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EC34-48 Farm Sheep Facts

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CIRCULAR NO. 48 MARCH 1934

FARM SHEEP FACTS

THESE WESTERN EWES (ABOVE) WERE BRED TO THIS PUREBRED HAMPSHIRE RAM (LEFT) AND HIS HALF BROTHER AND PRODUCED THE CHAMPION CARLOAD OF FAT LAMBS AT THE 1933 AK-SAR-BEN (BELOW).

THE UNIVERSITY OF NEBRASKA
COLLEGE OF AGRICULTURE
EXPERIMENT STATION
LINCOLN
W.W. BURR DIRECTOR

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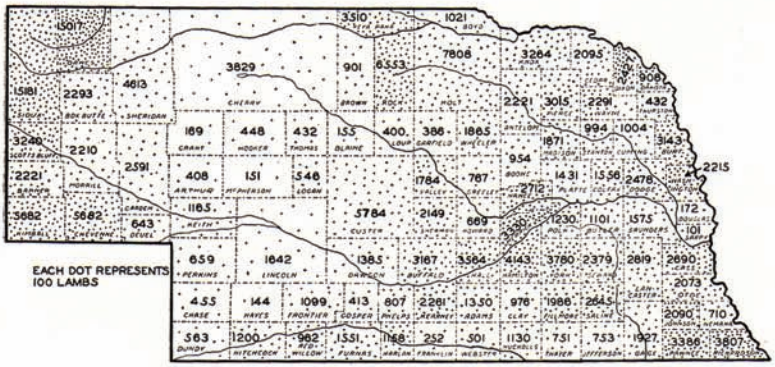

Estimates by counties of lambs raised in Nebraska in 1933

Farm Sheep Facts

M. A. ALEXANDER AND W. W. DERRICK
Department of Animal Husbandry

TWELVE NEBRASKA SHEEP-INDUSTRY FACTS

1. The farm flock and the fattening of western feeder lambs are the only methods of sheep production of importance in Nebraska.

2. The farm flock is not a major enterprise on Nebraska farms. It serves as a side line on farms having a well-drained place which sheep may call their own.

3. The estimated number of breeding ewes one year old or over in Nebraska farm flocks January 1, 1933, was 188,000.

4. The native lamb crop for the state in 1933 has been conservatively estimated at 205,000 head, with a gross return of $1,000,000.

5. The average Nebraska farm-flock fleece in 1933 had a possible gross return of about $2.50, the price obtainable through a regional co-operative wool marketing association of the National Wool Marketing Corporation. This would have made a total gross return to the state of $470,000.

6. The eastern half and western fourth of the state raise practically all the lambs. The counties leading in production are Sioux, Dawes, Holt, Rock, and Custer.

7. The Nebraska farm flock unit is 30 to 45 ewes and one good ram. In most cases, 5 to 10 ewes are a nuisance.

8. There must be a part of the farm suitable for sheep before such a flock can become a profitable enterprise.

9. Sheep are not scavengers, but respond readily to good feed, care, and management, which are essential to successful production. They may be used to utilize well-drained land that is not suitable for the production of cultivated crops.

10. Rather than expansion, the Nebraska farm flock needs better care and more efficient production methods.

11. Nebraska ranks second among the states in the number of feeder lambs fattened annually, with a total on feed January 1 each year of about 800,000. These lambs make a potential market for 1,600,000 bushels of corn and 50,000 tons of alfalfa hay.

12. The alfalfa and the sugar-beet districts are the principal lamb-feeding areas.

NINE MARKET FACTS

13. The highest early-spring-lamb market is usually a short time before Easter.

14. Normally, the price of early-spring lambs takes a drop immediately after the Easter buying is over, but usually part of the loss is regained sometime between May 1 and June 1.

15. After June 1, spring lambs are quoted on the market as fat lambs.

16. One should not expect spring-lamb prices to hold up through July. The average top price for spring lambs the first week of May from 1921 to 1930 was approximately $2.00 a hundredweight more than the top price for fat lambs the first week of July for the same period. There is a decided drop after the middle of June.

17. If the lambs cannot be finished for the market before the first part of June, then the next favorable market is most likely to be in August after the arrival of the early western shed lambs and before the early-September run of range lambs.

18. Lambs not ready for the August market may be marketed after the large shipments of western range lambs have arrived. This is usually the latter part of October and the first part of November.

