

# TEXAS AGRICULTURAL EXPERIMENT STATION

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## Marketing Wool through Texas Warehouses



The TEXAS AGRICULTURAL AND MECHANICAL COLLEGE SYSTEM

GIBB GILCHRIST, Chancellor

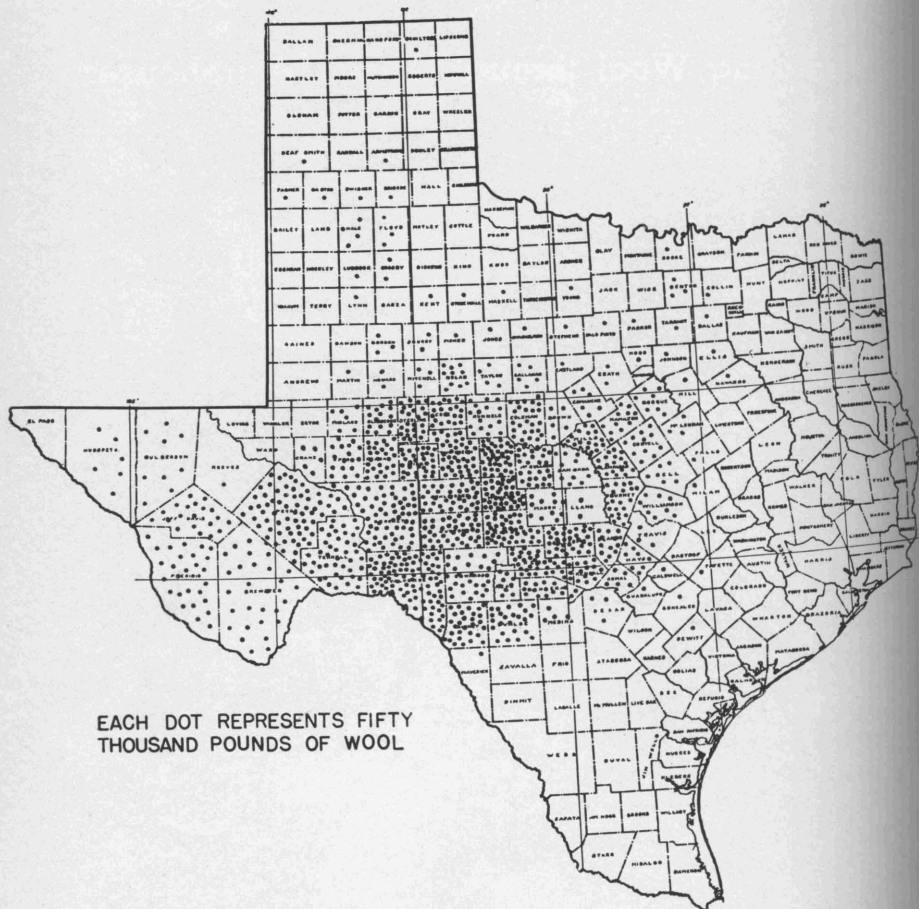


Figure 1. Wool production in Texas, 1950.



# Digest

This bulletin gives the results of a study made recently on the marketing of Texas wool through local warehouses.

Ninety warehouses scattered over the Texas sheep country handle about 95 percent of all Texas wool. Information given by owners and operators of 88 of these warehouses formed the basis for this report.

Texas was the first state to establish local wool and mohair marketing facilities, beginning about 1870. One or more warehouses are now located in practically every county seat on the Edwards Plateau, the main wool-producing area.

Providing a center for the concentration of wool clips is the principal service rendered growers by the warehouses. This makes wool available for inspection in sufficient quantity to attract buyers. The average storage space in Texas warehouses is about 1.5 million pounds. The largest warehouses have storage space for 8 to 10 million pounds.

Warehouses also provide many other services for wool growers, including the making of all kinds of contracts and the sale of ranch supplies. Some make loans on wool and finance general ranch operations. In fact, a warehouse is a good deal like a town business office for its patrons.

Most wool moves into the warehouse in April and May, since about 75 percent is 12-months wool. The next largest movement is in September and October and is the results of two shearings a year practiced by many growers.

Operating procedures are similar in all wool warehouses.

Wool is normally sold from the warehouse by private treaty or through sealed bids. The warehouse operator acts as the agent of the wool owner in closing the sale. Wool buyers are either representatives of Eastern dealers and brokers, order buyers, mill buyers or independent buyers. About one-third of the warehouses buy wool direct from the grower. A few warehouses purchase large amounts each year, both independently and on order.

Varying tonnages of wool are contracted by buyers each year prior to shearing. About one-fourth of the 1949 Texas clip was sold in this manner.

Better preparation of wool for market is encouraged by several warehouse managers. This should result in a worthwhile increase in selling price over similar wool improperly prepared.

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# *Marketing Wool through Texas Warehouses*

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**I**N PRODUCING 53 million pounds of shorn wool in 1950, or slightly more than one-fifth of the U. S. output, Texas remains the largest producer of wool.

The organization, practices and operations of the wool marketing system are important to the industry. Information on local producer wool markets is meager. This bulletin gives an overall picture of the Texas wool marketing system and brings together information which should be helpful to producers and warehousemen.

Over 95 percent of producer sales of wool are made at local warehouses. The successful marketing of Texas wool depends not only on the ability of ranchmen to produce quality wool, but also on the efficiency of wool warehouse operations.

## **WAREHOUSE ORGANIZATION AND FUNCTIONS**

There are about 90 wool and mohair warehouses scattered throughout the sheep-raising area of Texas, which is centered largely on the Edwards Plateau in Southwest Texas. It has been estimated that over 95 percent of all Texas wool is handled by these warehouses. A small tonnage is sold and marketed directly from the ranches.

Owners or operators of 88 warehouses were contacted to obtain as accurate a picture of the marketing of Texas wool as possible. Information gathered through these contacts furnished the basis for this report.

