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# *Creep Feeding*

# **BEEF CALVES**



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# Possibility of Profit from Creep Feeding

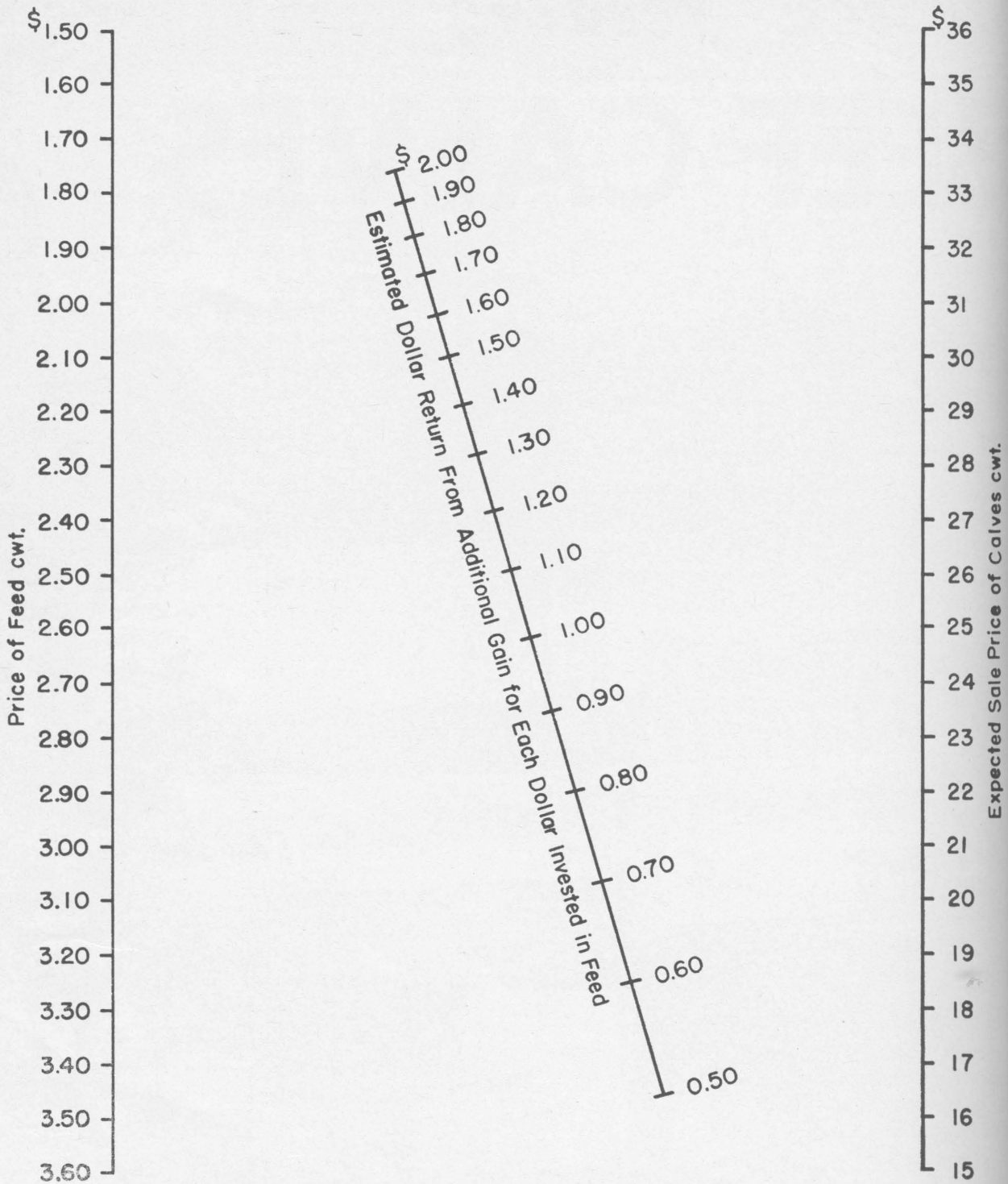


Fig. 1. This chart is a means of estimating the expected returns from additional gain for each dollar invested in creep feed, using different prices of feed and calves. This chart is based on the use of 950 pounds of creep feed for each 100 pounds additional gain. Read the section entitled, "Possibility of Profit," page 4, before using this chart.

