements, or create the sophisticated look using ferns and dried grasses to produce the striking lines of Japanese flower arrangements.

Place flowers such as daisies or rose buds in an oval arrangement, with an open central area to write in an important event such as an engagement, wedding, or birth—or a sentiment to a friend. Calligraphy works exceptionally well with the formal effect of the flowers.

Place the flowers in a wild field arrangement, showing a bank of flowers and ferns. Heathery moor, alpine meadow, mossy bog—you set the scene. Combine with simple suggestive pen-and-ink or watercolor.

Cartoon creatures, elves, urchins, and sprites peer from flower centers and dance beneath the ferns.

Experiment with unusual materials: cutaway slices of vegetables, mushrooms, herbs, or moss.

Even humor is a possibility if you combine flowers with humorous line drawings. Daisy eyes on an urchin? A rose bud in the mouth of a pig? A homestead with an amaranth-thatched roof and goldenrod trees?

Selling your creations can take several courses. The framed arrangements are a good flea market item. Floral shops, nurseries, and gift centers are possibilities to look into. The small roadside market may like the atmosphere your arrangements create, hanging behind the fruits and vegetables. Make something beautiful with love and care, and the possibilities will blossom. □

Rho Weber Mack is the author of "Window Box Greenhouse," *Farmstead*, Garden Issue, 1981. She enjoys her flowers and plants in Friendship, Maine. Illustrations by the author.

## ...out in the field

Squash, pumpkins and onions must be cured in the sun for 2 weeks or so before storage.

Leave the stems on those you plan to keep.



Parsnips and salsify can be left in the garden overwinter.

Store potatoes between 37 and 40 degrees F.. They'll keep 4 to 6 months.

Never store fruits and vegetables in same containers.

Harvest beets after light frost. Dry in sun a day or so.

Beets store like carrots but do not keep as long.

Cut off beet tops leaving 2 inches of stem so they won't "bleed."

It's not advisable to store canned goods in a root cellar.

In time, dampness will rust metal and may cause leaks and spoilage.

Bury carrots in dust and sawdust, leave moss.

## Inside the Home

## Root Cellar

Select only the best vegetables and fruits for storage. Never store produce that is bruised or damaged by disease. When picking, handle all with care. Make sure not to harvest crops when they're wet, and get them in before a hard frost hits.

Root crops such as carrots, potatoes, beets and turnips, should not be washed if they are to be stored for long periods. Most root vegetables and also cabbage, endive, celery and leeks, do not require a curing period.

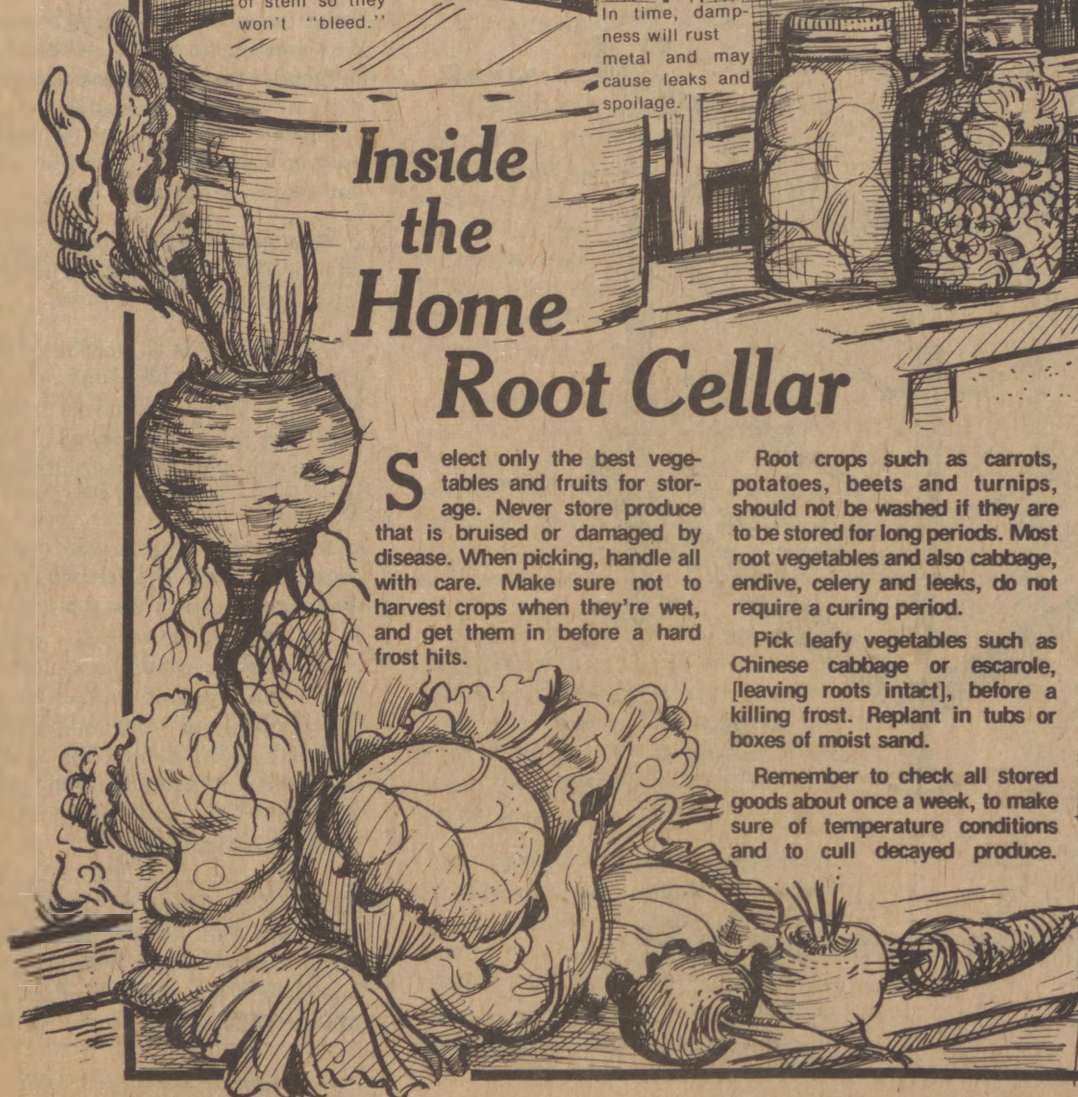
Pick leafy vegetables such as Chinese cabbage or escarole, [leaving roots intact], before a killing frost. Replant in tubs or boxes of moist sand.

Remember to check all stored goods about once a week, to make sure of temperature conditions and to cull decayed produce.

Spread gravel on concrete floor and sprinkle occasionally with water to maintain humidity.

Do not store fruit if they will form water.

Late varieties store best.



dry and  
ees F.),  
are room

Cover roof of cave-type  
root cellar with at least 2  
feet of earth.

Store late varieties  
(Danish, Roundhead,  
Ballhead) but not  
overripe cabbage.

Thin-necked and  
late-maturing  
onions keep  
best. Ebenezer,  
Yellow Globe  
and Southport  
are good keepers

Hang cabbage by  
roots. Water the  
roots occasionally.

root cellar should  
have 2 vent pipes... a  
intake pipe to let  
cold air and a high  
exhaust pipe to per-  
mit warm air to es-  
cape.

Onions need dry and cool  
conditions...just above 32  
degrees F..

Cellar steps can be  
used as storage  
space. Each step is a  
different temperature  
and suits different  
crops.

If cabbage is  
wrapped in their  
leaves and paper  
they keep crisp  
and their strong  
odor is contained

Pack fruit in clean  
crates or bushels.  
Wrapping fruit in  
paper prevents rot.

Pick apples while  
hard ripe. Handle  
with care and store  
only sound fruit.

not mix fruit  
store in  
container.

mp  
or

Use slats, rather than solid  
boards, for air circulation.

Make shelving of durable wood to  
resist dampness. White oak, locust  
or cedar is good.

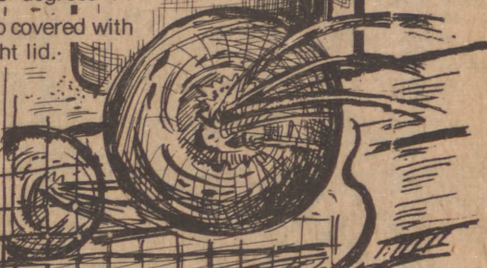
**Earthen floors are best.**

Store potatoes in crate or bushel  
baskets but do not pile them too  
deep or they heat in the centers of  
the piles, and may sprout.

Keep potatoes in the dark to  
prevent greening and loss of  
flavor.

sted tubers, as  
t spots and rot.

Store brined food  
at 38 degrees F.  
Keep covered with  
a tight lid.



Protect your produce from  
rats and mice.

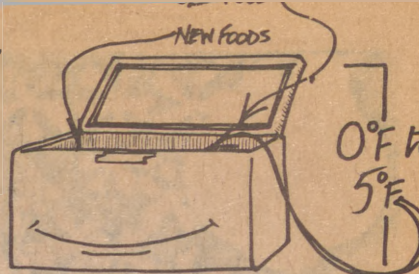
Rats!

Store turnips at 32  
degrees F. and  
95% humidity.  
They keep 4 or 5  
months.



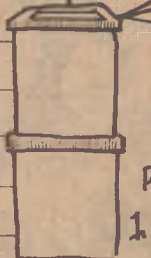


# INVENTORY



*Frozen:*

	QUANTITY	ITEM	GOOD UNTIL	QUANTITY

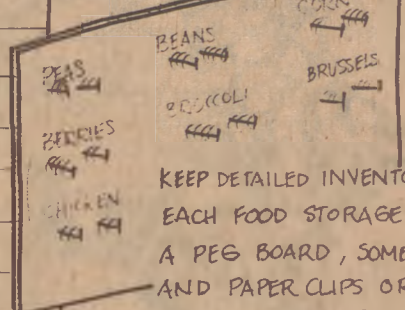


Name and date on labels.

**RULES OF FREEZER STORAGE:**

- 1. Store like foods together.
- 2. Move soon-to-be-used foods to top of freezer.
- 3. Wrap foods in vapor-type wraps or plastic containers.
- 4. Use frozen foods well within storage life time.

**PEGBOARD INVENTORY**

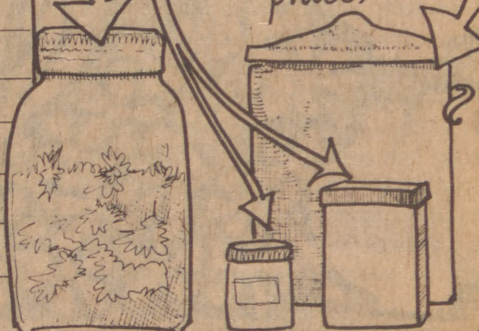


KEEP DETAILED INVENTORY NEAR EACH FOOD STORAGE AREA. A PEG BOARD, SOME NAILS AND PAPER CLIPS OR WASHERS MAKES A CHANGEABLE INVENTORY THAT ACCOUNTS FOR NEXT YEAR'S NEEDS AND THIS YEAR'S SUPPLY.

*Dried:*

	AMOUNT	ITEM	AMOUNT

Condition dried foods for several days, in bulk. Inspect. Then seal in tight container and store in cool, dark, dry place.





*Many flowers need fall planting in order to bloom the following year. You can plan now, for an entire new growing season of color!*

---

# Think Spring! ...With Fall Bulbs

---

by Peggy Hopkins

**W**hen August skies deepen, the swamp maples show a tinge of red and breezes from the north blow cool--it's time to start thinking of spring flowers.

Fall is the only time to plant spring bulbs--daffodils, crocus, tulips, and so many lesser-known but delightful varieties. There are also a number of perennial flowering plants which prefer to put down new roots in autumn.

Now is the time to cure next winter's bout with cabin fever. Consult the bulb catalogues, beg or buy some peonies, phlox and poppies, and plant a flower garden. What better way to combat the late winter doldrums than the sight of bright green shoots bravely poking their way through cold March soil. Croci, daffodils, scillas and snowdrops, followed by tulips and grape hyacinths, pave the way for summer's peonies, poppies, hollyhocks and phlox--an entire growing season of color. The best part--come next spring, with its hundreds of gardening chores, all the hard work of establishing a perennial bed will be over.

There are a number of methods of planting spring bulbs. One can dig

and prepare a bed and plant the entire space in flowering bulbs. The bed can then be over-planted with ground cover or summer annuals to provide interest through the rest of the growing season.

Another method is to intersperse a new or existing bud with bulbs. This is a good idea so long as the gardener marks well the spot chosen. With all the digging and transplanting that goes on in a perennial border, it is all too easy to slice down into last year's favorite clump of narcissus.

There is a third way to plant bulbs--perhaps the most tempting. Armed with a spade and bag full of spring bulbs on a warm fall afternoon, the gardener's eye becomes fixed on a distant clump of birches or a stone wall down by the road. The urge to create a natural-looking host of golden daffodils is strong--but don't be too hasty.

Naturalized bulbs (those which have spread themselves into large, semi-wild clumps along grassy banks or light woodlands) are truly charming--but it takes many bulbs to create any immediate effect. If budget or time is a consideration, start out with a dozen or so of four or five different spring bulbs, and plant them where they will provide the maximum enjoyment for the most people.

This is especially important in the case of the very small varieties. Plant them along a path, near a back door, close to a window--somewhere where they will be noticed--often.

Although naturalized bulbs are beautiful, spreading pools of color across a lawn or in drifts under trees and along banks, there are some disadvantages. If these plants are to

put forth their lovely, nodding heads in future years, current foliage must be allowed to ripen completely after the bulb has finished blooming. That means leaving it untouched until completely withered and fallen to the ground. It is during this ripening period that the bulb's rejuvenation process takes place, when it regathers its strength to grow, multiply and bloom again next year.

As a result, an area of lawn planted in naturalized bulbs cannot be mowed until late June. And by then it can look very unkempt. If it doesn't bother you,--go ahead.

One more thing.--Unless naturalized bulbs are heavily fertilized and watered during the growing season, they often produce fewer and fewer blooms in succeeding years, sometimes disappearing entirely after five or six years.

**R**egardless of how and where you plant spring bulbs, they all have several important cultural requirements. Number one on the list is good drainage. Bulbs will tolerate a great deal in terms of poor soil and lack of moisture, but will not stand for soggy conditions. Water should never stand on them--not even a puddle of melting snow.

Bulbs need full sun in early spring, but it is perfectly all right for them to finish their maturation process in shade. Areas under deciduous trees, shaded only after the tree has leafed out, are fine for bulb planting.

Light, sandy soil, and a sloping site to insure good drainage are ideal. When digging a new bed, remove all sod (throw it in the compost heap) and dig down eight to ten inches. An addition of several inches of peat

## Key to Flower Chart

- |             |              |
|-------------|--------------|
| 1. crocus   | 7. poppy     |
| 2. snowdrop | 8. narcissus |
| 3. tulip    | 9. hollyhock |
| 4. chion    | 10. hyacinth |
| 5. daffodil | 11. peony    |
| 6. scillia  | 12. phlox    |

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moss or compost is well worth the effort. Don't throw in any fresh manure. It is too strong and will burn or rot the bulbs. If the soil is heavy or filled with clay, add some sand to lighten it.

Bonemeal is the best fertilizer--some scattered and dug into the bed, and a teaspoon's worth under each bulb as it is planted. The advantage of bonemeal is that it does not burn tender bulbs, and is a slow-acting, long-lasting source of fertilizer. The disadvantage is its odor--which is terrible. Dogs love it, and will roll in it or dig at it frantically, uncovering all newly planted bulbs as they go. Don't try to spread it on a windy day, or you'll end up covered with the foul-smelling stuff.

**Bulb-Snatching**

Once the soil is prepared--what to plant? Everyone knows about crocus, narcissus (the real name for daffodils) and tulips, but there are many other bulbs, not so well known, although every bit as attractive. Get a bulb catalogue and study some of the pictures before making final decisions.

Crocchi, are of course, some of the earliest and best loved signs of spring. There are two kinds--hybrids and species. The hybrid crocus is the familiar, large blossomed yellow, white or purple variety found in almost any garden supply store. A word of advice if these are your choice--avoid mixtures. Crocchi are much more effective planted in drifts of single colors.

The species **crocus** [*Crocus chrysanthus*], smaller and not so well known, is well worth considering. It spreads rapidly into large pools, with blends and shades of color beautiful and unusual. Gypsy Girl, for instance, is a golden flower with outer petals of soft brown and a center stigmata of brilliant orange. Blue Peter has outer purple petals, blue inside and a bright yellow center. Blue bird is light blue and cream with a deep orange center. Plant only a dozen and in a year or two you will have a large drift.

**Chilonodoxa** (glory of the snow), **Scillas** (spring squill) and **Muscar** (grape hyacinth) are all small, early spring bulbs which produce blossoms in shades of blue. There are white varieties of each as well, but the blues take first prize--particularly when planted with red tulips and white or yellow narcissus. All three of the small bulbs should be planted about

three inches deep--preferably in full sun. **Chilonodoxa** is the tenderest and shortest-lived of the three, requiring a heavier winter mulch. Grape hyacinth which will last for years, produces a second set of leaves each fall. Make sure these are not cut down. Spring squill are self-sowing. There are two varieties--**Scilla hispanica** (Spanish bluebell) which is fairly tall (10 to 20 inches) and prefers shade. **Scilla sibirica** (blue squill) is the more familiar variety--about six inches tall, preferring full sun. All three of these varieties do well in rock gardens as well as in regular plantings.

I plant tulips along with the rest of the bulbs in early fall--digging on raw, windy November days is no fun. Once my tulips go in the ground they stay there. Each year they produce more, although smaller flowers, until eventually, after three or four years they disappear.

In terms of which tulips to plant--the sky is the limit. They come in hundreds of colors and shapes, most effective when planted in single color groups of at least six.\*

**Y**ou can't go wrong with cheerful narcissus. Call it daffodil, jonquil or trumpet--it is still a narcissus, probably the easiest of the spring bulbs to grow. The taller, large-flowered varieties are great for naturalizing. The small, dainty miniatures are delightful in the rock garden or near a door step.

Narcissi are the most expensive spring bulbs, but they are also the longest lasting--multiplying in size and number of flowers each year. It is well worth a little additional expense to buy top quality, number one size bulbs. They get off to a better start and continue to bloom more profusely through the years than do the less expensive "naturalizing mixtures" offered by many bulb companies and garden stores. These mixes are often the inferior culls and smaller left overs.

Narcissi definitely benefit from early fall plantings--the earlier in September the better--in order for the plant to put out roots before the ground freezes. Of all the bulbs, it is probably most important that narcissi foliage remains untouched until completely dead, or no flowers next year.

There are so many varieties and forms, choosing is difficult. Of the familiar, large trumpet daffodils,

\*See "Tulips," Farmstead, Garden 1981.



