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**ATTENTION SMALL FARM FAMILIES**

# Forages For Swine

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Use of good pasture containing alfalfa, ladino clover, and grass can lower sow feed costs, help maintain high level reproductive capacity of boars and in many cases increase litter size as compared to confinement raising of hogs.

Pasture was formerly an absolute essential for a successful swine operation. In recent years, growing of hogs in confinement has become a reality because of vastly improved rations and means of disease and parasite control. But it is still possible to utilize large amounts of forage with the breeding herd.

Bred sows and gilts on legume pastures require much less supplemental protein and only about one-half as much grain as those in dry lots. An acre of good pasture should carry 8 to 10 sows.

Forages selected for swine should be succulent and capable of high production, very palatable, high in protein and vitamins, and produce over a reasonably long growth period.

Pastures make possible a good swine sanitation and disease control program. After swine have grazed pasture for one season, use the pasture for cattle or harvest hay from it for two years before using it for hogs again.

A pig's physical make-up does not lend itself to using great quantities of pasture or roughage like sheep and cattle. But a 400-pound sow can handle relatively large amounts. Good forage can also provide quality protein and certain vitamins and can reduce total feed requirements.

Research reports on feed savings for pigs on pasture vary considerably, depending on type of pasture, age of hogs, and management systems. Data indicate this will amount to 3 to 10 percent of the grain and as much as one-third of the protein needed for growing and finishing hogs. Pastures are recommended for the breeding herd, especially. They provide exercise and nutrients needed for sows.

The following points should be considered in making a decision between confinement and pasture production.

## ADVANTAGES OF PASTURE IN SWINE PRODUCTION

1. Lower feed costs on good pasture.
2. Provides exercise and nutrients needed by breeding sows.
3. Lower capital investment per production unit.
4. Good use of land not suitable for cropping.
5. Better isolation and disease control.
6. Decreases waste management problems.
7. Decreased cannibalism.

## DISADVANTAGES OF PASTURE SYSTEM

1. More labor required for handling, feeding, and watering.
2. Possibly greater problems with internal parasites.
3. More labor in farrowing.
4. Possible decrease of crop land.
5. May require slightly longer for hogs to reach market.
6. Lack of environmental control in extreme weather.

## LEGUMES

The legumes as a group have a higher protein, calcium, and carotene content than grasses. They can furnish an adequate supply of most vitamins with the exception of vitamins D and B<sub>12</sub>.

Alfalfa, ladino, sweet clover, red clover, and lespedeza are legumes that may be used for swine pasture. Alfalfa and ladino are probably the best of the group and where possible should furnish the basis of any perennial forage mixture for swine. Ladino clover will not produce as much forage per acre as will alfalfa but it is somewhat superior in nutritive value. Where adapted, the use of the two together has increased yields and improved the nutritive value.

Lespedeza may also be used during the summer months with approximately the same results as alfalfa. However it must be faulted for its lower yield per acre and its shorter grazing season.

## GRASSES

Perennial grasses such as orchardgrass, timothy, and bromegrass, while not as high in quality as the legumes, should be used in mixtures with them. Mixtures of grass-legume have performed as well as legumes alone, and have the advantages of increasing total yields, providing a superior sod, and reducing the risk of losing the legumes through heaving and stress kill.

## TEMPORARY PASTURES

Sudangrass, sorghum-sudan crosses, and small grains may also be used as hog pastures. But rape is the best annual crop in Missouri for swine. It contains around 28 percent protein on a dry matter basis, compared with 30 percent for alfalfa, and an acre will handle about 20 shoats.

## STOCKING RATES

Stocking rates will depend upon soil fertility, quality of pasture, and time of year. Recommended pasture stocking rates are:

|                                    |                |
|------------------------------------|----------------|
| sows with litters                  | 6-8 per acre   |
| pigs from weaning<br>to 100 pounds | 15-30 per acre |
| from 100 pounds<br>to market       | 10-20 per acre |
| gestating sows                     | 8-12 per acre  |

These recommendations assume the use of good quality legume pasture under conditions of adequate moisture.

## FEEDING RECOMMENDATIONS ON PASTURE

Gestating sows will usually maintain their body weight on excellent ladino-clover pasture with no additional feed. General recommendations on average to excellent pasture would be to provide around 2 pounds of grain daily for sows and 3 pounds for gilts on pasture, plus free-choice access to minerals and iodized salt during the first two-thirds of gestation. During lactation, 2 to 3 pounds of 15 percent protein ration per 100 pounds body weight is recommended. Growing-finishing hogs in most cases should be full-fed with around 20 growing-fattening pigs to the acre.

## HERD MANAGEMENT ON PASTURE

It is important to have adequate water and shade for hogs on pasture. Studies show extremely high temperatures have an adverse effect on breeding herds, so it is important to provide adequate shade for them.

Pigs of widely varying weights should not be run together. Avoid having a range of weights that exceeds 20 percent above or below the average in the herd.

## RAPE

Rape is neither a grass nor a legume but belongs to the same plant family as cabbage.

**Fertilizing.** Rape requires a soil high in available calcium and responds to high levels of nitrogen. Fertilize with phosphate, potash, and lime as for alfalfa and with nitrogen as for corn.

**Seeding.** Rape may be seeded with spring oats as early as February or early March. Use a seeding rate of 5 to 6 lbs per acre. When the oats are drilled, the rape may be seeded through the grass seeding attachment or may be broadcast after the oats are seeded. Use a cultipacker or harrow to cover the seed very lightly.

Dwarf Essex is the best variety and seed is available.

**Pasturing.** Do not begin to pasture until rape has reached a height of 9 to 10 inches. With early seedings this should occur about 6 to 8 weeks after seeding.

Rape sometimes causes white hogs to sunscald. It is caused by the pigs grazing when the rape is wet and then getting exposed to hot sunshine. However, this is usually not serious if treated with crude oil or carbonated petroleum, nor is its occurrence very frequent.

## SILAGE FOR BROOD SOWS

Silage, either corn silage or high quality alfalfa-grass silage, is a practical way of using more forage in a hog program. However, it must be emphasized that the nutritional requirements of bred sows is very exacting and supplementation of the silage is essential. Both corn and alfalfa-grass silage must be supplemented with protein and energy, but if done properly, silage feeding may improve litter size and pig livability and save up to 25 percent in feed costs.

A swine producer would not build a silo just to feed brood sows, but if silage is available for cattle, using it for sows will produce excellent results.