# Creep Feeding Beef Calves

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**S**UPPLEMENTING THE GRASS AND MILK of unweaned calves with a feed not available to the mother cows may make a more efficient beef cattle operation. In a small herd, this supplemental feeding can be given the calves while they are separate from the cows for a few hours each day. In most cases it is desirable for the calves to have access to feed at all times. This can be done with a self-feeder placed in a lot that will keep older cattle out but has openings that calves can pass through. This is called creep feeding.

## *Advantages of Creep Feeding*

### **IN ANY CREEP-FEEDING PROGRAM**

Any creep-feeding program will have most of the following advantages, but the economic importance of each will vary greatly according to the type of calves to be produced.

1. It adds some weight and finish.
2. Cows may not lose as much weight during the nursing period.
3. Calves grow more uniformly in size and condition.
4. There is less shrinkage at weaning time.
5. It may aid in developing future breeding cattle.
6. It may serve as a market for home-grown feeds.
7. Creep-fed calves usually sell for a higher price than calves not creep fed.

### **IN A SLAUGHTER CALF PROGRAM**

Creep feeding for maximum finish usually is practiced with calves to be sold to the packer as fat calves at weaning time. The most important advantages in a slaughter calf program are:

1. The calves carry a higher degree of finish at weaning time.
2. Creep feeding tends to insure enough finish at weaning time to have slaughter calves to market.

### **IN A FEEDER CALF PROGRAM**

Creep feeding for rapid growth generally is used with high-quality feeder calves or young breeding animals that go directly on full feed after weaning. Special advantages in feeder calf production are:

1. The shrinkage at weaning time is reduced to a minimum.
2. The feeding period after weaning is shortened.

### **IN A STOCKER CALF PROGRAM**

Creep feeding for normal growth and development has limited use when stocker calves are produced. It is widely used under drouth conditions to maintain normal growth and aids in developing young breeding cattle. The following advantages should be considered when producing stocker calves.

1. It adds considerable weight and some finish.
2. The cows are not as poor when the calves are weaned.
3. Calves are more uniform in size and condition.

## *Limitations of Creep Feeding*

1. Creep feeding does not replace a breeding program in which females are selected for good milk production.
2. Calves that are nursing good milking dams while grazing on abundant, nutritious green pasture may not respond to creep feeding.
3. Extra time and patience may be required to get the calves on feed.
4. Extra equipment and labor are required.
5. Hogs, sheep or goats cannot run in the same pasture with a creep feeder.
6. When there are several gathering places for the cows, creep-feeding equipment at each place may be too expensive.

## FEED CONSUMED PER CALF

The amount of feed consumed by calves on a creep varies according to the age of the calf, amount of milk the dam produces, the amount of grass available and the palatability of the feed. A good rule to use is 2 to 3 pounds of feed for each day of life if the calves are marketed or weaned at 7 months of age and twice as much feed if calves remain on a creep until 9 months of age.

Table 1. Average feed consumption by creep-fed calves

| Age of calf<br>(Months) | Lb. of feed |           |  |
|-------------------------|-------------|-----------|--|
|                         | Per Day     | Per Month |  |
| 1 to 2                  | 1½          | 15        | } 585 lb. of creep feed<br>from birth to 7 months. |
| 2 to 3                  | 1½          | 45        |  |
| 3 to 4                  | 2½          | 75        |  |
| 4 to 5                  | 3½          | 105       | } 585 lb. of creep feed<br>from 7 to 9 months.     |
| 5 to 6                  | 5           | 150       |  |
| 6 to 7                  | 6½          | 195       |  |
| 7 to 8                  | 8½          | 255       | } 585 lb. of creep feed<br>from 7 to 9 months.     |
| 8 to 9                  | 11          | 330       |  |