# Plant an Old-Fashioned Flower Garden



"King Alfred" is about the biggest and brightest. "Mount Hood" is a good white trumpet which multiplies rapidly. For something daintier, the Tazetta narcissus, which bloom in clusters on a single stem, is nice. "Cheerfulness", an old-fashioned Tazetta, has cream-colored blossoms with a sweet fragrance. More delicate still, are the miniature trumpets, jonquils and cluster flowering narcissus. Although small, most are rapid spreaders. They have names like "April Tears", "Thalia", and "Little Gem".

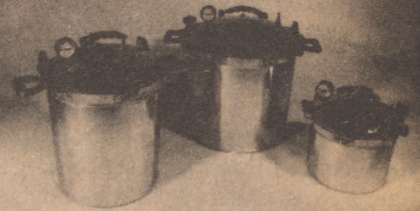
Flatcup narcissus produce larger, hardier blooms which stand up well to spring rain and wind. Instead of the familiar trumpet, the flatcups have a central flaring, sometimes ruffled group of petals, usually in a contrasting color to the larger, outside petals. "Carbineer" is a yellow gold flatcup with a ruffled center of bright orange. "Royal Crown" is white with a frilled center of soft apricot.

Some gardeners dig and divide narcissus every few years. With the exception of a few old-fashioned varieties such as the late-blooming "Pheasant eye" (often found growing wild around old farmsteads) this usually is not necessary. However, if after a few years you notice that the number of flowers is decreasing despite ample fertilizer and care of foliage after bloom, division may be in order.

When bulbs have completed blooming, give them a shot of compost dressing or fertilizer high in phosphate. Do not fertilize in the spring before bloom--this encourages leaf production and fewer flowers.

The oriental poppy, has silky, brilliantly colored blooms much larger and more flamboyant than the smaller annual Iceland poppies. But the oriental variety has a short blooming season--two spectacular weeks, at the most.

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Oriental peonies grow between two and three feet tall, with blooms as large as eight inches across. They prefer good garden loam and full sun. They resent transplanting. Once established, don't move them. After flowering in June, the foliage dies down, disappearing completely by mid-July. New plantings are best established between late August and the end of September. When planting, place the plant's crown (the point at which leaves emerge from the roots) about three-inches below soil line. New plantings should be mulched the first winter to prevent heaving, and seedheads should be snipped off after blooms fade to increase leaf production.

Most of the oriental poppies are so flashy that it only takes a few to brighten a garden. "Carmine" is brilliant red with black spots. "Helen Elizabeth" is a bright, clear pink with no blotches. "Pandora", one of the largest, is a salmon pink with a red center.

Poppies can make good cut flowers if, after cutting, stem ends are immediately seared with a match, and the stems placed in warm water.

**P**eonies (*Paeonia*) are also most often planted in autumn. Be it the old-fashioned "Red Piney" well known in colonial times, or one of the newer delicately tinted hybrids, few garden perennials do so much to please. The peony is very long-lived--a 40 or 50 year old plant is not uncommon. The tall foliage makes an attractive hedge when the plant is not in bloom, and in the fall turns shades of gold, red and purple. The flowers, although massive, retain an air of delicacy, sweetly scented and extremely long lasting.

Modern varieties of Chinese and Japanese peonies offer an exquisite range of colors--some the traditional, large pom pom-like blossoms; others more delicately shaped singles with contrasting centers. As with any perennial, newer varieties tend to be expensive, but older ones are not. *Festiva maxima*, a massive white Peony developed in the 1850's, is still considered one of the best white varieties, and is also one of the least expensive.

The plant has no natural enemies, which makes the peony one of the easiest perennials to grow--once it is in the ground. Soil preparation is a classic case of digging a ten dollar hole for a two dollar plant. Since

peonies last for so many years, however, it is well worth preparing for them carefully. The planting hole should be about two feet deep and two feet wide. Add as much good compost or rich garden loam as possible, but stay away from manure unless it is well-rotted. The "eyes" on top of the peony's tuberous roots should be planted about 1 ½ inches below soil line. The first winter, after the ground has frozen, mulch the planting with hay or evergreens. Although not fussy about soil and fertilizer, peonies do better if given an annual early spring dusting of lime or wood ashes and a top dressing of compost or fertilizer. A second dusting of fertilizer after bloom is also beneficial. Scratch it in lightly, and make sure to keep grass from growing up around the plant.

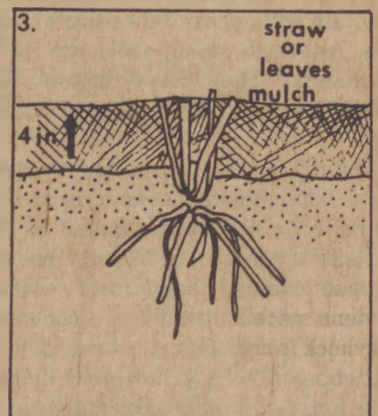
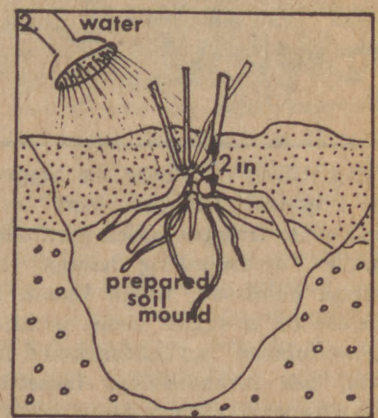
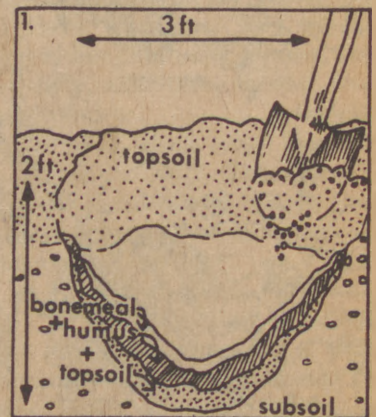
Occasionally a plant, particularly a young one, will be attacked by fungus which causes the stems to wilt. Should this happen, remove the damaged portions of the plant and burn them. Usually, after the plant is established, wilt is no longer a problem.

Peonies have such heavy blossoms that they tend to flop to the ground if not staked. Staking with string and twine is a nuisance. Instead, try cutting a piece of chicken wire about two feet square. Place it over the peony on early spring, just as the shoots are poking through the soil. Encased in this corset of wire, the plant grows compactly, without any tendency to topple. The wire "grows" with the plant and is soon obscured by leaves.

Peonies should be "dead headed" (faded blossoms removed) before seeds begin to set. This directs the plant's energies toward growth rather than seed production. Seeds which are allowed to develop can parent enough new plants to choke out the original peony. Chances are that seedling blossoms will revert to a muddy fuschia color, unlike the satiny shades of those you so carefully planted.

As mentioned above, *Festiva Maxima* is a good white double peony. "Lotus Queen" is a beautiful single white with a golden center. "Largo" is a single pink Japanese, very soft in color, with a white and yellow center. "Kansas" is a bright red double with exceptionally strong stems.

## How to Plant a Peony



Caljmar

## Garden phlox

As the peonies finish up their early summer show, the perennial garden phlox [*Phlox paniculata*] is preparing to appear. Phlox are considerably more demanding in culture than most perennials we have discussed. But most gardeners wouldn't be without their tall, sweet-smelling heads of bloom. Phlox can be planted in the spring, but those set out in the fall benefit from an earlier start, and will produce larger plants with more flowers the first year.

Garden phlox must have rich, humus-filled soil, moist but well-drained, in full sun. Water should never stand on their leaves, because they are especially susceptible to mildew and mold. Not deadly in most cases, these fungal blights are certainly unattractive.

New plants should be obtained from clump division or rooted stem cuttings. As with peonies, seedlings are inferior in color. New plantings of phlox should be placed two feet apart to insure good air circulation. Although the plant sends up many shoots each spring, there are far more than the roots can support effectively. Thin the shoots to four or five stems. The plant will produce more and larger flowers, and won't be nearly so prone to mildew.

Phlox should be dug and divided every three or four years. This also keeps the plants vigorous and flowers large.

The Symons-Jeune strain of garden phlox, originally imported from England, has some of the prettiest color combinations, as well as a very sweet fragrance. "Bright Eyes" is pale pink with a crimson eye. "Marlborough" is a rich violet purple. "Dodo Hanbury Forbes" produces large, pyramidal heads of bright, shocking pink, which some may find excessive--but the name is hard to resist. An American variety, "White Admiral", is an old standby which produces enormous heads of white. "Starfire," another American, is a strong-growing bright red.

**A** final perennial which does well when planted or seeded in fall is the hollyhock [*Althea rosea*]. A well-loved resident of cottage gardens since Elizabethan times, the hollyhock is actually a native of China. Modern varieties come in double or "powder puff" form, although there are many gardeners who still prefer the simple, old-fashioned single form.

All produce flowers in clear shades of yellow, scarlet, white, pink, maroon and violet. Growing five to eight feet tall, hollyhocks make ideal screens and look charming against walls and fences. Once established, their large leaves shade out weeds and retain moisture. Not noted for long life--they usually disappear after two or three years--hollyhocks are easily started from seed, often reseeding themselves.

It is difficult to transplant established hollyhocks, because of their very long taproots. If sown in peat pots or jiffy cubes, however, they can be transplanted, root ball intact, with relatively little harm. Seedlings sown in late July are ready for transplanting by mid-September. Another method of growing hollyhocks is to scatter seed in October and November where you want the plant to grow. They will germinate the following spring, producing large, husky plants. Although these will probably not bloom the first summer, they will put on a magnificent show the following year.

Hollyhocks grow best in full sun and well-drained soil. If sheltered by a wall or fence from wind, they rarely need staking.

Once your new perennial bed is complete keep it well watered through the fall. When the ground has frozen, mulch lightly with leaves, evergreens or straw. Avoid using hay as a mulch if at all possible, or your weeding time will be quadrupled come spring. Mulching is particularly important the first winter, when young plants are not yet completely established.

After that there is nothing to it. Sometime around mid-March slowly begin removing mulch around the earliest spring bulbs--gradually moving on to the later bulbs and then perennials. Don't be fooled some warm day in late March into whipping off the entire winter cover--spring snow storms are sneaky, and death to young perennials.

In early to mid April throw on a dressing of compost, rotted manure or fertilizer, scratching it in lightly. Then, with the exception of a little weeding from time to time, the work is done--you have an entire season of spring and summer flowers to enjoy. □

Peggy Hopkins gardens in Northwood, New Hampshire. Garden plan and peony art by Caren Caljouw.

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(Ray and Candy Manocchio)



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# No-Sugar Jelly

by J.A. Pollard

**D**o you make jelly? Or buy jelly? Do you realize that to every cup of fruit you dump in something like one cup of sugar, and the recommendation is usually for white sugar?

Sugar is poison, someone said. At the rate Americans eat it, it couldn't help but be: something like 100 pounds per person per year. In 1820 it was about 8 pounds a year. And of course everybody knows that old story about Denmark and Norway during the Second World War: the diet changed from high sugar, white "refined" flour to low sugar and whole wheat flour. Didn't the population suffer? Sure: it ate better and had fewer health problems.

But how can you make jelly without using sugar and lots of it? After all it's the preservative and thickener agent.

There are two items on the market called Low Methoxyl Pectin and Dicalcium Phosphate. They're expensive, but last a long time.

Low Methoxyl Pectin is made from the inner peels of citrus fruits rather than from animal products as are ordinary commercial pectins. And, as we all know, animals in this country are stuffed so full of growth hormones and antibiotics it sort of turns your tummy when you think about it. Low Methoxyl Pectin gels with small amounts of Calcium.

This is what you do:

Get out your ever-handy little blender. Into four cups of water put four tablespoons of the Pectin. Blend. Store in a glass jar, well-capped, in your refrigerator. This will gel a little but still be perfectly o.k. to use.

Next, into your just-rinsed blender, place two cups of water and one teaspoon of Calcium. (Or make a quart if you like). This too should be blended and stored in the fridge in a nice jar. The Calcium will settle out a bit as it stores so it may need more blending before you use it.

After that the going is simple. Clean and prepare your fruit in the usual manner--which means you wash it and cut out bruised spots and throw out any sickly looking specimens. Then you sterilize your canning jars and lids (as any canning book will tell you). Heat the fruit or juice in a saucepan (using porcelainized pans for anything acidic) and add honey to taste. This means that instead of using something like half fruit and half sugar, you get nearly total fruit.



When the fruit/honey mixture reaches a gentle boil (and again you need no lengthy ester-destroying stewing here) stir in one part of the Pectin solution to every four parts of fruit. Then you bring the mixture back to bubbling and mix in one teaspoonful of the Calcium liquid per cup of fruit.

Your jam or jelly is done. Just set it in your jars. Forget the paraffin. Process for 10 minutes in a boiling-water bath.

Voila! Goodies that are low in sugar, high in nutrients, and take about half the time to make. And if the batch doesn't gel quite hard enough, simply reheat and firm it up with a bit more Calcium mix.

## Where to Obtain Low Methoxyl Pectin:

Walnut Acres  
Dept. FMAG  
Penns Creek, Pennsylvania 17862

Whitney McDermut Co.  
474 Main Street, Dept. FMAG  
Fort Lee, New Jersey 07024

### ORANGE MARMALADE

If you've got one of those dwarf orange trees that actually produce fruit in mid-winter (or whenever) pick yourself a batch and make some marmalade. Using the low-sugar process. Like this:

Slice up very fine 5 cups oranges and ½ large lemon. (After washing of course.)

Place in a saucepan and add 1 ½ cup honey and 1 cup orange juice. (I find the tiny oranges are not very juicy.) Bring your ingredients to a simmer until the orange sections are limp.

Then add 1 ½ cup of your new pectin (as previously described).

Bring again to bubbling and add 6 teaspoons calcium (also as described).

This will fill about 10 jelly-jars. It's tart. And nice. □

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Jean Ann Pollard and her family recently moved from California to Waterville, Maine. Illustration by Larry Decker.

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# IF YOU NEED \$5,000...20,000 EVEN UP TO 500,000 TO START A NEW BUSINESS OR TO EXPAND AN EXISTING FIRM—THEN READ WHY YOU TOO WILL CALL THIS INCREDIBLE MONEY RAISING MANUAL

## “THE SMALL BUSINESS BORROWER’S BIBLE”

Practically prepares the loan application for you line-by-line...the “proper” way.  
All properly prepared applications are processed faster...no red tape!  
Guaranteed Loans...Direct Loans...and Immediate Loans are available now!

Most men and women seriously interested in starting their own business are eligible to apply — including those who already own a business and need capital fast for expansion...or to stay afloat...even if they've been flatly refused by banks and turned down elsewhere! Yet, too, many never qualify, simply because they do not know how to “properly” prepare the loan application...

In order to help those people applying for these guaranteed and direct loans fill out their loan applications the “right way,” ICC Business Research, through its diligent compilation and research efforts, has successfully assembled and published a comprehensive, easy-to-follow seminar manual: The Money Raiser's Guaranteed and Direct Loans Manual, that will quickly show you practically everything you'll need to know to prepare a loan application to get federally Guaranteed and Direct Loans.

Here are just some of the many important benefits the Money Raiser's Guaranteed and Direct Loans Manual provides you with:

- a completely filled in sample set of actual SBA loan application forms, all properly filled in for you to easily follow—aims your own quickly preparing your own loan application the right way. Each line on the sample application forms is explained and illustrated in easy-to-understand language.

- fast application preparation procedures for getting loans for both new start up business ventures and established firms.
- advises you on how to properly answer key questions necessary for loan approval and in order to help avoid having your application turned down—gives you advice on what you should not do under any circumstances.
- what simple steps you take to guarantee eligibility—no matter if you do not presently qualify.
- where you can file your application for fastest processing.

At this point the most important question you want answered is: Just where is all this loan money coming from? Incredible as it may sound—these Guaranteed Loans, Direct Loans and Immediate Loans are indeed available right now — from the best, and yet, the most overlooked and frequently the most ignored and sometimes outright ridiculed “made-fun-of” source of ready money fast capital in America — THE UNITED STATES GOVERNMENT.

Of course, there are those who upon hearing the words “UNITED STATES GOVERNMENT” will instantly freeze up and frown and say:

“...only minorities can get small business loan money from the government!”

Yet, on the other hand (and most puzzling) others will rant on and on and on that:

“...don't even try, it's just impossible — all those Business Loans Programs are strictly for the Chryslers, the Lockheeds, the big corporations, not for the little guy or small companies, etc.”

Still there are those who declare:

“...I need money right now, and small business government loans take too darn long. It's impossible to qualify. No one ever gets one of those loans.”

Or you may hear these comments:

“My accountant's junior assistant says he thinks it might be a waste of my time!” “Heck, there's too much worrisome paperwork and red tape to wade through.”

Frankly — such rantings and ravings are just a lot of “bull” without any real basis — and only serve to clearly show that lack of knowledge, misinformation and not quite fully understanding the UNITED STATES GOVERNMENT'S Small Business Administration's (SBA) Programs have unfortunately caused a lot of people to ignore what is without a doubt — not only the most important and generous source of financing for new business start ups and existing business expansions in this country — but of the entire world!

Now that you've heard the “bull” about the United States Government's SBA Loan Program — take a few more moments and read the following facts:

- Only 9.6% of approved loans were actually made to minorities last year.
- What SBA recognizes as a “small business” actually applies to 97% of all the companies in the nation.
- Red tape comes about only when the loan application is sent back due to applicant not providing the requested information...or providing the wrong information.
- The SBA is required by Congress to provide a minimum dollar amount in business loans each fiscal year in order to lawfully comply with strict quotas. (Almost 5 billion this year)

Yet, despite the millions who miss out — there are still literally thousands of ambitious men and women nationwide who are properly applying — being approved — and obtaining sufficient funds to either start a new business, a franchise, or buy out or expand an existing one. Mostly, they are all just typical Americans with no fancy titles, who used essentially the same effective know-how to fill out their applications that you'll find in the Money Raiser's Guaranteed and Direct Loans Manual.

So don't you dare be shy about applying for and accepting these guaranteed and direct government loans. Curiously enough the government is actually very much

### GUARANTEE #1

Simply — look over this most effective money raising loan preparation assistance manual for 15 days — and, then, if you are not convinced that it can actually help you obtain the Business Loan you need right away — just return it for a full and prompt refund.

interested in helping you start a business that will make a lot of money. It's to their advantage — the more money you make the more they stand to collect in taxes. In fiscal 1981, our nation's good old generous “uncle” will either lend directly or guarantee billions of dollars in loan requests, along with technical assistance and even sales procurement assistance. Remember, if you don't apply for these available SBA funds somebody else certainly will.

Don't lose out — now is the best time to place your order for this comprehensive manual. It is not sold in stores. Available only by mail through this ad, directly from ICC Business Research, the exclusive publisher, at just a small fraction of what it would cost for the services of a private loan advisor or to attend a seminar. For example:

Initially, this amazing Guaranteed and Direct Loans Manual was specially designed to be the basis of a Small Business Loan Seminar — where each registrant would pay an admission fee of \$450. But our company felt that since the manual's quality instructions were so exceptionally crystal-clear that anyone who could read, could successfully use its techniques without having to attend a seminar or pay for costly private loan advisory assistance services.