19. Regardless of the time of marketing, the lamb must be plump, fat, and blocky to bring the best price.

20. It is better to have lambs in a marketable condition two or three weeks before an anticipated good market than to be two or three *days* late.

21. The price of fat ewes takes a decided drop after the first of May.

TWENTY-SIX EWE FACTS

22. Ewe lambs should *never* be bred.

23. A ewe should drop her first lamb when she is coming two years of age.

24. A ewe completes her usefulness when six to seven years of age.

25. Alert, active ewes are in good health.

26. Grade or western ewes are usually more practical than purebreds for establishing a commercial farm flock.

27. Ewes of moderate size with a deep, broad body set on short legs will produce the most desirable market lambs.

28. A tight-fleeced ewe with a good belly covering will produce a heavier and more valuable fleece than one with a long, loose, open fleece.

29. When a yearling, the ewe's middle pair of temporary (lamb) incisor teeth are replaced by a pair of large, permanent incisors. An additional pair is added each year until she has a full set of four pairs at four years of age.

30. The gestation period for a ewe ranges from 143 to 151 days, or about 5 months.

31. It is natural for ewes to breed only in the late summer and fall of the year.

32. The time between heat periods for the ewe is 14 to 18 days.

33. While in show condition, a ewe is an uncertain breeder.

34. Ewes in thin condition may be induced to come in heat earlier if they are given about ½ pound of whole oats or barley or corn each day for two weeks before the breeding season starts. Ewes in good condition do not need grain, but a fresh pasture may induce earlier breeding.

35. Trimming the wool from around the dock of the ewe before the ram is turned in will insure a more successful breeding season.

36. Make the ewe take plenty of exercise, *especially the last two months before lambing.*

37. A good legume hay, preferably alfalfa, is indispensable as part of the winter ration for pregnant ewes. When plentiful, alfalfa may be the entire ration. Another ration might be 1 pound of alfalfa and 3 or 4 pounds of good silage. If the ewes need more conditioning, ½ pound each day of any grain will usually be sufficient.

38. To insure a good flow of milk, all pregnant ewes need a light grain ration the last six weeks before lambing.

39. After lambing, the ewe should have no grain for two days. A handful of bran, with leafy alfalfa hay in small amounts, is best for her. Water with the chill removed will be appreciated.

40. Keep the ewe and lamb in a small pen by themselves the first two or three days. Under such conditions, fewer ewes will disown their lambs.

41. Trim the loose wool tags from around the udder to prevent the lamb from sucking them. Use round-pointed shears to prevent injury.

42. To prevent the udder from caking, it may be necessary to milk the ewe in the evening the first two or three days after lambing. After that time the lamb should take all the milk.

43. The third day after lambing the ewe may be fed the grain ration she received before lambing. In two weeks the grain allowance may be 1 to 1½ pounds per day and all the roughage she will eat.

44. Feeding the ewe grain after lambing pays dividends if the lamb is to be sold for the Easter trade or by the first of June as a spring lamb.

45. Feeding thrifty young ewes (two to four years old) grain after they have been turned on a good pasture with their lambs is a doubtful practice.

46. Stop feeding grain and reduce the roughage allowance of the ewes three or four days before weaning time. Milk out the tight udders for a few days after weaning the lambs.

47. A ewe pasture rotation may be established by planting a field of fall rye for early spring pasture. The rye field is later seeded to Sudan for summer pasture. Two other fields should be available, one for second-year sweet clover to pasture before the Sudan is ready and the other field for the seeding of first-year sweet clover. The amount of pasture necessary for a flock of sheep may be estimated by cow-pasture requirements. Seven sheep or 14 lambs are equivalent to one cow in pasture requirements. Nebraska Extension Circular 134, "Sweet Clover Management", gives an excellent pasture calendar for sweet clover and supplementary pasture crops. It is free for the asking. The following outline serves as an example of a three-year rotation of rye, sweet clover, and Sudan.

Year & Season		Field No. 1	Field No. 2	Field No. 3
1933	Spring	Fall rye	1st-yr. sweet clover	2nd-yr. sweet clover
	Summer	Sudan	1st-yr. sweet clover	2nd-yr. sweet clover
	Fall	Sudan	1st-yr. sweet clover	Fall rye
1934	Spring	1st-yr. sweet clover	2nd-yr. sweet clover	Fall rye
	Summer	1st-yr. sweet clover	2nd-yr. sweet clover	Sudan
	Fall	1st-yr. sweet clover	Fall rye	Sudan
1935	Spring	2nd-yr. sweet clover	Fall rye	1st-yr. sweet clover
	Summer	2nd-yr. sweet clover	Sudan	1st-yr. sweet clover
	Fall	Fall rye	Sudan	1st-yr. sweet clover

THIRTEEN RAM FACTS

48. A short-necked, broad, deep-bodied, short-legged ram with a thick covering of natural fleshing will sire the best market lambs.