## FEED REQUIRED PER 100 POUNDS ADDITIONAL GAIN

Young calves require less feed per 100 pounds of gain than do older cattle. Studies conducted on feed required for gain show that calves weighing 300 to 500 pounds should gain 100 pounds on 400 pounds of total digestible nutrients or 500 pounds of a good grain ration. The amount of feed necessary to put on 100 pounds of extra gain when calves are eating from a creep is much greater. All of the creep feed that a calf eats will not be used for additional gain. About half of the feed will replace the pasture that they do not eat because the creep feed is available. Experimental tests show extremes from 507 pounds of creep feed required per 100 pounds of gain on calves weaned at 5½ months to 1,720 pounds of creep feed needed for 100 pounds of gain in a group of calves weaned at 9 months of age. Differences of 400 pounds in the amount of feed required for 100 pounds of gain have been reported in calves weaned at the same age. An average of 47 tests shows that calves on a creep for 155 days gained 58 pounds on 559 pounds of feed. In these tests, 963 pounds of feed were required to make the calves on a creep gain an additional 100 pounds.

The amount of gain due to the creep feed can be estimated by using the pounds of feed consumed. For example, if calves consumed 475 pounds of feed per head, the calves would be about 50 pounds heavier than without the creep. When pasture is abundant and the calves consume 240 pounds or less of feed, the additional gain would be 25 pounds or less. When feed consumption is 710 pounds per calf, it can be assumed that additional creep feed results in 75 pounds of gain per calf.

## POSSIBILITY OF PROFIT

Using an average of 950 pounds of creep feed required for 100 pounds of gain, it is possible to arrive at a guide to determine the possibilities for making a profit at certain feed costs and different prices of calves. Figure 1 shows the dollar returns that can be expected from weight gain for each dollar invested in feed. When using the chart consider the following points:

1. Additional expenses in a creep-feeding program such as costs of keeping feed in the creeps, depreciation and interest are not figured.
2. There is a possibility of a change in the selling price because of a change in grade of the calves as a result of creep feeding. In the production of slaughter calves usually the price per hundredweight will increase some as a result of creep feeding. The change in price of stocker and feeder calves may be up or down, depending on the markets at the time the calves are sold.
3. The rations used in the creep-feeding tests which indicated an average of 950 pounds of creep feed required per 100 pounds additional gain were similar to mixtures in Tables 2 and 3. When rations similar to the mixture in Table 4 are used, the cost per 125 pounds of feed should be used instead of the cost per 100 pounds because the low TDN (total digestible nutrients) in this mixture make approximately 1,190 pounds of feed necessary to make 100 pounds of gain.

## *Suggested Rations*

Before deciding what rations to feed, the producer should determine what he wishes to accomplish. Some producers creep feed calves primarily to improve finish; others want rapid growth; some are interested only in maintaining normal growth and development.

The ration shown in Table 2 should be used when producers are interested primarily in finish. This would include producers of slaughter calves and calves that go on full feed immediately after weaning.

Table 2. Mixture for maximum finish — approximately 80% TDN

| Feeds                     | Average age    |   |
|---------------------------|----------------|---|
|                           | 1 to 4½ months | 4½ months and older                               |
| Corn and/or sorghum grain | 100%           | Replace 10% of the grain with 10% cottonseed meal |

Table 3. Mixture for rapid growth and gain—approximately 70% TDN

| Feeds                     | Average age    |                     |      |
|---------------------------|----------------|---------------------|------|
|                           | 1 to 4½ months | 4½ months and older |      |
| Corn and/or sorghum grain | 75             | —                   | —    |
| Ear corn ground           | —              | 100                 | —    |
| Oats (average or heavier) | —              | —                   | 100  |
| Cottonseed hulls          | 25             | —                   | —    |
|                           | 100%           | 100%                | 100% |

Rations in Table 3 should cost less than the high TDN ration and are used extensively as a general purpose creep feed. These rations increase grade and gain of slaughter calves, but not as