Therefore, for those purchasing the manual by mail, no 3 day class, no course and accommodations are required. And rather than \$450 we could slash the price all the way down to just a mere \$35 — a small portion of a typical seminar attendance fee — providing you promptly fill in and mail coupon below with fee while this special “seminar-in-print” manual offer is still available by mail at this relatively low price!

Remember, this most unique manual quickly provides you with actual sample copies of SBA Loan application and all other required forms—already properly filled in for you to easily use as reliably accurate step-by-step guides—thus offering you complete assurance that your application will be properly prepared and thereby immediately putting you on the right road to obtaining fast, no red-tape loan approval!

### GUARANTEE #2

Even after 15 days — here's how you are still strongly protected — if you decide to keep the manual — and you apply for an SBA Loan anytime within 1 year, your loan must be approved and you must actually receive the funds or your money will be refunded in full.

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## THE EASY NO-NONSENSE WAY TO RAISE CAPITAL FAST!

# Cricket



project to the rear like two pointed tail feathers--are about a third the length of the body. These twin spines, present on both male and female, are, to a certain extent, "auxiliary hearing organs" for the cricket; they have tiny hairs that catch delicate vibrations on the ground and in the air. The main hearing organs are represented by small elongated openings just below the knee of the insect's front legs.

Although they have wings, crickets seldom fly. They prefer great bounding leaps, projected by their powerful hind legs. They can shoot out of tall grass like sparks. They can also scamper quickly on the ground. Their legs are equipped with small spiny projections--like the spiked shoes of a sprinter to aid them in jumping and in scrambling around on plants.

Crickets belong to the order Orthoptera. Other members of this numerous order include praying mantises, katydids, and cockroaches. At all stages of their life, crickets are omnivorous eaters, devouring both dead insects and plant tissue. They are related to the destructive migratory locusts of legend and fact. But unlike the locusts in the Book of Exodus that left "not any green thing...through all the land of Egypt," or the locusts that between 1874 and 1876 destroyed at least \$200,000,000 worth of farm crops in the Great Plains and the Mississippi

by Georgia K. Hammack

At the end of the garden season, the sight of black field crickets sunning themselves on the straw mulch around our squash vines is one of this season's delights. Against all reason that says insects don't have feelings, I feel that they look cheerful and contented.

Crickets seem to be a universal favorite. "This insect," the Audubon Encyclopedia notes, "is accepted by man with a degree of amused tolerance and enjoyment, especially by people who like to hear the cricket's cheerful chirping...."

Keats, Leigh Hunt, and Emily Dickinson are among the poets who wrote about crickets; and these spritely

insects have been the subject of fables by Aesop, La Fontaine, and Florian.

Alone of the insects, crickets build homes for their own enjoyment. Other insects build homes, but only for embryo insects, or for traps. The cricket's home is a six-inch or so burrow in the soil, usually under grass. There, the cricket has a peaceful retreat, the first condition of comfort.

The short happy life of the cricket begins in May or June when the sun warms the ground where the eggs are buried. The eggs had been deposited prior to autumn's frost by means of the long, needle-like ovipositor projecting from the rear of the female's body. (The ovipositor makes it easy to tell a female cricket from a

male.) The female may deposit as many as 300 creamy-white, banana-shaped eggs, each about one twelfth of an inch in length, left in the soil in bunches or singly.

When hatched, according to naturalist Edwin Way Teale, crickets have neither wings nor ovipositors. In growing, they make up to a dozen molts over a period of nine to fourteen weeks, splitting the 'chitin' shell of their skeletons and crawling out in new attire.

The final winged adult cricket is between three-fifths of an inch and one inch in length. Its antennae are half again as long, and at the other end, the spiked cerci--which



Valley--field crickets do not create extensive damage. They are important ecologically because they are food for birds.

**W**hile both male and female crickets have wings, only the wings of the male are equipped with the famous file-and-scraper feature that enables him to "fiddle" or "sing." Each wing has a heavy vein at the front which has a rough undersurface like a file and a hardened vein or ridge on the top of the wing. By moving his wings, like a bow across the strings, he makes music--and also attracts his mate. Teale notes that female crickets have been seen heading for a chirping cricket from a distance of 30 feet away. In a laboratory experiment, crickets deprived of their wings attracted no mates.



Although I found no information about how long crickets live "in captivity," catching crickets and keeping them in cages has been a pastime since ages ago. Gilbert White speaks of "paper cages." Long before that, the Roman naturalist Pliny the Elder (c. A.D. 23-79) described how boys caught crickets by dropping a string with a fly attached into the cricket's burrow and pulling out the cricket when he grabbed it. Both White and Fabre mention a simpler method for catching a cricket--just insert a "tickling" blade of grass or a straw into the burrow to bring him out. Fabre writes: "Those were the adorable times when we were children and hunted crickets along grassy paths, and put them in cages, and fed them on lettuce."

Carson I. A. Ritchie in his book "Insects the Creeping Conquerors" gives some fascinating information about crickets in captivity. The ancient Greeks kept crickets (and other musical insects) in cages made of reeds. In Spain, crickets (and other singing insects) are kept in cages to sing during Mass. Pairs of insects are also hung from the ceiling in homes, in light, two-storied cages. In early American pioneer days, many immigrant German boys kept crickets as pets, a carry over from Germany where most boys had several boxes for keeping insects.

In the Far East, the keeping of singing insects in cages reached the dimensions of a cult or art. In ancient times, there were even cages made to be worn in the sleeve of a garment, so the owner could have constant musical companionship. No home was too poor or too rich to have some sort of cage for a singing insect.

Cricket cages in the East have varied from crude wood boxes to embossed gourds with elaborately decorated stoppers of jade or tortoise shell, to pieced boxes of wood or ivory in varied shapes, or cages of gold or silver wire or split bamboo, to porcelain cages with open-work sides.

Much simpler cages may be easily devised by contemporaries who wish to keep crickets as pets. "Any well ventilated enclosure with some moist earth will do for a cricket cage," says the Audubon Encyclopedia. Teale recommends a glass fruit jar, or an old fashioned lamp chimney pushed an inch or so down into sand in a flower pot and covered with netting. "A watch crystal or other shallow container will provide a watering trough while a few

grains of oatmeal, some fragments of lettuce or melon, a chicken bone or bit of meat will supply all the food required."

Many naturalists have written of how crickets in the natural state will sometimes fight, often ferociously, over a female. In captivity, the addition of meat to the diet is necessary to keep pet crickets from resorting to cannibalism.



In China, cricket fighting has been a favorite spectator sport, on a par with bull fighting in Spain, sometimes with great sums staked. In ancient days, good fighting crickets were believed by the Chinese to be reincarnations of human heroes, and were called generals or marshals. In tournaments held in the 1920's the victorious cricket had his name inscribed on a gourd-shaped ivory tablet, and when he died was buried in a small silver coffin.

Perhaps crickets in captivity can be observed washing themselves. Teale notes that a cricket sitting outside its burrow will often clean itself with the greatest care, putting his foot in his mouth and biting off particles of dirt, running his antennae through his jaws to wash them, and twisting and contorting himself in "often curious and ludicrous poses."

Much serious, scientific study has been devoted to the cricket's "song." Dr. Frank E. Lutz, author of *A Lot of Insects*, says that in its fundamental notes, the chirps of the cricket are in the octave just beyond piano range. Some observers have noted that just as playing a record may

start a canary singing, a cricket will also sometimes begin singing in response to man-made music.

Teale tells of one case when pet crickets in cages in a city apartment began fiddling when the bells of a nearby cathedral began to peal. Ritchie says that crickets and other singing insects will approach the source of the sound, if a bell is rung or the strings of a musical instrument plucked.

More readily observable is the fact that cricket singing is louder, and quicker in tempo, when the weather is warm. The black field cricket is not so attuned to the temperature, however, as his relative, the snowy tree or "thermometer" cricket. (The formula: Count the number of chirps the thermometer cricket makes in 15 seconds, and add 40, for a close approximation of the Fahrenheit temperature.)

There are many kinds of crickets, such as the mole cricket and the cave cricket. But it's the shrill and sweet melodies of the common black field cricket which rise to poignant crescendo in those last days of warm weather in the fields of harvest. □

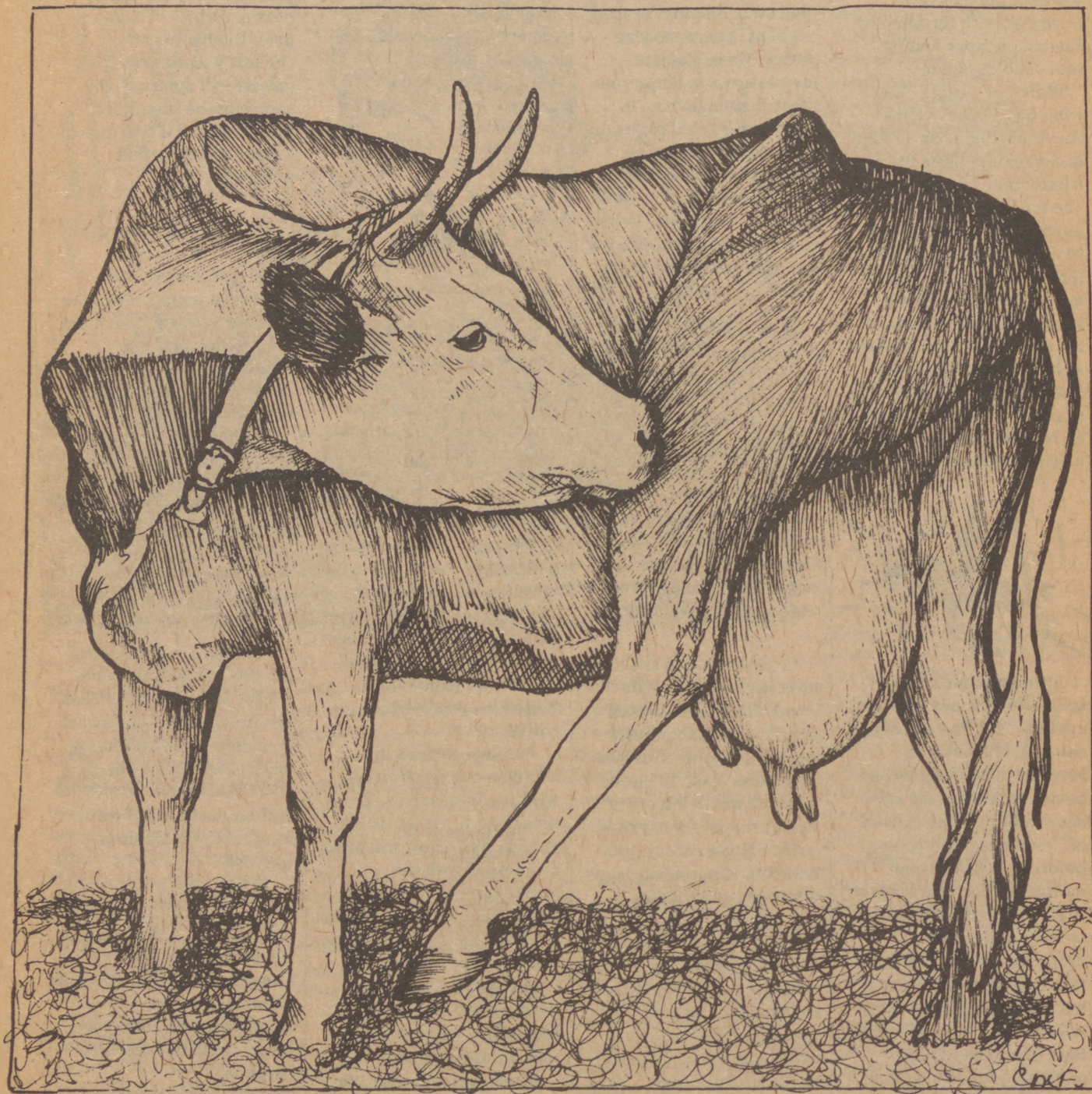
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Illustrations by Siri Chandler Beckman. Georgia Hammack enjoys researching and observing insects in Lawrenceville, Virginia.

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# Half a Cow Can Be Better Than One!



*If two families share a cow  
they'll cut costs and spend less time on  
the milking stool. Here's how...*



No doubt about it--the economics of owning a family cow make good sense. The question is, "Am I ready to be tied to the milking stool better than ten months of the year, first thing in the morning and again just before supper in the evening, every day?"

When that summer vacation comes along, or your out-of-state Aunt Abigail gets deathly ill or an unexpected business trip arises, it's okay if you have a friendly neighbor who happens to know how to milk and who also happens to be free at six in the morning and six at night every day. We couldn't find any such paragon of perfection among our neighbors. So we decided to get half the cow for half the work and half the expense.

Our decision to take on a cow partner was not born in an instant. We had previously owned a whole cow, along with the whole responsibility of daily milking, barn cleaning and using up all that milk.

Yes, finding ways to consume an average of three to four gallons of milk a day can be a chore. If you drink two full gallons daily (that's eight quarts of the white stuff), in three days, you may still find six gallons accumulated in your refrigerator...if you can find a place to fit it. For the family of eight this may not present a problem. But we are four. "Make butter," you say. And delicious it is too! But then you've still got not only the skim milk but also the buttermilk piling up in your refrigerator. Cheese! This can be a very enjoyable and rewarding experience, but not one that most of us have time for on a daily basis.

The final factor in our resolution to take on a partner was the high purchase price of the cow. We couldn't find a healthy animal with a complete udder and four milking teats for less than \$500. This is a substantial initial outlay for one family, especially when you consider that other expenses for equipment, fencing, etc. may be involved. True, we could have taken a chance on one for \$350 at the livestock auction. But previous experience at these sales has taught us that we'd probably be buying several hundred dollars worth of vet bills for our bargain.

With all of these facts in mind and a strong desire to have our own bovine beauty, complete with dairy products, we decided to find a cow partner. Since there isn't such a heading in the classifieds, we started by trying to think of families who might be interested in having a cow but didn't own enough property or for other reasons couldn't own one alone. At this point it seemed prudent to establish some qualities that the ideal "dairy associate" should possess.

First, of course, is compatibility. If this is to be a pleasant experience, your personalities must mesh well. So if you have a friend that would meet the other qualifications, you're in business. If you're considering an acquaintance (as we were) take time to learn about his or her personality.

A second and equally important characteristic to seek out is kindness toward animals and, along with this, some animal husbandry experience. While our partner had no actual dairy experience, she was fond of cats and dogs and the whole family had owned a pony.

Although you're not looking for a sugar daddy, it would be a good idea to get someone with financial capabilities equal to your own. In addition to the initial costs, later purchases of hay and grain plus vet bills will have to be shared on an equal basis.

In our situation, we had three acres of fenced pasture on the farm, but our partner owned the van which we all used for transporting hay and grain. We shared cost equally on the feed we bought.

A real zest for farm life (including willingness to muck out stalls and string wire fences), patience (especially if just learning to milk), good sportsmanship, and some sense of humor must all be included in a list of basic requirements. Honesty is a must. Last but not least, especially in these days of high fuel prices, your "dairy associate" should live within easy commuting distance of the barn.

A cooperative venture could involve sharing pasture or even leasing land, but it's best to keep things as simple as possible. You may want to consider having legal papers drawn up to formally protect the interests of both parties. But no matter what the ramifications, the key words in any joint effort are flexibility, fairness, and compromise.

Once you've found your partner, you can start the real fun part of the relationship--looking for the milk producer of your dreams. The first thing we did was to get both families together for a confab to determine what we hoped our future "dairy mart" would be like. We decided that we'd like to stay as close to \$500 as possible for the purchase price, that we wanted a proven milker, preferably with calf and if possible, not over eight years old. We also determined other cost areas, including necessary equipment to be purchased and sources of grain and hay as well as work that would have to be done before the cow arrived.

We eventually decided to look for a Jersey as first choice with a Jersey-Guernsey combination for second pick. We felt that the popular Holstein would produce more milk than we really needed for both families (while consuming more feed and we were looking forward to making a lot of butter. The creamier Jersey milk would be ideal.

No matter what the breed, if you decide to buy a purebred animal, be sure that you get the registration papers at the time of the sale. You should then fill in the names involved in your joint venture and mail the form into the breed association. It's also good practice to compare the eartag number on the animal with the digits indicated on the registration form.

To register a jersey, send registration and a small check to: American Jersey Cattle Club, P.O. Box 27310, South Hamilton Road, Columbus, Ohio 43227. The Jersey Journal breed magazine is available from this same address.

It's a good idea to take care of the registration transfer as soon as possible after you make the purchase. Since we kept original copies of papers at our place, we also took care of the paperwork, but our partners had copies and contributed half of the fees. Especially in a joint venture, it's important to see that these details are attended to. But in any case, the fee goes up if you wait more than three months after the date of sale. The same applies when registering a calf.

Once you've made the decisions regarding the breed, price, financial details and work assignments, you can get on with the search for your bovine beauty. To streamline the process, we assigned each other different newspapers to check and farmers to call. Two were able to cover more ground than one in the same amount of time. The most promising of the ensuing leads, the two moms then checked out together, sometimes with the kids.

Marge - the mom from the other half of the team - happened to call on an ad for a jersey that was \$550. After talking with the owner herself, she thought it sounded very promising. So

she rounded up the whole crew and we all climbed aboard the van to view the bovine bombshell. Even the male partners went along this time. It was love at first sight as far as my husband was concerned. After a brief tete-a-tete, we decided to offer \$500. Nothing ventured, nothing gained! To our delight, the owner accepted.

In our earlier discussions about buying a dream cow, we had all decided we'd like to try to milk her before we exchanged any cash. Accordingly, my husband Marty milked her until he was satisfied and Marge (for the first time) until her fingers ached. Since it was already agreed that these two would be the

main occupants of the milk stool, their o.k. was the only requisite.

A final word on your purchase - if the owner won't talk price, perhaps he'll negotiate in other ways. He may have a milking pail, strainer or other equipment that he'd be willing to include in the sales price. If he has a truck perhaps he'd be willing to haul her to your place as part of the deal.

#### When You Get Her Home, Then What Partner?

**T**hrough a joint effort (which was a lot less work than if our family had to do it alone), all was in readiness for her highness, the milking queen. We had one pasture



about two and a half acres, another acre pasture and a small paddock - for winter turnout. It had been decided by mutual agreement that our family would be responsible for the maintenance of the main pasture and our partners for the paddock and small pasture. We had all checked and repaired the fences, replacing posts and tightening wire where necessary before our royal cow came to inspect them.

We had also sectioned off part of the existing barn for a stanchion, calving stall and feed storage. Our agreement was that we would split costs for anything that had to be purchased for barn improvements. This made a capital improvement to our barn and yet was much less costly for our partners than if they had to build their own barn. It had the added benefit of encouraging both families to scrounge up building supplies from friends and acquaintances for little or nothing.

