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State of North Carolina

ANNUAL REPORT

1944

Period covered December 1, 1943 to December 1, 1944
(Month) (Month)

Name of project ANIMAL HUSBANDRY EXTENSION - BEEF CATTLE, SHEEP AND WORK STOCK

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Percentage of time devoted to project: L. I. Case and H. M. Stoney - 100%
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State Director of Ext. Work

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Director of Ext. Work
U.S. Dept. of Agriculture

1944
ANNUAL REPORT
OF
EXTENSION WORK IN ANIMAL HUSBANDRY
IN
NORTH CAROLINA

By: L. I. Case, In Charge
Animal Husbandry Extension.

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INTRODUCTION

Plans of Work in Animal Husbandry for 1944 emphasized four major lines as follows:

1. Home raised meat supply including pork, beef and lamb or mutton. The old time beef ring should be revived. Conservation by proper curing, canning or refrigeration should be given special emphasis and should by all means include new war time producers in and around towns who are killing and curing for the first time.

2. Parasite control. This to cover all four classes of livestock. (a) Work Stock Clinics (b) Swine Sanitation (c) Sheep, Stomach Worms, Nodular Disease, etc., as well as external parasites such as ticks and lice (d) Cattle Grubs and Lice.

3. In view of the probability of a shortage of protein concentrates stockmen should grow their own protein. (a) Better pastures (b) High quality legume roughages.

4. Managerial practices should tend toward greater efficiency to conserve labor and eliminate waste. For example: (a) Poor producers should be sent to market. (b) Eliminate loss by injury and death from rough handling, overcrowding in chutes, trucks and cars, haste in driving, loading, etc.

Accomplishments have been quite satisfactory in spite of many handicaps such as shortage of personnel in the Extension Service and on farms, a serious summer drought, limited travel funds, transportation difficulties and other difficulties due to war time restrictions.

Livestock farmers, especially in Eastern North Carolina, have in many cases become discouraged. There were several reasons for this. High prices paid locally for cattle particularly in 1943 led some to believe that the lid was off and prices would continue to go up and up. This led to overstocking which coupled with drought and feed shortage, then lower prices resulted in some liquidation. Rapid changes of price regulations was no doubt the main reason for reduction in hog numbers while shortages of fencing materials, shearing equipment, and labor were the main reasons for the liquidation of some farm flocks.

Beef Cattle Placement

The placing of purebred beef bulls and purebred and grade females dropped off somewhat last year as compared with 1943.

Summary of Bull and Female Placements

1936 - 1944

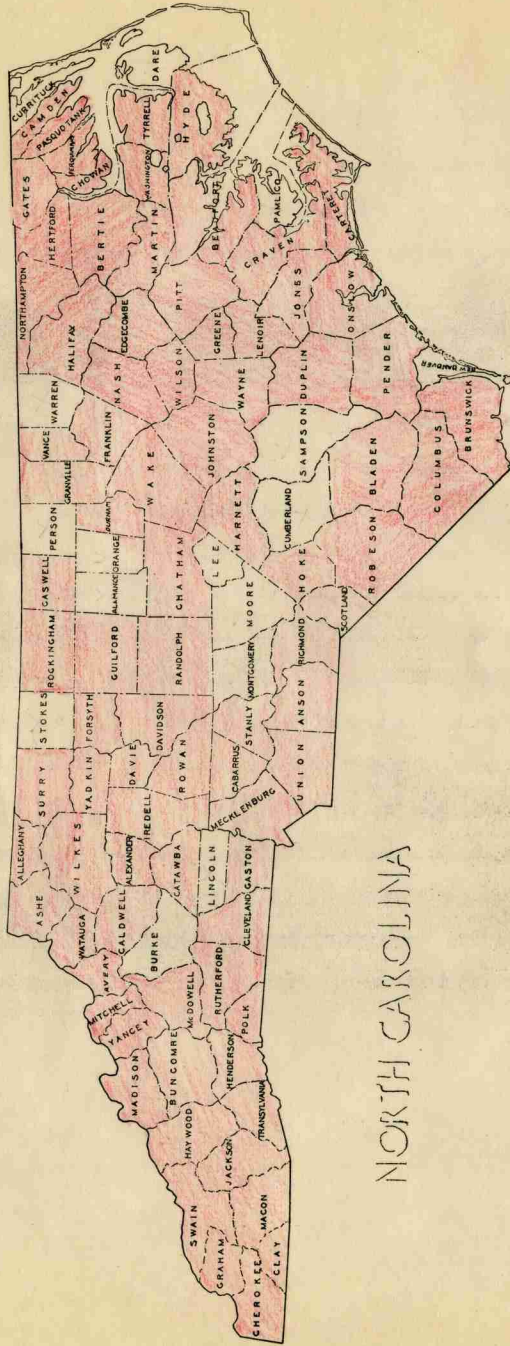
<u>Year</u>	<u>Bulls</u>	<u>Females</u>
1936	160	161
1937	178	211
1938	185	325
1939	351	936
1940	508	909
1941	444	1140
1942	596	1550
1943	590	1740
1944	515	1607
1945	567	1072

There were more auction sales of registered cattle than usual during the year with two of them dispersions. With the exception of the annual Hereford Association sale there was not the enthusiasm of recent years. That coupled with the fact that bull demand has slackened decidedly may indicate that we have passed the peak of prices unless we are unable to continue to control inflation.

Review of Purebred Sales 1944

<u>Breed</u>	<u>Date</u>	<u>Place</u>	<u>Bulls</u>	<u>Females</u>	<u>Total</u>	<u>Ave. Price</u>
Hereford	Mar. 29	Demopolis, Ala.	73	none	73	\$294.52
"	Apr. 14	Statesville, N. C.	12	38	50	580.40
"	Sept. 4	Charlotte, N. C.	4	28	32	291.00
"	Sept. 6	Clyde, N. C.	15	26	41	186.00
"	Sept. 8	Boone, N. C.	5	52	57	213.86
"	Sept. 23	Waynesville, N. C.	6	56	62	251.00
"	Oct. 26	Statesville	none	42	42	348.00

Two other small Hereford sales were held but details not at hand.



NORTH CAROLINA

Counties in which agents assisted farmers in obtaining purebred
Beef Type Bulls in 1944.

Public sales are of much value in the furtherance of the extension program. They are useful for county agents in assisting buyers in the selecting of animals to add to their herds and with a minimum of time and travel. They are also educational for both county agents and farmers.

Fattening For Market. Adult

More North Carolina cattle went to the shambles in 1944 than for the past several years. The large majority were grass cattle. Very few commercial cattle were dry fed due to lack of confidence and feed.

Baby Beef Production. 4-H Club

Four-H Club work in beef production had its top year so far when judged by the number of boys and girls involved, the number of animals fattened, the number of shows and sales and the prices received. Reports of county agents show that 861 projects were completed involving 990 animals. As usual these numbers are high as compared with the number of head which this office has records of that were exhibited and sold in organized shows and sales. Our records of four spring and three fall sales shows that our young folks placed on the market 335 head weighing 268,077 pounds and selling for \$62,239.78 or an average of \$23.21 per cwt.

A record is given below of the exhibitors of the Grand and Reserve Champion steers at the various shows together with the county, breed, weight, selling price and buyer:

Report on Sales of 4-H Club Steers 1944

Rocky Mount - April 6 - 7.

John B. Frazier, Jr.,	Wash	Hereford	980	\$53.50	per cwt.	Colonial Stores
*Leonard Brothers	Franklin	"	1025	30.50	" "	Kingan & Co.

Umberton - April 18.

Charles Bain	Harnett	Hereford	845	35.00	" "	Collins Dept. Store
Douglas Kinlaw	Robeson	"	990	22.00	" "	A. & P. Stores

Kinston April 20 - 21.

J. C. Johnson	Johnston	Hereford	920	56.00	" "	King Bee Cafe
Elanche Johnson	"	"	950	43.00	" "	" " "

Martin County - April 27.

Marion Smith	Martin	Hereford	930	31.00	" "	George's Cafe
Edward Smith	"	"	842	20.00	" "	Guaranty Bk. & Tr. Co.

Guilford County - Oct. 6.

Dolphine Cobb	Guilford	Hereford	880	50.00	" "	Colonial Stores
James Fryar, Jr.	"	"	1000	40.00	" "	Mayfair Store

Asheville - Oct. 11 - 12.

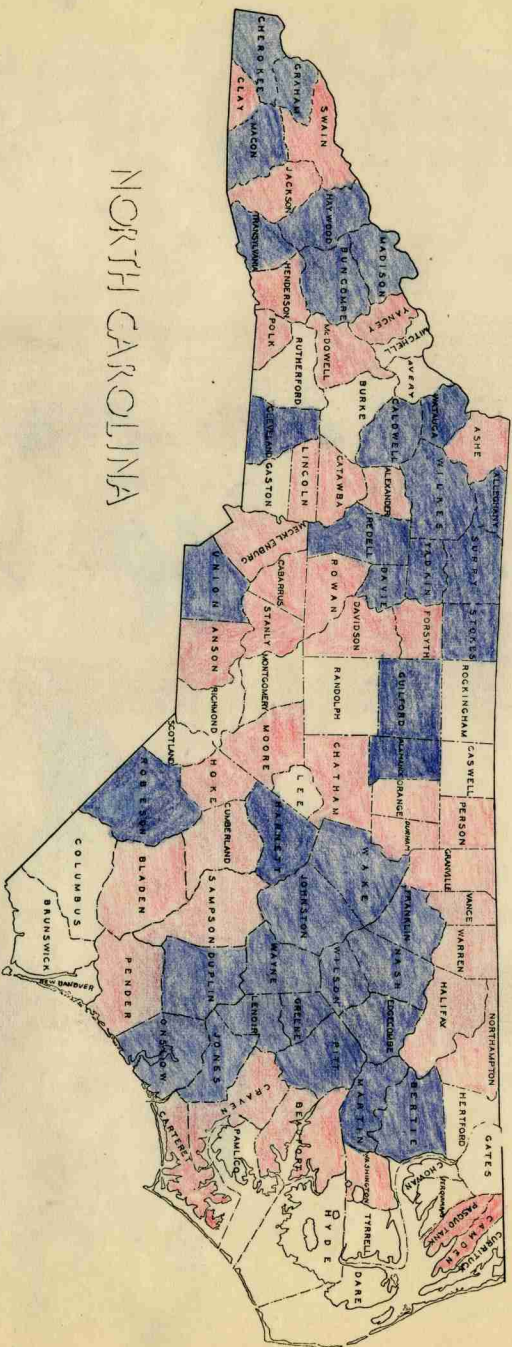
Raymond Dockery	Buncombe	Hereford	970	58.00	" "	Casa Lama Cafe
Ted Francis	Haywood	"	840	37.00	" "	Johnathan Woody

Elkin - Oct. 18 - 19.

