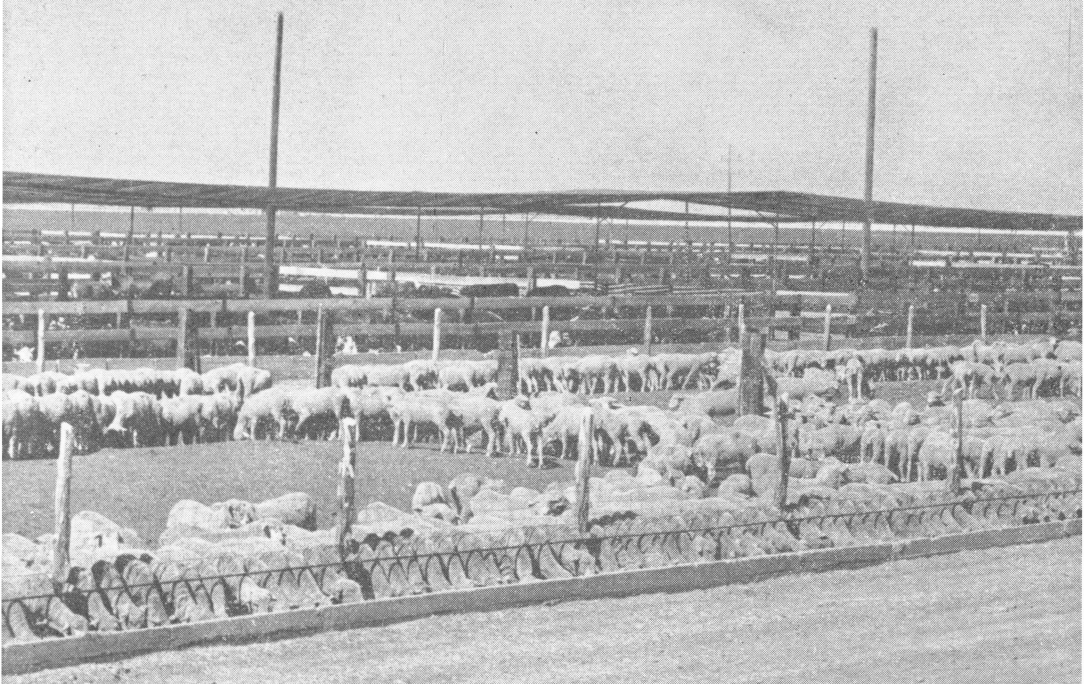
B-129

Fattening Lambs



TEXAS AGRICULTURAL EXTENSION SERVICE
G. G. Gibson, Director, College Station, Texas

FOREWORD

Texas has a big sheep and wool industry operated principally on a ewe and lamb basis. Most of the sheep are of fine wool breeding. Numbers within the past 10 years have ranged from 5 to 9½ million head.

Some 3½ to 4 million lambs are produced annually. Many of the ewe lambs are kept for replacements. With a seasonable spring, thousands are marketed directly from pasture as "grass fat" spring lambs. In recent years many have been carried over for shearing and fattening on spring pasture as yearlings. Thousands move to High Plains wheat pastures when they are available. Others reach the slaughter market through the feedlots of western and northern states.

Not many lambs are fattened in drylot in Texas, but an increase in feeding for fattening is believed to be sound economically. Texas livestock markets, principally at Fort Worth and San Antonio, welcome with good prices a greater volume of fed lambs. Texas feeder lambs are capable of making fast and economical gains and of producing choice grade carcasses. Lambs can compete favorably with other kinds of livestock for the feed and labor many farmers have available.

COVER PHOTOGRAPH

The cover photograph was made available through the courtesy of Davidson Feed Pens, Pecos, Texas.