Thanks to all of this advance preparation, when Inez, the queen of the milk parlor ambled off the trailer, we were ready for her. What's more, both families had already experienced working together as a team. Duties, costs, and responsibilities were all established and everyone was chafing bits to get started in the new venture.

#### Chore Time or Sharing the Responsibility

Joint ownership proved to be a real boon for every member of both tribes. Although we didn't plan it that way, the family we chose as fellow dairymen had children comparable in age to our own. This worked out especially well for the boys, both in their early teens. Neither of them had taken an interest in farming separately but when working together, the two became enthusiastic. They joined 4-H, learned the responsibility and pleasure of owning a cow and looked forward to friendly competition in the milking contests at county fairs. Our three year old daughter and our counterpart's four year old became best friends and assumed the responsibility of feeding the barn cats and helping to keep the barn clean.

The milking schedule had been set up in advance, but was flexible. Because Marty often got home from work late, he preferred the morning

shift. This worked out well for Marge because she was busy in the morning making breakfast, getting kids off to school, etc. and her family liked a late dinner. So milking could be accomplished around six a.m. and five-thirty p.m..

This routine was switched on weekends, so Marty could sleep late and Marge wouldn't have to rush home early from shopping on Saturday, visiting with friends on Sunday afternoon. This also spread the amount of milk out more evenly, though if you should find that one is getting substantially more milk than the other, a mornings every-other-day routine might work best.

The great thing about having a milking partner is that if you need to go away for the whole weekend, or even a week, you can. And your replacement is already familiar with the animal and routine while the cow isn't disturbed by having a stranger or different method. Just arrange to milk equal time for your partner when you get back (or at another agreed-upon occasion). We also had a rule that whoever did the milking kept the product. So their vacation time was our cheese-making period.

Another habit that went right along with milking was recording the cow's production. We had a calendar - one with large empty squares around each date - posted in the milking parlor. On this we recorded the amount of milk given each morning and evening as well as feed purchases, other expenditures, any unusual observations and heat cycles. At the end of each month these figures were added up and transferred to a ledger so we always knew just where we stood in terms of production versus cost. This is a good idea even if you're the sole owner, but it's a must when a partnership is involved.

The chore schedule had to be changed when it was time to dry our cow off. About eight weeks before she was due to calve, we cut back on her grain and milked her just once a day for a few days before eliminating the milking altogether. This meant that for a short while each partner milked every other day. During the dry period, one family had the full responsibility every other day. So we each had three to four days a week completely free.

#### Calving Time and Sharing the Bounty

Just when everyone feels things are going smoothly and the system seems to be working beautifully, it will probably be calving time. This is especially exciting for the kids, but I caught the adult members of the crew hanging around the barn more and more as Inez' time drew near.

We had recorded the date the artificial insemination man came, plus 283 days (lactation period) on our calendar and starred it in red. So the barn was about as populated as a bee hive that day. We had put Inez in her thickly bedded box stall the day before in anticipation of the great event. However, our expectant mother decided to wait a few days before she displayed her beautiful heifer. The barn had the aura of Christmas morning as the kids eyed the calf, first in awed silence, then with bubbling enthusiasm as they realized she wouldn't fall apart if they talked.

Anxious as we all were to resume milking after a few days, it sure was difficult to decide who would be mean enough to separate Alfalfa (already named by the boys) from her mother. Since Marge's husband, Ray was the member of the team around the barn least, it proved easiest for him to be the bad guy. He made sure that the newborn had gotten plenty of the health-giving colostrum before putting her in a separate stall.

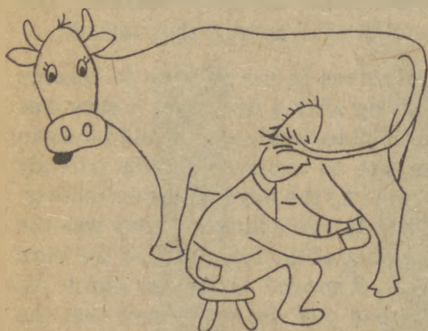
But there was plenty of milk! Inez' production record climbed rapidly until it peaked at almost five gallons a day. This meant that both mothers were knee deep in cheese, yogurt and ice cream, quickly passing recipes on "how to use more faster" back and forth. Having a partner definitely came in handy for sharing the overflow.

During the three Spring months of her highest production, Inez averaged about four and three quarter gallons of milk per day. In return for this we were feeding her about ten pounds of grain daily. Also, in April we gave her fifteen bales of hay, in May, ten, but by June she was completely on pasture. So the hay cost was dwindling even as she was returning the highest amounts of milk.

When I figured out our financial status at the end of the first year, the partnership was definitely in the

black. Our total expenses were just \$508.55 and our bounteous bovine had produced over a thousand gallons of milk. Figured at a modest \$1.80 a gallon, this would have cost us \$1,836.00. The \$1,327.45 between expenses and receipts is one no self respecting business man could fail to brag about. Or, viewed from another direction, we could deduct the cow's initial cost of \$500 and still come out being paid about \$900 for our labor.

For purposes of convenience, the dairy product considered in this summary is just the milk. If actual costs for the butter, cheese, ice cream, etc. had been calculated, the resulting receipt figure would have been considerably higher. However, it's difficult to give an exact breakdown of what proportions of each gallon were used for butter, cheese or whatever. Also the dollars and cents value of the yearly production of the calf has not been added here.



On the other hand we paid much less for grain than the usual over-the-counter price. By purchasing through a friend who received hers in 5,000 pound deliveries, we were able to save money. Also, we picked up the hay directly off the field for the lowest possible price. So these expenses can vary. Suffice it to say that the partners were beaming at their financial picture.

As with any project, improvements can be made the second time around. At the advent of the partnership's second year, we decided that finances could be bolstered even further by making better use of Inez' milk during her months of highest production.

So, likening ourselves to thrifty homesteaders of the past, we added a pig to the assets of the partnership. By careful timing we were able to start the porker on the excess cow's milk about a month before the calf was weaned. That way, when the heifer was getting the most milk, the piglet was just starting her consumption. And when the hog's appetite was most demanding, the calf had already been weaned.

Each of the partners ended up with one hundred and five pounds of meat at the lowly cost of 77 cents a pound. This price could have been reduced substantially if we hadn't paid someone else to do the butchering, packag-

ing, etc.. But we considered ourselves way ahead even with these costs. Since the delicious pork was lean and nitrite-free, we were sure we were healthier too.

The economic picture was further bolstered the second year by the sale of the heifer calf. Her total expenses over a five month period were \$82.08 and she was sold for \$250. So the partnership profited by \$167.92. A farmer friend had advised us that we could make the most profit by raising the heifer until she was bred. But, for our own convenience, we decided to sell her at the earlier age.

Good companionship while working together really makes the project worthwhile. When you add the laughter we shared such as chasing the pig, catching the cow, along with all the poignant moments--seeing the cow with her calf the first time, riding home in the truck with the tiny piglet, and the profitable times--the partnership is well worth it. □

Jacqueline Manning is the author of "Cash In On Capons," Farmstead, Early Summer 1980. She lives with her family on a small farm in Cheshire, Connecticut.

Girl milking cow illustration by Catherine Frey. Cartoons by author.

## What Does it Cost?

### The Cow Partnership--Annual Financial Summary\*

### Partnership Pig Production Figures

Expenses		
2,900 lbs. grain	\$9.25** per 100 lbs.	\$278.25
132 bales hay	\$1.25** per bale	\$165.00
Milk pail and strainer (used)		\$ 15.00
Mineral blocks		\$ 8.20
Veterinary Fee (cut teat)		\$ 22.00
Sawdust bedding (from mill) 50 cents per bag (Scrap hay used at calving time)		\$ 15.00
Milk Filters	\$2.55 per box	\$ 5.10
<b>Total Costs</b>		<b>\$508.55</b>

Piglet Purchase Price (8 wks. old)	\$40.00
Grain	\$63.70
Bedding	\$12.00
Butchering	\$15.00
Cutting & Packaging for freezer	\$31.50
<b>Total Costs</b>	<b>\$162.20</b>
<b>Meat Produced</b>	<b>210 lbs.</b>
<b>Price per pound</b>	<b>77 cents</b>

\*1980 prices.

\*\*Grain priced by the ton and hay picked up off the field. (Grain is now approximately \$11.95 per 100 pounds.)

Returns	
1,020 gals. milk at \$1.80 per gal.	\$1,836.00
(If annual production of calf was priced here, returns would be even greater: Calf would sell for \$50 more this year.)	

### Expense Summary - 5 Month Old Calf

Costs	
Grain (650 lbs.)	\$58.83
Veterinarian (dehorning and tatoo)	\$8.00
Registration	\$6.50
Halter	\$7.95
Mineral Block	\$ .70
<b>Selling Price</b>	<b>\$250.00</b>
<b>Profit</b>	<b>\$167.92</b>

# Profit From The Energy Crunch By Turning Free Timber Into A Lucrative Firewood Business

If you think Exxon and Mobil are the only ones making a bundle from the energy crunch, guess again! You too can cash in on the energy market by selling plain old firewood which you can get for next to nothing.

Just one cord of firewood—that's a stack of split logs 4'x4'x8' or 128 cubic feet—retails from \$80 to \$285 depending on locale. And in large metropolitan centers cagey businessmen are getting as much as \$600 a cord selling it piece by piece.

Heating with wood is an old American tradition whose time has returned. And smart entrepreneurs from Maine to Georgia to California are realizing fantastic profits from low investments selling firewood—and the stoves to burn it in. And it's the kind of business where you don't have to go to work dressed in a three-piece suit and a smile every day.

In fact you don't even have to work an eight-hour day. We found several successful businesses running on a part-time basis as well as full-time.

We found one Connecticut man turning timber into firewood on a part-time basis selling 80 cords a year at \$90 a cord, unstacked. If you stack the wood for your buyers add another \$10 to \$50. It takes him about 1 to 1½ hours to make a cord, and he can do three per day. A neighbor of his working on a full-time basis sold about 400 cords for a yearly gross of over \$36,000.

On the high end of the scale we discovered an Alabama producer servicing the Atlanta and Birmingham metropolitan areas who sold 2,000 cords, and grossed \$67,000 selling his wood in small lots to only 10 to 15 retail distributors. He grossed another \$141,000 in his small retail store selling firewood, stoves and accessories.

The most profitable way, according to one of the operators we spoke with, is to sell the wood in small bundles, and in metropolitan areas such as New York, Atlanta and Los Angeles; this is the practical way to buy in densely populated cities where living space is limited. And the profit margin is incredible! Example: one burlap bag of 16-inch-long wood contains 14 to 18 split seasoned logs, and sells for \$10 per bag. Such a bag is about 1/60th of a cord. This means he ends up selling a cord in this manner for \$600 not \$285. And he got the wood free or from \$5.15 per cord!

Since bad weather such as rain or snow will not affect your product adversely, no special area is needed for storage.

One of the great features of this type of business is that you don't need an office or store. In fact, you don't even need any special spot or equipment other than a phone (which you probably already have), pad and pencil for taking orders.

Because the market for firewood is so vast, spread over every socioeconomic

group, and bursting with profit potential in mild urban areas as well as colder rural settings, our researchers investigated the possibilities in this new business. Their findings are amazing, and are available in a new start-up and operation manual. It shows all you need to know to get into this lucrative business either part- or full-time with as little as a \$500 investment. In addition, you'll discover:

- How smart operators in warm-climate areas are making just as much, if not even higher profits, than those in colder rural parts of the country
- **The two sources in your local area who can usually tell you how many homes and apartments have wood-burning fireplaces or stoves, and their names and addresses—free of charge**
- How and where to get the best chain saw and log splitter for about 40% of retail cost
- **How \$100 or so spent on a certain item can make you the talk of the town literally overnight, and have people calling you to buy your firewood**
- A clever way to actually get paid for cutting down trees and hauling them away for resale
- **A little-known, inexpensive tool that can save you days of labor and aggravation when felling trees**
- A simple trick for cutting finished logs that assures uniform size and reduces labor time dramatically at the same time
- **Step-by-step procedure that enables even a novice to fell huge trees with safety and ease**
- The one factor that makes logs worth more money, and how to charge accordingly
- **An often overlooked but lucrative market for "green wood" which has just been cut down**
- A common mistake made by beginners selling wholesale to retailers and how avoiding it can do wonders for your cash flow
- **Complete details on pricing for maximum profits**
- How one operator who opened a small retail store selling firewood and wood-burning stoves grosses almost \$150,000 a year with only one employee
- **A comprehensive list of trade associations, government publications, books and suppliers that can give you valuable advice as you expand your business**
- A little-known source of cut logs you can buy for as little as \$1 per cord

- **How to get all the timber you want for free or a nominal fee, from sources most people would never even think of—and most of the time you don't even have to cut the trees down**

- The single most inexpensive form of advertising that brings a steady flow of repeat customers to every operator we interviewed who uses it

- **Licenses and permits you may need—how and where to get them easily**

- Pitfalls to avoid

The firewood boom is here. It's a growth business with plenty of room for enterprising entrepreneurs. If you want to make money in the energy business, there's no source like firewood and no time like the present.

This new manual contains all you need to know to earn substantial profits, whether full- or part-time. To get your copy, simply fill in and return the coupon below with just \$29.50 or we'll bill it to your VISA or MasterCard

For quicker service, call toll-free 1 (800) 421-2300 outside California, 6 a.m. to 9 p.m. Pacific Coast Time. California residents call 1 (800) 352-7449. (CA residents add 6% sales tax.)

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# Grandma's Prize Sour Cream Recipes

by Gail M. Halverson

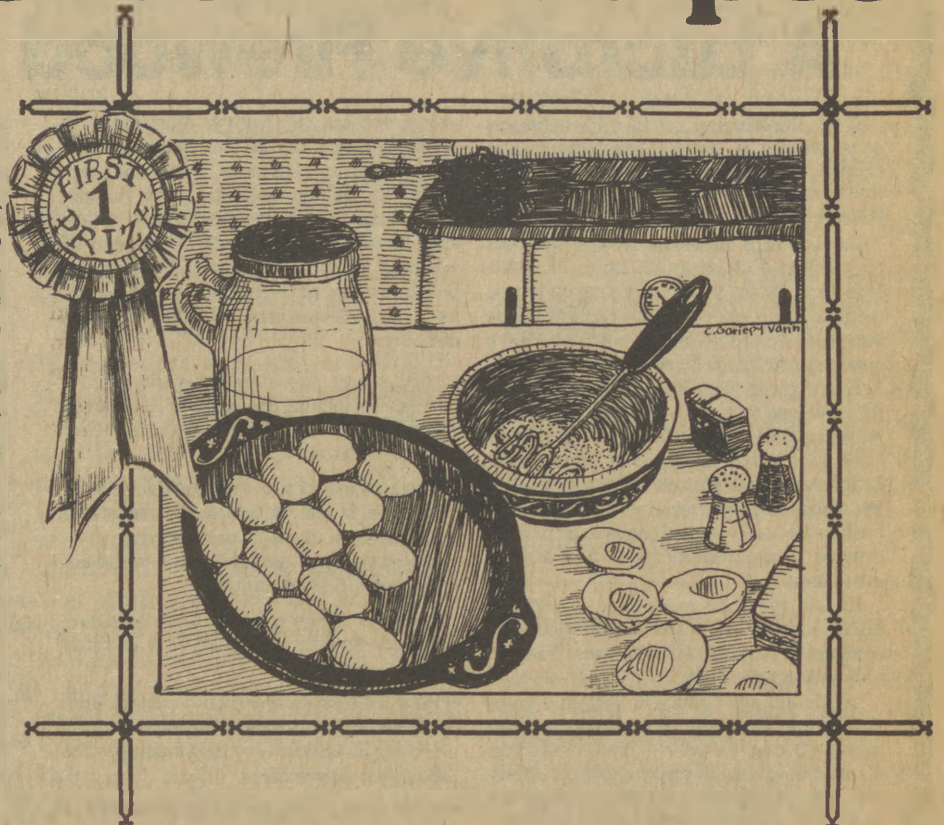
Your cream does wonders for your meals from soups to desserts. In fact, our grandmothers and their mothers before them, relied on sour cream to add fine full flavor to their cooking and baking. Grandma learned, as you will too, that cakes and breads made with sour cream were lighter and stayed fresh longer.

Soured milks and creams play an important part in cooking. The presence of lactic acid gives them a more tender curd, and this in turn makes for a lighter crumb in cooking and a smoother texture in sauces. Soured milk and cream contribute a slightly acid flavor that was highly prized in grandmother's cooking and will be in yours too.

Promoters of "cultured" sour cream lead the general public to believe that dairy sour cream, as they call their product, is the only kind there is, and that letting cream "go sour" isn't safe or good for you. But cream, including home sour cream, has vitamins A and B, plus the high energy value of the fat it contains.

It is said that the longevity of certain groups of peoples is much attributed to their diets of fermented and soured milk products. The friendly bacteria in these milk products settle in the intestines, where they break down milk sugar into lactic acid, and manufacture B vitamins and stimulate beneficial growth in the intestinal flora.

An old American Dairy Association booklet put out to promote the use of sour cream said: "Today's homemaker enjoys all the old-fashioned flavor of sour cream." Well you and I can enjoy all the flavor of real sour cream, not store bought stuff. Like our grandmothers, before us, we can let cream "go sour," and this is the way I do it.



After my raw milk is brought into the house and strained, I put it in the refrigerator. Twenty-four hours later I skim the cream off the top. In grandmother's day this was called double cream. I put this skimmed cream into a glass jar with a tight cover and put it back in the refrigerator. I put the next batch of skimmed cream into this jar, or however much cream it takes to fill the jar. Sometimes I have use for cream and snitch some out of the jar. Then I'll add the next cream skimming to it, but mostly I just stick the full jar in the back of my refrigerator. After that jar sits for about two weeks, your cream should have "soured" and be a nice thick consistency.

There are so many delicious ways to use sour cream that our one six year old Holstein cow cannot keep up with our household's use of it, and feed my three pigs and the dog and cats too. I only bring one gallon of milk in each morning, and then once or twice a week one of those gallons goes to a neighbor in trade for a cord of wood or help at pig butchering time.

Some of my favorite ways to use my Homestead sour cream are:

## EGG AND SOUR CREAM CASSEROLE

9 hard cooked eggs, halved lengthwise  
6 Tbsp. soft butter  
1 tsp. grated onion  
4 tsp. minced parsley  
1½ tsp. mustard  
½ tsp. salt  
Dash of pepper  
1 cup sour cream  
½ cup dry bread crumbs

Remove yolks, mash, blend with 3 Tbsp. butter, onion, parsley, mustard, salt and pepper. Fill whites with mixture, place cut side down in casserole. Cover with sour cream. Sprinkle with crumbs, dot with remaining butter. Bake at 350 degrees F. for 25 minutes.