## **Development of the Wool Marketing System**

Prior to the Civil War there were no permanent facilities in Texas for handling wool. Wool was moved by boat and wagon freight and sold on out-of-state markets. This was very unsatisfactory to the wool grower for he knew little about the market which was so far from home.

T. C. Frost of San Antonio was the first person in Texas to try storing wool locally. He opened a storage house shortly after the Civil War. His enterprise was so successful that other per-

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sons opened similar firms, usually operating a bank in conjunction with the wool warehouse. Others started storing wool at small cost to the growers to attract more business to their primary enterprise, which varied from the handling of feed, grain and produce to hardware and groceries.

The warehouse business grew rapidly because of the need of local storage for the expanding wool production. Texas became the first among the wool-growing states to establish local wool marketing facilities. Today one or more warehouses are found in practically every county seat in the wool producing area. Figure 2 shows the distribution of the major wool warehouses in Texas.

### Warehouse Services

The principal purpose served by the wool warehouse in Texas is to provide a center for concentrating wool. Safely stored and insured, it is available for inspection in sufficient quantity to attract buyers. In this manner it is possible to offer wool in carload lots, which is usually the minimum tonnage that a buyer will ship. Most wool growers in Texas produce less than a carload of wool annually; therefore, a buyer trying to make up a

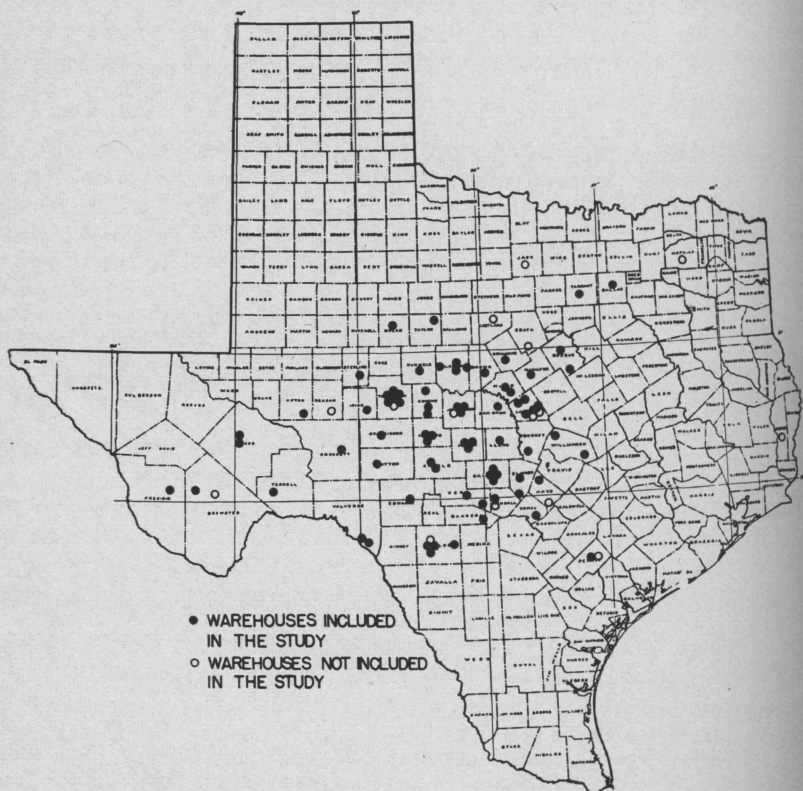


Figure 2. Location and distribution of wool and mohair warehouses, 1950.



carload of similar type wool would be out greater expense if he had to visit each ranch to inspect clips. Being able to inspect and obtain wool from concentration points such as warehouses also should increase the price paid to the grower.

In addition to wool storage, the warehouses in Texas generally provide other services to their customers. Practically all wool warehouses also handle mohair; in fact, some warehouses handle a larger tonnage of mohair than wool, depending on which product is most extensively grown in the area. Most warehouses sell feed, salt, ranch supplies and stock medicines. Ranchmen often visit warehouses seeking advice on all ranching problems. In some areas, warehouses provide, without charge or at cost, such services as locating shearing crews, supervising shearing operations, hauling wool from the ranch to the warehouse, supplying price information to the growers, furnishing wool graders, and the culling of sheep and goat flocks. Some warehousemen sponsor social functions such as dances and barbecues, and assist 4-H Clubs and FFA Chapters in wool and mohair and sheep and goat judging contests.

Seventy-four warehouses gave information on their status as lending agencies. Twenty-six warehouses make short-term loans on wool; eight also finance general ranch operations, including the purchase of livestock.

### Warehouse Size and Volume

The largest warehouses, based on volume handled, are west and southwest of McCulloch county. Warehouses north, east and south of McCulloch county, with a few exceptions, are smaller. In areas where flocks are large, warehouses generally have heavier volume.

Texas warehouses have regular storage space for approximately 130 million pounds of wool. As was proved during the Commodity Credit Corporation wool purchase program, additional storage space can be made available. Of 61 warehouses reporting on capacity, 35 had storage space of over a million pounds each, with the largest reporting storage space of 8 to 10 million pounds. The average storage capacity is about 1.5 million pounds.

This survey indicates that 14 warehouses in Texas handle about 50 percent of the annual Texas clip. Six of these 14 warehouses grade 75 percent of all wool graded in Texas; the amount graded by each varies from a negligible quantity to one million pounds.

Figure 3 shows the normal volume of wool handled by 72 individual warehouses, as compared with their respective capacities. Some warehouses handle more wool annually than they can store at one time; this is due to a rapid turnover. Most firms show a capacity larger than their volume; in many cases, this space is used to store mohair, feed and ranch supplies.

