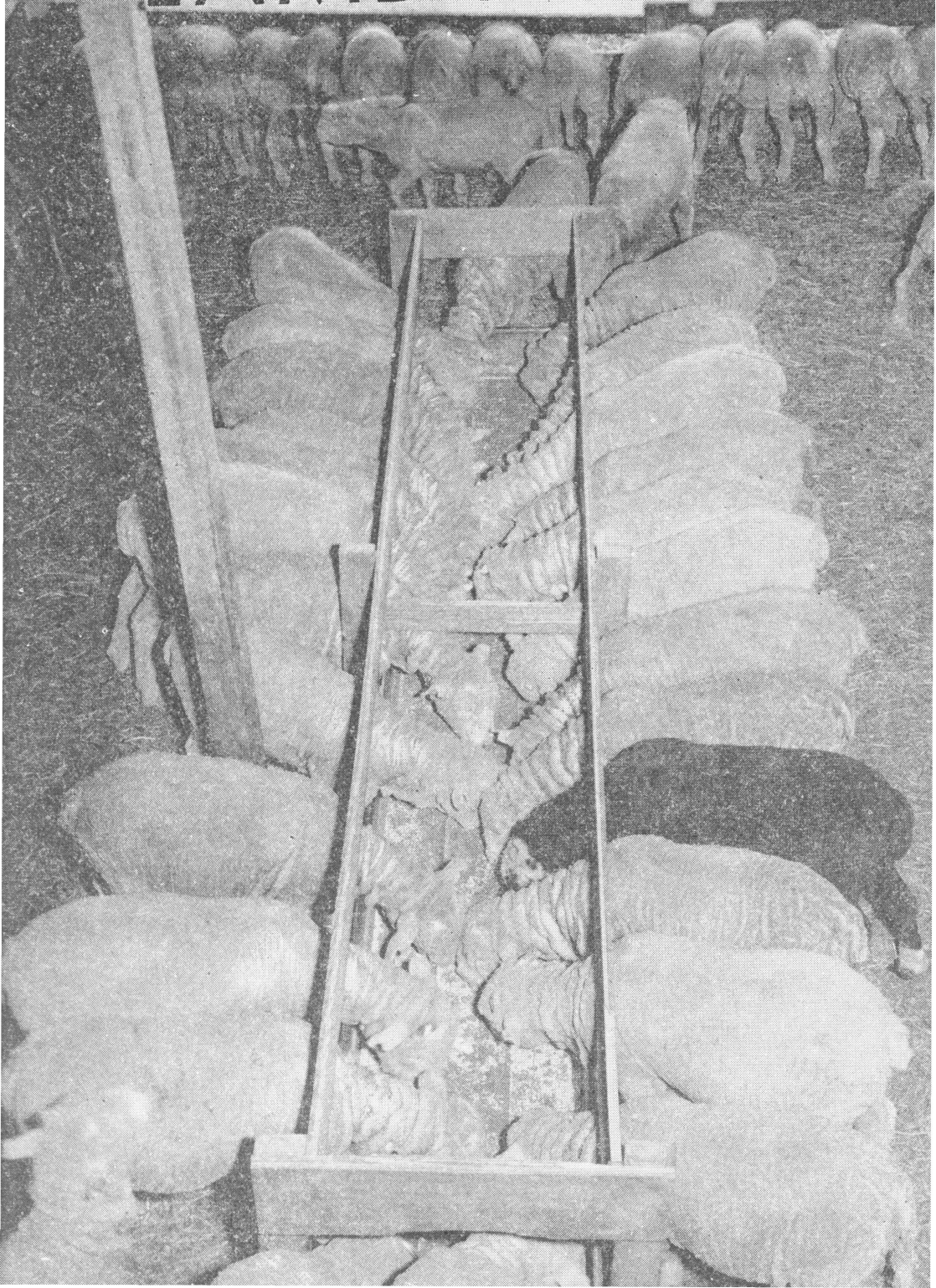


LAMB FEEDING



FOREWORD

Texas has an extensive range sheep business. It is operated very largely on a ewe and lamb basis. With some 10½ million of sheep in the state, approximately 5 million lambs are produced annually. Though some of the lambs are marketed directly from the range as grass fat spring lambs, and some are retained for replacement, the bulk of the annual lamb crop moves to market through the feedlots of other states.