49. A good purebred ram of the mutton (medium wool) breeds (Hampshire, Shropshire, Oxford, Southdown, Corriedale, Cheviot, etc.) is necessary to produce the right kind of market lambs.

50. An inferior purebred ram is as worthless as a scrub.

51. A ram contributes either his worth or worthlessness to each lamb in a flock unit. Select him to be the outstanding individual of the flock.

52. A well-developed ram lamb may be used to breed not more than 10 or 12 ewes.

53. A ram one to five years of age may be used to breed 30 to 45 ewes each season.

54. A ram retains his vigor and will breed the maximum number of ewes if he is with them only at night in a comparatively small lot.

55. A ram in show condition is a very uncertain breeder. He should be shorn and exercised to restore his fertility rapidly.

56. A ram with well-trimmed feet will breed the largest number of ewes.

57. An approximate breeding date record of the flock may be obtained by smearing a paste made from oil and lampblack between the fore legs of the ram. Such a record will help in estimating the lambing date and serve as a check on the fertility of the ram.

58. A small allowance of oats each day to condition the ram may be necessary a month before the breeding season opens.

59. A pound of grain a day is necessary for a ram in heavy service.

60. A winter ration of alfalfa, clover hay, or silage and a legume hay is sufficient for the ram.

THIRTY-ONE LAMB FACTS

61. See that the lamb nurses within twenty to thirty minutes after birth.

62. The lamb needs protection from the wind and wet weather.

63. Chilled lambs may be warmed by rubbing dry and wrapping in a warm blanket.

64. All lambs should be docked when from 10 to 15 days old. A pair of docking pincers or a docking chisel heated to a dull red will pinch off the tail without loss of blood. A moderately sharp, sterilized knife may be used, but excessive

Heat the pincers to a dull red. Cut the tail one inch from the body.

bleeding may result. A string may be tied around the stub tail to stop bleeding, but it should be removed in about an hour to prevent the tail from sloughing off. The tail should be removed about one inch from the rump.

65. All male lambs to be sold for slaughter should be castrated. The lower third of the scrotum is cut off with a disinfected knife and the exposed testicles are pulled out one at a time. When properly cleaned and disinfected after each operation, the two fingers and thumb may be used to make the extraction. If one cares to practice professionalism, the teeth are used in place of the thumb and fingers.

66. Strong lambs may be docked and castrated at the same time. If the two operations are performed at the same time, do the castrating first; otherwise the docking is done first.

67. Dock and castrate the lamb on a clear warm day and place him in a clean, dry, well-bedded pen. Never allow the castrated or docked lamb to become wet, cold, or muddy or to lie on the damp, bare ground or on a manure pile until the wounds are well healed.

Cut off the lower third of the scrotum; then expose the testicles by pushing the skin back.

68. Orphan lambs may be raised on cow's milk fed in a bottle. Their milk for the first three days should be from a ewe that has recently lambed. Care must be taken not to overfeed on milk. An ounce or less at two-hour intervals is best for the first day or two. Feed fresh, warm milk.

69. The pelt from a dead lamb may be removed and fitted over an orphan lamb to induce the mother of the dead lamb to adopt the orphan. Place the orphan and the ewe in a small pen by themselves.

70. The most profitable farm flock practice in Nebraska is generally the production of spring lambs.

71. A Nebraska standard spring lamb is docked, castrated if a male, fat when weighing 75 to 90 pounds, of compact mutton type, and marketed not later than the first of June.

72. Spring lambs should be born not later than January and preferably by the first of January.

73. Lambs born in November and December may be finished for the Easter market. They must be marketed at least a week or two before Easter to allow sufficient time for distribution.

74. Easter lambs and spring lambs are fed and managed alike.

75. Lambs will start to nibble grain and leafy alfalfa hay when 10 to 15 days old.

76. Build a creep that the lambs may go into at will to eat grain and hay.

77. The creep for early lambs should be located in a protected, sunny place. A shady place is best for late lambs.

78. Lambs will eat more grain and grow faster if they are shut in the creep for two or three hours in the morning and for a similar period late in the afternoon.