Sammie Lee Myers	Iredell	Hereford	890	60.00	" "	Basketeria Inc.
Ruby Hutchison	Wilkes	" -S	870	40.00	" "	Colonial Stores

*Adult entry.

NORTH CAROLINA



Counties reporting 4-H Club completions in Baby Beef Projects in 1944. Counties shown in blue indicates the ones in which club members have taken part in county or regional shows and sales.

Summary Of Grades And Prices At Fat Calf Shows - 1944

Place of Sale	No. Sold	No. Pounds	Amount	Wgtd. Ave. Incl. Champ. ^s	Wgtd. Ave. Excl. Champ. ^s	No.* In Top Grade	No.** In 2nd Grade	No.*** In 3rd Grade
Williamston	4	3232	\$ 754.50	\$23.34	\$20.40	2	2	0
Lumberton	40	32075	6,380.48	19.89	19.40	17	12	11
Kinston	73	55980	13,292.46	23.75	22.91	25	43	5
Rocky Mount	53	44025	10,100.31	22.94	22.04	39	14	0
Asheville	92	73430	17,195.50	23.41	22.78	85	7	0
Elkin	48	38265	9,188.40	24.00	22.75	34	14	0
Greensboro	25	21070	5,328.13	25.29	23.39	15	7	3
Total	335	268077	62,239.78	23.21		217	99	19

- * - Middle Good or better
 ** - Middle Medium to Low Good inclusive
 *** - Below Middle Medium

With the exception of Williamston and Greensboro prizes were awarded on the basis of U.S. Standard grade on a 4 - 3 basis. Exhibitors of steers in Top Grade (see * above) received identical premium money. Those exhibiting animals in the 2nd Grade (see ** above) also received identical premiums which was 75% of the amount paid on Top Grade.

Financial Record of Baby Beef Club Records

Financial records on 253 head of steers show that 234 head or 92½% made money while 19 lost. Deducting the losses of \$377.67 from the \$15,882.47 profits we find a net profit of \$15,504.80 on the entire number of which we have received reports. This is a profit of \$60.49 per head on the 253 animals. The counties included in this report are, Surry, Guilford, Haywood, Caldwell, Transylvania, Madison, Alleghany, Cherokee, Buncombe, Macon, Union, Graham, Cleveland, Iredell,

Duplin, Onslow, Robeson, Johnston, Greene, Lenoir, Pitt, Nash, Bertie, Jones, Edgecombe, and Wake.

Counties which exhibited and sold steers in connection with regular organized shows and sales and which did not furnish financial reports are, Franklin, Martin, Harnett, Wayne, Wilson, Watauga, Yadkin, Stokes and Wilkes.

Baby Beef Club work is probably this department's most valuable project. It has no doubt been the main factor in training our farm boys and girls in judging, feeding and management of beef cattle. Perhaps of equal importance is the effect it has had on the parents as well as other adult farmers. They have learned the right type of beef animal, the value of better bulls, the importance of adequate feed as well as better feeding, management, and parasite and disease control.

Feeder Calf Sales

Feeder calf sales were held at Clyde in Haywood County and West Jefferson in Ashe County. The sales were conducted in much better shape than a year ago. All calves between 300 and 600 pounds were graded according to U.S. Standards, marked, and sold by grade.

Two car loads of good and choice feeder calves were purchased at these feeder calf sales for 4-H Baby Beef Club work in the eastern part of the state.

The sellers as well as the buyers seemed to be quite well satisfied and plans are under way to expand this educational feature in connection with an increased number of feeder calf sales in the state next year.

The following is a record of the Haywood County sale held at Clyde on September 13.

<u>Number</u>	<u>Grade</u>	<u>Weight</u>	<u>Price Per Cwt.</u>
4	Choice Steers	450 - 600 lbs.	\$14.42
25	Choice Steers	300 - 450 lbs.	12.48
27	Good Steers	450 - 600 lbs.	11.76
67	Good Steers	300 - 450 lbs.	11.56
25	Medium Steers	All wts. (300 - 600 lbs.)	9.47
16	Choice Heifers	All wts.(300 - 600 lbs.)	11.41
47	Good Heifers	All wts.(300 - 600 lbs)	10.26
18	Medium Heifers	All wts.(300 - 600 lbs.)	8.23
25	Underweights, Overweights, and Grades Below Medium		10.73

SHEEP PROJECTS

Flock Management. Adult

Farm flock records from four mountain counties and five eastern counties totaling fifty-two flocks show an average gross income of \$12.82 per ewe with an average estimated cost of keeping a ewe one year of \$4.13. These estimated costs ranged from \$1.00 to \$10.00. The average for the east was \$2.62 and for the west \$5.07. The average gross income for the east was \$7.76 and for the west \$15.99. It is true that the more extensive use of winter annual grazing crops in the east should cut the cost, yet the better practices of feeding and management in the west could well be emulated by eastern flock owners which would result in greater profits. Records for the past eight years are as follows:

<u>Year</u>	<u>Gross Income Per Ewe</u>
1937	\$9.36
1938	7.18
1939	9.27
1940	9.56
1941	11.18
1942	14.40
1943	14.80
1944	12.82

The size of the flocks on which records were kept varied from 4 to 102, with an average of 20. In other words sheep raising in North Carolina is on a small farm flock basis.

A careful study of these farm flock records bring out the fact that there is a close correlation between the percentage of lamb crop and profit. They also show that the most successful sheep men use good rams, feed their flocks well, treat for internal parasites, dock and castrate the lambs, control external parasites by dipping and sell their lambs and wool cooperatively by grade.

The highest income \$26.26 on a per ewe basis was on the farm of D. M. Edwards, Ennice, Alleghany County. Mr. Edwards raised 30 lambs from 15 ewes or a 200 per cent lamb crop. Another reason for his greater income was that his lambs came in February, which is earlier than is customary in the mountains. This made it possible to market them in June when the price is nearly always higher than later in the season. F. P. Wilson, Reese, Watauga County, came in second on an income per ewe with \$24.91. This was a very small flock of 6 ewes but Mr. Wilson also raised a 200 per cent lamb crop. Two other small flocks in Watauga had very good records and L. Ward and Son of Sugar Grove raised 172 per cent lamb crop and clipped over 7 pounds of wool per sheep. In commenting on their gross income of \$21.36 per ewe the Wards state "There is good money in sheep if you will help them just a little". The other Watauga record was that of Eugene Eggers whose post office is Banner Elk. He raised 125 per cent lamb

crop or 15 from 12 ewes, but every one of them graded choice and sold for an average of over \$13.00 per head which was an important factor in producing an income of \$19.43 per ewe.

Among the larger flocks W. H. Transou of the post office by the same name in Ashe County raised 36 lambs from 26 ewes and made an income gross of \$19.00 per ewe. J. R. Gambill of Sparta keeps one of the larger flocks in the state and makes a nice profit from it. Last year carrying 90 ewes he grossed \$13.46 per head.

Up in Haywood County W. F. (Jack) Hipps of Route 3, Canton, says that sheep are his most profitable crop. With 102 head he made a gross income of \$14.70 per head.

Way down in the Coastal Plain area Philip G. Rich of Garysburg, Northampton County made the best record for this area with a gross income of \$15.20 per ewe on a small flock. He sold his lambs dressed.

In Pasquotank County, E. Leroy Markham raised 143 per cent lamb crop and grossed \$11.50 per ewe.

Tyrrell County does not have so many sheep but some of the farmers do very well with them. C. J. Cahoon, Route 1, Columbia, makes a good profit year after year. This past year he grossed \$11.30 per head from a flock of 16 ewes.

W. A. Mayo of Route 1, Creswell did well with a 14 ewe flock which grossed \$11.38 per head. Mr. Mayo always takes advantage of the cooperative lamb shipments from Plymouth as do the majority of the sheep men in that section.

These farm flock records are of considerable value to the individual flock owners, sheep men generally and to our county workers. Agents learn from assisting farmers with them of the place of sheep on the farm and the importance of good feeding, breeding, care and management. In this way it increases not only their knowledge but their enthusiasm as well.

Ram Placements

The decrease in both ram and ewe placements as compared with the previous year reflects the diminishing interest in this class of stock. We have probably heard of more flocks for sale in Eastern North Carolina than for many years. This is due to shortage of fencing materials, difficulty in obtaining shearing equipment and shortage of labor.