Table 4. Mixture for normal growth and development—approximately 60% TDN

| Feeds                          | Average age    |                     |      |
|--------------------------------|----------------|---------------------|------|
|                                | 1 to 4½ months | 4½ months and older |      |
| Corn and/or sorghum grain      | 40             | —                   | —    |
| Ear corn ground                | —              | 50                  | —    |
| Oats (average or heavier)      | —              | —                   | 50   |
| Oats (light-weight)            | —              | —                   | 90   |
| Cottonseed hulls or ground hay | 50             | 40                  | 40   |
| Cottonseed meal                | 10             | 10                  | 10   |
|                                | 100%           | 100%                | 100% |

much as the high TDN mixture. On the Table 3 mixture, feeder calves that go directly into the feedlots will be growthy and well developed. The medium TDN mixture will provide for maximum development of young breeding cattle.

Rations shown in Table 4 permit normal growth and development when cows and calves are short on feed because of overstocking or dry weather. Under such conditions, calves that will be marketed as stocker calves will continue to grow and develop without putting on the extra finish to which stocker buyers object.

## ADAPTING RATIONS TO LOCAL CONDITIONS

Ground barley may be substituted for cracked corn or sorghum grain.

Five to 10 percent of dried or blackstrap molasses may be used to replace the same amount of grain.

The addition of the 10 percent cottonseed meal after calves reach 4½ months of age may be of little value when the cattle have access to abundant green grass.

Ten percent of alfalfa leaf meal pellets should be used to replace 5 percent of the cottonseed meal and 5 percent of the grain under drouth conditions.

If calves are fed past 8 months of age and pasture begins to dry up, the cottonseed meal should be increased to 15 percent of the ration.

Pea-size cottonseed cake may mix better with threshed oats, corn or grain sorghum.

Rations of locally produced feed usually are more economical than special creep-feeding pellets sold by feed manufacturers.

## COMPARATIVE PRICES OF FEEDS

Any of the feed grains usually are satisfactory as a creep feed. Normally, if grain is stored on the farm it will be the most practical feed to use in the creep-feeding ration. There may be times when home-grown grains can be sold and a cheaper grain can be purchased. If all grain must be bought, certain ones may be more economical. Table 5 shows comparative prices based on nutritive value for use in a creep-feeding ration.

Table 5. Comparative prices for equal total digestible nutrients in different feeds

| Feed                    | TDN  |      |      |      |      | Cost per 100 lb. |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------------------|------|------|------|------|------|------|------|------|
|                         |      |      |      |      |      |                  |      |      |      |      |      |      |      |      |
| Corn —                  |      |      |      |      |      |                  |      |      |      |      |      |      |      |      |
| Grade No. 2             | 80.1 | 1.60 | 1.80 | 2.00 | 2.20 | 2.40             | 2.60 | 2.80 | 3.00 | 3.20 | 3.40 | 3.60 | 3.80 | 4.00 |
| Grain sorghum           |      |      |      |      |      |                  |      |      |      |      |      |      |      |      |
| Milo grain              | 79.4 | 1.59 | 1.78 | 1.98 | 2.18 | 2.38             | 2.58 | 2.78 | 2.97 | 3.17 | 3.37 | 3.57 | 3.77 | 3.97 |
| Barley —                |      |      |      |      |      |                  |      |      |      |      |      |      |      |      |
| Common                  | 77.7 | 1.55 | 1.75 | 1.94 | 2.13 | 2.33             | 2.52 | 2.72 | 2.91 | 3.10 | 3.30 | 3.49 | 3.69 | 3.88 |
| Ear corn —              |      |      |      |      |      |                  |      |      |      |      |      |      |      |      |
| Corn & cob meal         | 73.2 | 1.46 | 1.64 | 1.83 | 2.01 | 2.19             | 2.38 | 2.56 | 2.74 | 2.92 | 3.11 | 3.24 | 3.47 | 3.66 |
| Oats —                  |      |      |      |      |      |                  |      |      |      |      |      |      |      |      |
| Average                 | 70.1 | 1.40 | 1.58 | 1.75 | 1.93 | 2.10             | 2.28 | 2.45 | 2.63 | 2.80 | 2.98 | 3.15 | 3.33 | 3.50 |
| Oats —                  |      |      |      |      |      |                  |      |      |      |      |      |      |      |      |
| Lightweight             | 59.8 | 1.19 | 1.34 | 1.49 | 1.64 | 1.79             | 1.94 | 2.09 | 2.24 | 2.39 | 2.54 | 2.69 | 2.84 | 2.99 |
| Cottonseed hulls —      |      |      |      |      |      |                  |      |      |      |      |      |      |      |      |
| Used in limited amounts | 43.7 | 0.87 | 0.98 | 1.09 | 1.20 | 1.31             | 1.42 | 1.53 | 1.64 | 1.75 | 1.86 | 1.96 | 2.07 | 2.18 |