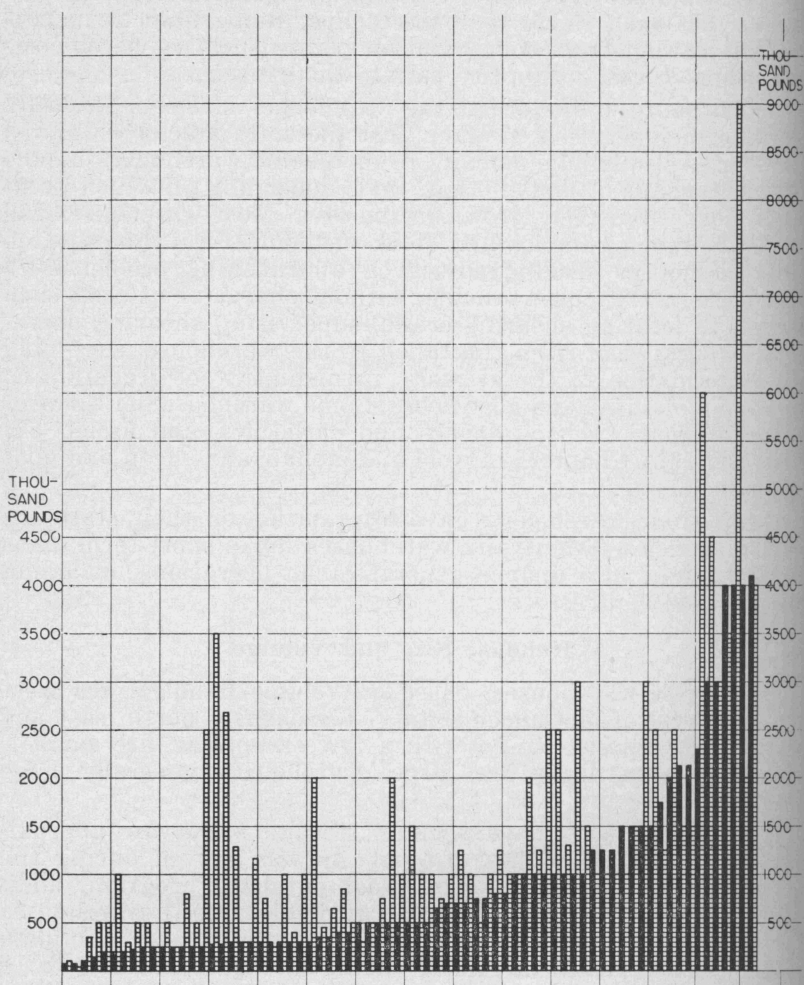


Figure 3. Volume and capacity of 72 wool warehouses. The solid bar indicates the volume normally handled. The broken bar indicates the storage capacity at a given time.

### Incorporation of Wool Warehouses

Of 75 warehouses reporting, 24 are incorporated and 51 unincorporated. Four of these warehouses were incorporated under the Cooperative Marketing Act of Texas, and the other 20 under general corporation laws. Approximately 85 percent of the stockholders of the incorporated warehouses are wool growers. The role of growers in ownership of warehouses is shown in Table 1. Fourteen of the incorporated warehouses are owned and controlled largely by wool growers. These grower-controlled firms operating on a highly competitive basis, along with others which are unincorporated, should result in better service to all wool growers.

Table 1. Ownership of incorporated wool warehouses

Warehouses		Average stockholders	Stockholders who are growers
<i>Number</i>		<i>Number</i>	<i>Percent</i>
7.....		3	0
2.....		15	1-49
8.....		244	49-99
6.....		89	100
1.....		Unknown	Unknown
24			

### Licensed and Bonded Public Warehouses

A private wool warehouse may qualify as a public warehouse under either the state or federal law, or both. Under the state law, a certificate for a public warehouseman is issued by the county clerk of the county in which the warehouse is located upon filing an application and posting a bond in the amount of \$5,000. The surety for such bond may be either two or more persons or an insurance company licensed to operate in Texas. Warehouses are under the supervision of the State Commissioner of Agriculture.

To qualify for a license under the United States Warehouse Act, a warehouseman must furnish a bond of \$15 for each 1,000 pounds of wool storage capacity of the warehouse. The bond must be for at least \$5,000 but need not be over \$50,000. In addition, the warehouseman must also have net assets of \$15 for each 1,000 pounds of storage capacity liable for the payment of indebtedness against the warehouse. Such net assets must be not less than \$5,000 and need not be over \$100,000. Any deficiency in net assets may be made up by a corresponding increase in the amount of the bond.

The same warehouse may qualify under both state and federal laws, for whatever prestige this might afford. In that event, the

warehouse is required to meet the federal requirements, even though these standards are higher than those under the state law.

Private warehouses are distinguished from public warehouses in that they do not store wool for the public. These firms may operate in Texas without license and bond. Should they desire to become public warehouses and issue negotiable receipts, they must operate under license and bond. The private warehouses now operating in Texas are mostly small ones which purchase wool directly from the growers.

The wool produced from 1944 to 1947 was purchased largely by the United States government through the Commodity Credit Corporation. Texas wool was stored for the government by a large number of local warehouses. One of the necessary requirements to become a storing agency for government-owned wool was that the firm be bonded. After the expiration of this purchase program, the majority of the newly-bonded warehouses kept their bonds in effect, with the result that more wool warehouses are now operating under either state or federal regulations.

### Warehouse Size in Relation to Income

Table 2 was compiled from information obtained from warehouse operators. It shows to what extent warehouse owners depend on wool for their income. There is a direct relationship between the volume of wool handled and the percent of net income from wool. Firms handling less than one million pounds of wool annually generally depend on the sale of commodities other than wool for more than 50 percent of their net income. These smaller warehouses are not confined to any one locality but are scattered throughout the wool-growing area.