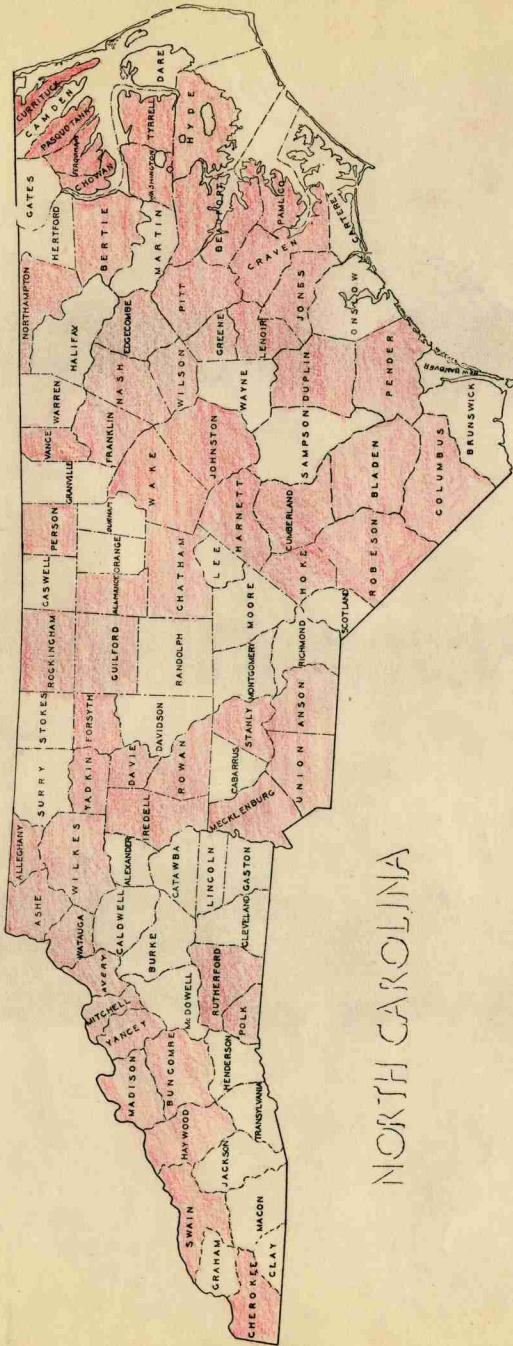
Summary of Ram and Ewe Placements:

<u>Year</u>	<u>Rams</u>	<u>Ewes</u>
1936	71	29
1937	121	110
1938	87	174
1939	99	130
1940	113	137
1941	151	275
1942	232	526
1943	220	916
1944	203	622
1945	200	226

Grading and Marketing Lambs

Another increase in the number of lambs sold cooperatively by grade took place in 1944, although there was a reduction in the percentage of choice and good lambs. This is explained by the fact that a larger number of lambs was handled in the eastern part of the state than the previous year.

44 Club



NORTH CAROLINA

Counties in which farmers were assisted in obtaining Purebred Rams in 1944.

Summary of Cooperative Lamb Sales in 1944

County	Choice	Choice Bucks	Good	Good Bucks	Medium	Medium Bucks	4 s	44 s	Old Sheep	Total
Alleghany	627	49	454	88	116	34	32	13	9	1422
Ashe	394	55	655	352	285	306	131	26	18	2222
(1) Burlington	39	3	34	10	20	7	6	4	24	147
(2) Fayetteville	7	2	11	1	10	3	22	4	13	73
(3) Plymouth	76	14	115	55	214	95	224	71	162	1026
(4) Shawboro	18	6	29	13	59	46	92	25		288
(5) Tarboro	29	2	83	4	113	18	77	112	59	497
Watauga	302	52	455	115	413	103	122	19	3	1584
Total	1492	183	1836	638	1230	612	706	274	288	7259
Per Cent of Total	20.55	2.52	25.29	8.79	16.95	8.43	9.73	3.77	3.97	100%

Counties which participated in shipments are:

- (1) Alamance, Orange, Randolph, Caswell.
- (2) Cumberland, Harnett, Wake.
- (3) Beaufort, Hyde, Tyrrell, Washington, Bertie.
- (4) Camden, Currituck and Pasquotank.
- (5) Edgecombe, Nash, Harnett, Pitt, Duplin, Lenoir.

delete this as map shows counties

Total Lambs Sold Cooperatively By Grade
1935 - 1944

<u>Year</u>	<u>No. Lambs</u>
1935	2324
1936	2506
1937	4303
1938	4464
1939	4373
1940	3753
1941	4710
1942	5847
1943	6035
1944	7259

1945 9256

The fact that cooperative sales of lambs by grade are increasing in volume year after year is no doubt evidence of the fact that it is netting the producers more money than they would obtain otherwise. Granting that this is a fact and estimating, conservatively, that farmers are getting one cent per pound more than they would otherwise receive, we find we have a net increase in income of \$5548.00. While this is important and farmers appreciate the service rendered, the educational value of lamb grading is of still greater importance. For example, a farmer brings his lambs to the concentration point where he sees a neighbor's lambs weigh more and grade higher than his. He talks with this neighbor and finds that he is using a purebred ram, controlling stomach worms, docking and castrating, etc. etc. The farmer with the lower grade lambs follows the methods of his neighbor the next year and consequently improves the grade of his lambs. We know personally of many cases like this.

Cooperative Wool SalesCooperative District Wool Pools

Place	No. Counties Cooperating	No. Farmers Cooperating	Total Pounds	Total Money Advanced
1. Asheville	8	91 *	17,286 ^{10,332}	\$ 7,659.18
2. Raleigh	35	250	24,970 ^{16,416}	10,495.24
3. Williamston	14	194	19,645 ^{14,118}	6,249.18
Final payment at .03046 per pound				\$ 1,997.30
*Includes several thousand pounds from dealers.				

Cooperative County Wool Pools

County	No. Farmers Cooperating	Total Pounds	Total Money Advanced
Alleghany	260	19,099 ^{12,245}	\$10,248.46
Ashe	189	21,840 ^{16,775}	11,623.87
Avery	55	5,941	2,925.80
Watauga	270	24,649 ^{24,706}	13,245.81
Totals	61 Counties	1309 Farmers	133,430 lbs. \$64,444.84

- Counties which cooperated in the Asheville Pool: Buncombe, Haywood, Madison, Yancey, Jackson, Macon, Burke and Polk.
- Counties which cooperated in the Raleigh Pool: Wake, Rowan, Guilford, Anson, Alamance, Orange, Chatham, Moore, Iredell, Lee, Granville, Vance, Warren, Franklin, Johnson, Wilson, Wayne, Harnett, Hoke, Cumberland, Sampson, Duplin, Greene, Lenoir, Jones, Craven, Carteret, Onslow, Pender, Robeson, Bladen, Columbus, Brunswick, Cabarrus and Durham.
- Counties which cooperated in the Williamston Pool: Martin, Nash, Edgecombe, Pitt, Halifax, Bertie, Hertford, Gates, Chowan, Washington, Tyrrell, Hyde, Beaufort and Northampton.

The wool which was pooled at Raleigh, Williamston and Asheville was sold through the United Wool Growers Association. The first payments on this wool

which were made to the growers at the car door were as follows: Clear Medium 48¢ per pound, Medium and Light Burry 40¢, Heavy and Hard Burry 30¢, Black, Dead, Seedy, etc. 40¢ per pound, Fine and Half Blood 40¢, Mohair 35¢, Lambs Wool 38¢ per pound.

The second payment on the 61,901 pounds of wool sold through the United Wool Growers Association averaged 3.046 cents per pound.

The wool which was pooled in Alleghany, Ashe and Watauga Counties was sold to Chatham Manufacturing Company at Elkin, North Carolina. The following prices were paid to the growers: Clear Wool 54¢ per pound, Burry 49¢, Rejects 44¢ per pound.

The Avery County Pool was sold to a wool dealer at the following prices: Clear Medium 50¢ per pound, Burry 40¢, and Rejects 30¢ per pound.

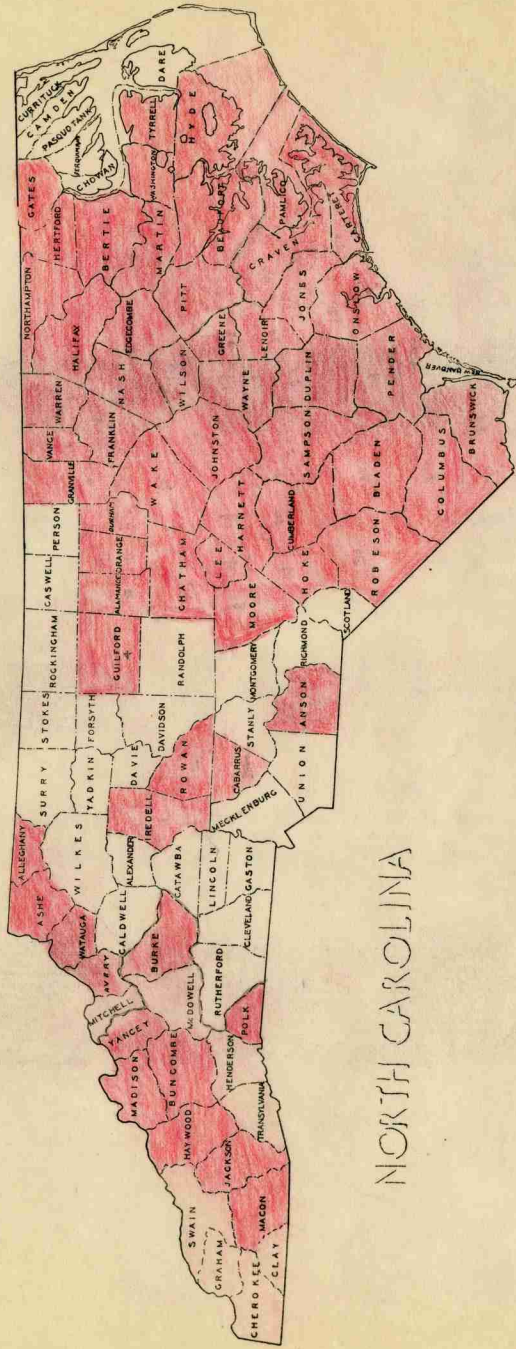
In Ashe, Alleghany and Watauga Counties 92.1 per cent of the wool pooled graded Clear Medium.