Fattening Lambs

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and
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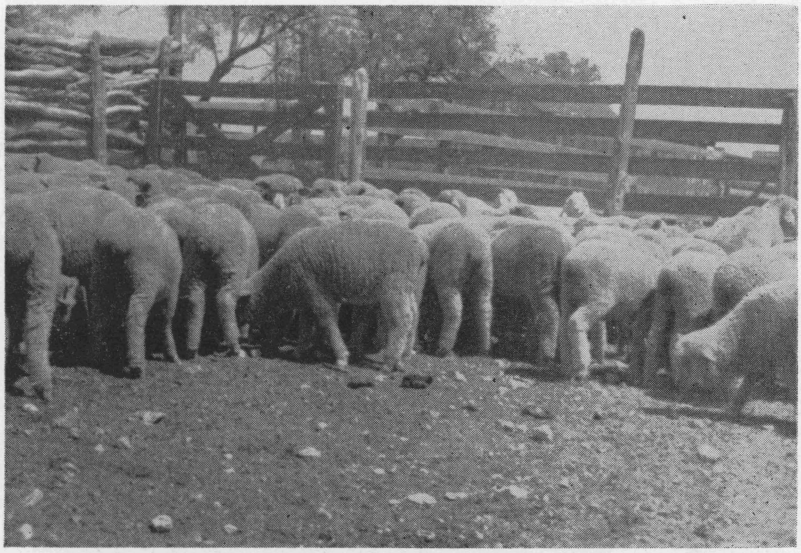
BUYING FEEDER LAMBS

One major factor 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 buying feeders.

Although range lambs are thought of as being produced in large flocks, actually more of the flocks are small. There is much variation in feeder lambs with respect to age, weight, type, thrift, fill and exposure to parasites. The buyer should be able to recognize such differences as they affect the value of the feeders, and in this connection often may 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 selecting feeders. However, there is generally a going price for the lambs available. Because of this, the feeder-buyer can expect to pay the going market price. The buyer must



Excellent fine wool lambs such as these are extremely popular with lamb feeders. They are smooth, well developed and of good conformation.

know what he wants, and in paying the market price, he should be sure of getting lambs that meet his requirements.

Most of the feeder lambs in Texas are of fine wool breeding. A desirable fine wool feeder lamb is fairly free of neck folds, medium short legged, open faced, and has a smooth, moderately compact body. The desirable weight range is between 50 and 65 pounds for drylot 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 often are coarse and may not finish at the desirable weight of 90 to 100 pounds while the light lambs, although making good gains if thrifty and if fed quality feeds, require long feeding periods to fatten to the desirable market weight. Thrifty lambs are strong, have pink skin, clean noses, are free from scours and are alert. Unthrifty lambs must be conditioned properly before being placed on a fattening ration.

FIRST CARE

When feeder lambs are first received, give them 2 to 3 days rest in pens with access to clean water, granulated salt and a good dry hay, before they are worked. The feeder should know if the lambs have been vaccinated for sore mouth, and if they are reasonably free of parasites. If they have not been vaccinated and if they are not free of parasites, vaccinate for sore mouth and treat for intestinal parasites during or following the rest period. Paleness inside of lips indicates presence of intestinal parasites. If sore mouth is present or appears during the rest period, vaccination should be hastened and those with sore mouths should be penned separately. The mouth sores may be kept soft with non-irritant grease, such as vaseline. A good leafy hay should be fed.

Before getting underway with feeding concentrates, most large groups of lambs should be sorted according to thrift and flesh, into about three lots: heavy, fleshy lambs; medium lambs; and culls, including the undersized and crippled. This sorting saves subsequent handling when the heavier lambs are ready for market ahead of the lighter ones.

Lambs of near-equal size and weight have the same opportunity to consume the required amount of feed. The wool-blinded ones need the wool sheared from their faces and any sick or crippled lambs should have individual attention.

It is good insurance to vaccinate all lambs for "over-eating," or pulpy kidney disease. This will practically eliminate losses from such cause. Commercial serums and bacterins are available for this purpose.

FEEDLOTS AND EQUIPMENT

Lambs should be fed in barns or under sheds in all but the far western sections and the Panhandle of the State. Under favorable conditions with respect to sheds, shear the lambs before placing them

on feed. Lambs out of the wool make more economical use of barn room and feed trough space. The investment in lambs is reduced materially through early sale of the wool. The average person can tell more about the condition of lambs with the wool off and a feeder can determine more accurately the degree of finish his lambs are attaining.

A minimum of linear feet of trough room is required for each shorn lamb. If feeding operations are carried on under shed, the minimum floor space required per lamb is approximately 4 square feet.

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

Feeding lambs under shed with good bedding preserves the maximum percentage of the fertilizer produced.

A tip to those who might use an open shed: if lambs are permitted to go in and out of the shed during wet weather, they will carry enough moisture and mud into the shed to develop a bad situation. Once wet, the shed floor dries slowly.

When feeding in the open, consider carefully the location of the feedlot. Sandy, south slopes with natural or artificial protection from rain and high winds are desirable.