Table 2. Size of warehouse relative to income from wool

Warehouses	Net income from wool	Approximate volume handled annually
<i>Number</i>	<i>Percent</i>	<i>1,000 Pounds</i>
11.....	0-24	675,000
18.....	25-49	930,000
12.....	50-74	1,095,000
13.....	75-100	1,256,000

### Warehouse Insurance and Construction

Seventy-one warehouses reported on the type of insurance carried on wool. Forty-five were fully covered and 26 were partially covered. Those reporting full coverage generally carry fire and extended coverage policies. Others reported fire, theft, transportation, hail, windstorm and public liability coverage. Wool is usually insured from the time it enters the warehouse until it is removed. In a few cases, however, wool is insured from the



time it leaves the ranch until delivered or removed from the warehouse. The type of policy usually carried is a reporting type form. Warehousemen take daily inventory of wool stocks and report these either on a weekly or monthly basis. Others have a "blanket" policy and report only when wool is moved in or out of the warehouse.

Very few fires have occurred in Texas warehouses. When wool burns, it burns slowly or smoulders. In the event of fire, warehousemen report that the major damage is not from the fire itself but from the water or chemicals used to extinguish it.

The buildings in which wool is stored in Texas are mostly of fireproof construction. Some were constructed of both lumber and corrugated iron. Of 69 warehouses reporting, 50 were made of masonry, 17 of metal and 2 of lumber.

## WAREHOUSE OPERATION

### Types of Wool Handled

The first wool enters the warehouse early in the year as the tagging or crutching season gets underway. This operation removes the wool from around the tail and udder and reduces the possibilities of infection and screwworms following lambing and during the suckling period. Such wool, known as clippings, is usually stained, often contains dunglocks and is generally inferior to other shorn wool.

Since ewes in Texas lamb mainly during January, February and March, they are tagged during the months just previous to lambing and the wool moves directly into the warehouse. There is usually a good demand for clippings, because they are sold at a low price and when reworked yield some very good wool. If the sheep have been in good condition, there usually are few dunglocks and the clippings yield a fairly high percentage of desirable wool.

There is very little seasonal variation in shearing time in Texas. Most warehousemen report April and May as their heaviest spring months with some extension into March and June. None reported receiving a sizable quantity before March or after June, except in the fall shearing section.

Most reports indicate that early shorn wool shrinks less than wool shorn in hotter weather. The reason given for this is that sheep sweat more in hot weather, secreting more wool grease which picks up vegetable matter and dirt.

Fall shearing is limited to a rather definite region of the Texas sheep country. A line drawn around the counties of Presidio, Pecos, Upton, Irion, Sutton, Kimble, Gillespie, Kendall, Bandera, Uvalde, Val Verde, Terrell and Brewster encircles the area in which fall shearing is practiced. All the range land in this area is rough, hilly and rocky, and contains quite a lot of brush, some of which is particularly bothersome to sheep in long fleece.

Fall shearing gets underway in early September and continues well into October. Warehousemen gave the following reasons for shearing twice a year: sheep do better in hot country when shorn twice a year; sheep are less entangled in brush; annual clip is slightly heavier; necessity of tagging is eliminated and clips bring cash to the producer twice each year.

Some growers shear twice a year because of their financial condition or because sometimes there is a good demand for short wool.

Semi-annual shearing, however, has decreased during the past 60 years from an estimated 40 percent to 25 percent of the total Texas clip. Disadvantages stated for two shearings a year are: the increase in yield is insufficient to pay for the decreased market value of wool and shearing costs are roughly doubled with fall and spring shearing.

Fall wool (4 to 5-months growth) is termed short wool but is grouped separately from the 8-months wool which is shorn in the spring. The market value of 12-months wool is slightly more than for 8-months, and considerably more than for 4-months wool.

Another type of fall wool in Texas is called fall 12-months wool. The total amount of this wool is small but worthy of mention. On the large, brush-covered ranges of Southwest Texas where sheep are shorn twice a year, some are missed during the spring round-up but are caught and shorn in the fall. This wool, though similar in length to spring-shorn 12-months wool, is usually of poorer quality because of the greater shrink and tendency to be tender. It was estimated by three Texas buyers that approximately 30 percent of this wool is tender.

Another type of wool moves into the warehouse all during the year. In Texas it is commonly called "dead" and "pulled" wool, but the wool trade generally term it "murrain" and "dead" wool, respectively. Murrain is the wool from a decomposed carcass, while dead wool has been pulled from a sheep shortly after death.

Shearing board sweepings, called "tags," fall into the class of inferior wool. It, together with murrain and dead wool, sells at a discount because of its poor quality.

### Preparation of Wool for Market

About 97 percent of the wool is received by the warehouse in regular wool bags and 3 percent in other containers generally termed "pockets." Feed sacks are most commonly used to bag small clips or any off-type wool which the grower desires to sack separately. On the eastern edge of the sheep country where flocks are small, growers may bag their entire clip in these bags rather than go to the expense of buying wool sacks.

The regular Texas wool bag is 6 feet long, 40 inches wide and weighs about 3 pounds. Packed, it usually weighs from 140 to 250 pounds, depending on how tightly the wool is packed and what the shrinkage is. The average weight is about 190 pounds.

The most common method of packing is to place from 20 to 30 fleeces in the bag in layers of four each. This makes a heavy, round bag. The most attractive bag is packed flat; it contains from 14 to 20 fleeces in layers of 2 each (Figure 4). When the bag seams are ripped, the fleeces are neatly presented, denoting a carefully prepared clip (Figure 5). Before bagging, the stained locks from each fleece should be removed and packed separately. This, too, adds much to the appearance of the clip.

In areas where fall shearing is done, short wool is not tied before bagging. About one million pounds of 12-months wool also are not tied in these areas.

Where flocks are larger, wool generally is better prepared for market. Owners of a few head of sheep seldom go to much trouble in preparing their clips. It is quite common in small clips to find all classes of fleeces and off-types in the same bag. On the other hand, progressive growers take pride in doing a good job of preparing their product for market. Shearing crews are supervised carefully and discouraged from making second cuts through the fibers. Shearing boards are kept clean and tags are sacked



Figure 4. Flat and round bags of wool.