The following tabulation shows progress made and the increasing interest in cooperative wool marketing in the state during the past three years:

Year	No. Counties Cooperating	No. of Growers Cooperating	Pounds of Wool Sold	Value
1942	25	639	88,660	\$44,915.10
1943	44	1333	125,445	65,033.79
1944 *	61	1309	133,430	64,444.84

* Total value figure for 1944 includes second payment on the wool sold through the United Wool Growers Association.

It is believed that the wool sold cooperatively sold for at least 5 cents per pound more than it would have to country buyers which means an increase in income of \$6,671.50. It is also true that the wool pools increased the price paid by local buyers by a few cents per pound.



NORTH CAROLINA

Counties in which wool was marketed cooperatively in 1944.

Sheep Shearing Schools

Sheep shearing schools were conducted in ten counties in the state during April and May. Mr. E. S. Bartlett of the Chicago Flexible Shaft Company spent one week in North Carolina and during that week he directed six shearing schools in four counties.

The shearing schools were attended by county agents, vocational agricultural teachers, flock owners, custom shearers, 4-H Club boys and F.F.A. members. During the schools 10 county agents or assistants received sufficient instructions to carry on in their counties. In addition 62 men and boys were given instructions in shearing and the proper handling of the wool so that they could shear their own sheep properly and do some custom shearing for their neighbors. The 4-H Club and F.F.A. boys who did custom shearing rendered a very valuable service because quite a number of sheep in the state would otherwise not have been sheared due to the labor shortage.

Wool is probably the most valuable, pound for pound, of all farm products, yet it is handled the poorest. This situation must be changed if we are to meet foreign competition.

WORK STOCK CLINICS

Cooperative Horse and Mule Clinics were conducted in 38 counties in the state during January and February. The clinics were conducted on a community and county wide basis. The county agents scheduled and advertised the clinics and the local veterinarians administered the treatments at a recommended scale of charges. A representative from this office attended the clinics in 22 of the counties.

The following services were offered at the clinics:

1. Free examination of all work stock brought to the clinic.
2. Treatment for internal parasites.
3. Floating and pulling teeth.
4. Other treatments needed.
5. Advice on feeding and management.

Phenothiazine capsules were used to deworm animals in the eastern part of the state where there are no bots. Both phenothiazine and carbon disulphide capsules were used in the western part of the state where animals showed symptoms of bot and roundworm infestation. No deaths were reported as a result of the treatments.

Reports received from 37 counties show that a total of 3,687 animals were examined at the clinics and that 3,339 were treated.

According to the Plans of Work submitted by the agents, clinics will be conducted in 60 counties during December, January and February 1945.

MISCELLANEOUS

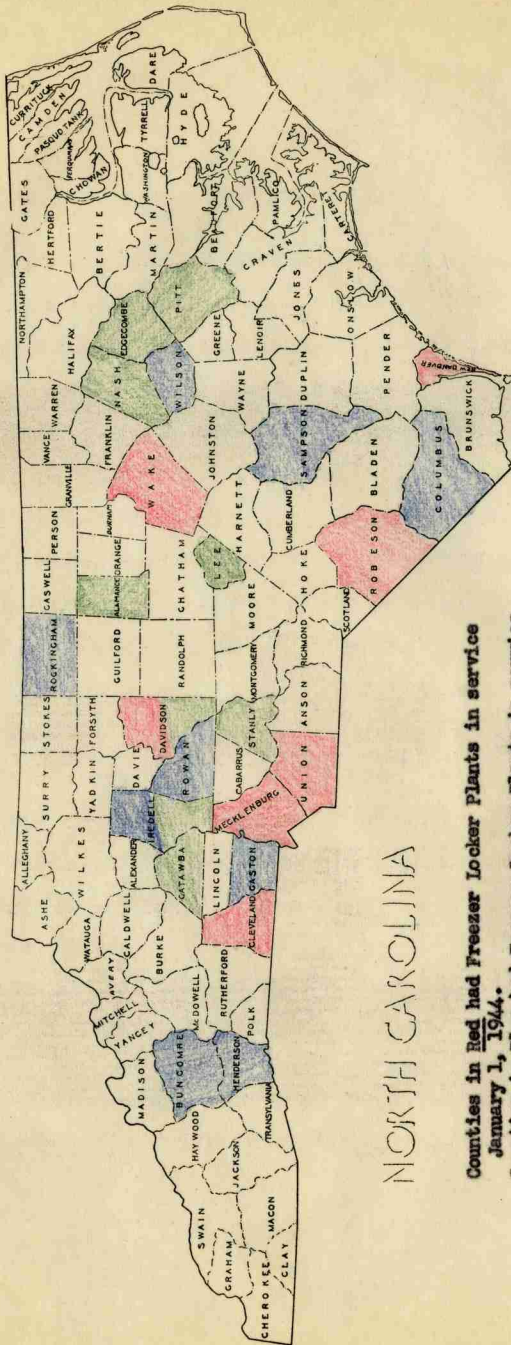
1. Alabama Hereford Bull Sale. Seventy-three head of surplus Hereford bulls were shipped to Demopolis, Alabama, where they were sold at auction on March 29th. There were 27 individual consignors. The cattle brought \$21,500.00 or an average of \$294.52 per head. The top bull was consigned by G. M. Pate and Sons, Rowland, N. C. and sold for \$1110.00. Plans are under way for another sale of this kind in the Black Belt of Alabama in 1945.

2. North Carolina Aberdeen Angus Breeders Association Formed. Thirty-seven Aberdeen Angus breeders met at Elkin, N. C. on July 19th and formed a State Association with the following officers and directors: W. A. Neaves, Elkin, N. C., President; Eugene Transou, Sparta, N. C., Vice-President; T. F. Cooley, Elkin, N. C., Secretary-Treasurer; Directors, J. G. Morrison, Lincolnton, N.C.; Noble Garrett, Waynesville, N. C.; J. M. Parrott, Kinston, N. C.; J. C. Verebee, Camden, N. C.; Edwin Pate, Laurinburg, N. C.; Dr. F. S. Scott, Burlington, N.C.; W. H. Harrison, Salisbury, N. C.; Dr. Wm. Moore, Raleigh, N. C.; L. I. Case, Raleigh, N. C.

3. North Carolina Hereford Breeders Association. This association held its annual meeting and get-together at Waynesville on September 19th. New officers and directors elected were: President, H. G. Shelton, Speed, N. C.; Vice-President, B. B. Miller, Mt. Ulla, Secretary-Treasurer, Dr. J. M. Lynch, Asheville, Directors for one year, R. A. Allgood, Fayetteville, N. C.; T. B. Eledsoe, Greensboro, D. E. Lefler, Norwood, N. C. For two years, H. G. Shelton, R. H. Reavis, Statesville, C. N. Allen, Waynesville. For three years, B. B. Miller, J. H. Doughton, Laurel Springs, and J. M. Lynch.

4. Freezer Lockers and Meat Curing. Rapid progress has been made in the construction of freezer locker plants during the year. On January 1, 1944 there were 7 plants with 1526 locker boxes in use in the state. At the end of the year there were 16 plants doing business with 6553 boxes in use. This is an increase of over 400 per cent in locker boxes. In addition there were 11 more plants under construction with many more in prospect. (See Map) There has also been a large increase in the amount of pork cured as part of the service rendered by the locker plants. In 1943 there was about 1,500,000 pounds of pork cured by the operators of locker plants. This increased to between three and four million pounds in 1944 and it is anticipated that 1945 will bring this figure up to seven to ten million pounds. 1946

Meetings in regard to freezer lockers and freezer locker plants were held in 31 different counties during the year.



Counties in Red had Freezer Locker Plants in service
January 1, 1944.

Counties in Blue had Freezer Locker Plants in service
November 30, 1944.

Counties in Green have Freezer Locker Plants under construction.

COOPERATING AGENCIES

The Chamber of Commerce in Rocky Mount, Kinston and Lumberton in holding fat stock shows and sales.

North Carolina State Banker's Association in furnishing premium money for Baby Beef Shows and Sales at Asheville and Elkin.

State and local veterinarians in helping to organize and conduct Work Stock Clinics.

Chicago Flexible Shaft Company in conducting shearing schools.

Southeastern Chain Store Council in the interesting of buyers among the Food Chains for 4-H Club Fat Steer Sales, etc.

Atlantic Coast Line Railroad Company, through their livestock development agents in assisting with all lines of endeavor in the eastern part of the state.

Tennessee Coal, Iron and Railway Company, through their local representative in all lines of livestock work.

North Carolina Department of Agriculture in lamb grading work, etc.

Civic Clubs and Bankers in promoting better livestock through sponsoring 4-H Livestock Club Work, etc.

United Wool Growers Association and Chatham Manufacturing Company in cooperative district and county wool pools.

1944 STATISTICAL SUMMARY
(From Specialists Reports)

	<u>I.I.Case</u>	<u>H.N.Staney</u>	<u>Total</u>
Number days in the field	172	176	348
Number days in the office	136	127	263
Number days on annual leave	2	4	6
Number days on sick leave	1	1	2
Number holidays observed	2	4	6
Number miles traveled by car and bus	20,198	17,571	37,769
Number miles traveled by train	1,815		1,815
Number visits to county agents	353	337	690
Number visits to demonstrations	211	229	440
Number of other visits	105	295	400
Number meetings attended	49	40	89
Total attendance at above meetings	6,233	5,542	11,775
Number office consultations	350	177	527
Number letters written	1,991	412	2,403
Number different circular letters			34
Number articles prepared for news publi- cations	11	4	15

OUTLOOK

There is more interest and activity in the animal husbandry field in prospect for 1945. In Beef Cattle there is again evidence of increased interest in Baby Beef Club work. Spring shows and sales are planned for six points and fall shows at four places. Without doubt we will have more club members participating in this project than in any previous year. One county alone has 60 head on feed now. Another bull sale is planned in the Alabama Black Belt and tentative plans have been made for small bull sales in cooperation with stock yards companies in the state. We hope to go farther with feeder calf sales than in the past.