79. Lambs prepared for the Easter market or for a later spring market will need a creep-feeding period of 100 to 120 days.

80. A good grain ration for starting lambs is a mixture of 12 pounds of cracked shelled corn, 3 pounds of linseed meal or similar feed, and 2 pounds of bran. This ration can usually be cheapened after three to four weeks by gradually working up to a mixture of one-half cracked corn and one-half crushed oats. After about six weeks of creep feeding the lambs will take whole corn and whole oats. At this time, the proportion of corn may be increased, because it is more fattening and usually cheaper.

Feed lambs in a creep where ewes cannot enter.

81. Put a fresh supply of grain in the lamb creep at least twice a day. Clean out the refused feed and give it to the ewes.

82. Lambs getting a good supply of milk will eat more grain and make faster gains. No other feed is equal to ewes' milk for stimulating rapid growth.

83. Leafy, bright-green alfalfa hay (preferably third or fourth cutting) is necessary for best results. Keep a fresh supply of hay in the creep. The ewes will relish the stems left by the lambs.

84. Keep all troughs, racks, and pens fresh and clean. Lambs are very particular.

85. It requires approximately 85 pounds of corn, 75 pounds of alfalfa hay, 10 pounds of protein supplement, and 8 pounds of bran for a creep-fed lamb to gain 60 pounds. One-half of the corn may be replaced by oats, barley, or wheat. For every 9 pounds of corn removed, 10 to 11 pounds of oats, barley, or wheat must be added.

86. Lambs for the early spring trade should never be turned on pasture or allowed to run in a field. A dry lot is best. The ewes may be turned out.

87. Lambs to be marketed the latter part of August will need grain while they are on pasture.

88. Three or four pounds may be added to the weight of lambs that are to be marketed the latter part of August by dry-lot feeding on corn and alfalfa after about July 4th. During hot weather, half-fat lambs will not graze freely. They should nurse morning and evening until weaning time.

89. If the lambs are receiving a good supply of milk and are not to be marketed until after September, they will not need grain while on pasture. About four weeks before marketing they should be fed grain and alfalfa hay in a dry lot to produce the desired finish.

90. All lambs on pasture previously used by sheep will need to be drenched for stomach worms.

91. The lambs may be weaned when they are 90 to 110 days old. Those that have been creep-fed will wean more easily than those that have not been fed. Keep the ewes and lambs far apart during weaning time.

TWENTY SHEARING AND WOOL FACTS

92. Shearing time in Nebraska is usually between April 15 and May 15.

93. Less wool will get manure-stained if shearing takes place before the flock is turned on pasture for their entire daily ration.

94. Remove wet, dirty locks before shearing and pack them separate. It pays!

95. Shear all black sheep last. Pack their fleeces separate.

96. Burry, cotted, seedy, chaffy, dead, black, and gray fleeces are "rejects". Keep them separate from good clear wool.

97. The fleeces from yearling sheep are most valuable. Therefore pack them separate from aged-ewe and ram fleeces.

98. Shear close to the hide to get as long a staple as possible. Second clips may reduce the length enough to make the fleece fall into a lower-price class.

99. Machine shearing is more desirable than hand shearing because it produces a longer fiber and a heavier fleece. It may raise the market value from a low-price class (clothing) to a high-price class (combing).

100. Shear sheep only when the fleece is dry. Use a clean wood, concrete, or canvas surface for a shearing floor.

101. When shearing, use care to leave the fleece in an unbroken condition.

102. Spread the fleece on a clean surface, flesh side down, and fold in about 10 inches of each side and end; then, beginning at the tail, roll it into a bundle.

103. Do not roll the fleece too tight since lofty or springy fleeces are preferred.

104. Tie each fleece separate, using only enough *paper twine* to hold it securely. One strand around the fleece and another at right angles to the first are sufficient.

105. Never use sisal, rough jute, hemp twines, or wire to tie a fleece. *Under no conditions use anything but paper twine.*

106. Pack fleeces in regulation wool sacks. These sacks may be secured from a wool-marketing association.

107. Do not store or pile wool on the ground or in a damp place. It will be seriously damaged.

108. Never use a paint on sheep for identification that will not scour out. There are soluble sheep-branding paints available.

109. When feeding sheep, do not let hay, straw, chaff, or grain fall into the wool. Any foreign material will reduce the value of the fleece.