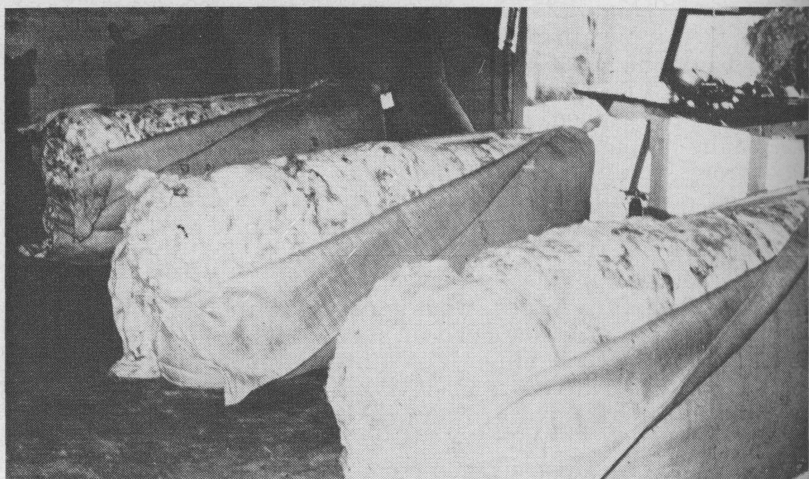


Figure 5. Wool bags opened for inspection.

separately. Yearling, lamb, ram, ewe, fine, medium and black fleeces are packed in separate bags. The old practice of putting extraneous material in wool bags is discouraged by warehousemen and is severely discounted by buyers. For men who raise sheep year after year, it is profitable to offer for sale attractive, carefully prepared wool.

Warehousemen reported that some growers mix their medium and fine wool, hoping that it will escape detection by the buyer. Seldom, however, do these mixtures go unnoticed. Occasionally, though, when the market is extremely active, as in 1949 and 1950, buyers may purchase these mixed lots with little or no discount. However, the chances are that the buyer knows what he is buying. During an inactive market, such a practice usually results in a sharp discount.

Although carefully prepared wool does not always receive the premium it should under present Texas marketing conditions, it will be the first sold during an inactive market.

### Handling Wool in the Warehouse

#### Weighing In and Out

When a clip enters the warehouse, it is weighed and each bag is given a lot and bag number. The lot number is placed on the bag to identify the grower. The weight of each bag is placed in a ledger along with the bag number. These weights are not used as sale weights but are used to credit each owner with the amount of wool delivered. When sold, the wool is reweighed. Seldom are these weights the same, due to the tendency of wool to absorb or lose moisture, depending on atmospheric conditions. When wool is shorn during damp weather and stored and sold during a dry period, it may lose several pounds per bag.



### Stacking

After the bags are weighed and marked, they are stacked by lots in stanchions. Most houses have a wool "stacker"—a home-made or custom-made device which hoists bags up to the desired height. Because the top of the bag is usually more loosely packed than the bottom, bag ends are alternated (Figure 6). Some ware-



Figure 6. Stacked bags of wool.

housemen put small lots in one section of the warehouse, and others stack according to lot numbers, shrink, class or length of wool. All warehousemen try to stack wool so any desired lot is easily accessible.

### Displaying Wool

Sample bags are taken from each lot and opened for buyer inspection. From 5 to 10 percent of each lot is shown, but if a buyer cares to inspect the clip or lot more thoroughly, it is usually his privilege to do so.

Wool is generally shown either in lines or individual clips, depending on the warehouse policy and upon the grower's demands. Some operators line their wools up according to shrinkage, but for the most part, wool is lined according to staple length. Of the total Texas clip, some 12 percent of the wool is put into lines of one kind or another. The most commonly used divisions are:

Line 1—Staple or Combing Wool

Line 2—French Combing Wool

Line 3—Clothing Wool (including spring 8-months and fall 4-months)

These lines are made for sales convenience as they make inspection easier. This permits a buyer to evaluate wool quickly as to its suitability for his purpose. Putting wool into lines actually amounts to bag-grading.

Most Texas wool is sold according to the evaluation of individual clips by buyers. Information obtained from warehouses showed that 81 percent of Texas wool is handled in this manner. A buyer must match individual clips himself to assemble a carload of similar wool. The warehouseman is helpful here because he usually knows the type of wool grown by each producer. In some cases, the warehouse operators catalog each clip, entering a complete description of all wool received.

### Grading Texas Wool<sup>1</sup>

Seven percent of the Texas wool is now graded. About one-third of this amount is graded at the shearing pens and the remainder is graded after it enters the warehouse. Fourteen warehouses reported doing some grading. A few others stated that the service was available if the grower desired it. A number of still other warehousemen stated that they would like to see grading practiced widely in Texas. But a few warehouse operators were decidedly opposed to grading locally, claiming that it is a function which should be done only in the eastern market.

The main comment made by warehousemen who favor grading but do not practice it was: "If sufficient tonnage could be graded and offered for sale, growers would receive a very definite price benefit. However, where only one grower in an area grades his wool, he will likely receive the same price paid the others."

<sup>1</sup>TAES Progress Report 1363, Grading Wool at Shearing Pens and Marketing on a Basis of Quality.

One warehouse in Texas is grading approximately one million pounds of wool annually at the shearing pens. Wool in the area surrounding this warehouse is uniformly fine and needs to be classified principally as to length. This warehouse has trained personnel to do the length grading. These graders are supervised by the warehousemen who go from ranch to ranch checking the quality of the work being done. A bag rack holding three bags is used. If such a rack is not owned by the grower, the warehouse loans one without charge. Each length of wool—Staple, French Combing and Clothing—is bagged separately. Tags, also, are piled and later bagged separately. Fleeces are brought to the tying table, tied and grease locks removed from the fleece before it is placed in the proper bag. In this immediate area, the sackers pack flat bags, using two-fleece layers. The quality of shearing is good. Shearers do a better job when so carefully supervised. The total cost of this type of grading is from one-fourth to one-half cent per pound. Many growers, warehousemen and buyers consider this method of grading very practical.