Sheep interest is lagging to some extent due mainly to shortage of labor and fencing materials. There are prospects for more definite accomplishments in 4-H Sheep Club work than in the past. While the Sears Sheep Club work in seven eastern counties has been quite unsatisfactory, some work now started in some of the mountain counties gives promise of good results with a show of market lambs to culminate the year's work.

Work Stock Clinics are more and more popular but shortage of veterinarians will handicap the number held as was the case in 1944.

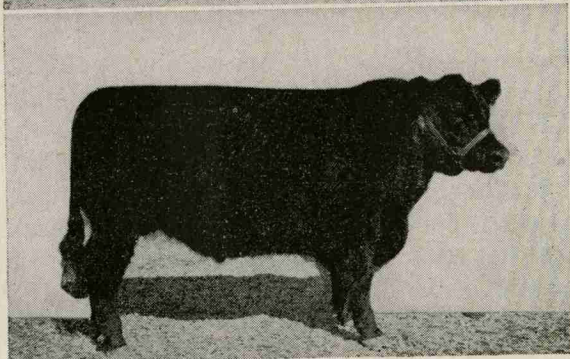
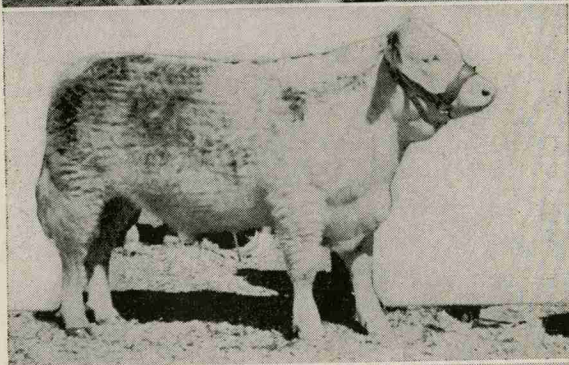
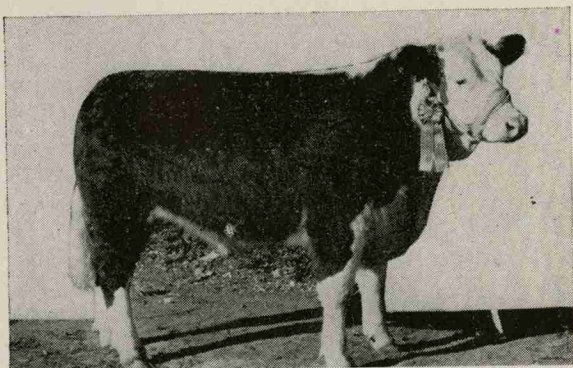
4-H BABY BEEF PRODUCTION To Meet Wartime Needs

By

L. I. CASE, *In Charge Animal Husbandry Extension*

And

H. M. STAMEY, *Animal Husbandry Extension Specialist*



4-H BABY BEEF PRODUCTION

IMPORTANCE OF BEEF PRODUCTION

More beef of good quality is needed for our armed forces, our allies, the liberated peoples and our civilian population. Four-H Club members can do much to provide this need by fattening steer calves, thus getting them ready a year or more earlier than they would normally reach the market. Each steer fed out by our boys and girls will provide at least enough meat to feed a fighter for one year.

In order to encourage this work the War Department will award a certificate to each 4-H Club member who feeds a beef calf, or other meat animal, with the intent that it go to help feed our men in the army.

THE KIND OF CALF TO FEED

Feed home grown calves as far as possible. Next best are **good** and **choice** calves purchased near home at commercial prices. When practical each club member should have two calves because two fed together do better than one. Ordinarily calves purchased for feeding should be 7 or 8 months old and weigh 400 to 500 pounds. The calf should be 12 to 15 months old at show time. He may be a purebred or high grade of any of the three leading beef breeds or a cross of two of these breeds.

FEEDING

It is not advisable to start a Baby Beef Project unless enough home grown feeds are in sight to finish the job. During the emergency, **good** and **choice** steers should be fed to a **good** finish. It is not practical to carry them beyond a **good** finish because it takes too much grain. This means a somewhat shorter feeding period, or a smaller percentage of concentrates as compared with roughages. It will take about 35 bushels of corn

or its equivalent for an experienced feeder to fatten a calf to a **good** finish when intelligent use of pasture and hay is made. In order to be on the safe side the average club member should have 40 bushels of corn on hand for each steer he feeds. If a good job of feeding is done this should result in an average daily gain of 2 pounds or better, or 350 to 400 pounds for a six months feeding period. When possible start calves on feed before weaning. **Take the calves off milk in any form at 500 pounds.**

SUGGESTED RATION

Start calves on 2 or 3 pounds per day of the following mixture:

*Corn (shelled or coarsely cracked)	4 parts by weight
Oats (rolled or whole)	2 parts by weight
Protein Meal	1 part by weight
Hay	At will
Pasture	until the latter part of the feeding period

Increase gradually the amount of feed and the proportion of corn so at the end of six weeks the steer will be getting about all he will clean up of the following:

*Corn (shelled or coarsely cracked)	8 parts by weight
Oats (rolled or whole)	2 parts by weight
Protein Meal	1 part by weight

*Barley may replace half the corn. It should be rolled or coarsely ground.

ALTERNATE RATION

When oats are not home grown or cannot be bought at a reasonable price start calves on the following mixture:

Corn and cob meal (coarsely ground)	5 parts by weight
Protein Meal	1 part by weight
Hay	At will
Pasture	until the latter part of the feeding period

Increase the amount of corn and cob meal gradually until at the end of six weeks the steer will be getting about all he will clean up of the following:

Corn and cob meal (coarsely ground)	10 parts by weight
Protein Meal	1 part by weight

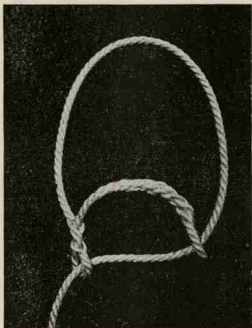
Utilize Pastures: Gains can be materially cheapened by the use of permanent pastures or annual grazing crops. In the fall show areas it is good management to keep the calves in a darkened stall during the day and turn them out on a small area of good pasture at night. In the spring show areas calves should have access to small plots of good temporary grazing crops until the latter part of the feeding period. Calves will not make satisfactory gains unless they are confined to small areas of pasture and given all the grain they will clean up twice each day.

FEEDING POINTERS

1. Keep clean, fresh water, loose salt and good, bright hay before the calves at all times.
2. Feed grain at regular hours.
3. Increase feed gradually.
4. Avoid sudden changes in both kind and amount of feed.
5. Feed boxes should be on, or reasonably close to the ground. They should be kept clean.
6. Feed twice a day unless calf is not far enough along in which case give three feeds a day during the latter part of the feeding period.
7. If the calf goes off feed, cut the grain down or entirely out for a feed or two. Then feed a small amount, gradually increasing it until the animal is back on full feed.

CARE AND MANAGEMENT

1. Dehorn and castrate calves at an early age.
2. Halter break calves early. Use a rope halter like the one shown here to teach the calves to lead and stand properly when they are young. This is very important, because cattle that are nervous and wild do not



respond to feed in a normal manner. Calves cannot be shown properly if they are not trained. To halter break a wild calf, tie him up for a few days and brush him gently. Then, lead him each day. A calf should never be allowed to get loose when breaking him to lead.

3. Baby beeves should have access to a shed, barn or shelter of some kind at all times. It should be dry and free from drafts in cold weather and darkened to reduce worry from flies in summer. A clean, dry bed is necessary for calves to do their best. Remove wet bedding and manure daily.
4. Control lice and other external parasites.
5. Wash and curl a few times before the show.

RECORDS

A neat, accurate record must be presented at the show. The calf will not be considered a 4-H Club entry without the record book. Be sure to record the initial weight (weight when calf is put on feed), and cost, or value. Also keep a com-

plete record of weights and values of all feeds. If scales are handy weigh and record the weight of each calf every 28 days. This will show gains in comparison with other 4-H Club calves. Use Baby Beef Record Book.

WHAT BABY BEEF WORK ACCOMPLISHES

1. A Baby Beef Club member learns judging, feeding, care and management of beef cattle.
2. It is a valuable forerunner to the successful handling of a breeding herd.
3. It offers a good opportunity for profit where feeding is done according to recommended practices.
4. It is patriotic.

NORTH CAROLINA
STATE COLLEGE OF AGRICULTURE AND ENGINEERING
OF THE
UNIVERSITY OF NORTH CAROLINA
AND
U. S. DEPARTMENT OF AGRICULTURE, CO-OPERATING
N. C. AGRICULTURAL EXTENSION SERVICE
I. O. SCHAU, DIRECTOR
STATE COLLEGE STATION
RALEIGH
DISTRIBUTED IN FURTHERANCE OF THE ACTS OF CONGRESS OF
MAY 8 AND JUNE 30, 1914

COOPERATIVE EXTENSION WORK

IN

AGRICULTURE AND HOME ECONOMICS

STATE OF NORTH CAROLINA

STATE COLLEGE STATION, RALEIGH, N. C.