It is sound economically to expand lamb feeding for fattening in Texas. Texas markets need, and will welcome with good prices, a greater volume of fat lambs. Texas feeder lambs are capable of making good and economical gains and of producing choice carcasses. Lambs can compete favorably with other kinds of livestock for the feed and labor many farmers have at hand.

Lamb Feeding

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Purchasing Feeder Lambs

One of the major factors contributing to successful lamb feeding is that of reaching the feedlot with the right kind of lambs. Nearness to the source of supply offers Texas farmers some advantages in purchasing the feeders. Though range lambs are thought of as being produced in large numbers, actually there are more small flocks than large ones. Lambs can be purchased in lots of single cars or truck loads. There is a great deal of variation in feeder lambs with respect to age, weight, type, thrift, fill and exposure to parasites. The purchaser should be able to recognize such differences as they affect the value of the feeders and in this connection may often use livestock commission agencies to good advantage in getting the right kind of feeders.

The spread in price between feeder and fat lambs, the price of wool and pelt credits and the kind of available feeds and their cost, must be considered in the selection of the feeders. However, there is generally a going price for the feeders which are available and because of this the

feeder-buyer can expect to pay the going market price. The purchaser must know what he wants, and in paying the market price he should be sure of getting lambs that meet his requirements.

Most of the lambs available as feeders in Texas are of fine wool breeding. A desirable fine wool feeder lamb is fairly free of neck folds, short legged, and has a smooth compact body. The desirable weight range is between 50 and 65 pounds for dry lot fattening on average good rations. Lambs weighing less than 50 pounds or more than 70 pounds are less desirable for general feeding. The heavy lambs are often coarse and may not finish at a desirable weight, while the light lambs, although making good gains if thrifty and if fed quality feeds, require a long feeding period to fatten to the desirable market weight of 85 to 95 pounds. Thrifty lambs are strong, have pink skin, clean noses, free from scours, and are alert. Unthrifty lambs must be properly conditioned before being placed on fattening ration.

First Care

When the feeder lambs are first received they should be given 2 to 3 days rest in the pens with access to clean water, granulated salt and a good dry hay, before they are worked. The feeder should know whether the lambs have been vaccinated for sore mouth, and whether they are comparatively free of parasites or not. If they have not been vaccinated and if they are not free of stomach worms then, in connection with, or following the rest period they should be vaccinated for sore mouth and should be treated for stomach worms. If sore mouth appears during the rest period or is already present, vaccination should be hurried up and those with sore mouths should be penned separately. The mouth sores may be kept

soft with a non-irritant grease and a good leafy hay should be fed. Also before getting under way with the feeding, other than hay, most large groups of lambs should be sorted according to thrift and flesh, into about three lots: heavy, fleshy lambs; medium lambs; and culls, involving the undersized and crippled. This sorting will save subsequent handling when the heavier lambs are ready for market ahead of the lighter ones. Too, lambs of near equal size and weight have equal opportunity to consume the required amount of feed. It is obvious that the wool blinded ones need the wool sheared from their faces and that any sick or crippled lambs need individual attention.

Feed Lots and Equipment

In all but the far western and the Panhandle sections of the state it is desirable that lambs be fed in barns or under sheds. When fed under favorable conditions with respect to sheds it is advisable to shear them before placing them on feed. Lambs out of the wool make more economical use of barn room and feed trough space. The investment in the lambs is materially reduced through the early sale of the wool. The average person can tell more about the condition of lambs with the wool off and

a feeder cannot know too much about the degree of finish his lambs are attaining.

It requires a minimum of one linear foot of trough room for each lamb. If feeding operations are carried on under shed the minimum floor space required per lamb is approximately four square feet.

A few inches of straw bedding spread over the floor at the beginning of the feeding period and supplemented daily by the refuse from the hay will maintain good floor conditions.

Feeding lambs under shed with proper bedding preserves the maximum percent of the fertilizer produced.

A tip to those who might use an open shed. If lambs are permitted to pass in and out of the shed during wet weather they will carry sufficient moisture and mud into the shed to develop a bad situation. Once wet, the shed room is slow to dry. Better to have no shed than one in combination with a muddy lot.

When feeding in the open there is something to the location of the feed lot. Sandy, south slopes with some natural or made protection from rain and high wind are desirable.

Cleanliness of feed and water troughs are of paramount importance. Build something that can be easily kept clean.