Where warehouse grading services are offered, one cent per pound is usually charged the grower. The fleeces are removed from the bag, graded and rebagged. However, only a small tonnage of Texas wool is graded for the grower at the warehouse. The bulk of wool graded by a warehouse is owned by that warehouse and is graded to make it more salable (Figure 7). Ordinarily, the wool graded by a warehouse is quite variable as to grade and is difficult to sell as such.

It is difficult to visualize exactly what effect grading would have on the wool industry if it were uniformly practiced. However, it is only reasonable to assume that it would make available to American mills a much more attractive wool at approx-

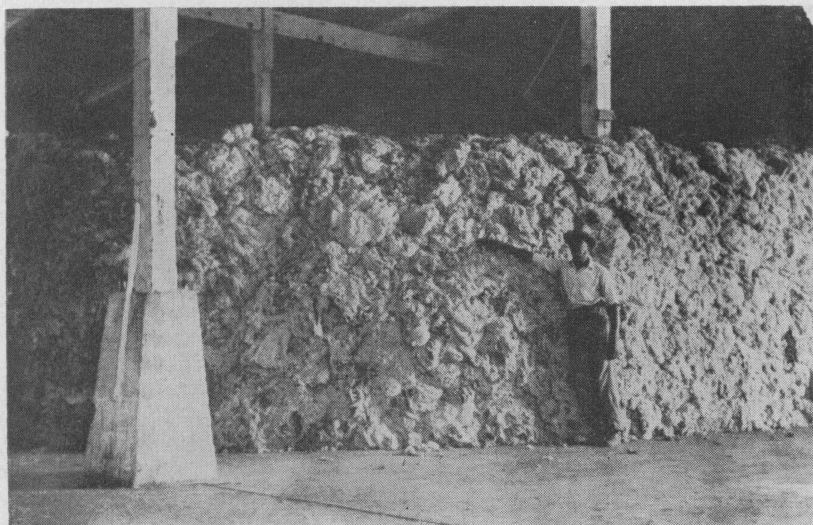


Figure 7. Graded wool in a warehouse.

imately the same cost. Grading would make it more comparable with Australian and other foreign wool which is classed before marketing. In spite of the high market prices paid during 1949 and 1950, there is no guarantee that prices will be so favorable in 5 or 10 years. The wool industry has severe competition from synthetics and foreign wool, and also faces the possibility of a further reduction in tariff rates. Since wool growers are in direct competition with foreign wool and with synthetic fibers, it should be to their best interests to offer the market the most attractive product possible.

## Wool Sales

### Methods of Sale

Wool is normally sold by private treaty or through sealed bids. Auctions have been held in the State, but they have never become popular. Warehousemen are of the opinion that both auctions and sealed bid sales result in higher prices when the market is very active. Very little, if any, of the Texas wool is consigned to wool dealers in the East.

When wool is consigned by a grower to a Texas warehouse, the warehouse operator and the grower have an understanding as to how the sale will be made. According to information received from warehousemen, one-fourth of the warehouses in Texas sell consigned wool without first notifying the grower of the bid received. These warehouses have the grower's approval to make such a sale. All other warehouses contact their clients, notifying them of the offer received and sell only when authorized by the grower. This method is somewhat slower, because it usually takes several days to contact and receive answers from each of a group of owners. In this case, the buyer will leave his bid with the warehouse for a specified period, then the offer is automatically withdrawn.

Private treaty is the term used to describe the most common method of selling wool. It is a matter of a warehouseman and a buyer getting together on a price. Once the sale is made, the grower is notified of the price received and is sent a check for his clip, less the warehousing charges.

At least 10 warehouses in Texas use sealed bid sales along with the private treaty method. These sales usually involve about one million pounds of wool a year. No warehouse uses the sealed bid sale exclusively. Those that report using it do so generally during an active market. At these sales, sample bags are opened for inspection. Buyers stand around the bags or a table and the fleeces are passed from buyer to buyer (Figure 8). When everyone has examined the clip's sample, each buyer wishing to place a bid, gives the warehouseman a sealed envelope containing a slip of paper on which is written his firm name, lot number of the clip, the number of bags and the total weight, the price which he will pay f.o.b. warehouse, and his signature, plus any terms which he wishes to make concerning the purchase. These bids





Figure 8. Buyers at a wool sale.

are examined in private by the warehouseman, and the buyer making the highest bid gets the wool, provided the sale price is agreeable with the grower.

About one-third of the warehouses in Texas buy some wool direct from the grower. Where flocks are small and growers have only a small clip to sell, flock owners are not particularly interested in consigning their wool to a warehouse. Usually, they load their wool onto a truck or trailer and go from warehouse to warehouse seeking the best offer. After receiving several bids, they sell the wool to the highest bidder. The tonnage of wool that a warehouseman purchases outright depends primarily on his financial condition. It requires much capital to buy wool unless the turnover is very rapid. Very few large clips are bought by warehousemen because of the amount of money involved. These clips are usually held on consignment with other large lots.

A few warehousemen, however purchase large amounts of wool each year, both independently and on order. One independent buyer is reported to have handled 10 percent of the entire Texas accumulation annually from 1920 to 1950, with the exception of one year. During one season, he handled 50 percent of all Texas wool. Some of this wool was handled on consignment and other clips were purchased outright.

#### Contracting Wool

Contracting is done prior to shearing. Binding agreements are

made with growers by Eastern firms through their Texas representatives and warehousemen. These contracts specify the tonnage to be delivered and the price to be paid.

When the Texas buyer receives instructions to contract a certain tonnage, he turns this order over to one or more warehouses who make the final agreement with the growers. The buyer, through the warehouse, advances the grower a certain sum per head of sheep to secure the contract. The customary fee at this time is \$1.00 per head. Since the grower delivers the wool f.o.b. to the warehouse, he pays the warehouse charges.