110. Wintering quarters should protect the sheep from a wind passing over a plowed or sandy field or a trashy lot to insure a cleaner and more valuable fleece at shearing time.

111. Be careful not to clip off the ends of the teats when shearing around the udder.

TWO PARASITES AND ONE PEST

112. Every Nebraska farm flock needs to be drenched for stomach worms. The symptoms of stomach-worm infestation are dullness, lack of thrift, loss of appetite, pale skin, colorless membrane on the under side of the upper eyelid, scouring, coughing, and sometimes swellings under the jaw and along the belly. Lambs heavily infested become unthrifty and will die if they are not treated. Infested ewes are poor wool and lamb producers. Sheep become infested principally while on pasture and especially on a permanent one like blue grass. Drenching is the only practicable method for removing the worms. The ewes should be drenched when they are turned on pasture in the spring. The lambs will not need to be drenched until they have been on pasture three weeks. The time between drenchings is usually 21 days. For heavily infested flocks and pastures, it may be necessary to continue drenching throughout the summer. Milder cases require fewer drenchings. Worming the ewes three weeks before breeding is an excellent practice. The last drenching of the season is given when the sheep are taken off the pasture in the fall.

The most practical and effective treatment is the copper sulphate solution. It is prepared by having a druggist accurately weigh out two ounces of uniformly dark-blue crystals of copper sulphate. The two ounces of copper sulphate is dissolved completely by boiling for 10 or 15 minutes in about a quart of water. When completely dissolved, add enough boiled water to make one gallon of the solution. A fruit jar may be used as a measure and also as a container for the solution, since it destroys metal containers. An old granite or enameled pan may be used for dissolving the copper sulphate and diluting the solution up to one gallon. A fresh solution must be made for each drenching. One gallon of the solution prepared on the farm will cost about two cents.

The dose must be accurately measured in fluid ounces, teaspoonfuls, or cc. and given in amounts as follows:

	Fluid ounces	Teaspoonfuls	cc.
For lambs 3 months old	⅔	5½	20
For lambs 6 months old	1⅓	11	40
For yearling sheep	2	16	60
For aged sheep	3	24	90

The following table will help to estimate the amount of drenching solution to prepare:

1 gallon will drench about 190 lambs, 3 months old
1 gallon will drench about 95 lambs, 6 months old
1 gallon will drench about 60 yearling sheep
1 gallon will drench about 40 aged sheep

The sheep must be kept off all feed and water 14 to 16 hours before drenching and 6 to 7 hours after the treatment. The first feed after a treatment should be a dry roughage and water, or only a limited amount of pasture and water.

A metal dosing syringe graduated in ounces or cubic centimeters may be used for giving the medicine. The syringe must be cleaned and greased after each period treatment or the solution will destroy its working parts. A less expensive instrument may be made by purchasing from the drug store three or four feet of rubber tubing with an opening about the size of a lead pencil. In one end place a six- or seven-inch metal pipe that fits snugly. In the other end place a glass funnel, which can be purchased for a nickel. A glass measuring bottle or cup that is graduated in fluid ounces or cubic centimeters may be used to measure the dose. The metal pipe is held between the jaw teeth of the sheep while an attendant slowly pours the accurately measured dose into the glass funnel.

Drenching prevents loss through the control of stomach worms.

For safe drenching always keep the sheep standing on all four feet. Do not administer the medicine while the animal is struggling. Back the rump of the sheep into a corner to prevent side swinging and a backward pull. Stand astride the sheep's neck and with the left hand under the lower jaw, raise the head until the nose is about on a level with the eyes. Do not raise the head so high that swallowing becomes difficult. Place the dosing instrument between the jaw teeth of the sheep and let him chew on the instrument as an aid to

swallowing. Powders and other medicine mixed with salt have not been effective in stomach-worm control. Temporary pastures and a frequent change of pasture are a great help in the fight against the stomach worm.

Lambs not allowed on pasture will not need to be drenched. This means that at no time has the lamb followed its mother to pasture. Such a method of prevention may be used when lambs are raised and marketed before June 1. It is one of the big advantages of spring lamb production.

113. Farm flocks need to be dipped at least once a year to control the sheep tick. If the flock is heavily infested, two dips at a 24-day interval may be necessary in the spring. If ticks are still present in the fall, one dip is then necessary. All sheep—ewes, lambs, and rams—must be dipped. Ten days after shearing is the best time since less dip will be required and the ticks have a tendency to leave the shorn ewe and go to the lamb.