## FEED ADDITIVES

Antibiotics (either aureomycin or terramycin) can be added to the creep mixture to provide 45 milligrams per day if scours or a general health problem develops. Use the proper dosage since too high a level reduces feed intake and defeats the purpose of creep feeding.

## USING HORMONES

Based on limited information, increases in gain can be expected with 12 milligrams of diethylstilbestrol implants at 2½ to 3 months. These implants should be used only on calves that will be marketed at weaning time as slaughter calves. Implants should not be made on heifer calves which may be selected as replacements.

## *Age to Market or Wean Creep-Fed Calves*

### IN A SLAUGHTER CALF PROGRAM

Creep feeding to produce slaughter calves requires even more skills than are necessary in a regular cattle feeding operation. The producer should be a close observer of his cattle and know the approximate date and weight the calves will reach the desired finish. Knowledge of length of time this finish can be maintained, the cost of additional gain and probable changes in the market price should be used to estimate the most profitable time to market creep-fed calves.

### IN A FEEDER CALF PROGRAM

Good markets for heavy feeder calves are limited and the producer first should have a market available or plan to continue his feeding operation before deciding to produce calves of this

weight and finish. When pastures remain good, milk production is good and consumption of creep feed is low, it usually is profitable to continue the creep feeding. When pasture is short, cows are weaning their calves and feed consumption is high, it may be more profitable to wean the calves at 6 or 7 months and put them on full feed in a lot.

## IN A STOCKER CALF PROGRAM

Creep feeding stocker calves usually is an emergency practice used in drouth periods to make near normal growth and development of the calves possible. It also allows the calves to be weaned at the regular time or a little earlier, thus giving the cows as much time as possible to recover from nursing the present calf and gain weight before calving again.

## *Equipment*

### BUILDING THE CREEP

The creep is an enclosure or lot with an opening large enough for calves to pass through, but too small for older cattle. The creep may be constructed with wire, poles, lumber, pipe or a combination of these materials. It should be strong enough that mature cattle will not tear it down. Figure 2 shows the creep using both pipe and lumber. This type of construction for a creep is not satisfactory if cows are small or yearling cattle are run in the pasture. Other types of creeps are constructed with individual passageways for the calves. These openings or passageways should be 16 to 20 inches wide and 30 to 36 inches high. Figure 3 shows such a creep constructed of barbed wire and lumber. Additional passageways for calves could be built in, if desired. Figure 3 also

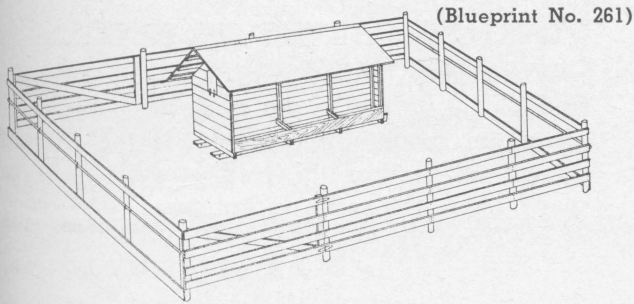


Fig. 2. A creep and self feeder constructed of lumber and pipe.