Methods of Feeding

Feeding methods and practices are developed through experience, and are calculated to meet common feed lot problems. Lambs, at the start, have a small capacity to handle feed and the feeder must meet the problem of developing that limited capacity to the maximum. Most feeders do that by starting the lambs on an abundance of high quality roughage and a very limited amount of concentrates. Lambs should have all of the roughage they will

The combination grain and hay trough or feed box plan given in this bulletin meets that requirement. Hay tends to keep the box dry, and that coupled with the use of an old broom ahead of each grain feeding gets the cleaning job done.

A water trough 12 feet long, 12 inches wide, and 10 inches deep is an ideal size. A larger trough might cause some people to hesitate to empty and scrub it as often as desirable. Lambs consume approximately a half gallon of water per head daily; no great volume, but it is important that they have every encouragement to drink their fill regularly.

Lot room should be available for holding the lambs away from the feed boxes while the feed is being distributed.

consume. As the grain portion of the ration is increased, the lambs naturally consume less roughage. Too much grain or irregularity in the grain portion of the ration will result in loss of appetite, scours, stiffness, or death.

There are two distinct methods of feeding lambs: hand feeding and self-feeding. The feeding of definite amounts of grain and protein supplement twice daily with hay free choice is call-

ed hand feeding. The feeding of the complete ration, concentrates and forages ground together, free choice is called self-feeding.

Hand feeding is recommended. Grain and hay require no grinding for lambs. This method lends itself to making necessary changes in the ration consistent with the daily build-up of the concentrates in the ration. Also it enables one to meet emergency needs for reducing the grain consumption.

On many farms where bundled grain sorghum is the source of all the roughage and part of the grain, grinding seems necessary and self feeding advisable. The feed is prepared by grinding and mixing the whole ration together and supplying it in a feed trough or self-feeder. It is very important that the

mixture be perfect, that the grinding of grain be uniformly fine, and that the proper balance between the grain and roughage be maintained.

In feeding ground grain sorghum bundles it is necessary that a close estimate of the grain content be made. If over-estimated the ration will be low in concentrates and finishing delayed. If under-estimated the lambs will be placed on a full grain ration too rapidly.

HAND FEEDING — When feeding whole grains and pea size cottonseed cake or screenings with carbonaceous roughages, the following may be used as a guide for feeding the concentrates. Roughage is to be fed to the full extent the lambs will consume it.

Schedule for Starting Lambs on Feed—Hand Feeding

| | | C. S. Cake (Pea size) per 100 Lambs | Grain (shelled or threshed) per 100 Lambs | C. S. Cake (Pea size) for 1 Lamb | Grain (shelled) for 1 Lamb | Total Con- centrates per Lamb |
|-----------|----|---|--|---|-------------------------------------|--|
| | | Hay is to be full fed at all times. | | | | |
| 1st day | | Rest and fill on hay — (Rest period may be 1 to 7 days) | | | | |
| 2nd day | PM | 5 lbs | 5 lbs | .05 lb | .05 lb | .10 lb |
| 3rd day | AM | 5 lbs | 5 lbs | | | |
| | PM | 10 lbs | 5 lbs | .15 lb | .10 lb | .25 lb |
| 4th and | AM | 10 lbs | 10 lbs | | | |
| 5th days | PM | 10 lbs | 10 lbs | .20 lb | .20 lb | .40 lb |
| 6th and | AM | 10 lbs | 10 lbs | | | |
| 7th days | PM | 15 lbs | 10 lbs | .25 lb | .20 lb | .45 lb |
| 8th and | AM | 10 lbs | 10 lbs | | | |
| 9th days | PM | 15 lbs | 15 lbs | .25 lb | .25 lb | .50 lb |
| 10th and | AM | 15 lbs | 10 lbs | | | |
| 11th days | PM | 15 lbs | 15 lbs | .30 lb | .25 lb | .55 lb |
| 12th and | AM | 16½ lbs | 15 lbs | | | |
| 13th days | PM | 16½ lbs | 15 lbs | .33 lb | .30 lb | .63 lb |

At the end of two weeks the lambs will be eating one-third pound daily of cottonseed cake which is a full allowance and remains constant at this rate throughout the entire feeding period. The hay being fed free choice the only further adjustments in ration will involve the grain. For most lots of lambs the ration given for the twelfth and thirteenth day should be continued without change for one or two weeks to further develop feed capacity. Increases in grain may then be made according to the feeder's judgment, these increases not to exceed five pounds of grain per 100 lambs or 1-20 pound per lamb per day. Following this system the lambs can be made to consume $\frac{2}{3}$ pound of grain at 30 days, 1 pound at 40 days, and $1\frac{1}{4}$ pounds at 50 days, and further increase

may carry them up to and beyond $1\frac{3}{4}$ pounds per day.