## SOUR CREAM ZUCCHINI

6 medium zucchini  
½ tsp. salt  
1 Tbsp. diced onion  
¼ tsp. brown sugar  
Dash worcestershire sauce  
¼ cup sour cream

Wash zucchini, do not pare. Cut off ends, slice about 1/4 inch thick. Cook in very small amount of water with all the ingredients except sour cream, until just tender. Zucchini slices should not lose their shape, do not overcook. Drain off water; add sour cream. Toss, do not break. Serve immediately. Serves 6.

#### SOUR CREAM CHICKEN FRI-CASSEE

1 4-5 lb. stewing chicken  
3 stalks celery  
2 carrots  
1 onion  
Salt to taste  
1 quart sour cream  
3 Tbsp. flour  
1 quart chicken broth  
1/2 onion finely chopped  
4 Tbsp. butter

Place chicken, celery, carrots, onion and salt in pan with enough water to cover. Cook until tender. Remove chicken and cool. Strain broth. Saute chopped onion in butter. Add strained broth and bring to a rapid boil. Combine sour cream and flour and add slowly to boiling broth, stirring constantly. Season to taste with salt and pepper. Simmer for 10 minutes. Remove chicken from bones and add to sauce. Serve over rice. Serves 6-8.

#### BEET SOUP (RUSSIAN STYLE) MIL-CHIK

Cut 2 small beets in strips; cover with water and let cook until tender; add citric acid and a little sugar to make sweet and sour. Also a little salt, add 3/4 cup sour cream. Serve cold.

#### PORK TENDERLOINS

Leave tenderloin whole or slice crosswise. Flatten, roll in flour. Place in skillet with butter and chopped onion; add salt, pepper. Brown, cover tightly. Baste with 1/2 cup sour cream and cook until tender.

#### OTHER USES:

Make your own pickled herring with cream.

Add it to make gravy for roasts, especially Sauerbraten.

#### SOUR CREAM REFRIGERATOR COOKIES

3 cups flour  
1 tsp. baking powder  
1/4 tsp. soda  
1 cup butter or shortening  
1 cup sugar  
1/4 cup brown sugar  
2 eggs  
1 tsp. vanilla  
1/2 cup thick sour cream

Cream sugars and shortening. Add dry ingredients alternately with sour cream. Mix well. Cover with wax paper and chill one-half hour. Roll into long rolls, roll in wax paper and chill 1 hour or longer. Slice into thin slices and bake in 400 degrees F. oven for 8 minutes.

#### SOUR CREAM TOMATO SAUCE

2 Tbsp. butter  
3/4 cup chopped onion  
1/2 cup chopped green pepper  
3/4 cup chopped mushrooms  
2 1/2 cups stewed tomatoes  
2 Tbsp. sugar  
1/2 cup thick sour cream

Heat butter, add onion, green pepper, mushrooms. Cook about 10 minutes or until lightly browned. Add tomatoes, sour cream and sugar. Simmer uncovered about 1 hour, or until thick. Serve with spaghetti.

#### LIMA BEANS IN SOUR CREAM

1 1/2 lbs. fresh lima beans  
1 1/2 tsp. salt  
1 cup boiling water  
2 Tbsp. chopped onion  
2 Tbsp. chopped pimento  
2 Tbsp. butter  
1/2 cup sour cream  
1/8 tsp. white pepper

Cook the lima beans in salted boiling water, covered, until tender. Drain. Saute onion and pimento in butter, add the sour cream and pepper. Combine with the beans and heat thoroughly. This serves 6-8.

#### SOUR CREAM WHITE SAUCE

3 Tbsp. butter  
2 Tbsp. flour  
2 cups thick sour cream

Melt butter, thicken with flour and slowly add sour cream and heat until thickens into a smooth sauce.

#### SOUR CREAM PRUNE PIE

1 pie shell, baked  
10-11 prunes  
1 cup boiling water  
2 Tbsp. vinegar  
3/4 cup sugar  
2 Tbsp. corn starch  
2 eggs, well beaten  
1 cup sour cream  
1 Tbsp. lemon juice

Remove seeds and cut prunes in small pieces. Put chopped prunes, boiling water and vinegar in top of enamel double boiler. Cook over simmering water 10 minutes. Mix sugar and corn starch. Stir into prunes and cook 15 minutes, stirring frequently. Remove from heat. Mix eggs with sour cream and add to prunes. Return to double boiler and simmer 5 minutes. Pour into pie shell. Cool thoroughly and serve.

Variation: Substitute 3/4 cup raisins for prunes and add 1/4 cup nuts after removing from heat.

#### SOUR CREAM COLE SLAW

1/2 cup mayonnaise  
1/2 cup sour cream  
1/2 cup lemon juice  
1/4 cup sugar  
1/2 tsp. paprika  
8 cups shredded cabbage

Whip cream, add mayonnaise and beat until creamy. Add rest of ingredients and mix well. Pour over cabbage and mix together thoroughly. Serves 6-8.



## CHOCOLATE SOUR CREAM CAKE

Yolks of 4 eggs  
Whites of 3 eggs  
1½ cups sugar  
2 oz. chocolate  
1 tsp. vanilla  
1 cup thick, sour cream  
1 tsp. soda  
Pinch of salt  
1½ cups flour

Preheat oven to 350 degrees F.. Beat the yolks and sugar until very light; melt the chocolate in part of the cream. Cool and add it to the rest of the cream. Sift the soda, salt, and flour and add alternately with the cream to the yolks and sugar. Add flavoring and fold in the whites beaten stiff but not dry. Pour batter into two 8 x 8 inch greased and floured pans. Bake for 30 minutes. When cool, fill and ice.

## CORN IN SOUR CREAM

3 strips bacon  
2 cups whole kernel corn  
½ tsp. salt  
1 cup sour cream

Fry the bacon crisp, pour off all except 2 Tbsp. fat. Add corn, salt and sour cream. Crumble bacon on top. Heat. Serves 6.

## SOUR CREAM FILLING

2 eggs  
2/3 cup sugar  
1 cup sour cream  
½ tsp. vanilla

Beat eggs until thick, gradually add sugar beating constantly. Add sour cream. Cook over boiling water 15 minutes or until thick, stirring constantly. Cool. Add vanilla. VARIATION: Add 1 cup pitted, chopped prunes and ½ cup nuts. Cook 20 minutes. Called Sour Cream Prune Filling.

## AUNT BLANCH'S COCOA CAKE

1½ cups white sugar  
2 cups flour  
3 Tbsp. cocoa  
Pinch of salt  
2 eggs  
1½ cups sour cream  
2 tsp. soda  
3 Tbsp. hot water  
1 tsp. vanilla

Combine the sugar, flour and cocoa. Beat in the eggs. Dissolve the soda in the hot water and add to the mixture. Mix in the sour cream and vanilla. Pour into greased 12 x 8 pan and bake 30-35 minutes at 350 degrees F..

## SOUR CREAM ICING

1 cup sugar  
1 cup sour cream  
1 Tbsp. flour  
1 egg  
1 tsp. vanilla  
1 cup nuts

Mix first four ingredients and boil until thick. Add vanilla and nuts. Spread on cake while still hot.

## SOUR CREAM DOUGHNUTS

3 eggs  
1 cup sour cream  
1 cup sugar  
1 tsp. soda  
4 cups flour  
Pinch of nutmeg

Beat eggs, add sugar gradually. Add soda to cream. Combine the two mixtures and add the flour and nutmeg. Roll ¼ inch thick, cut and fry in deep, hot fat. Dust with confectioners' sugar.

## SOUR CREAM VEGETABLE SALAD

Cucumber, sliced, 1 cup  
Tomato, sliced, 1 cup  
Onion, sliced, 1 cup  
Cauliflower, 1 cup  
Vinegar, 1 Tbsp.  
Horse-radish, 1 Tbsp.  
½ cup thick sour cream

Combine vegetables. Mix vinegar, horseradish and sugar with sour cream. Mix dressing thoroughly with vegetables. Serve on bed of lettuce. Serves 6.

## EGGPLANT WITH SOUR CREAM

1 medium eggplant  
½ cup french dressing  
1 clove garlic  
1 cup sour cream  
2 Tbsp. chopped chives

Cut eggplant into ¾ inch slices, marinate in french dressing with garlic for two hours. Drain. Bake at 450 degrees F. for 20 minutes. Remove from oven and spread with sour cream and sprinkle chives over all. Return to oven and heat for 5 minutes.

## SOUR CREAM BREAD CRUMB PANCAKES

1 cup bread crumbs, toasted  
4 Tbsp. melted butter  
1 egg  
½ cup flour  
½ cup milk  
½ cup sour cream  
½ tsp. baking powder

Blend flour into melted butter, add milk, egg, baking powder and sour cream. Fold in bread crumbs. Make pancakes.

## SOUR CREAM DRESSING

1 cup thick sour cream  
2 Tbsp. white vinegar or lemon juice  
1 Tbsp. onion, minced  
2 Tbsp. sugar  
Dash of cayenne

Combine all ingredients, beat until stiff. Serve on green salad or slaw. □

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Gail M. Halverson creates her delicious sour cream dishes in Murdock, Minnesota. Art by Carol Varin.

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# Luscious Blueberries

by Mary E. Allen

**B**lueberry season is one of the highlights of the year in rural areas, a time for luscious treats ranging from berries eaten out of hand while picking, to berries with cream on cereal, on ice cream, and in a variety of baked dishes such as pies, puddings, cakes and muffins.

Blueberries have been used for centuries in our country, first by the Indians and then the colonists. For many tribes, they were a good food supply. The Indians ate these berries fresh and often cooked them with meat. They also dried quantities for winter use.

In days of yesteryear, there were blueberry suppers... much like the strawberry festivals. Often it was the local ladies' society which put on this feast of blueberry treats, with dishes of blueberries and cream, pancakes, muffins, puddings, pies and cakes. These usually would be served with glasses of cold milk or cups of hot coffee.

Blueberry picking could be a social event too, if several families got together for an all-day outing. At noon, a shared picnic of homemade bread, meats, stuffed eggs, pickles, cookies, and lemonade might be served.

Our family goes blueberry picking each year so we'll have blueberries in season and also to freeze for eating throughout the winter. Although there are places where blueberries are raised commercially and you can "pick-your-own" much as you do strawberries, we usually head for the wilds and pick ours on a mountainside or in abandoned fields.

When we go blueberry picking, we take our backpacks along because we're often picking in areas where no vehicle can go. It's so much easier to transport your blueberries in your backpack than to carry them in pails, especially when you have to hike two or three miles back to the car. Just make sure you don't load so many berries into your pack that they get mushy, and don't leave your pack sitting in the sun.

The picking goes much faster if you can borrow a blueberry rake for scooping up the berries instead of picking each one by hand. Of course, with raking, you gather up more leaves and green berries, too. Growers who raise blueberries in quantities for the commercial market use winnowing machines to separate out the good blueberries.

But since that's not practical for someone picking berries just for themselves, my husband devised a set of screens which we use to separate the berries from the leaves and twigs. Use half-inch hardware cloth for one screen and quarter-inch hardware cloth for the other (obtainable from any hardware store).

Make these screens by turning up the edges of flat pieces of hardware cloth about one and a half inches on all four sides. Then fold this border down about a half inch so the sharp edge isn't on top. This gives you a one-inch edge or lip folded back on itself another half inch to eliminate jabbing edges. The half-inch hardware cloth he made into

a 10½-inch square finished screen and the quarter-inch hardware cloth into a 14-inch square finished screen. But you can vary the dimensions, using sizes most convenient for your needs.

Shake the berries through the half-inch screen onto the quarter-inch screen. Then pick out any leaves and green berries that don't blow away. (I find I like to leave some green berries in with the ripe ones for cooking, though. They give a tasty tartness to your baked berry dishes.)

**T**his small-scale sorting, or winnowing, can be done right out in the blueberry field and saves you a great deal of time when you get home. If you are very careful in the field, no sorting at all will be necessary before you freeze the berries, or make them into jam or tasty dishes.

Blueberries and huckleberries belong to the same general family and can be used interchangeably in all recipes. The huckleberries usually are jet-black and have rather prominent seeds. Most blueberries are filmy blue to dark blue in color, are juicy, and contain many small seeds.

Both berries freeze well easily once you have picked them clean of leaves and twigs. I do not wash our blueberries before freezing because I know they haven't been near any area that is sprayed. If you do wash the berries, dry them well before freezing.

You do not need to sweeten blueberries before freezing them either. Simply pour washed and dried blueberries into plastic bags or containers and freeze. (Some people lay the berries out on trays and freeze them first, then put them into containers. But I've always had success with freezing directly in containers.)

Then when you use frozen blueberries for baked dishes, do not thaw them out first. Simply put the desired amount of frozen berries right in with your other ingredients and cook.

For those who are weight conscious, blueberries are relatively low in calories. One half cup contains about 42 calories. To keep the calorie count low though, watch the sweetening when cooking.

Frozen blueberries eaten out of hand are a delicious treat come winter. Our daughter finds these very tasty, and they're much better for her than junk food snacks.

Often we've picked 50 pounds of blueberries in a season and frozen nearly as many. We make jam with some, use many fresh, and have quantities frozen for blueberry dishes all winter long. In the days before freezers, I remember my mother canning the berries for winter use.

## HOMEMADE JELLO

One of our favorite ways of using blueberries is in homemade jello. Simply add those berries, with or without other fruit, to the jello before it thickens. Sometimes my daughter Beth will make blueberry and jello parfaits by alternating layers of this mixture with layers of whipped cream.

## BLUEBERRY CUSTARD

Blueberry custard is delicious. I first sampled this dish at a northern New Hampshire fishing camp many years ago. Use your usual custard recipe. Before baking, sprinkle one cup of drained and dried (or frozen) blueberries on top of the custard in a baking dish or custard cups. (Some may sink.) Bake as usual.

## BLUEBERRY BUCKLE

Blueberry buckle is an old-fashioned blueberry dish. Cream together ¼ cup shortening with ½ cup sugar. Add one beaten egg. Then sift together one cup of flour, 1½ teaspoons baking powder, ½ teaspoon salt. Add the dry ingredients alternately with ⅓ cup milk to the egg mixture. Pour into a greased eight-inch square pan. Spread one pint of blueberries over the top. Then sprinkle the following crumb topping over this: ½ cup sugar, ½ teaspoon cinnamon, ⅓ cup flour, ¼ cup butter. Bake at 375 degrees F. for about 45 minutes.

## BLUEBERRY PIE

Blueberry pie is truly a blueberry lover's favorite. This recipe which we like is not as sweet as some. Line a nine-inch pie pan with pastry. Put four cups of fresh or frozen blueberries in a pastry-lined pan. Mix together ½ cup sugar, two tablespoons flour, a dash of cinnamon and nutmeg, ¼ teaspoon salt. Sprinkle this and one tablespoon lemon juice over the blueberries. Dot with one tablespoon butter. Add the top crust. Bake at 425 degrees F. for about 45 minutes, until berries are done and juice is thickened.

## BLUEBERRY UPSIDE DOWN CAKE

Blueberry upside down cake is a favorite of ours as well. Melt two tablespoons margarine in a nine-inch square pan. Sprinkle with ¼ cup brown sugar. Mix two cups fresh or frozen blueberries with two teaspoons grated lemon rind and put into pan. Cream ½ cup margarine with ½ cup granulated sugar. Add one egg and beat well. Mix together 1½ cups all-purpose flour, ½ teaspoon salt, two teaspoons baking powder. Add alternately with milk to creamed mixture, beating until smooth. Spread this over the berries. Bake at 375 degrees F. for about 30 minutes. After removing from oven, let stand for ten minutes. Then invert on serving plate. Serve with whipped cream, if desired. □

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Mary E. Allen writes and lives in Plymouth, NH. Art by Larry Decker.

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*Booted footsteps up the rungs,*

*Feel the cold air fill my lungs;*

*Apple pickers are unsung...*



by Polly Cook

**A** glorious New England summer was past. By September, I soon learned that those charming fishing towns were closing tight for the winter as one by one, the tourists left for home. Jobs were not so easily handed to seventeen year olds with no real training other than climbing hills and reading in the tops of trees. With winter coming strong and fast, I began to feel a little on edge. I hadn't much money, no car and too many costumey clothes, which were becoming a burden to me.

My big summer dream was unravelling and not quite so magical as it all had seemed when I was safe and bored at home. But I was rough and tough and hard to bluff, rather enjoying the uncertainty and open to whatever might come along.

That's when I saw an ad in a paper asking for apple pickers. Something turned in me with a strong desire to work hard out of doors, especially when offered the hard contrast of some tiring job at an all-night quick-stop. I called. The apple crew was complete, but there was a chance for me to work if someone happened to drop out. So I caught a bus to the town nearest the orchard. There I waited to be met by a crew member

and to be taken to the organizing meeting. The small college-town was calming on that day of restless-hearted waiting. It breathed of smiling lawns, almond sunshine and green-trimmed whiteness.

Roger met me, sunburned and happy looking, with two other co-ordinators, Nancy and Tangy. They were beautiful to me, all brown and wirey and tired looking from working in a few strips of trees a little early. Nancy reminded me of a character from a Louis Lenski book--big overalls, a toughness in her thin body, and quick eyes that made me almost afraid to speak for fear of saying something silly or worthless. I knew that I wanted that look of

discipline and confidence, and in my heart rather believed that apple picking must be the absolute finish for such an air.

As it worked out, there was room for me, and I was put on as a member of this small, co-operative crew. A co-operative is different from most migrant groups. Normally, workers can come and go as they please, and it only hurts the orchard grower if the entire crop is not harvested. But in our group, we signed a contract stating that we would finish out the season of harvesting until every apple was picked. We would be paid more than most workers for this--50 cents a bushel--and an extra eight cents for every bushel picked if we lasted to the end of the season and all trees were picked. So right from the beginning, there was real supporting spirit. All of us depended on each other to get the orchards harvested so we could have that bonus.

We were taught immediately how to pick apples with little bruising, as it was a high priority not to bruise more than five percent of our apples. We'd pick an area from the ground level first before using the ladder, so any fruit that fell from the commotion of the ladder wouldn't knock against and bruise the lower apples. Bruises would show up quite nicely after a short while in the sun. I'd find myself hiding in the branches when someone came after lunch to check for such damage those first few weeks. Apples are so sensitive, and finger bruises look sad and discouraging when you're trying hard and you're weary from reaching far for those always distant clusters.

But it was exhilarating for me. We were picking Macintosh at first, and they felt so good in the palms, the

fingertips loosely holding them. They'd roll from the branch at the suggestion of your quick hands. Sometimes. Other times, with the thumb at the stem, they'd snap off, cool and round in my hands, and softly but quickly, I'd place them in the bucket about my stomach.

These buckets hung from canvas straps which crossed over on the back and down the shoulders. The sides were metal, and the bottom was made of canvas, held by ropes caught on the sides of the bucket by knots. When your bucket was full, you emptied your load (ever so gently) into a bin beneath your tree. You lifted the ropes from the catches and let the apples roll as easily as possible out through the opening.