NORTH CAROLINA STATE COLLEGE OF
AGRICULTURE AND ENGINEERING
NORTH CAROLINA COUNTIES AND
UNITED STATES DEPARTMENT OF
AGRICULTURE COOPERATING

EXTENSION SERVICE

FEEDING AND FITTING BEEF CATTLE FOR SHOW OR SALE

The exhibition of cattle at fairs and shows is of value to the breeder as a means of advertising and for comparing his animals with those of other breeders. However, if these advantages are to be gained the cattle must be presented in good condition and no details overlooked in seeing that they make the best possible appearance.

Selecting the Show Herd

In feeding and fitting beef animals for the show or sale ring, the first, and a very important thing, is the selection of the animals to be fitted. There is no use wasting feed and time on off-type animals that will never make a favorable appearance no matter how fat and well trained they may become.

The ideal beef animal is one that is thick, blocky and reasonably close to the ground with sufficient scale for age. He should be straight in his top, bottom and side lines, carry an even width from end to end, and be close in the coupling.

The head should be nicely proportioned, broad between the eyes and short from eyes to muzzle with sufficient width of muzzle to indicate good feeding qualities. The head should be typical of the breed represented and show marked sex characteristics. The neck should be short and thick, clean in the throat and neatly joined to head and shoulders.

The shoulders should be in proportion to the rest of the body, neither too wide nor too narrow, and smoothly blended into the body. The chest should be wide and full and the heart girth broad and deep, giving sufficient room for the vital organs thus indicating a good constitution. The crops should be full, the ribs widely sprung, the loin thick and wide and hips not prominent but neatly laid in. The rump should carry out straight, wide and full and the tail head smooth and level with the back line. The thighs or rounds should be wide, deep and full, and the twist deep. The legs should be straight and set squarely at the four corners of the body, and the flanks, both fore and rear, should be deep and full.

The animal should show evidence of good quality as indicated by a pliable hide, a soft silky coat of hair, neatness in the bone and smoothness in the flesh covering. In temperament the animal should be reasonably quiet and docile, yet with enough life and style to give him an attractive carriage.

The prospective show animal should be smoothly and thickly muscled, especially in the regions of the most valuable cuts, loin, ribs and quarters. He should also be carrying sufficient fat to make it possible to put him in show condition within the time available.

Uniformity of animals to be shown is of considerable importance. In so far as possible the various individuals in the show herd should be of uniform type, conformation, and color. This point is particularly valuable in the herd and group class.

Feeding

No matter how good a beef animal is as an individual he will not show to advantage unless he is in top condition. It is, therefore, of utmost importance that cattle be started early enough to assure a good finish at fair or sale time.

Animals intended for show should be started on a small amount of concentrate feed which should be gradually increased until they are getting all they will clean up.

Feed twice a day unless cattle are not far enough along in which case give three feeds a day which will induce greater total consumption.

After cattle are on full feed give what they will clean up within an hour at each feeding. Any left over feed should be removed from the box. Should an animal go off feed for any reason, cut the amount down considerably, then, after he is again normal, gradually increase to the full amount.

Regularity of feeding is probably of as much importance as the ration itself. If six, twelve and six are selected as feeding hours, feed on the dot each time.

Changes in the kind of feed should be made gradually. For instance if corn if being fed and it is decided to replace part or all of the corn with barley, cut down the one and add the other a little at a time rather than abruptly.

Variety in the ration is desirable. Three or four kinds of feed are better than one or two. The addition of some cut up roasting ears or some sweetening by means of black strap molasses, will usually cause animals to eat more.

The texture of the ration should be kept coarse. Coarsely cracked corn is preferable to corn that is finely ground; rolled, or whole oats are better than finely ground; coarse, flaky bran is better than fine, or bran containing middlings. Some good herdsmen add cut hay or the finely cut stalks of green corn to the concentrate feed to coarsen it.

Suggested Rations For Sale or Show Cattle

The rations given below only indicate the proportions of the various feeds to be fed. In starting an animal, feed only a small amount, 2 to 4 pounds depending on the size, then gradually increase it until he is on full feed, or in other words getting all he will eat.

(1)	(2)	(3)
Corn 10 lbs.	Barley 8 lbs.	Corn 10 lbs.
Oats 5 "	Oats 5 "	Oats 4 "
Bran 3 "	Bran 2 "	Protein Meal.. 2 "
Protein Meal 2 "	Molasses Feed 5 "	Molasses Feed 4 "

Barley is preferred to corn by many good feeders as they claim it tends to put on a smoother finish. Some replace part of the corn with it the latter part of the feeding period. Barley should be rolled, coarsely ground, cooked or soaked.

Protein meal refers to cotton seed meal, soybean meal, peanut meal or linseed meal. The first three named are generally cheaper than linseed meal and, therefore more commonly fed. Linseed meal is often used by good feeders during the latter part of the feeding period as it usually produces a glossy coat of hair and a thrifty appearance.

Instead of using a commercial sweet feed the same result can be accomplished by using a small amount of black strap molasses diluted with an equal amount of water and mixing this thoroughly with the grain. Use only enough to moisten and sweeten each feed just before it is fed. If this moist feed sets long it will sour

When an individual has an abnormal appetite for hay and fails to eat enough grain, the amount of hay should be limited. An animal that has a tendency to be paunchy should have his hay allowance cut down.

General Care and Management

After warm weather sets in cattle being fitted for show should be kept in a darkened barn during the day time. This prevents the hair from being sun burned and lessens the annoyance from flies and other insect pests. Openings in the barn are often covered with a single thickness of burlap which helps to keep out light, yet allows ventilation. The cattle should be turned out at night for exercise and then too the cool night air will promote hair growth.

Cattle that are being fed in the winter time should not be housed too closely. They need protection from severe cold and especially stormy weather. Plenty of fresh air in pleasant weather, however, will add to their well-being and stimulate the growth of a good coat of hair which will greatly improve their appearance at show or sale time.

A certain amount of exercise is necessary for the well being of the cattle. Young animals usually take enough of their own accord but in the case of older animals it is sometimes necessary to lead them from one quarter mile to a half mile each day.

A liberal supply of bedding should be supplied both winter and summer. This makes the animals more comfortable, keeps them clean, saves feed and preserves the manure.

Fresh water and salt should be accessible at all times.

It may be advisable to keep a mineral mixture in addition to salt before the cattle, especially when no legume hay is fed. One of the following mineral mixtures should prove satisfactory:

(1)	(2)
Steamed bone meal...80 lbs.	Oyster shell flour or finely ground
Salt20 "	limestone 100 lbs.
	Phosphatic limestone..... 100 "
	Salt..... 100 "

Halter Breaking and Training

Too much cannot be said about the importance of having an animal properly halter broken and trained to lead and stand to show to the best advantage. It is difficult for the judge to examine animals that are nervous and restless in which case he often gives them small consideration.

A rope halter so constructed that it draws under the jaw is best for breaking an animal. This same kind of halter will do for showing too but most showmen use an adjustable leather halter for this purpose.

Do not put off halter breaking. A method sometimes used is to tie the animal up several hours each day for a few days, thus getting him used to the halter before an attempt is made to lead him. After he is taught to lead teach him to stand squarely on his feet, with head in a natural position and back straight. Lead and pose the show prospect often until it becomes second nature for him to pose properly.

Washing and Curling

Show cattle should be kept clean by washing and brushing. Moreover, fairly frequent washings with cold water during warm weather tends to promote a good growth of hair. At least one washing a week should be given during the month before the first show. The animal should be securely tied, then lathered all over, being careful not to get soap in his eyes. Tar soap is best for this purpose but any soap will do. After a thorough scrubbing with a stiff brush rinse the soap all out and scrape and wipe as dry as possible. Next, wet with a weak solution of coal tar dip. Scrape the surplus water off and curl. Curling consists of dressing the hair in such a way that it helps to cover defects and gives the body of the animal a thicker, blockier appearance.

Shorthorns, nearly always, and Herefords and Angus sometimes are curled in the following manner. Wet the coat thoroughly with a weak coal tar solution applied with a brush. Scrape out surplus water, brush down smooth on both sides and part the hair evenly along the back from tail head to poll. Now starting about four inches from the center of the back and working from the rear forward mark parallel lines about one inch apart all along both sides of the animal. These lines are made with a Scotch comb or a lining comb. Next, use the edge of a stiff dry brush and brush up lightly against the lay of the hair. Follow this light brushing with a thorough combing also working up, and then a harder brushing in the same direction. Now comb the hair flat or curled on each side from the back bone out to the edge of flat part of the back. A few finishing touches such as brushing the hair on the forehead and fluffing the brush of the tail makes the animal ready for the show ring.

Herefords are usually curled by the use of the round curry comb, holding it at an angle in relation to the body of the animal and starting at the top and zigzagging it downward. This process is repeated every three or three and one-half inches until the side is completed, covering neck, body and thighs. Now follow the same manner of brushing and combing and otherwise completing the job as described in curling Shorthorns.

Aberdeen Angus, as already stated, are sometimes dressed as are Shorthorns but more often they are shown smooth with the exception of the thighs and neck which are curled and brushed up to give the appearance of greater fullness.

Clipping Heads and Tails

The heads of Aberdeen Angus are usually clipped in front of a line drawn around the neck slightly back of ears. The long hairs on the edge, and inside of the ears, around the muzzle and the eye lashes should not be clipped.

The tails of all breeds should be clipped from a point above the twist to the tail head, which should be gradually tapered off to make a smooth blending with the rump. All clipping should be done one or two weeks before the show season opens.

The Horns

All horned breeds make a better appearance with well shaped horns. They should generally curve downward, inward and forward. It is often necessary to train the horns downward by the use of weights. This is more readily done with young animals, using care that the weights are not too heavy or left on too long at a time for otherwise the horns are apt to be broken or bent too severely close to the head.