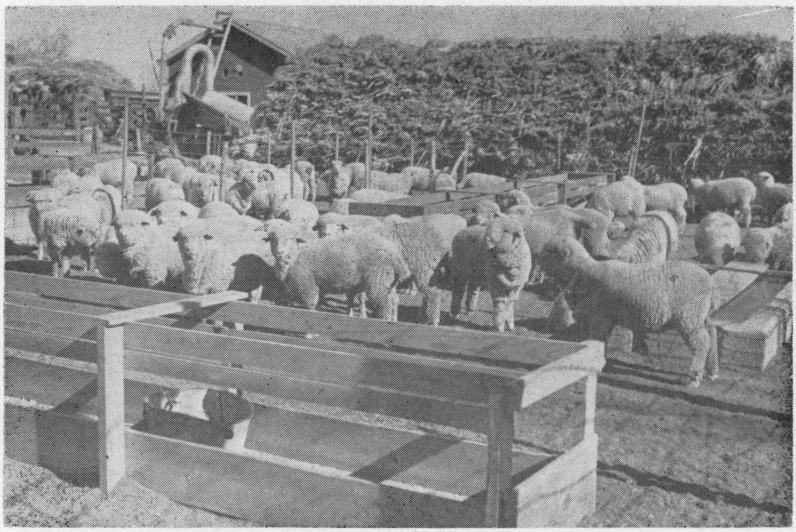
Cleanliness of feed and water troughs are of utmost importance. Build troughs that can be kept clean easily. The combination grain and hay trough or feed box plan on page 10 meets that requirement. Hay tends to keep the box dry, and that, coupled with sweeping ahead of each grain feeding, gets the cleaning job done.

A water trough 12 feet long, 12 inches wide and 10 inches deep is an ideal size. A larger trough might not be emptied and scrubbed as often as desirable. Lambs consume approximately ½ gallon of water per head daily; this is no great volume, but they should be encouraged to drink their fill regularly.

METHODS OF FEEDING

Feeding methods and practices are developed through experience, and are calculated to meet common feedlot problems. Lambs at the start have a small capacity to handle feed. The feeder must develop that limited capacity to the maximum. Most feeders do this by starting the lambs on an abundance of high-quality roughage and a limited amount of concentrates. Lambs should have all of the roughage they will eat. As the grain portion of the ration is increased, the lambs naturally consume less roughage. Too much grain or irregularity in feeding it may result in loss of appetite, scours, stiffness or death.

Two methods of feeding lambs are hand-feeding and self-feeding. The feeding of definite amounts of grain and protein supplement twice daily with hay free choice is called hand-feeding. The feeding of the complete ration, concentrates and roughage ground together, is called self-feeding. This method is suitable for large-scale feeding.



Lambs fed ground grain sorghum bundles, cottonseed meal and ground grain. Salt was fed in the tub. This type feed trough is recommended for hand-feeding or self-feeding any kind of lamb fattening ration.

Hand-feeding is recommended for small numbers. 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 bundle grain sorghum is the source of all the roughage and part of the grain, grinding seems necessary and self-feeding is advised. The feed is prepared by grinding and mixing together the whole ration and supplying it in a feed trough or self feeder. It is important that the mixing be thorough, that the grinding of grain be uniformly fine and that the grain and roughage be balanced properly.

In feeding ground grain sorghum bundles it is necessary to know how much grain is in the bundles. If overestimated, the ration will be low in grain and finishing delayed. If underestimated, the lambs may receive too much grain.

SCHEDULE FOR STARTING LAMBS ON FEED

(Hand-feeding, Twice Daily)

When feeding whole grains and pea-sized cottonseed cake or screenings with sorghum roughage, the following may be used as a guide for feeding the cake and grain. Roughage is to be full-fed but not wasted; however, lambs must be allowed to leave the coarse parts.

Pounds of grain and cottonseed cake to feed per 100 lambs per feeding after rest period of 1 to 7 days. Roughage is to be full-fed after each feeding of grain and cake.

		Grain (shelled or threshed)	Cottonseed cake (41 to 43 percent protein)
1st day	PM	5 lb.	5 lb.
2nd day	AM	5 lb.	5 lb.
3rd day	PM	5 lb.	10 lb.
4th day	AM	10 lb.	10 lb.
5th day	PM	10 lb.	10 lb.
6th day	AM	10 lb.	10 lb.
7th day	PM	10 lb.	15 lb.
8th day	AM	10 lb.	15 lb.
9th day	PM	15 lb.	15 lb.
10th day	AM	15 lb.	15 lb.
10th day	PM	15 lb.	17 lb.
11th day	AM	15 lb.	15 lb.
11th day	PM	15 lb.	17 lb.
12th day	AM	15 lb.	17 lb.
12th day	PM	15 lb.	17 lb.
13th day	AM	15 lb.	17 lb.
13th day	PM	15 lb.	17 lb.