We were each assigned a tree, and then given a huge bin--a box holding either 15 or 20 bushels, at the bottom of the tree. The owner of the orchard spent most of his time on a tractor, moving partial bins to new trees, or bringing empty bins if you needed one. I rarely had to call "tractor." It seemed John was always keeping up, mysteriously rolling around the veil of trees with whatever you needed, grim and weathered and gauntly handsome. And days when you were

struggling a losing battle with a defensive tree, he'd sometimes come and help with a difficult ladder setting, or pick a few buckets for you. This made me feel better on days when I was tired, to have the boss helping in that way. It made him seem not so far from us, as would an overseer or growling taskmaster. He worked so hard. Early in the morning and deep into the night we could hear the tractor humming in the distance as he sorted and arranged things for packing.

We worked with 16 foot ladders, and the first few days were the hardest for me, getting used to the tall ladder's weight and height, and for my own body to get used to the work. I felt weak and clumsy, with arms aching and my ladder knocking great clusters of apples in a thunder to the ground. I would wince with a sweep of confusion and misjudgment. We poked tree branches, balancing on limbs, our eyes always bright in search of a crotch in the tree for the next best ladder setting. The shoulders burned and felt cut by razors those first few days, from the thirty pounds of apples weighting them and from our climbing up and down the ladder, reaching down into the bin so the apples wouldn't have far to drop. Every muscle was used and tensed, stretched and realized. Reaching for all the out-of-the-way apples, balancing on a thin branch, I always felt ready to spring if it should





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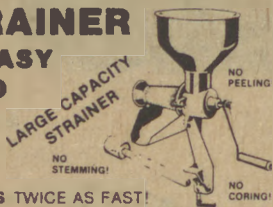
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break, or if the branch should give way. On the fourth day, the pain was more vague, the ladder lighter and more agreeable, and it grew delightful to be so high up in those trees, looking out over the great stretches of the orchard leaves, beyond to the mountains and valleys, all turning rich gold with the melting colours of fire and throbbing. I felt like Joan of Arc with the ladder as my javelin of faith, and my metal bucket as a breastplate of righteousness, rather noble and proud in my working attire.

I loved the people I was working with. There were about 18 of us, and such a combination of individuals! It was a mixture of fascinating good people--artists, musicians, homesteaders and wanderers--even a college professor--all who loved the outdoors and hard work. Although most lived nearby, some of us didn't, and we were given a trailer and a cabin as our home for the season. There were seven of us sharing these small spaces, and it was remarkable the way we got along so well right from the beginning. The houses were separated by woods, both mantled by forest on one side, Golden Delicious on the other. We soon felt like a family, of a sort. We had this common bond of being involved so completely in the world of apples, and there was also this seeking among us, lovers of newness and adventure.

Doug was blonde, his whole manner easy, but not careless. He seemed to glow with an inner strength and calmness, and I wanted so much to have his quality of generosity, his way of giving without thinking twice. I loved the way he went barefooted everywhere. Going to the grocery store or into town, picking in the orchard among scattered briars, his feet were tough and free and happy.

And John the pirate. That's what he reminded me of--tall and drenched in sun. His features were sharp, and he had a proud sort of bearing. He had studied in a cooking school for two years, and although I didn't appreciate having him around while I was fumbling about trying to make a meal, I did love his way of surprise elegance when he fixed dinners.

And there was Hemlock with his wise, sad eyes, meditative and brilliant. He was so sensitive, I always felt that he was charged with awareness-awareness of the moment and a real sense of people's feelings.



Rita was gleaming with character and love of life. With the features of a white skinned African, she whipped life into a carnival, not ready for the bit and saddle yet! At only 21, she had done so many things, from working on a fishing barge in Alaska, to living in a community making maple syrup and weaving tapestried rugs.

And Oren, Wild, mangle-curl'd Oren. He washed the air with his fiddle late into the kerosene-lit nights, playing strange tunes on the guitar, singing in his haunting voice old songs that Rita knew, who joined in with her own high, trembling voice. The music was so soothing after a long day of working, a balm of magic to weary heart and legs.

We had no electricity, although most orchards do for their workers, and showers were quite an event of pleasure, feeling almost sinful, they

were so delicious. We had to sneak into a nearby university gym or dorm, and getting caught and kicked out a couple of times made the water richer and sweeter when it beat against my bruised and toughening body. Each time I looked leaner, my legs firmer and my back strong and straight. I loved this feeling of health and vitality.

The sun was so warm and sweet to me. Each day, when starting out around 8:30, I could feel the earth's mood. Sometimes the sky felt sad, as if she wanted to pour out her pain and anxiety but was holding back her weeping in a shroud of grey. And then the earth would be icy and magic, secret and cold--watching me. The first few weeks she turned sharp and defined, every colour in song. The path through the forest to one orchard was an orchestra of colours; it felt as though I was entering the glassy heart of a singing kaleidoscope. These observations gave me strength as if the trees were a part of me.

In the orchard, there is something about working with or against a tree in all that openness, that fills one with a sort of holy bond to the growing world, breathing so much life and fragrance. Some trees looked seductive, their fruit being offered to you as if impatient to be taken. Others had an air of challenge, and from the first glance you knew you were in for a morning of struggles and curses, entangled in branches, fighting the limbs for a place to set that ladder for those four measly apples taunting far away.

I loved to hear the singing from nearby trees as it drifted down the rows--people singing lonely rounds, the voices strange and disembodied from my own secret garden of leaves and fruit. There were a few people who were notorious for their talents of conversation. They had a way of ensnaring you in some lengthy, fascinating conversation, making your attention thin from the apples and turn to other things. Peter was especially good at this, and yet between his remarkable theories on apples and the skeleton of life, he'd get in 100 bushels a day. It was frustrating when the tractor would roll past, drowning a large slice of wisdom, leaving me lost in the stream of ideas. At any rate, as private as you might feel in the dense greenery, the orchard was no place for spoken secrets.

**I**t began getting cold. Some days it felt absolutely miserable for the hands, so numb. The apples were hard to grasp, every twig scratching, the forefingers shredding and sore despite band-aids. Gloves helped some, but against the morning wet leaves, they were soon sopping and cold too. We didn't work if it was raining too hard, only if it was just sprinkling or misty. If things were too wet and slippery, it could be dangerous working so high up and quickly, and we took those times to get other things done. We'd do our laundry, or Rita would make bread, braided and warm to eat in the orchard. Or, we'd go in search of thrift stores for secondhand elegance. When there was a good day, we liked to work. In this business, you never quite know when the end will come from a killing frost. Some of the evenings came dangerously close to the brink of destruction. In the beginning of October, we had a snow storm that draped the trees like Christmas. It only lasted a few days. The sun soon returned, and the trees shook off their white coats, beckoning us.

We'd bring our lunches--loaves of homemade bread and peanutbutter, yogurt made the night before, cheeses and sprouts. At noon we'd gather in some sunny aisle. Here we'd encourage and brag and complain. Once in a while we'd have fiddle music, or harmonica, or the cabin people would sing one of Oren's songs, like the apple anthem for Johnny Appleseed. Sung to the tune of 'The Garden Song' it went like this:

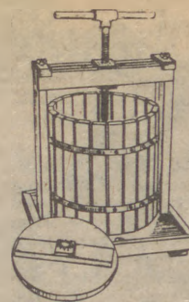
Bushel by bushel and bin by bin,  
Gonna get those apples in,  
Though it's hardest to begin  
With the cold rain pourin' down.

Picking apples is no fun,  
When you never see the sun.  
Toes are cold and fingers numb  
As the bin fills up real slow.

Apple pies and applesauce,  
Have they reckoned up the cost  
Of a season almost lost,  
By a freak October snow?

Apples, apples at the store.  
I have eaten lots before,  
But I can't buy them anymore,  
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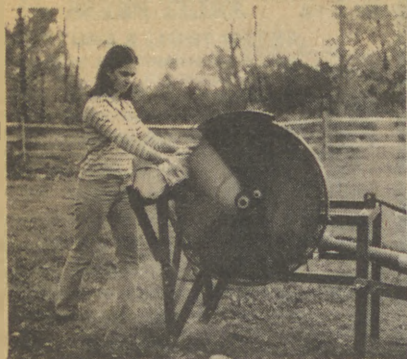
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Bushel by bushel and bin by bin,  
Gotta get those apples in,  
Though it's hardest to begin  
With the cold rain pourin' down.

Booted footsteps up the rungs,  
Feel the cold air fill my lungs,  
Apple pickers are unsung--  
Heroes of the frosty morn.

I was getting in an average amount, about 60 bushels a day, though I started out with 15. Most people however, were up anywhere from 75 to 100. We had apple delirium very soon in the season. We'd catch ourselves talking about apples and theories of picking for hours after work, eating applesauce and apple brown betty. We'd dry apples from strings across the cabin rafters and across Oren's bed, until a string broke one night.

The last day of the season was glorious. We had to rake some trees where the fruit was hard and to be used for cider. We went crazy after spending so long with such gentle reverence in our treatment of the fruit now, to be able to grab the clusters fiercely, and to knock them down in reckless abandon with our ladders.

This was marvelous therapy. Any hostility towards apples was taken care of with childish delight. When it was all done, we had champagne in the orchard, and celebrated--exhausted, dirty and triumphant!

After an evening potluck and party with music and the family of harvesters, we began to go our separate ways. I got a ride with Doug and John to the sea, stopping first where some of the crew were making gallons and gallons of cider with an old two story cider press in an ancient barn. The fresh juice was an elixer of memories, tasting to me like sacramental wine as I drank it from the ladle. It looked so cool and sharp, running down the blocks of wood. Then we left.

I know I haven't got Nancy's quality of strength or Doug's easy assurance, but with those beautiful people in my heart (and a bowl of apples on my desk), I feel a richness I didn't have before. I have a tie with friends and nature and a remembrance of a cherished time in my life. □

Polly Cook travels, loves life, and now and then makes her home in Goodlettsville, Tennessee.

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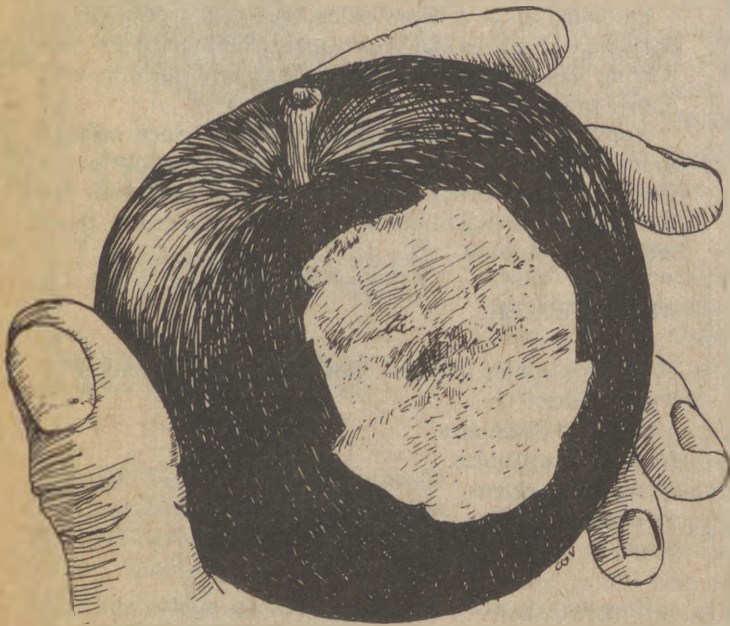
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# An Apple a Day

## ... or Two



by Ruth Baird

A zippy cool, fall day in "Mac Country" brings crowds flocking to pick their own MacIntosh apples. "Pick Your Own" apple orchards allow harvesting of apples by the public. The customer saves money and it helps the farmer reduce the cost of hiring professional pickers.

Picking your own apples is not as easy as it looks. Incorrect picking, when the pressure of the hands grip the apple too tight, results in a bruised apple. The correct method is to use a slight twist of the wrist while lightly grasping the apple. Many inexperienced first time pickers pull the apple from the branches breaking limbs in the process. Taking a stick and knocking down the apple from the tree is another method used by the novice. Another trick is to throw an apple up in the tree to knock an apple down. The apple that falls is not classified as a drop. Some ambitious harvesters shimmy up the tree and fill their sweaters and shirts. When the bags are filled and paid for, the city farmer trots off to enjoy his picnic lunch and munch on a fresh apple for dessert.

Do you recall the smell of an apple pie fresh from the oven? What an aroma! Many apple farm stands have bakeries on the premises producing quantities of apple pies, cakes, apple breads and other delicious apple delights. A stop at one of these stores to take a share of goodies home makes the trip a pleasure. Many stands offer a line of native honey, homemade jams and jellies and natural cheddar cheese to go with the apple pie.

Apple varieties are endless. Cortland is a delicious pie and dessert apple. The familiar Red Delicious, and its cousin the Golden Delicious are zesty for out of the hand eating. Many oldtimers prefer their favorite, the Baldwin, which has been in existence since the 1800's. The Rhode Island greening, rarely available to the consumer, is used for commercial canning of applesauce. Rome Beauty, MacCoun, Northern Spy are available in mid-October as another choice for the apple connoisseur.

Apples ripen in the northeast from early August to late October. Many apples are shipped directly to market at harvest time, while others are stored in controlled temperature conditions to be sold at a premium price later in the season.

Home storage of apples is possible using this method: Pick a cool section of the cellar, put the apples in boxes or cartons, punching a few vent holes in the boxes to let the apples breathe, pack in single layer, insert a sheet of folded newspaper between each layer. Cover the top of the box with a sheet of newspaper or cardboard. Check the apples at intervals, removing any showing signs of decay. We have been successful in keeping apples this way until the following June. Its a great feeling to be able to go to the cold cellar on a snowy February day for red, ripe apples. Apple treats are easy to make, try some of the following.

### QUICK APPLE DESSERT

1 stick margarine or butter  
5 to 6 firm apples sliced (Cortland are good)  
3/4 cup brown sugar  
1 cup enriched flour  
Dash of nutmeg

Put sliced apples in an 8 x 11 x 2 pan. Mix the sugar, margarine and flour together. Pat the mixture on the apples. Bake at 350 degrees F. until crust is golden brown and apples are done. (Approximately 40 minutes) Serve with whipped cream or a lemon sauce.

### SPICY APPLESAUCE CAKE

2 cups flour  
1/2 teaspoon salt  
1/2 cup margarine or vegetable shortening  
7/8 cup sugar  
1 teaspoon cinnamon  
1/2 teaspoon allspice  
1 egg  
1 teaspoon baking soda  
2 teaspoons water or brandy  
1 cup applesauce  
1 cup raisins

Cream margarine and sugar until fluffy. Beat in cinnamon, allspice and egg. Dissolve the soda in the applesauce. Blend in the flour and salt. Add water or brandy. Pour in a 9-inch greased bundt pan. Bake at 350 degrees F. for one hour.



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The following recipe is a nice side dish with roast pork or other meats.

### STIR-FRY APPLE SLICES

6 to 8 firm apples (Cortland)  
2 Tablespoons brown sugar  
½ teaspoon cinnamon  
1/8 teaspoon nutmeg  
2 Tablespoons salad oil

Put salad oil in a heavy skillet and add sliced apples. Sprinkle with spices and brown sugar. Simmer on low heat stirring occasionally to keep from burning. Cook only until apples are tender.

Apple Butter is an old favorite made since colonial times. Outdoor cooking in large kettles of apple butter was an annual event when everyone helped with the peeling and stirring of the apple butter. Modern methods makes the job easy.

### APPLE BUTTER

10 pounds apples (Several varieties for a good flavor)  
2 cups cider  
1 teaspoon cinnamon  
½ teaspoon allspice  
½ teaspoon cloves  
¼ teaspoon salt  
Sugar

Core but do not peel apples. Cut up apples and cook with one cup of water and the cider. Put through food mill. Place in a pan and cook down about 25 minutes, stirring to keep from burning. Measure the pulp and for every three cups of pulp add one cup of sugar, less sugar may be added for a tarter taste. Add spices and salt, stir to combine all the ingredients. Cook on low heat until the butter is thick.

Note: A quick trick to make the butter without constant watching is to put the apple butter in a roasting pan in a 250 degrees F. oven for about three hours. Stir a couple of times. Pour in hot mason jars and seal. Makes about six pints.

To locate "Pick Your Own" orchards check local and regional newspaper or inquire to the county extension service. The savings gained makes it well worthwhile to pick your own. □

Ruth Baird makes delicious apple desserts while living in Lancaster, Massachusetts. Apple-in-hand by Carol Varin.





## The Farmstead Reviewer

**KEEPING THE HARVEST.** By Nancy Chioffi and Gretchen Mead. Garden Way Publishing; Charlotte, Vermont 05445. Quality paperback. 1980. \$7.95.

by Mary Nevin

**K**eeping *The Harvest* is a far cry from the assortment of pamphlets, neighbors' advice and misconceptions I amassed, feeling somewhat confused and overwhelmed when faced with my first garden harvest back in 1969. I bought a canner, jars, a freezer and freezer containers and began unraveling what seemed to me the mysterious art of food storage and preservation. I remember being hot and tired a lot, especially toward the end of the summer, and I generally had some bushel basket of fruits or vegetables rotting in a corner of the kitchen that I couldn't seem to get to.

*Keeping The Harvest* de-mystifies the process and covers every method you might want to try for storing your fruits and vegetables. It is thorough, well-organized and has aesthetic appeal, which makes it a treat to read. Along with many photographs, diagrams and charts, are many old line drawings of fruits and vegetables from seed companies and the Bettmann Archive in New York. This is a revised edition, updated to include more new ideas and technical information for the home storage of food.

Planning the garden is emphasized in the beginning. "With a little forethought you can control the time of maturity and quantity of vegetables in your garden. Your plantings should be made so that you are not left with gaps when there are no vegetables to eat or preserve, also that you are not overwhelmed later with more than you can possibly handle." Planning both your garden and your time realistically is the key to success. Included with practical advice is a vegetable planning chart which even tells you how much yield to expect from a specific number of plants.

The following chapters cover freezing, canning, jams and jellies, pickles and relishes, curing with salt, drying, common storage and grains (root cellars and room storage) plus two chapters which classify each vegetable and fruit alphabetically, telling you when to harvest and whatever methods you may use to store or preserve.

*Keeping The Harvest* is jam packed with timetables, information about equipment, packaging, storage lifetimes, plus many helpful hints and extras in the form of insets--information giving types of pressure canners to how to build a root cellar. An interesting example of an "extra" is the Keg-of-the-Month Plan. Ruth Harmon of Kentucky harvests a keg full of assorted vegetables for every month of winter. In the fall she places straw in the bottom of a nail keg, then lays the keg on its side. She adds more straw, then half fills it with potatoes. Next come carrots, more straw, beets and more straw. Finally she adds lettuce or another favorite vegetable and packs straw around it. She fills ten of these, sets them all in a deep trench and covers them with dirt. Also included are items such as how to make your own pectin and how to conduct a pectin test to see if your fruit (apples are high in pectin) has enough to jell.