The appearance of horns can be improved by clipping the tips, rasping, and dressing down. The amount of work will depend upon the age of the animal and the size and condition of the horns. Calf horns usually require but little work compared with older animals. As a rule, the steps in preparing horns are as follows: rasping, filing, scraping with a steel scraper or glass, sand papering, rubbing with fine emery cloth or a flannel cloth and emery dust. Finally, rub with a woolen cloth moistened with sweet oil or metal polish. Some judgment must be exercised with the rasping as the general shape of the horn can be changed somewhat by this operation. For example, if the horn does not curve downward enough rasp the heaviest on the underside center and on the upper tip. Also remember that a flat horn is more desirable than a round one. Do not rasp or scrape the horn too thin. The younger the animal the less severe should be the rasping and visa versa.

The Feet

Badly shaped feet cause an undue strain on the bones and ligaments and often result in weakened pasterns. This condition should be corrected by trimming. Stocks are best for this work but it can be done by casting the animal. The excess growth on the bottom of the hoof should be pared down with hoof parer knife or chisel and extra growth on the toes can be taken off with the hoof parer. It is a mistake to cut the toes back without leveling up the bottom of the hoofs.

Preparing for Shipment

Get your cattle used to eating and drinking out of the same boxes or buckets which will be used at the show or sale.

A few days prior to shipment feed grass hay or corn stover roughage and go easy on the salt. This will dry the manure up so the cattle will not gaunt as badly in transit and at the show or sale.

Too much emphasis cannot be placed upon regularity of time of feeding and avoiding abrupt changes in the feed mixture. This is even more important at the show or sale than at home for if cattle go off feed then there is insufficient time to bring them back and they will show up to a disadvantage in the sale or show ring.

Show Ring Technique

Lead and show from the animal's left. If possible, select ground for showing that is slightly higher under the fore feet. Watch your animal and have him in the best possible position when the judge is examining him. A light cane or stick is useful for placing the feet and holding up a weak back. Work easily and gently. Nervous, quick movements will tend to excite your animal. Lastly, be a good loser or a good winner, whichever the case may be.

L. I. Case, In Charge
Animal Husbandry Extension.

STOMACH WORM CONTROL IN SHEEP

Revised 1944
Animal Husbandry Extension Office

Stomach and intestinal worms are serious handicaps to the sheep industry unless definite measures are used to control them. Recent experimental work shows that sheep will eat enough of a mixture of phenothiazine and salt to give reasonably good control. In addition occasional individual treatments of Cu-Nic (copper sulphate and nicotine sulphate) are advisable.

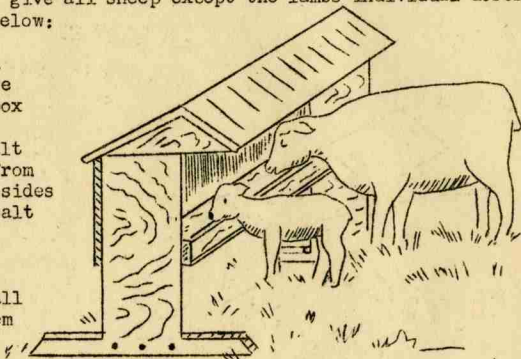
How To Do It.

1. At shearing time or about May 1, give all sheep except the lambs individual doses of Cu-Nic according to directions below:

2. Mix 1 part by weight of powdered phenothiazine with 12 parts of loose salt. Put this mixture in a salt box where the sheep can get to it from May 1st until cold weather. The salt box should be raised a few inches from the ground and be covered on three sides to protect it. Do not give sheep salt alone in addition to phenothiazine salt mixture.

3. Watch lambs during summer and fall and if they are unthrifty treat them with Cu-Nic.

4. About December 1, dose entire flock with Cu-Nic.



We have no information on the effectiveness of giving this phenothiazine-salt mixture to sheep at periodic intervals similar to the common practice of salting stock in our mountain counties. It is suggested, however, that this method be used when it seems impractical to keep the mixture available continuously.

Mixing Cu-Nic

Dissolve one ounce of copper sulphate (blue stone) in three quarts of water. Then add $\frac{3}{4}$ of an ounce of a 40 per cent solution of nicotine sulphate (Black Leaf 40) to the solution. This will make enough to dose 25 mature sheep. In as much as copper sulphate will corrode most metals, the solution should be mixed in a glass, porcelain or earthenware receptacle.

Table of Dosage

Yearlings and mature sheep	3 to 4 ounces
Lambs 85 lbs. up	3 "
Lambs 65-85 lbs.	2 1/2 "
Lambs 45-65 lbs.	2 "
Lambs 30-45 lbs.	1 to 1 1/2 ounces
Dose weak animals	somewhat lighter.

COOPERATIVE EXTENSION WORK
IN
AGRICULTURE AND HOME ECONOMICS
STATE OF NORTH CAROLINA

NORTH CAROLINA STATE COLLEGE OF
AGRICULTURE AND ENGINEERING
NORTH CAROLINA COUNTIES AND
UNITED STATES DEPARTMENT OF
AGRICULTURE COOPERATING

EXTENSION SERVICE

STATE COLLEGE STATION, RALEIGH, N. C.

May 22, 1944

TO ALL COUNTY AGENTS:

WOOL SALES

The wool situation in North Carolina presents a somewhat different picture from the past two years. We are in the same position as far as the Commodity Credit Corporation is concerned as last year. That is to say we are at liberty to sell wool wherever we can find a buyer. The Chatham Manufacturing Company, however, due to government contracts, purchases of foreign wools, and labor shortages, is not in the market for our wools, with the possible exception of two or three of our mountain counties. The government price stabilization plan makes it possible to sell our wools at ceiling prices provided we concentrate it in car lots (16,000 pounds minimum car) and ship it to Boston or other points as instructed. From all the information we can gather this plan looks best for getting the high dollar for our wool crop.

The first payments on our wool, which will be paid to individual growers at the car door are as follows:

Clear medium	45¢ per lb.	Fine & half blood	38¢ per lb.
Medium & light burry	38¢ " "	Mohair	35¢ " "
Heavy & hard burry	30¢ " "	Lambs	35¢ " "
Black, dead, seedy and other grades (rejects)	38¢ " "	Tags no advance	
Cotted or fleece grown	38¢ " "	Deduct 4 lbs. tare	

We are assured that the final payment to growers will be made just as soon as the wools can be graded and appraised by government appraisers. This final and full settlement should be made within three months of the date the wool is received. Some wool growers will recall what happened several years ago when wool was consigned, an advance payment made, the market declined, and no second payment was ever made. Mr. C. J. Fawcett, General Manager, National Wool Marketing Corporation assures us that this cannot recur under the present Federal price stabilization plan.

In all probability the second payment will be 7¢ or more per pound which will bring the total net price to at least 52¢ for clear wool, 45¢ for medium to light burry, and fine wools, and 37¢ for heavy or hard burry.

We are considering concentrating wool at Williamston, Raleigh, and Asheville if we can be given reasonable assurance that we can get a car load at each of these points. In view of the distance much of the wool will have to be hauled it will be most desirable that it be concentrated in each county and delivered to the loading point in trucks large enough to handle your entire clip. In case of small sheep population wool may be expressed to shipping point and checks mailed to growers.

This proposed method of selling wool makes it more important than ever that each fleece be tied with paper twine as this makes it much easier and less expensive to grade. If there is still time to get an appreciable amount of your wool tied, you can obtain paper twine from The United Wool Growers Association, Harrisonburg, Virginia, at 25¢ per pound. A pound of twine will tie from 40 to 50 fleeces.

We are asking each of you to contact your growers, fill out questions at bottom of this page, and return it to us as soon as possible so that we may go ahead with definite plans.

Yours very truly,

L. I. Case, In Charge Animal Husbandry Extension.

H. M. Stamey, Animal Husb. Extension Specialist.

-
1. Do you favor selling the wool in your county this year under the suggested plan? _____.
 2. Approximate number of pounds that you will assemble at the following shipping points; Williamston _____ Raleigh _____ Asheville _____.
 3. Earliest date that you will be ready to ship wool _____.
 4. Ask additional questions in regard to this plan in space below:

Submitted by _____
County Agent

County

COOPERATIVE EXTENSION WORK
IN

AGRICULTURE AND HOME ECONOMICS

EXTENSION SERVICE

NORTH CAROLINA STATE COLLEGE OF
AGRICULTURE AND ENGINEERING
NORTH CAROLINA COUNTIES AND
UNITED STATES DEPARTMENT OF
AGRICULTURE COOPERATING

STATE OF NORTH CAROLINA

STATE COLLEGE STATION, RALEIGH, N. C.

November 6, 1944

TO ALL COUNTY AGENTS:

Subject: Work Stock Clinics.

We have not yet received a copy of the "1945 County Plans of Work", therefore, we are sending material to every county in the state, with the hope you will give consideration to holding a series of Horse and Mule Clinics in your county. For best results these clinics should be held during December and January. Bot treatments should be given in January in the mountain counties.

The following material is enclosed: (1) Cooperative Horse and Mule Clinic Agreement, (2) Outline of Horse and Mule Clinics, (3) Publicity Material, (4) Suggested Poster, (5) Suggested letter to farmers, (6) Bulletin of Feeding and Management of Horses and Mules, and (7) Clinic Report Forms. Please file this material for future reference whether or not you are now planning clinics in your county. We are also enclosing a list of qualified veterinarians whom we think will be available for conducting clinics.

It is suggested that you see the veterinarian whom you think will serve best in your county, set dates, sign Clinic Report Form, and talk over plans for making the clinics effective and worthwhile. If you have difficulty in securing the services of a veterinarian, please notify us.