At the end of about 2 weeks the lambs will eat 1/3 pound daily of cottonseed cake which is a full feed and is fed at this rate throughout the entire feeding period. The hay being fed free choice, the only further adjustments in the ration will be with the grain. For most lots of lambs the ration given the twelfth day should continue without change for 1 or 2 weeks to develop feed capacity further. Increases in grain may then be made according to the feeder's judgement, but not to exceed 5 pounds of grain per 100 lambs or 1/20 pound per lamb per day. With this system, the lambs can be made to consume 2/3 pound of grain at 30 days, 1 pound at 40 days and 1¼ pounds at 50 days, and further increase may carry them up to 1¾ pounds per day.

If alfalfa hay is used as the roughage, the cottonseed cake or meal may be reduced one-half.

If ground grain sorghum heads or ground ear corn is used, feed one-fourth more than when shelled grains are fed. In this case cottonseed meal should be used and mixed thoroughly with the other ground feeds.

SCHEDULE FOR STARTING LAMBS ON FEED

(Using Mixtures of Ground Feeds after All Preliminary Handling Has Been Done)

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 substituted for pea-sized cottonseed cake. The following table is a guide:

Time	Percent grain	Percent cottonseed meal	Percent roughage
1st 3 days	10	5	75
2nd 3 days	15	7½	72½
2nd week	20	10	70
3rd week	25	12½	62½
4th week	30	12½	57½
5th week	35	12½	52½
6th week	40	12½	47½
7th week	45	12½	42½
8th week	50	12½	37½

Bundle feeds should be of good quality and free of mold and dirt. Grinding should be fine enough to crack most of the grains. Average grain sorghum bundles contain slightly too much grain (20 to 28 percent) 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, grain is increased and roughage is decreased, with the amount of cottonseed meal remaining constant.

CHECKUP ON FEEDING

The feeder can tell how his lambs are doing by the amounts of feed they eat. Lambs should eat about 3 pounds per head per day, less waste, after they are going good. Early in the period, they can handle a concentrate allowance of one-third the whole ration, and on full feed two-thirds the whole ration. The feeder's problem is to make these changes without injury to the lambs. It is important to check on all feeds. The cottonseed meal should be held around 1/3 to 2/5 pound per head per day, or 12½ to 15 percent of the total ration. The droppings indicate how the lambs are handling their grain. The least show of soiled lambs is a sign of trouble. Droppings should be formed but soft. If looseness appears, decrease the grain by amounts sufficient to correct the trouble and then build up the grain again. Lambs doing well will be hungry. It is a bad sign when a substantial number hang back and refuse to eat.

AMOUNTS OF FEED REQUIRED

In estimating the 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 grain, 160 to 180 pounds of roughage and 30 to 35 pounds of cottonseed meal with sorghum hay or 15 to 20 pounds cottonseed meal with alfalfa hay.

TIME REQUIRED TO FATTEN

Ninety to 105 days is the average feeding period required to fatten lambs. Variation in number of days required depends mainly upon the amount of flesh, size of lambs and the ability of the feeder. Thrifty lambs fed a balanced ration, with good management,

may gain 1/3 pound or more 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 be determined accurately only 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

Grain sorghums and corn have about the same feeding value, although corn is preferred, and are the chief lamb-fattening grains. Ground sorghum grains make on the average larger daily gains than unground grain.

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

Barley is used better by mixing with corn, wheat or threshed grain sorghums in proportions of 3 to 5, or half and half.

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

Grain sorghum gluten feed may be fed with alfalfa hay and grain. A mixture of 7 parts grain and 3 parts grain sorghum gluten feed has given good results.

Protein supplements in the form of cottonseed meal or cottonseed cake (sheep size) are usually more easily available and are recommended. Other oilseed meals or cakes such as linseed, soybean and peanut may be used.

Cottonseed may be fed with alfalfa and grain as a replacement for part of the grain, and also to supply additional needs for protein. Lambs usually will not eat more than about .60 pound of cottonseed daily per head during fattening period.