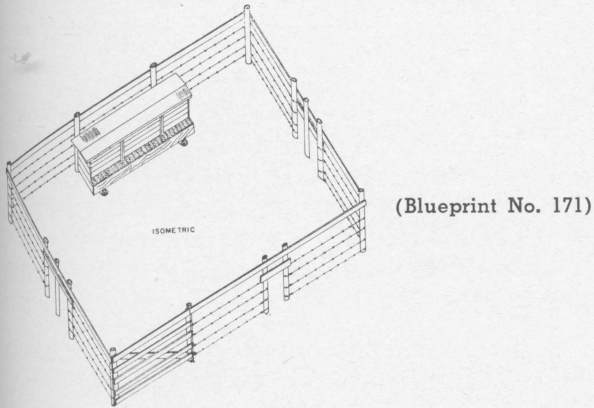


Fig. 3. A creep constructed of barbed wire and lumber. The feeder is located so that it can be filled without driving a truck inside the creep.

shows the location of a feeder that can be filled without driving the truck inside the creep.

### BUILDING THE FEEDER

The feeder may be one of several types, but should fit the needs of the individual producer. Self feeders can be constructed to allow calves to feed on one or both sides. They should be large enough to hold about 5 days feed supply. Open troughs may be used but they lack the advantages of self feeders.

The feeder in Figure 4 allows calves to eat from both sides and is designed to accommodate about 80 calves. It is 16 feet long and holds 125 bushels of grain.

The self feeder in Figure 5 allows calves to eat on only one side. This permits placing the feeder against the side of the creep where it can be filled from the outside. It may be raised or lowered by placing different sizes of blocks under the floor. This feeder, 10 feet long, holds 30 bushels of grain and serves about 30 calves.

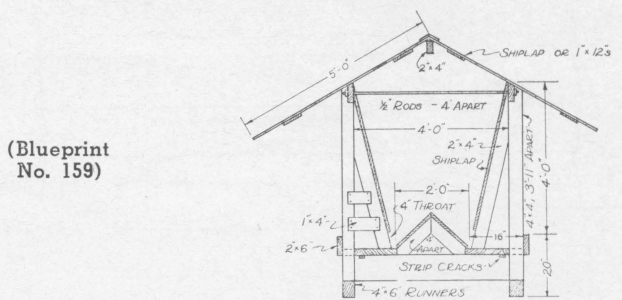
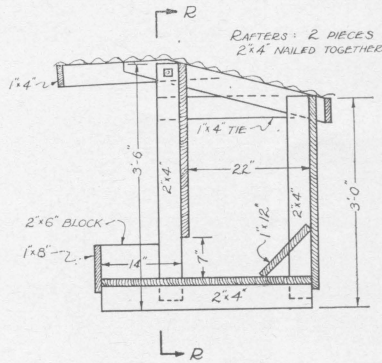


Fig. 4. This plan allows feeding from both sides.



(Blueprint No. 171)

Fig. 5. This plan allows feeding from one side.

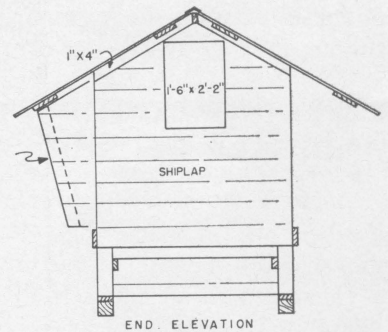


Fig. 6. Boards may be extended at each corner to better protect feed in windy regions.

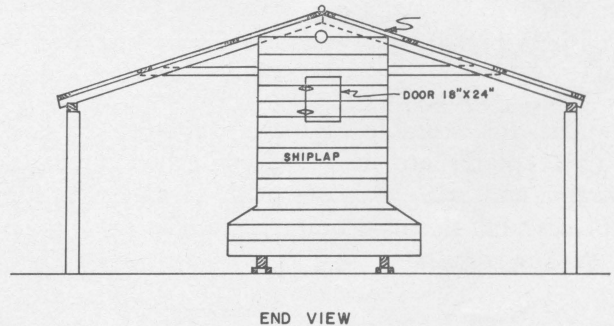


Fig. 7. The roof may be extended to provide extra shade in hot weather.