If alfalfa hay furnishes the roughage the cottonseed cake or meal may be reduced one-half.

If ground grain sorghum heads or ground ear corn are used feed $\frac{1}{4}$ more than when shelled grains are fed. In this case cottonseed meal should be used and mixed thoroughly with the other ground feeds.

FEEDING METHOD FOR MIXTURES OF GROUND FEEDS—Whole ground mixed rations may consist of bundle feeds, hays, cottonseed hulls, various grains, and cottonseed meal. The principle of feeding is the same as previously stated, but cottonseed meal is fed instead of pea-sized cottonseed cake. The following table may be taken as a guide:

Schedule for Starting Lambs on Feed—Using Mixtures of Ground Feeds After All Preliminary Handling Has Been Done

| Time | Per Cent Grains | Per Cent Cottonseed Meal | Per Cent Roughage |
|------------|-----------------|--------------------------|-------------------|
| 1st 3 days | 10 | 5 | 75 |
| 2nd 3 days | 15 | $7\frac{1}{2}$ | $72\frac{1}{2}$ |
| 2nd week | 20 | 10 | 70 |
| 3rd week | 25 | $12\frac{1}{2}$ | $62\frac{1}{2}$ |
| 4th week | 30 | $12\frac{1}{2}$ | $57\frac{1}{2}$ |
| 5th week | 35 | $12\frac{1}{2}$ | $52\frac{1}{2}$ |
| 6th week | 40 | $12\frac{1}{2}$ | $47\frac{1}{2}$ |
| 7th week | 45 | $12\frac{1}{2}$ | $42\frac{1}{2}$ |
| 8th week | 50 | $12\frac{1}{2}$ | $37\frac{1}{2}$ |

The bundle feeds should be of good quality and free of mold and dirt. Grinding should be fine enough to crack most of the grains. Av-

erage grain sorghum bundles contain slightly too much grain (20 to 28 per cent) for initial fill. If hay is available it should be fed with the

ground bundles and cottonseed meal mixture for about 10 days. If hay is not available the mixture should be hand fed twice per day until lambs can take the whole

ground bundle. If the mixture is made on a unit basis, as grain is increased, roughage is decreased, and the amount of cottonseed meal remains constant.

Check-up On Feeding Important

The feeder can tell how his lambs are doing by the amounts of feed they eat. Lambs should eat about three pounds per head per day, less waste after they are going good. Early in the period they can handle a concentrate allowance of $\frac{1}{3}$ the whole ration, and on full feed $\frac{2}{3}$ of the whole ration. The feeder's problem is to make these changes in feed without injury to the lambs. It is important to keep a check on all feeds. The cottonseed meal should be held around $\frac{1}{3}$ pound to 2-5 pound per

head per day, or $12\frac{1}{2}$ to 15 per cent of the total ration. The droppings indicate how the lambs are handling their grain. The least showings of soiled lambs is a sign of trouble. Droppings should be formed but soft. If looseness appears decrease the grain by amounts surely sufficient to correct the trouble and then build up the grain again. Lambs that are doing well will be hungry and anxious for their feed. It is a bad sign when a substantial number hang back and refuse to eat.

Amounts of Feed Required

In estimating total feed required to fatten a bunch of lambs, allowance must be made for mistakes in feeding and waste. Average amounts required are 110 pounds of

shelled grain, 160 to 180 pounds of roughage, and 30 to 35 pounds cottonseed meal with sorghum hay or 15 pounds cottonseed meal with alfalfa hay.

Time Required to Fatten

Ninety to 105 days are average feeding periods required to fatten lambs. Variation in number of days required will depend in the main upon amount of flesh and size of feeders and the

ability of the feeder. Thrifty lambs fed a balanced ration, with good management, may be expected to gain $\frac{1}{4}$ to $\frac{1}{3}$ pound per head per day. Twenty-five to 30 pounds of gain put on 55 to 60 pound

lambs in 90 days will mean fat lambs. Lambs should be sold as they become fat. The top lambs will often fatten 15 days ahead of the main group. Fatness can only be

determined accurately by handling. A lamb is fat when it is difficult to feel the backbone and ribs with the fingers. The back will be firm and the dock large.