The standard livestock dips that have directions for dipping sheep will do the job. Dipping in the morning of a clear, warm day gives the lambs time to dry.

114. Dogs are an ever-present enemy of sheep. Corralling the sheep at night in a dog-proof enclosure affords the best protection. This will not overcome daytime attacks. Sheep pastures near the house are desirable. A few bells on some of the ewes may announce a dog attack that might not otherwise be noticed. Most attacks come at night and early in the morning. The best exterminator is lead poisoning administered by a twelve-gauge shotgun, but be sure it does not cause trouble with the neighbors.

GRADING AND MARKETING WOOL

115. A great deal of experience and technical knowledge is necessary in order to determine accurately the market grades and shrinkage of wool. However, almost any practical sheepman can separate the fleeces of his ewes, yearlings, and bucks, and the black fleeces and tags, and further grade his wool within broad limits. The generally accepted market grades of wool officially established by the United States Department of Agriculture are as follows:

Old U. S. Grades	*New U. S. Official Numerical Designations*
Fine	64's, 70's, and 80's
Half blood	58's and 60's
Three-eighths blood	56's
Quarter blood	48's and 50's
Low quarter blood	46's
Braid	44's
Common	36's and 40's

The numbers used in the numerical designation for grades represent counts. Counts represent the hanks of worsted yarn that can be spun from one pound of top, each hank representing 560 yards. Top is a continuous untwisted strand of the longer wool fibers straightened by combing from the combing class of wool. Thus, wool of 56's quality should spin 56 x 560 yards per pound of top, if spun to the limit.

There is a further subdivision of market grades of wool, depending on the length of staples. The *longer-fiber* or *combing wools* are desirable and often command a higher price on the market than the *shorter* or *clothing wools.* Combing wools are used for worsted cloth (hard finish) and the clothing wools for the softer woven woolens, felts, and similar materials.

Shrinkage of wools varies greatly with the fineness of the wool and the type of soil on which it is produced. Extremely fine wools may shrink from 75 to 80 per cent and some of the coarser wools only from 45 to 50 per cent. Nebraska wool has an average shrink of 62 per cent. This includes some high-shrinking fleeces from western-fed lambs.

Average shrinkages of United States wools are as follows:

Farm Flock Production or Domestic Wool		*Range or Territory Wool*	
Fine, Fine medium	60%	Fine, Fine medium	67%
Half blood	52%	Half blood	62%
Three-eighths blood	46%	Three-eighths blood	54%
Quarter blood	43%	Quarter blood	48%
Common and Braid	38%	Common and Braid	43%

Table 1 shows the average grade of wool from breeds of sheep commonly raised in Nebraska.

TABLE 1.—*Average grade, class, and weight of fleece of breeds of sheep common in Nebraska*

Breed of sheep	Av. fleece weight (*pounds*)	Grade of wool as to fineness of fiber	Classification of wool as to length of staple (combing or clothing)
Rambouillet	10-18	Fine or 64's, 70's, and 80's; some half blood or 58's and 60's	Strictly combing, French combing, and clothing
Corriedale	12-14	Half blood or 58's and 60's; and three-eighths blood or 56's	Strictly combing and baby combing
Southdown	6- 7	Some half blood or 58's and 60's; and three-eighths blood or 56's	Combing and clothing
Shropshire	9-10	Three-eighths blood or 56's; some quarter blood or 48's and 50's	Combing and clothing
Hampshire	7- 8	Three-eighths blood or 56's; and quarter blood or 48's and 50's	Combing and clothing
Cheviot	6- 8	Quarter blood or 48's and 50's	Combing and clothing
Oxford	10-12	Quarter blood or 48's and 50's; and low quarter blood or 46's	Combing
Lincoln	12-16	Low quarter blood or 46's; braid or 44's; and common or 36's and 40's	Strictly combing

The following tentative classification of wool as to length of staple (Table 2) has been suggested by the Bureau of Agricultural Economics of the U. S. Department of Agriculture (Farmer's Bulletin No. 1710) on the basis of preferences expressed by many who are engaged in the wool industry.