Grain sorghum gluten meal may be fed with alfalfa hay and grain just as cottonseed meal is fed. The gluten meal has the same approximate content of crude protein as cottonseed meal. Do not use gluten feed or meal unless alfalfa hay is used in the ration.

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 start of the feeding period to give a good fill.

Alfalfa is the most desirable hay for lamb feeding and should furnish at least a fourth of the roughage in all lamb fattening rations.

Sorghum roughages should only be fed as whole bundles. Red top sorghum is preferred ordinarily 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.

Blackstrap molasses has been fed in amounts approximating 20 percent of the total ration, but about 12½ percent in the ration serves the purpose of eliminating dust and binding together small particles of feed. It has about 70 percent of the feed value of corn.

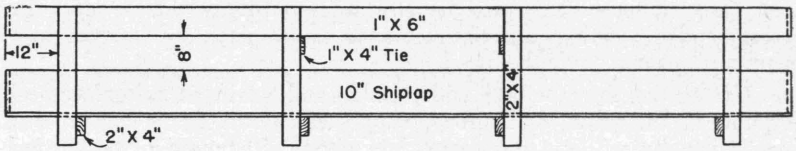
Silage of high-quality only should be used in a fattening ration and it can be used as the sole source of roughage. A small amount of high-quality hay improves the ration in most instances. Again, when feeding grain sorghum silage, estimate closely the grain content.

Mineral supplement with silage or sorghum roughages (finely ground raw limestone or oystershell 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 .25 to .40 ounce per head per day mixed with the grain or whole-ground ration. It usually is not possible to feed the necessary amount of limestone flour by mixing equal parts salt and limestone flour.

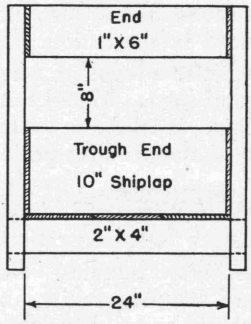
Salt of good grade and granulated should be available in a salt box at all times. Minerals other than salt and limestone are not needed in well-balanced rations.

Good roughages are essential to successful lamb fattening. Without alfalfa hay, drylot lamb feeding operations are seldom permanent.

Rendered animal fats can be used to make up 5 to 10 percent of the fattening ration, provided they have been treated with an antioxidant.



SIDE VIEW 16' Long
Scale: 1/2" = 1'



END VIEW
Scale: 1" = 1'

This feed trough may be built any convenient length: 10, 12, 14 and 16 feet are common lengths.

This combination feeder has a capacity of 30 lambs when hand-feeding and 60 to 80 lambs when self-feeding. It can be used for any kind of grain or whole or chopped roughages and for hand-feeding or modified self-feeding. To clean, turn the trough upside down.

FATTENING ON PASTURE

Sheep can fatten to better advantage and in less time on pasture alone than any other livestock. Most of the lambs or yearlings in Texas are fattened on pasture. In Central Texas and the Edwards Plateau, winter or cool-season grasses and forbs provide satisfactory fattening in seasonable years.

Many lambs move to wheat pasture in the Texas Panhandle when it is available and may fatten in 7 to 12 weeks. Gains reportedly range from 5 to 15 pounds per head per month. Bundle feeds may be fed in addition to wheat, but with good pasture other feeds are not necessary.

Some lambs are turned on grain sorghum fields. Here lies the danger of unbalanced grain and roughage consumption. The safest method is to self-feed alfalfa hay in the fields or near the watering place. At first the method is somewhat wasteful and ordinarily is used where harvesting is difficult.

Use of Hormones In Lamb Fattening

Implantations of various hormones have been used in lamb fattening. These hormones cause lambs to gain faster and make slightly more efficient use of feed. However, hormone-treated lambs usually have a lower dressing percentage and their carcasses grade lower.

Use of Antibiotics in Lamb-fattening Rations

Antibiotics in the rations have not produced the sensational results that were obtained in swine and poultry feeding. They have in some cases produced slight increases in rate of gain and feed efficiency. They may help reduce losses from overeating.

WATER TROUGH

The water trough must be small and easily cleaned. It should be located so that waste water drains outside the lot. A guard rail is necessary to keep the lambs out of the trough. There must be dry footing about the trough. It should not be higher than 14 to 16 inches. When scrubbing troughs use a bit of Kreso dip on the brush to cut the filth; then wash with clean water. A lamb drinks foul water only when forced by thirst. A thirsty lamb does not eat and, therefore, does not gain. If the water supply permits, there should be a small continuous flow of water through the trough.

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