There are lots of recipes, both traditional (Apple Butter, Corn Relish) and unusual (Apricot Nectar, Lemon Supreme Cake or Salsify Cakes). There is a section on diet canning and about the workings of a community canning center and even a chapter on steam juicing fruits and vegetables.

One small complaint I have is that while honey is offered as an alternative to sugar, and amounts of sweetener used are often left to individual

tastes, there are disquieting photos of the canning process with bags of Domino Sugar on the counter. The hazards of sugar are well documented and if it is true that one picture is worth a thousand words, the Domino Sugar could have been left out. Aside from this, if food preserving is part of your way of life, or you would like it to be, *Keeping The Harvest* could be an indispensable addition to your bookshelf. □

**THE FAMILY COW.** By Dirk van Loon. Garden Way Publishing, Charlotte, VT 05445. \$5.95. Paperback.

by Avis Evans

**R**eading *The Family Cow* reminded me of the many years my husband Lee and I maintained our cow herd on our 160 acre farm here in Freedom. We had a herd of 18 Jerseys and Guernseys at first, and it got so each cow was given a pet name--Marie, Dottie, Bones, Strawberry, etc.. We couldn't think of what to call one, so we finally settled for "Number Eleven," the number of her stanchion.

If you have a large family, one cow can be economical, especially if the excess milk is fed to a beef creature to help with the food situation. Dirk van Loon's book covers in full detail the care of a cow--buying one, building fences, breeding cycles, handling, health and nutritional needs and milking. There are even recipes for yogurt, hard and soft cheeses and custard. If your family's use of dairy products comes to more than \$1.30 per day at current prices, then according to the author, it pays to keep a family cow.

I felt that the feed information was far more detailed than really necessary for a one-cow operation. As far as I'm concerned, good hay, good pasture, legumes and grain will do nicely, along with fresh water. Most people aren't able to get involved mixing or raising their own grains, although it's nice information to know. I'd especially like to mention a cow's need for a plentiful supply of good clean water at all times, which the book didn't emphasize, although it did touch on it.

As *The Family Cow* mentions--be careful to look for sound lines, udders and other signs that go into your purchase of a good and durable cow.

The book devotes a whole chapter to this subject, and it's to your advantage to read it over before you go out and buy one. A poor cow can be expensive, and not give the return you desire.

There are good chapters on calving, calf feed and care of young stock. This section reminded me of the time when our cow, Alby got out of the pasture. She was a big one, and at that time she was heavy with calf. We tried to get her back in through the gate--but no way! We chased her up and down until finally she couldn't stand it any longer and sailed clear over the fence, into the pasture! Reminded me of the cow that jumped over the moon.

And let me tell you, that's only one of the crazy things a cow will do. I don't want to dampen the desire of anyone who wants to raise one, but you better be prepared to love them and put up with their moods. Sometimes there can be nothing more ornery than a cow, especially when they happen to step on your foot and refuse to budge, no matter how much yelling you do. Also, they get like pets--and don't you cry when they have to go to the butcher!

The chapter on "Health" in *The Family Cow* covers important things you can do to care for a sick cow, such as treating cuts, taking its temperature, giving pills and caring for mastitis. It sure is a good thing to know some first aid. Take the episode of our Old Bessie. One day she got into the apple orchard and gorged herself on apples. She was staggering drunk by the time we found her. So,

we walked and walked her till she threw up bubbles, relieving her stomach of the pressure. If we hadn't known how to do that, we would have lost her, but as it was, she came through with flying colors. I do agree with the book, that in serious cases when you don't know what to do--call a vet. The author gives a list of what symptoms are worthwhile calling a vet over, and that's a handy thing to know.

I must say that when we had cows, there weren't as many conveniences as farmers have now. We didn't have many of the methods and tools which are timesavers today. Nonetheless, there is still much hard work, trials and even tears--but a lot of satisfaction--in raising cows. *The Family Cow* will help you decide whether or not owning such an animal is for you, for raising one requires lots of dedication.

**SWEET & HARD CIDER.** By Annie Proulx and Lew Nichols. Garden Way Publishing; Charlotte, VT 05445. 1980. \$9.95.

by Sandy McLaughlin

I never realized that cider comes in so many forms, flavors, shapes and ways. It can be dry, crackling, sparkling, hard or just plain sweet and refreshing. *Sweet and Hard Cider--subtitled Making It, Using It & Enjoying It*--covers this historic "poor man's champagne" from apple seedling to finished beverage, describing every variety for every taste along the way.

The book begins with a fascinating history of this apple beverage, complete with old photos and sketches. Details of cider's origins in many different countries, cultures and eras are given. Cider was used to cure illness, fulfill ceremonial tradition and as the major social drink, used at breakfast, lunch and supper in its fermented, alcoholic form.

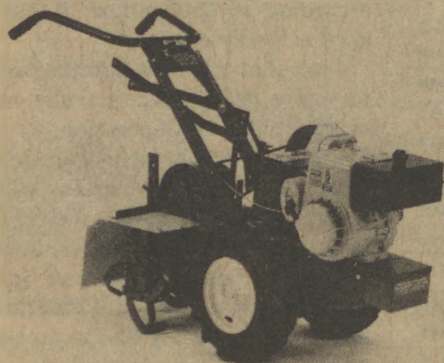
"...And a little more cider would do us no harm  
Harm my boys, harm!  
Harm, my boys, harm!  
And a little more cider would do us no harm!"

The old descriptions, sonnets and illustrations are delightful.

Cider is made all over the world by six different methods, and this book explains in complete detail how anyone can make this beverage at home. Each method is described in simple steps with information on materials and equipment needed, from hydrometer to cork. Even the ways of mixing and creating cider to individual taste are given. Excellent photos accompany all directions. Spot interviews with practicing cider makers and their philosophies help point out the differences in the six methods. Authors Annie Proulx and Lew Nichols write professionally, backed up by their experience with cider making on their small farm in Vermont.

A beautiful color guide to North American apples gives information on how to grow, cultivate and harvest

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Roto-Hoe's 990 Rear Tine Tiller with 8 HP (shown in picture) priced to sell for about \$720.00.

endless varieties in new or old orchards, both traditionally and organically. Information on varieties of apples suited for specific climates and soils (including some old fashioned types rarely seen anymore) as well as pollination methods, disease treatments and prevention, planning, planting, pruning and grafting are all described.

And as if all this isn't enough, **Sweet & Hard Cider** will tell you how to use this beverage as a medicine and how to make and use over 10 varieties of vinegar, apple jack, and apply brandy. Furthermore, over 15 delicious pages of recipes give ways to use cider from drinks, fondues and soups to vegetables, sauces, desserts and jellies. There are recipes for poultry, rabbit, beef, fish and even lobster in cider!

Federal laws and regulations, instructions on tasting and judging, an equipment suppliers' appendix and glossary of terms round out the 267 large-size pages. This book does a lot more than instruct the homesteader on cider making--it teaches history, tradition, philosophy, gardening, cooking and most of all, an appreciation for an age-old art.

**GARDEN WAY'S GUIDE TO FOOD DRYING.** By Phyllis Hobson, Garden Way Publishing, Charlottsville, VT. Quality paperback. 1980. \$5.95.

by Mary Nevin

**L**earn to make your own fruit leathers, dried soups and steews for camping trips, sachets, potpourris and herbal tea blends. **Guide to Food Drying** offers suggestions for the drying of leftovers. Leftover vegetable soup, for instance, can be pureed in the blender, dried on sheets of plastic wrap and eaten as a leather.

Drying is the oldest method of food preservation known to man. Author Phyllis Hobson tells us that while the Phoenecians were drying fish, the Chinese were drying tea leaves. In North America, the Indians taught early settlers how to dry corn and grind it into meal. Jerky was made from the meat of bear, deer, elk and buffalo. By 1795, the French had invented a dehydrator for vegetables, while American families were using fire, sun and smoke to dry their food.

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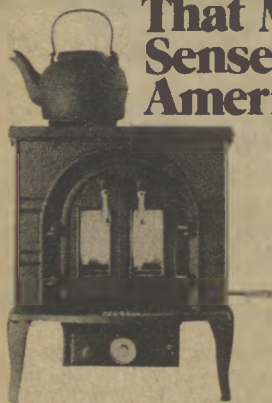


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Food Drying tells how to dry a large variety of fruits and vegetables including surprises like lettuce and berries. There are sections on meat, fish, eggs and dairy products, grains, herbs and flowers. There are several hundred recipes, beginning with menu suggestions and recipes for hiking and camping. How about hot tomato broth and campfire stew? Or perhaps beef and potatoes cooked in foil? Learn to make apricot leather, a wide variety of dried soups, herb vinegars, savory butters, marmalades, casseroles and pies, or jerky made from the meat of your own choice.

In case you are thinking about building a dehydrator, instructions and diagrams are included in the book, along with evaluations and testing results using some of the commercial dehydrators now on the market, if you would rather buy one.

This summer I think I'll try making solar tea, braised dried lettuce, bean pea soup mix and maybe rose-geranium potpourri, a pumpkin leather...

Happy drying! □

HOME FOOD SYSTEMS. Edited by Roger B. Yepson, Jr., Rodale Press, Emmaus, Pennsylvania. 1981 \$13.95.

By Mary Nevin

America loves to eat. We often eat in a hurry, and an ever-increasing percentage of our food dollar is spent outside the home. **Dietary Goals for the United States**, the official report of the U.S. Select Committee on Nutrition and Human Need states: "The social, cultural and psychological significance of food in our lives can scarcely be overestimated. Sharing of food is one of the prime social contacts and the provision of food is one of the prime signs of caring."

In the past, mankind has spent most of its collective waking life searching, growing, hunting, gathering, storing and preserving food. Today, people remark how wonderful it is to have the freedom to do other things with our time. While it is true that a person living with the stark and ever-present possibility of starvation does not create much music or pause often to ponder the stars, the more well-to-do in the world now work to earn money to buy over-processed food in muzak-filled supermarkets, or to eat in restaurants. (How many has McDonald's served now?) Over the past one hundred years we have increasingly relied on big business to take over every aspect of our food systems--even cooking.

Isn't something missing here? Well, if you think so, **Home Food Systems** is the book for you. It is subtitled, "Rodale's Catalog of Methods and Tools for Producing, Processing and Preserving Naturally Good Foods, and the format is similar to **The Whole Earth Catalog**. **Home Food Systems** takes the reader beyond (or behind) the cookbook and presents an awesome wealth of completely vital information. Besides covering methods and tools, there are recommendations for machines and equipment and also directions on how to construct a variety of items--from an outdoor brick oven to a solar dryer; from a sap evaporator to a tempeh incubator.

The book begins by profiling twelve grains, their history as mankind's staple, use, appearance and a nutritional analysis along with cookbook reviews and many recipes from around the world. You can try Tuo Zaafi from North Africa, Italy's

Polenta or Tabouli from the Middle East. Read about witches and moldy rye or about the sound corn makes growing in the field. Bread baking is thoroughly covered, again with many recipes. There is help in organizing a baking center in your kitchen and a review of tools you may need. Again and again in this book, you can learn to take the food from it's source to your table.

On we go to beans where fourteen varieties are covered. Then chapters on sprouting, juicing, drying, canning, freezing and cold storage. A section on "tongue foods" (toppings, condiments, herbs and seasonings) to make at home, the home dairy, backyard animals, fish gardening, mushroom growing and foraging.

The last chapter is devoted to planning the home with "thoughts on the kitchen, growing spaces and the garbage can." This section includes appliances, and gadgets useful in the kitchen with photos, evaluations and cost to purchase. "The kitchen of a hundred years ago was on a par with the home workshop, being just as filled with tools, storage space and important work to be done."

This is a whopper of a book! It has hundreds of photos and drawings printed on good quality paper helping to show the reader how to manage a stream, raise earthworms, grow your own yeast or test the quality of your tap water, just to name a few items on a list that goes on and on.

There are many recipes which will delight the adventurous cook, and there is a thread of good humor throughout the book. For instance, you can read about a physicist from Schenectady, New York, who says that a dishwasher is a foolish appliance and has devised his own system, stating: "People are ridiculously afraid of germs from dishes--A curious concern in that kissing is more apt to transmit disease and yet lips are not treated with scalding water and abrasive soap."

If you are involved in home food systems already and want more involvement, or if you are just getting your feet wet--you can find what you need in this book, plus a lot more!

Its chapters are loaded with information on how to set up the various food systems that interest you, and although many helpful reviews of books are given that can take you further, you don't need them for starters. Home Food Systems provides what you need to get going.

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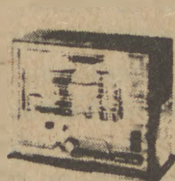
*"And let the food become as a reserve for the land for the seven years of famine which will occur."*  
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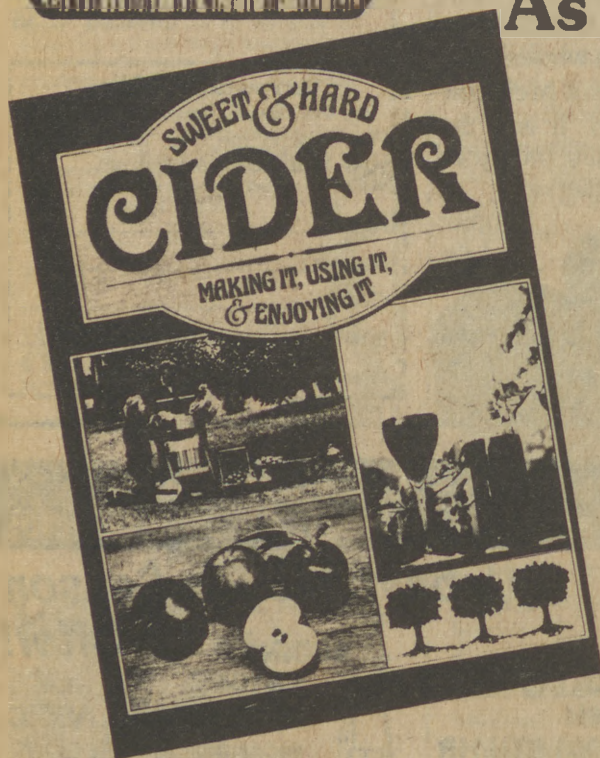


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### As Reviewed in this Issue!



## ★ Sweet & Hard Cider

by Annie Proulx and Lew Nichols

"I never realized that cider comes in so many forms, flavors, shapes, and ways...The book begins with a fascinating history of this apple beverage, complete with old photos and sketches ...Cider was used to cure illness, fulfill ceremonial tradition, and as the major social drink, used at breakfast, lunch and supper...an appreciation for an age old art."---Sandy McLaughlin, Farmstead Reviewer.

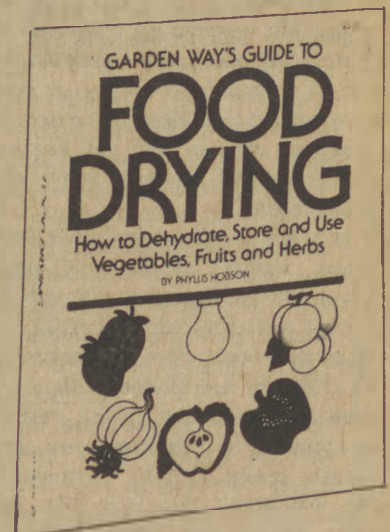
How to make, harden, distill, judge, drink and enjoy this historic beverage. A book that has the old time flavor of cider making, plus instructions on how to select and grow trees and color photos to aid in identifying apples. The ultimate statement on cider. **G-97 Softback . . . . . \$9.95**

## ★ Food Drying

by Phyllis Hobson

- How to dry all the vegetables and fruits—plus mushrooms, meat, fish, eggs and dairy products, grains, herbs—even flowers.
- **Three methods** for drying foods—your oven, the sun, or a dehydrator.
- How to use these foods. **Hundreds of recipes.**
- **How to make** breakfast foods, crackers, croutons, jerky, herb teas, butters, and vinegar, fruit and vegetable leathers, dried soup mixtures, snacks for low-calorie, nutritional munchies for you and your children.
- **How to judge commercial dehydrators** before you buy one.
- **How to make your own dehydrator.** A report with diagrams and how-to instructions on one built, tested, and approved by Garden Way.

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# As Reviewed in this Issue!



★ HOME FOOD SYSTEMS  
edited by Roger B. Yepson, Jr.

Because family skills like canning and bread making have become mostly streamlined factory activities and nearly forgotten, Home Food Systems is written as a guide to getting involved once again. Homemade food costs less, tastes better and can provide more nutritional goodness.

While most of the thirteen chapters encourage a revival of traditional household activities, the book explores new ways of making food, including backyard aquaculture, advanced solar growing spaces, tofu making and much more. All that is needed is this introduction to the recipes, machines and methods--both handed down and up to the minute. Softback .....\$13.95  
R-76 Hardback .....\$16.95

## KEEPING THE HARVEST



COMPLETELY REVISED EDITION!

G-34 KEEPING THE HARVEST - Home Storage of Fruits and Vegetables by Nancy Chioffi and Gretchen Mead - Now even more complete, up-to-the-minute exacting, and loaded with new recipes and ideas. **NEW!** A complete chapter on Steam Juicing, a total update and expansion on Drying, Tomato canning update, up-to-date recommendations for canning times.

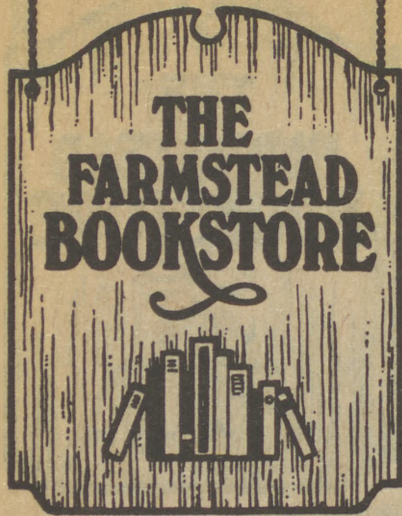
All About CANNING•FREEZING•BOTTLING•CURING•PICKLING•STORAGE• 208 pages, over 200 photos and illustrations.