Feeds and Methods of Preparation

Grain Sorghums and Corn—Those have about the same feeding value and are the chief lamb fattening grains. Threshed or shelled grains make on the average larger daily gains than do ground heads, but the latter may make more economical gains and show an actual feeding value greater than can be accounted for by the grain they contain. Milo heads rank highest among the grain sorghums heads followed by fet-erita and kaffir.

Wheat—Is the best of the small grains and practically equal to corn. It should not be ground for lambs when hand fed.

Barley—Should not be fed as the sole fattening grain. It is better used by mixing with corn, wheat or threshed grain sorghums in proportions of three to five, or half and half.

Oats—May be fed whole but not as the sole fattening grain for they fail to produce finish. They are valuable in starting lambs on feed because of their bulk, palatability and conditioning value.

Cottonseed Products—Cottonseed meal or cottonseed cake are recommended as the best protein supplements.

Cottonseed Hulls—As a roughage are used to better advantage when fed with an equal amount of alfalfa or other good hays. Mixed with cottonseed meal and ground grain the hulls give ideal bulk to the ration and are especially valuable at the very start of the feeding period to give good fill.

Alfalfa—Is a most desirable hay for lamb feeding and when possible should furnish at least $\frac{1}{4}$ of the roughage.

Sorghum and Grain Sorghum Roughages—Red top sorghum is ordinarily preferred because of its palatability and quality. Bundled grain sorghums have been ground and fed to lambs with good results. Molds may be present inside the stalks, although the feed is bright on the outside. Such feeds should only be fed as whole bundles.

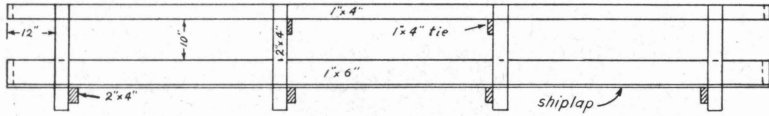
Blackstrap Molasses—While lamb feeders have fed blackstrap molasses in

amounts approximating 20 per cent of the total ration, about 12½ per cent in the ration will serve the purpose of laying the dust and binding small particles of feed together. It has about 70 per cent of the feed value of corn.

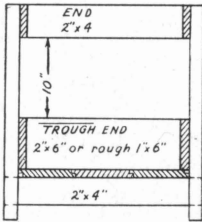
Silage—High quality silage can be used as the sole source of roughage in fattening lambs. A small amount of high quality hay improves the ration in most instances. Again, when feeding grain sorghum silage, be careful to closely estimate the grain content.

Feed Mineral Supplement With Silage or Sorghum Roughages—Limestone flour (finely ground raw limestone or oyster shell flour) increases gains when fed to lambs being fattened on grains and the sorghum roughages and should always be fed. Feed at the rate of ¼ ounce to 2-5 ounce per head per day mixed with the grain or whole ground ration. It is usually not possible to feed the necessary amount of limestone flour by mixing equal parts salt and limestone flour.

Salt—Good grade granulated salt should be available at all times in a salt box.

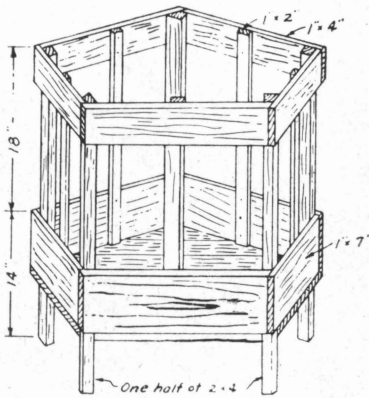


SIDE VIEW 16' long Scale $\frac{1}{2}'' = 1'$

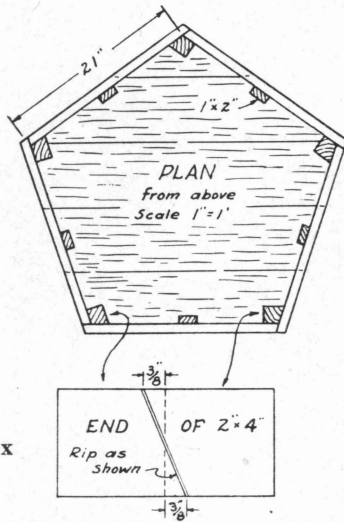


END VIEW Scale 1" = 1'

This trough has the capacity to feed approximately 30 lambs when hand-feeding, and 80 to 100 lambs when self-feeding.



This is a convenient feed box for 20 or fewer lambs.



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