TABLE 2.—*Tentative classification of wool by length of staple (inches)*

Grade	Strictly combing	French combing	Baby combing	Clothing
Fine	Over 2	1¼-2	.....	Under 1¼
Half blood	Over 2¼	1¼-2¼	.....	Under 1¼
Three-eighths blood	Over 2½	.....	1½-2½	Under 1½
Quarter blood	Over 2¾	.....	1½-2¾	Under 1½
Low quarter blood	Over 3	.....	2 -3	Under 2

Wool grading Braid or Common is practically always long enough to be strictly combing.

116. The Federal Farm Board called to Chicago in October, 1929, representatives of all existing co-operative wool-marketing associations. The purpose of the meeting was to make plans for the formation of a grower-controlled-and-operated marketing organization that would carry the benefits of the Agricultural Marketing Act to the wool- and mohair-growing industry. With the approval of the Federal Farm Board and with its financial assistance, the National Wool Marketing Corporation was later formed to fulfill the purpose of the Chicago meeting.

The National Wool Marketing Corporation, which the growers have organized, is endeavoring to aid wool growers in selling their wool and to give assurance that the wool will sell for its maximum value. This corporation has headquarters in Boston and constitutes a federation of a large number of state and regional co-operative wool-marketing associations. One of the regional associations is the Midwest Wool Marketing Association with headquarters at Kansas City, Missouri, which receives wool from growers in the states of Nebraska, Kansas, Missouri, Arkansas, Oklahoma, and part of Texas.

For Nebraska wool growers to receive the benefits of the National Wool Marketing Corporation, they must become members of the Midwest Wool Marketing Association. The membership fee is $1.00, which may be paid in cash, or the dollar may be charged to the grower's account and deducted from the grower's first wool check. The one dollar pays for a membership in full for all time and gives the grower one share of stock in the Midwest Wool Marketing Association. By this method of marketing, the grower is dealing directly with the mills through the marketing machinery set up by the

Government. In addition, every producer is expected to benefit in proportion to the quantity and quality of the wool he produces. The small producer will benefit even more than the large producer because his wool will be sold on its merits and in large graded lines, so that he will have the advantage of carload prices for his small lots. The co-operative association endeavors to dispose of the wool consigned by its grower members for more than the advance made upon the wool at the time of consignment. The grower receives all the benefits from all sales made at an increased price.

SCOURING AND CARDING WOOL FOR HOME USE

117. Home-grown wool, when properly processed, makes an excellent filling for comforts or bed quilts. A pure white wool for household use may be obtained by selecting portions of raw wool free from stains, heavy locks, seeds, chaff, and black fibers.

The scouring solution is made by first heating 15 gallons of water to about 130° F., or about as hot as the hand can bear. Add ¾ pound of soda ash and 1½ pounds of laundry soap flakes dissolved in a small amount of hot water. Fifteen gallons of the solution are required to scour 6 to 8 pounds of wool.

To scour properly, the wool must be put through two scouring baths in succession. Five minutes is usually long enough for each bath. Extreme care must be taken *not to twist, pound,* or *rub* the wool, because such a treatment will cause it to felt. A moderately slow lifting and lowering movement of the wool with a paddle is best. An ordinary washing machine wringer is best for removing the excess water when one is transferring the wool from one bath to another. If this is not practical, the wool may be lightly squeezed in the hands but never twisted. One must remember that the first scouring water can be used but once. The second bath may be used for the first bath of a new lot of wool to be scoured. Care must be taken not to put so much wool in a bath that handling becomes inconvenient.

The rinsing water should range in temperature from 100° to 110° F. Two or three rinsing baths may be necessary to remove all the soap. For drying, the wool may be spread on a clean cloth in the open air. A shaded place is preferable.

The tools for straightening out the dry scoured wool are called hand cards. If they are not carried by the local merchant, they may be ordered from mail-order houses which handle stockmen's supplies. The hand cards are used in pairs. A small amount of scoured dry wool is placed on one card. The other one is placed on top of the first, but with

the handle in the opposite direction, and is raked across the first card until the wool is evenly distributed in both cards. The cards are next placed so that the teeth are together and the handles are pointing in the same direction. By rubbing the cards back and forth in this position, the wool will be removed in a roll.

The amount of carded wool in a comfort ranges from 2 to 3½ pounds. This may be worked into a batting 72 x 84 inches or 72 x 90 inches, which are standard sizes. Some people find it advantageous to cover the batting first with cheesecloth. This makes it possible to remove the comfort covering for cleaning and to wash the batting. The cheesecloth also has a tendency to keep coarse wool from "creeping" in the comfort.

[10M]