Upon delivery, final acceptance of the wool depends on the type and care in preparation originally agreed upon. If the clip does not meet the buyer's approval, he may discount the clip, stating his reason for doing so. If the grower chooses, he may reject this offer, thus nullifying the contract. This seldom happens.

Contracting is of great importance to the marketing of wool in Texas for it involves large tonnages most years. Contracting of the 1949 clip, for example, covered 25 percent of the total Texas production. The tonnage contracted varies from year to year, depending on supply and demand factors. If the supply is low and the demand is good, there usually will be more contracting attempted prior to shearing. But the success of the buyer's contracting attempts depends on other circumstances. If the general market appears to be promising to growers, they will hold strong for high contract prices, which may be too high for the buyer to meet.

#### Types of Buyers

All buyers in Texas are either representatives of Eastern dealers and brokers, order buyers, mill buyers or independent buyers. It has been estimated that there are 80 buyers in Texas—50 of the first three groups and 30 independent or warehouse buyers. No actual breakdown of these figures is available.

Very few mill buyers come to Texas. Some buyers purchase on order for mills, but very few, if any, permanent mill representatives establish a residence in the State. A few representatives of Eastern dealers and brokers are located in Texas. These firms, through their field representatives, buy wool, ship it east and hold it there in a warehouse where it is graded, and sometimes scoured and made into tops before being sold.

Order buyers make up the largest number of wool buyers. These men buy on order for Eastern firms, usually charging one cent per pound commission for the wool purchased. Some order buyers represent several firms.

Independent buyers get wool from growers and sell to anyone who makes a satisfactory offer. At times, these men will buy on order for Eastern wool companies.

#### Buying Procedure

When receiving an order from an Eastern firm, the buyer is assigned a "limit." That is the maximum price he can pay for

wool based on a clean weight basis. The order specifies the type of wool desired such as 64s, staple; 60-62s and French Combing. The buyer contacts a few warehouses to locate a prospective purchase.

After assuring himself that the wool is of the grade and length desired, the buyer is primarily concerned with the yield of the clip under examination. Also very important is the matter of preparation, which is evident to the buyer. A properly prepared bag of wool requires less expense in handling by the mill than one which is irregular as to grade, length and yield.

After examining several bags and looking at a representative sample of fleeces, the buyer will offer the warehouseman a price for the wool if he thinks it will satisfy his order. The price is converted from a grease to a clean basis through an estimation of the yield. Except in extreme conditions, a buyer will divulge neither his limit nor his estimated shrinkage and tactful warehousemen do not ask for this information.

Ordinarily the buyer will try to purchase wool in carload lots. But if it becomes scarce, he may have to buy small lots from different warehouses, concentrate the wool in one warehouse and ship it from there.

Wool is bought in Texas by experienced buyers who estimate visually the clean wool yield. Their estimations are based on experience gained through years of buying wool. This procedure is liable to inaccuracies at times because of the human element present in the operation. So fundamental is the exact evaluation of any agricultural product in the marketing of that product, that other methods of determining yield have been sought.

Probably the most promising of all of the methods tested is the coring method. In this operation, a metal tube is forced into the side of a bag of wool in several places so a portion of each fleece is theoretically obtained. When the tube is withdrawn, the wool inside the cylinder is removed and scoured. When properly applied, this method is usually accurate to within 1 percent of the true shrinkage.<sup>2</sup> In a test involving experienced wool appraisers, only one of four estimated shrinkages was within this margin.

This study revealed that only a small amount of coring is now being done in Texas by growers. However, for each overestimate of 1 percent shrinkage on wool selling for \$1.50 clean basis there is a 1½ cent decrease in the grease price. On a large clip of wool this would amount to a significant sum.

#### Loading and Shipping

Wool is shipped to the receiver shortly after the sale is made. "Railwater" and "all-rail" to Boston are the two primary means of shipment generally used. Shipping "all-rail" is the fastest method of sending wool east, but it is also the most expensive.

<sup>2</sup>Alexander Johnston and S. P. Davis, Core Sampling of U.S. Domestic Grease Wool for Shrinkage Determination, Bulletin No. 292, Wyoming Agricultural Experiment Station, Laramie, Wyoming, 3-4.

Only wool urgently needed by mills is shipped in this manner. Wool shipped "railwater" is ultimately handled by two coastwise steamship companies, Seatrain and the Newtex Steamship Corporation. In shipping by Seatrain, the wool is loaded into a car in Texas and the sealed car is transported aboard a ship around the seacoast to the Eastern seaboard, unloaded and sent to its destination. This method of shipping wool is the one most commonly used. When Newtex is used, the wool is transported either by rail or truck to Gulf ports where it is unloaded and reloaded in bulk into a coastal steamer. After reaching the Eastern port, it is unloaded from the ship and sent on to the destination either by rail or truck.

Seventeen warehouses handling about 10 million pounds of the Texas clip are located in non-rail towns. In such cases, motor truck transportation, either to a nearby rail center or to a coastal point for water travel to the East, is required.

If wool is shipped by Seatrain, the procedure usually followed is: buyer and warehouseman arrange a shipping date; warehouseman obtains a rail permit; upon receipt of permit, cars are ordered from the local rail station; and cars are loaded, sealed and moved.

Properly supervised, a crew can load a car of wool in about one hour. Each bag of wool is weighed before it enters the car. The sum paid each grower is based on these weights.

The rail rate charged depends on the method of shipping, the size of the car and the tonnage shipped. Rates vary from time to time, but in 1950 it cost about  $2\frac{1}{2}$  cents per pound to ship wools all-rail from San Angelo, Texas, to Boston and about  $2\frac{1}{4}$  cents per pound to ship via Seatrain. Different rates are charged based on minimum tonnages loaded into 40-foot cars, 50-foot cars and those over 50 feet in length. The latest schedule available shows the loading minimums as follows: 40-foot cars, 24,000, 30,000 and 50,000 pounds; 50-foot cars, 38,800, 48,000 and 64,800 pounds; over 50 feet, 60,000, 80,000 and 84,000 pounds.