Alterations of plans for self feeders may be necessary to make them adaptable to an area. By extending boards at each corner, as shown in Figure 6, the feed will be protected from the

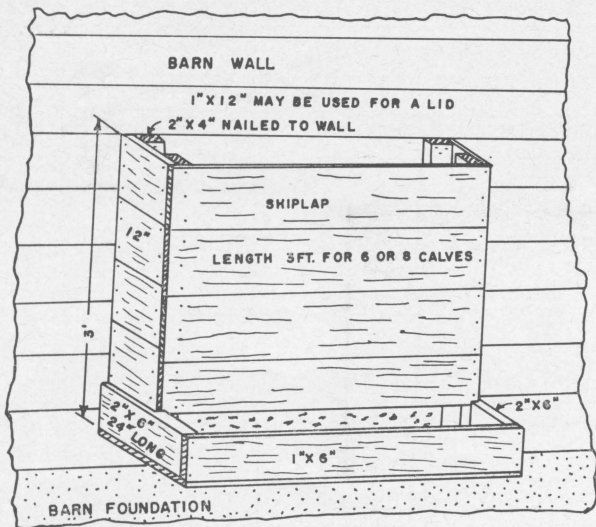


Fig. 8. An inexpensive feeder can be built under a shed. (Blueprint No. 172)

wind. In areas where shade is needed for calves, the roof may be extended, as shown in Figure 7, to furnish shade.

Sometimes it is desirable to build a self feeder under an existing shed. Figure 8 shows how this simple, inexpensive feeder can be constructed.

### BUILDING A COMBINATION CREEP AND SELF FEEDER

A combination creep and self feeder on skids has been useful where the creep feeds have to be moved from pasture to pasture. Figure 9 shows a view of a creep and self feeder with the individual passageways for the calves on both sides of the feeder. This feeder should take care of 50 or 60 calves.

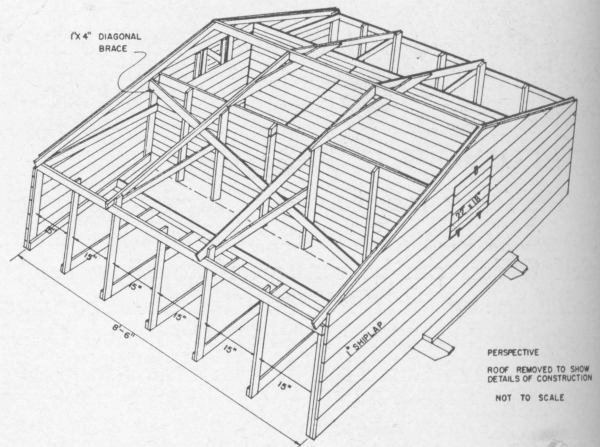
### LOCATION OF CREEP FEEDERS

Places where the cows gather one or more times a day are desirable locations for creep feeders. These places are near feeding grounds, shade, water and salt. Pastures with several watering places and shades require more than one creep for best results.

### STARTING CALVES ON FEED

When creep feeding is a regular practice, the feed should be put in the creep when the older calves are about 3 weeks old. If the creep is located on or near the feed ground, water or shade where the cattle gather nearby, the calves usually start eating with little trouble. Getting older calves to eat in a creep may be more of a problem. One of the following suggestions may help.

1. Construct the creep feeder before the calving period starts and allow the cows to enter the creep until you are ready to start feeding the calves.
2. Confine an older animal that knows how to eat inside the creep to serve as a decoy to the younger calves.
3. Teach a few of the older calves to eat and the younger calves will follow.
4. Scatter cake or hay near the creep and more of it inside the pen to coax the calves to enter. Once inside, they should find the feed. Fresh clean feed in this early period is essential.



(Blueprint No. 391)

Fig. 9. Creep and self feeder with individual passageways for calves on both sides.