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G-92--Perfect for the single-cow family or for semi-commercial needs. Highly informative, usable information on buying a cow, handling techniques, housing, feeds and feeding, milking, health care, breeding, calving, land use, all about hay and roots. Excellent illustrations. 200 pp. Quality paperback .....\$6.95



**R68 BUILD YOUR HARVEST KITCHEN**  
 Edited by William H. Hylton.

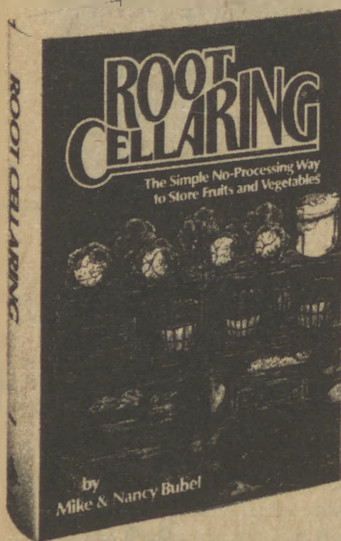
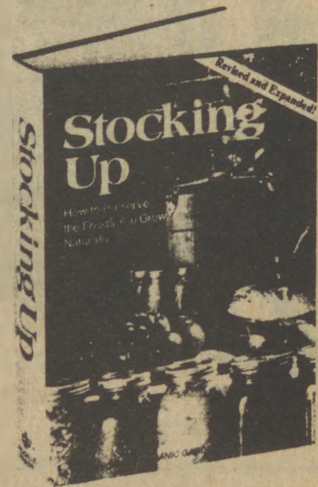
- Complete and detailed--covers everything from framing to wiring and plumbing to wallpapering and painting to cabinetry
  - Plans and construction details for more than 12 handsome cabinets
  - Dozens of specific woodworking projects for the kitchen--ranging from tables and chairs to cutting boards
  - 60 pages of color photos of owner-designed and/or -built kitchens
  - More than 750 how-to illustrations on all areas of kitchen construction
  - 640 pages, 182 photographs, metric conversion info, index, CIP
- Hardcover ..... \$19.95



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**How to Preserve the Foods You Grow Naturally**  
 by the editors of Organic Gardening magazine  
 edited by Carol Huppung Stoner

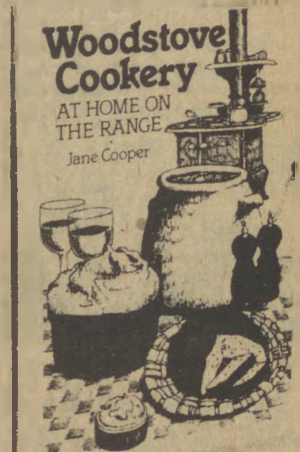
**R-52.** One-third larger than the original edition, with many more illustrations, and almost 100 new recipes, the new edition has expanded directions for jams and jellies with honey; for drying fruits, vegetables, and meats; and for making a variety of soft and hard cheese.  
 Hardback ..... \$16.95



**R-67 ROOT CELLARING - The Simple No-Processing Way to Store Fruits and Vegetables** by Mike and Nancy Bubel - This book, the first devoted entirely to root cellaring, covers the subject thoroughly. It describes a variety of small-scale root cellaring techniques and give instructions for constructing different types of cellars of varying size. The book provides ideas for country, suburban, and city root cellars. Not everyone can live in the country but, with the aid of this book, everyone can benefit from natural cold storage. 320 pages, photos, illustrations, charts, index.  
 Hardback ..... \$12.95

## Woodstove Cookery

by Jane Cooper



**G-23** This is an amazing book--not only an outstanding cookbook, but also a handbook to a special "woodstove-oriented" way of life. Learn here to let your stove work for you--old-fashioned hot cereals made the night before, back-burner homemade cottage cheese, which wood for which purposes; baking, drying, roasting the wood cookstove way. A complete wood cookstove manual written and illustrated with homespun charm. Beautiful! Softback ..... \$5.95

**R-37 DUCKS AND GESE IN YOUR BACKYARD** by Rick and Gail Luttmann - This book presents all the basics of domestic wildfowl husbandry in an enjoyable, easy-to-read manner. It covers breeding, hatching, feeding and health maintenance; how to get eggs, meat and down from the backyard flock; how to construct ponds and use wildfowl for insect control, pets, and show birds. 252 pp., 75 drawings. Paperback \$7.95

**G-96 GARDEN WAY'S PRACTICAL BEEKEEPING** by the Garden Way Staff  
This is a book that we know from experience will work in the field, a book that we know from experience is necessary to fill the need for easily grasped, practical know-how in the ever-growing field of beekeeping. 224 pp with 100 illustrations. Paperback .....\$5.95

**R-26 A VETERINARY GUIDE FOR ANIMAL OWNERS** by C.E. Spaulding, D.V.M. - Here's a book that's long been needed on the farmstead - a handbook for specific preventive measures and cures for all common pet and livestock ailments. It's organized by animal, and each chapter gives health-care information for that particular animal. A book that animal owners will use time and time again. 432 pp. 60 illustrations. Hardback .....\$14.95

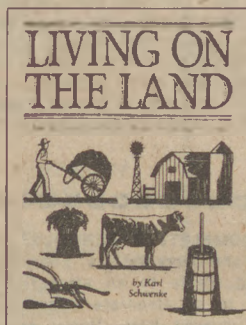
**R-28 THE HERBAL HANDBOOK FOR FARM AND STABLE** by Juliette de Bairacti Levy - This book brings information to farmers and owners of domesticated animals in treating their livestock without chemicals. Separate chapters on each animal include herbal care for diseases, delivering young, and keeping animals healthy. 320 pp. Paperback .....\$7.95

**GF-04 RAISING SHEEP THE MODERN WAY** by Paula Simmons - Modern sheepraising has shown a trend toward the small holder, with emphasis on profitable, self-sufficiency. This book provides the small flock owner with information on the fundamentals of sheep management. It stresses sheep health and preventive care, and of the latest in medical treatment, should that become necessary. 234 pp. with illustrations. Quality paperback .....\$6.95



**R-16 THE DRAFT HORSE PRIMER** by Maurice Telleen--For people who want to learn the fundamentals of using work horses on the farm. This book clearly illustrates the economy of using draft horses and explains the basics: how to buy a draft horse; how to feed and care for the animals; how to find and repair horsedrawn machinery; how to harness and hitch a team; and how to breed them. 272 pp. with illustrations and photos. Hardback .....\$12.95

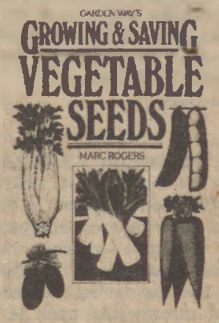
**R-13 RAISING THE HOMESTEAD HOG** by Jermone D. Belanger - Raise a pig in the backyard? Why not, challenges the author, as he explains that properly maintained pigs are not smelly or dirty. It covers the full range of hog raising including feeding, diseases and related management topics. 224 pp. 36 illustrations. Hardback .....\$8.95



**G-7 LIVING ON THE LAND: AN APPROACH TO SMALL-SCALE FARMING SUCCESS** by Karl Schwenke - "Somewhere at the common root are the universal ties of man to the soil." Karl Schwenke turns to these ties as the explanation for the necessary return to the small-scale farm. He has written this book to serve these new farmers as a practical resource. Included are in-depth discussions of soils, farm crops, farm machinery, surveying, rough carpentry, and revived farm lore. 144 pp. over 100 illustrations and appendix with charts. Paperback .....\$8.95



**G-93 BUILD YOUR OWN LOW-COST HOME** by Roger Hard - This book offers a viable alternative to expensive home construction; by describing in text and illustrations, the techniques used to build log homes either from "scratch" or using pre-cut log house kits. Over 100 detailed drawings, plus illustrative photographs take you step-by-step through the planning, site selection and preparation stages, the text always carrying parallel directions for kit construction or "from-the-tree" construction. 220 pp with 135 illustrations. Paperback .....\$8.95  
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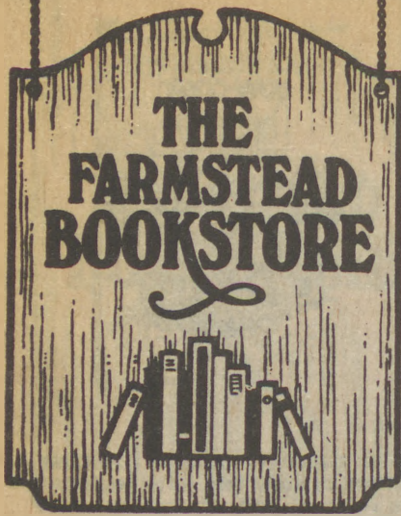


**G-13 GROWING AND SAVING VEGETABLE SEEDS** by Marc Rogers - Step-by-step information on raising vegetables for seeds. How to grow, harvest and store them to help out gardening costs and improve the quality of home garden crops. 112 pp., 75 illustrations. Paperback .....\$4.95



## Low-Cost ★ Green Lumber Construction

**G-87 LOW-COST GREEN LUMBER CONSTRUCTION** by Leigh Seddon--Building with green or native lumber is swiftly growing in popularity for attractive homes, barns and sheds at low cost. In this book, you'll learn how to select and buy green lumber from local sawmills and how to stack and dry it to avoid cracking and twisting. You'll get solid construction how-to from people who have built homes and barns from native lumber. Besides information on salvaging materials, and actual construction of a 20' x 24' utility barn, you'll find when not to use green lumber. Leigh Seddon is an experienced builder, with hands-on knowledge of green lumber and its uses. 220 pages, 150 illustrations. Paperback .....\$12.95



**R-22 STEP-BY-STEP TO ORGANIC VEGETABLE GROWING** by Samuel Ogden — This well-known guide to raising vegetables without chemical fertilizers and insecticides is based on the author's 40 years of personal experience. Mr. Ogden's book represents a solid reference source for beginners who need the basic information on caring for the soil, organizing the garden plot, collecting the necessary tools, controlling pests, and growing two dozen of the more popular vegetables. 192 pp. 95 illustrations.  
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**GF-85 PROFITABLE HERB GROWING AT HOME** by Betty E.M. Jacobs — The author of this book writes from experience, having run an herb farm in Canada for eight years. Here she shares knowledge on growing, harvesting and marketing herbs. The text is well-organized and the illustrations are delightful. 225 pp.  
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**R-23 HOW TO GROW VEGETABLES AND FRUITS BY THE ORGANIC METHOD** by J.I. Rodale — This hefty volume is actually seven books in one, covering general organic gardening techniques, vegetable growing, the home fruit garden and orchard, organic fruit culture, organic nut culture, herb gardening and growing unusual fruits. This remarkable book is the organic vegetable and fruit grower's bible. More than 600 charts, tables, how-to-illustrations and photos. 926 pp.  
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**R-40 THE ENCYCLOPEDIA OF ORGANIC GARDENING** by the staff of Organic Gardening and Farming Magazine - A revised, up-dated version of one of Rodale's all-time best sellers, this is the most authoritative handbook of organic methods yet to be published. Over 2,000 topics listed in convenient encyclopedic form provide reliable answers to almost any question. Comprehensive and concise. 1200 pp., 275 photos, 100 illustrations.  
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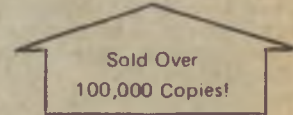
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**GF-07 SUCCESS WITH SMALL FOOD GARDENS: Using Special Intensive Methods** by Louise Riotte — This unique vegetable gardening book has been developed for everyone who has little land but would like to grow an abundance of vegetables. This book details the many techniques developed to insure bountiful crops in small spaces. Some techniques discussed: • interplanting • growing fences • tier plots • catch cropping • hanging gardens • terrace gardens • succession plantings • raised beds • kitchen and herb beds • vertical gardening • pyramids • French intensive beds. Unique to this book is the concept of landscaping, wherein the entire home landscape is planned to accommodate food production attractively and effectively. Fence-row growing, border plantings, multiple-use trees and shrubs, and small decorative vegetable plots can be combined for a stunning landscape, while providing a luscious fresh fruit, vegetable and berry supply. 192 pp. with 70 illustrations.  
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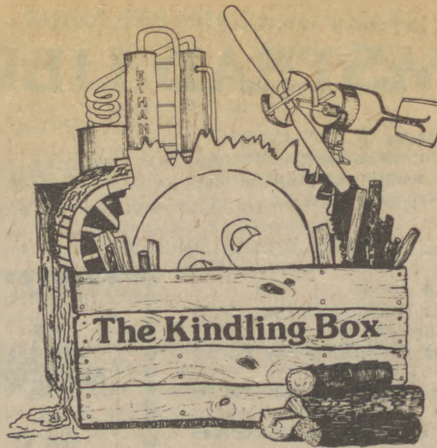
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## wind power for farm and home

Wind generators producing electricity could be a major source of energy for farm and home use in the windy Plains states, says Dr. Nolan Clark, who heads the U.S. Department of Agriculture's Conservation and Production Research Laboratory at Bushland, Texas, near Amarillo.

One wind turbine with a 31-foot diameter horizontal axis, produced 27,000 kilowatt hours of energy during 1980 and was available to produce energy 86 percent of the time.

A new eggbeater-shaped wind turbine is being installed at the experiment station, and Clark believes it will be able to produce electrical power as cheaply as natural gas or coal. It stands just over 82-feet high and has two 100-foot long blades attached to a rotating vertical shaft. Clark hopes the wind turbine, one of four built by Alcoa under a Department of Energy contract, will be able to produce electricity for six cents per kilowatt hour.

## seed oil for fuel

Recent talk about gasohol may have overshadowed an even more feasible fuel from farm crops--seed oil, says Charles Glover, Extension agronomist for New Mexico State University. "Since many of agriculture's energy intensive operations rely on diesel engines, technology to produce a substitute for diesel oil must be developed."

Sunflowers, safflower and rape have the potential to provide the fuel substitute. Oilseed crops generally require about the same fertilizer and cultural practices as cereal crops.

Usually less than 10 gallons of liquid fuel per acre is required to produce an oilseed crop. With good yields, the grower could expect to produce from 85 to 105 gallons of vegetable oil per acre. This would result in a net return of 8.5 to 11.7 gallons of fuel oil for each gallon invested.

The meal left after the oil has been removed from the seed contains 35 to 50 percent protein, depending on the method of extraction. This meal may become an important feed supplement in finishing rations for beef, swine and poultry.

Vegetable oils contain from 94-95 percent of the BTUs of diesel oil. Power outputs are equivalent to diesel oil and the thermal efficiency is greater.

"Vegetable oils appear to have great promise as an alternative fuel for agriculture," Glover says. "While current economics prohibit using vegetable oils, improved technology and the rising cost of petroleum may make the production of vegetable oil fuel both economical and necessary in this country."

## earth shelters

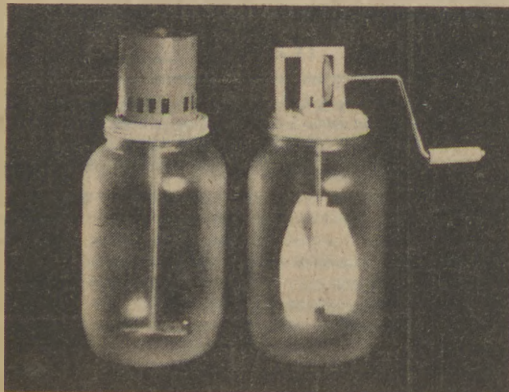
As the times change so do the lifestyles. One of the alternatives in housing, pleasing to both the energy and environmentally conscious, is earth sheltering. It blends into the surroundings and offers cooperation with nature instead of disruption and expense. Date shows people saving anywhere from 50 to nearly 100 percent of their energy costs in heating and cooling. Costs, according to our discussions around the U.S., are about on par with any quality custom home.

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and environment, earth shelters have low maintenance, security, weather protection and other advantages.

--Earth Shelter Digest

## drying firewood

Green wood from all species of trees should be dried in order to burn well in stoves and fireplaces. The advantage of dry wood is more heat—not necessarily less creosote in your chimney flue. Wood which is either green or wet often uses one-third or more of its potential heat energy to drive out moisture when burning.

You can aid the drying process by cutting logs into ready-to-use lengths and splitting all pieces which are more than five inches in diameter. Stack your wood loosely in long tiers not more than five feet high. Keep the lower layer off the ground by laying it on lengths of pipe, railroad ties or scrap lumber.

You could also dump your firewood in a loose, rounded heap. But, again keep it from direct contact with the

ground. Stacking firewood in an old livestock or tobacco barn or toolshed is also acceptable, provided there is good ventilation.

Do not store firewood in or near your house, or in a building attached to your house. This precaution is necessary in case the wood is harboring insects which could cause damage or become a nuisance in your home.

If possible, locate your outdoor tiers or piles of firewood in a sunny location, exposed to breezes. Cover their tops with a plastic film or other waterproof material.

## firewood production

From a heating perspective we would all like to have several acres of shagbark hickory or live oak growing in our back yards, as these species have extremely high heat potential. Climate and geography, however, have forced most of us to accept something less than the best. Other species with high heat output are sugar maple, beech, yellow birch, all the oaks, black locust, and white ash.

In the Northeast, beech, birch, and maple are a common association and abundant forest cover type. Farther south, oaks become more prevalent and are often found in association with hickories. In planning your woodlot for future firewood needs, you should favor these species if possible.

As your trees increase in diameter they will need more crown space. Hence, more thinning will be in order, and more firewood made available on a continuing basis. A rough rule of thumb is that most managed woodland is capable of growing nearly one cord per acre per year.

It may be tempting to cut down the best firewood trees first and leave the others. This philosophy is what has led to the sorry state of so much of our forests. All trees produce wood that burns, even if it's not the best. In your first thinning it is preferable to remove the species with less heat value. By doing this you are promoting growth where it will pay off in the future.

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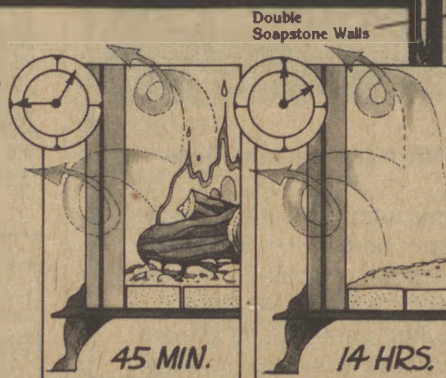
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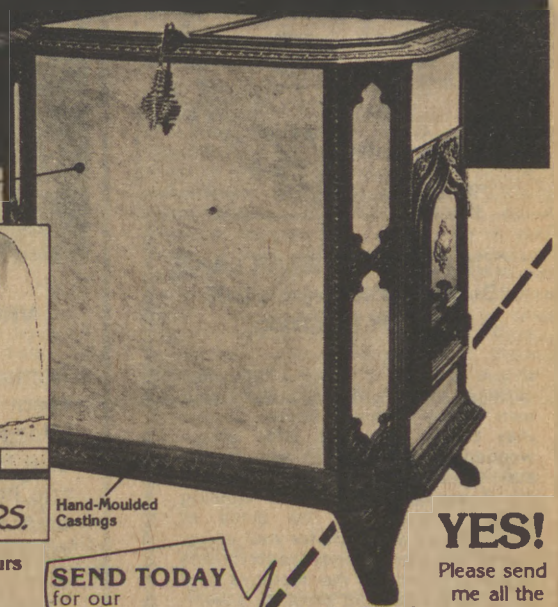


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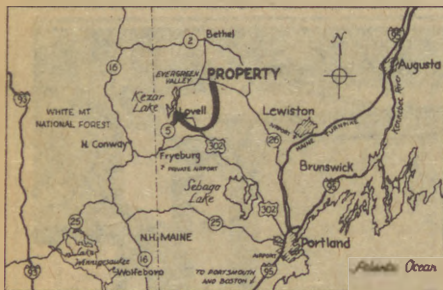
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