The heavier the tonnage loaded into the car, the cheaper the rate. To get the most wool in the car, bags are placed lengthwise and flat and stacked one on top of another.

### Warehouse Charges

Prior to 1940, the customary commission charged for wool consigned was approximately  $2\frac{1}{2}$  percent of the sales. Since 1940 and during peak wool production which was reached in 1943, the customary commission was from one cent per grease pound down to one-half cent per pound for warehouses handling large volumes of wool made up of very large individual clips. The present charge has been increased to  $1\frac{1}{2}$  or 2 cents because of increased labor costs and comparatively low volume of wool produced.

In this study, 39 warehouses reported a rate of one cent per pound, but a large number of warehousemen stated they could



not afford to continue this rate. Nine firms which market about 6 million pounds reported a flat rate of  $1\frac{1}{2}$  cents per pound. Eleven reported a minimum of one cent and a maximum of  $1\frac{1}{2}$  cents per pound charged on the 16 million pounds they handle. Only three warehouses handling 850,000 pounds charged rates higher than  $1\frac{1}{2}$  cents per pound.

The storage period is ordinarily 6 months. A few warehouses charge an additional storage fee of  $12\frac{1}{2}$  to 15 cents per bag per month for periods over 6 months. Other warehouses make no charge for additional storage time.

The standard grading charge made by warehouses that offer warehouse grading is one cent per pound. All warehouse charges are deducted from the final sale proceeds.

### Problems of the Warehousing Industry

One of the principal problems confronting the wool warehousing industry at this time is the high cost of labor. This cost has been influenced greatly by the current provisions of the Fair Labor Standards Act (Act of 1938 as amended, U. S. Code, Title 29, Chapter 28) which requires warehouses to pay a minimum of 75 cents per hour, plus time and one-half overtime for working over 8 hours. However, wool handlers have been granted a 14-week exemption from the overtime regulation.

This legislation is responsible for the increasing warehouse charges exacted from growers. Recent increased warehouse charges will add approximately \$250,000 annually to marketing costs of Texas wool.

Small warehouses, mostly in the outlying areas of the sheep country, present a problem which is unique to their operation. Tonnages of wool handled by these warehouses are small and attract very little buyer competition. Prices paid for wool are less than prices paid for similar clips in a larger warehouse. One possible solution to this problem was advanced by a warehouseman in a discussion of the problem. He pointed out that a central sales center could be set up to handle small warehouse accumulations on a grade or sample basis. Representative samples could be exhibited, or the wools could be graded and sold on a length-grade-shrinkage basis in conjunction with samples shown.

### SUMMARY AND CONCLUSIONS

The warehouse system of marketing wool has developed from infancy in the 1870's until 1950 when about 90 major wool warehouses were operating in Texas. No other marketing system is significant.

The principal purpose the wool warehouse serves is to provide a concentration point for wool. Here, the wool can be stored safely in quantity awaiting inspection and sale. Wool buyers can purchase by carload lots.

Fourteen warehouses handle approximately 50 percent of the total Texas wool production. Six of these warehouses grade about 75 percent of all wool graded in Texas.

About 75 percent of the wool in Texas is shorn as 12-months wool. The remaining 25 percent is shorn as 8-months wool in the spring and as fall or short wool in the fall. Most wool moves into the warehouse in April and May. The next greatest movement is in September and October.

Operating procedures are similar in all wool warehouses. Some firms encourage and assist growers in doing a better job of preparing wool for market.

In areas where flocks are large, growers do a better job of preparing wool for market. Small flock owners should follow their example.

Warehouses are increasing commission charges from one to 1½ cents per pound to cover increasing labor costs.

The current and prospective demand for wool should warrant Texas sheepmen in increasing their production. More discriminating prices by the trade for good preparation should serve as an incentive to growers to produce a higher quality wool.

The grading of wool, especially at the shearing pens, should assist growers in their culling and breeding program.

The competitive nature of the wool industry makes it imperative that Texas sheepmen intensify their program of improving the quality of their wool and its preparation for the market. Proper preparation of wool for market is being encouraged by a number of the warehouse managers. This advanced step should result in a worthwhile increase in selling prices over similar wools improperly prepared.

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## BIBLIOGRAPHY

Allen, Carleton M. 1947. Wool, the Raw Material. Boston Wool Trade Association, Boston, Massachusetts.

Buck, Warner M. 1933. Preparing Wool For Market. USDA Leaflet No. 92

Carman, Heath, and Minto. 1892. Special Report on the History and Present Condition of the Sheep Industry in the United States. USDA.

Christie, James W. 1939. Grading Wool. USDA. Farmers' Bulletin No. 1805.

Davis, Stanley P. 1937. How Texas Wool is Marketed. Texas Agricultural Experiment Station Progress Report 416.

Food and Agriculture Organization of the United Nations. 1947. World Fiber Survey.

Hamilton, T. R. 1945. Trends in the Sheep and Wool Industry in Texas. Texas Agricultural Experiment Station Progress Report 944.

Hearings Before the Special Committee to Investigate the Production, Transportation, and Marketing of Wool. 1945. United States Senate, Seventy-ninth Congress.

Hyson, Charles D. 1947. Maladjustment in the Wool Industry and Need for a New Policy. Journal of Farm Economics. Vol. XXIX, No. 2.

Jackson, A. D. 1937. How Better Wool Is Produced. Texas Agricultural Experiment Station Progress Report 419.

Johnston, Alexander and Davis, Stanley P. 1949. Core Sampling of U.S. Domestic Grease Wool for Shrinkage Determination. Wyoming Ag. Expt. Station, Bulletin No. 292.

Jones, J. M. 1937. Growers Need Knowledge of Shrinking Percentage in Wool Clips. Texas Station Progress Report 414.

Jones, J. M., Davis, Stanley P., and Dameron, W. H. 1937. Shearing Once vs. Twice a Year. Proc. Am. Society of Animal Production, p. 158.