Let's try to treat at high percentage of the horses and mules in the state this year. Ninety-five per cent of them are infested with internal parasites and much time is lost because horses and mules are not in shape to do the job. The following suggestions may be helpful to you in arranging for the clinics:

1. Make definite plans well in advance of the clinics and schedule them earlier this year.
2. Solicit the cooperation of a Neighborhood Leader in each community to help advertise the clinics. Also use newspapers, radio, letters and posters.
3. If possible arrange to have a good blacksmith attend the clinics to trim feet and shoe horses under the direction of the veterinarian.
4. In scheduling these clinics, it is a good plan to confine the drawing radius to not more than two miles. It is not practical to attempt more than two or three clinics in one day.

Let us have the dates of your clinics as soon as they are scheduled so that we can make our plans to assist you when possible.

Very truly yours,

L. I. Case, In Charge Animal Husbandry Extension.

Encls.

H. M. Stamey, Animal Husb. Extension Specialist.

COOPERATIVE HORSE AND MULE CLINIC AGREEMENT

In order to secure more efficient work from horses and mules on the farm, a series of work stock clinics will be held for the purpose of making available to farmers in _____ County: (1) A free examination of all horses and mules brought to the clinic, (2) Treatment for bots and roundworms, (3) Floating teeth, and (4) other treatments. These operations are to be performed if needed by the practicing veterinarian at the clinic for the following charges:

Examination Free

Treatment for internal parasites:

Bots \$0.75 per head

Roundworms 1.00 " "

Floating Teeth 1.00 " "

Additional dental or other work, at charges agreeable to veterinarian and farmer.

The county agent agrees to give the clinics considerable publicity through circular letters, newspapers and posters together with adequate notice of the time and place of each clinic.

The undersigned veterinarian will attend each clinic as scheduled and will furnish all medicine and equipment necessary for the treatments indicated above at charges not in excess of those indicated herein.

The Horse and Mule Clinics for _____ County have been scheduled as follows:

<u>Date</u>	<u>Place</u>	<u>Time</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Signed this the ____ day of _____ 194 .

Veterinarian

County Agent



THE EIGHT RANKING ANIMALS IN THE SHOW.—Left to right here, being handled by their owners, are the eight top-ranking animals in the second annual Fat Stock and Wool Show and Sale at Elkin Wednesday. At the extreme left, is Sammy Lee Myers, Hamptonville, with his Hereford grand champion. Next is Ruby Hutchinson, Moxley, Wilkes, with her Hereford - Shorthorn cross, the reserve champion. Harold Laska, Dobson, Surry County, is third in line with his grand champion. The next two ranking entries were owned by Robert Gambill, In-

dependence, Va.; R. L. Souther, Sharrs; Nancy Gambill, Inde-

pendence, Va.; Ruby Hutchinson (owner of the grand champion),

and Reid Gray, Stony Point.— (Staff Photo)

ADVICE IS GIVEN ON BEEF CATTLE CARE IN WINTER

Special Attention Is Needed For Animals Carrying Calves

Beef cattle should not be allowed to stay on pasture or in the fields in the fall of the year until they begin to lose weight, says Leland Case, extension animal husbandman at State college. "Supplementary feeding should start before the animals become thin because it is much easier to hold them in good condition than to put on flesh after they have become thin and weak," he explains. "Cows and heifers that are carrying calves should be given special attention. They should be fed to gain around a hundred pounds to offset calving time loss. Weaning calves should also be supplied with liberal amounts of feed to prevent their becoming stunted the first winter. Of course, cows nursing calves will need more feed than any of the others, if the farmer is unfortunate enough to have to go into the winter with late calves still nursing."

Segregate Animals

One thing in wintering beef cattle that is sometimes overlooked, and yet very important, is the segregation of various classes and weights of animals. Each class should be segregated and fed according to their needs.

Where there is a choice of feed, the better quality should be fed to the cows nursing calves, the cows carrying calves, and the weaning calves, Case suggests. Green and leafy legume hays will go a long way towards carrying this class of cattle through the winter in good shape. Where these good quality hays are not available the coarser and lower quality roughages should be supplemented with a protein concentrate of some kind as well as some grain.

"The amount of feed to be given will depend much upon the condition of the animals when they go

into the winter," Case says. "Two-year-olds and dry cows, if they are in reasonably good condition, should winter well on one of the following rations: corn silage 25 pounds, legumes hay 5 pounds, corn stover or grass hay 5 pounds; corn silage 25 pounds, corn stover or grass hay 5 pounds and protein meal 1 1-2 pounds. Where silage is not available and the cattle are in good flesh, 5 pounds of legume hay and all the corn stover or low grade roughage they will eat should be a satisfactory winter feed for beef cows. Another ration without silage is 15 pounds of mixed hay, 1 pound of corn, and 1-2 pound of protein meal. If the cows are thin, the amounts of these feeds should be increased.

Weaning Calves

"Some suggested rations for weaning calves are: 12 pounds of silage, 5 pounds of legume hay, corn stover or grass hay at will; corn silage 12 pounds, mixed hay 4 pounds, protein meal 1 pound; legume hay 5 pounds, corn stover 5 pounds, corn 1 1-2 pounds, protein meal 1-2 pound; and mixed hay 10 pounds, corn 2 pounds, protein meal 1 pound. These rations are for cattle wintered in the dry lot. Much harvested feed can be saved where good annual grazing crops or field gleanings are available."

Case has recently visited pure-bred beef cattle sales and fat stock shows in many sections of North Carolina. He reports that excellent progress is being made in feeding and caring for beef cattle and that, in comparison with ten years ago, the change is truly phenomenal.

He also reports that in some sections, particularly in Eastern Carolina, there is a tendency for some growers to drop out of the cattle business because of high priced cash crops. He warns that this is not the thing to do, that farmers cannot jump in and out of the cattle business with every change of the wind, and that the grower who is most successful is the one who sticks by the game.

Where feed supplies are short, he suggests thorough culling of the herd and the keeping of only the best animals. This change also lessens labor requirements on the farm. When conditions improve, the grower is in position to again rebuild his herd. "Livestock growing has a definite place in our farming plans," says Case.

Statewide Session Aberdeen-Angus Breeders Slated

College Station, Raleigh, July 13 —The first state-wide meeting of Aberdeen-Angus breeders will be held at Neaves Park, Elkin, on the morning of July 19 at 10:30, it is announced by L. I. Case, Extension animal husbandman at State College.

Robert Oebing of Savannah, Ga., president of the Southeastern Association, and Albert Peirce, president of the Virginia Association, will present to the breeders a statement of what the various associations are accomplishing for the betterment of the breed.

Other addresses will be delivered by Director I. O. Schaub of the Extension Service, Commissioner W. Kerr Scott of the State Department of Agriculture, and State Veterinarian William Moore. Case will trace the development of the Aberdeen-Angus breed in North Carolina.

Local speakers will be W. A. Neaves, T. F. Cooley and County Agent Neill M. Smith.

Following a luncheon, with Graham Morrison, as toastmaster, a judging contest will be held. At the business session plans will be made for completing a state-wide association of Aberdeen - Angus breeders.

Calves Are Moved To Eastern Counties

Forty-nine high grade beef calves have been moved from Ashe County and placed on farms in Wayne and Duplin counties during the past week by the N. C. Department of Agriculture and the State College Extension Service. Gordon Blake, Department cattle specialist, has announced.

The calves were selected by L. I. Case and Howard Stamey, of the Extension Service, and were purchased and transported by the Department to Goldsboro, where they were sold at cost to 25 4-H Club members chosen by the county agents of Wayne and Duplin. W. H. Jinnett, of Calypso, purchased 24 of the calves, each of which weighed approximately 450 pounds.

How To Feed Cattle For Shows Or Sale

Beef animals for show or sale should be in top condition at the time and this means careful feeding over a considerable period. The animals should be started on a small amount of concentrate feed, which needs to be gradually increased until the individual is getting all the feed that he will take.

Leland Case, Extension animal husbandman at State College, recommends that all the feed not cleaned up within an hour, after the cattle are on full feed, should be removed from the feed box. Should an animal go off feed for any reason, cut the amount of feed down considerably. Then, when he is normal again, gradually increase the feed to the full amount.

Case also recommends that the animals be fed regularly, on the hour, and that if any changes are made in the feed, this be done gradually. The ration should be kept coarse,—cracker corn, for example, being better than that finely ground.

Three different rations are suggested by Case for sale or show cattle. The first consists of 10 pounds of corn, 5 of oats, 3 of bran, and 2 of protein meal. The second ration can be made on this basis: 8 pounds of barley, 5 of oats, 2 of bran, and 5 of molasses feed. The third ration is 10 pounds of corn, 4 of oats, 2 of protein meal, and 4 molasses feed. Barley should be rolled, coarsely ground, cooked, or soaked.

"When an animal has an abnormal appetite for hay and fails to get enough grain, the amount of hay should be limited," Case says. "An animal that has a tendency to be paunchy should have his hay allowance cut."

SPRING CALVES MAKE BETTER BEEF CATTLE

Careless breeding methods are costing North Carolina beef cattle growers large sums of money.

One of the most serious faults is that of allowing the bull to run with the herd throughout the year, says L. I. Case, animal husbandman at State College.

This practice results in calves being dropped at all seasons. Late summer and fall calving is bad for both the cows and their offspring, Case pointed out.

Usually cows which have to nurse calves during the winter are kept in poor condition, and the calves fail to make a good growth. Death losses of cows and calves are increased.

Case further stated that the calves which do not get a good growth early in life seldom develop into high grade animals. Spring seems to be the most favorable calving season for beef cattle.

Records have shown that spring calves gained an average of 271.5 pounds from May 1 to November 1, while fall calves gained only 199.5 pounds in the same length of time.

At the Blackland Experiment Station, Wenona, N. C., the bull is allowed to run with the herd only in May, June, and July. The calves are dropped the following February, March, and April. They are weaned in November and wintered separately from the rest of the herd.

This practice appears to give the best results, Case pointed out, and it may be followed on practically all North Carolina farms.

Surplus Cattle Can Be Sold In Early Fall

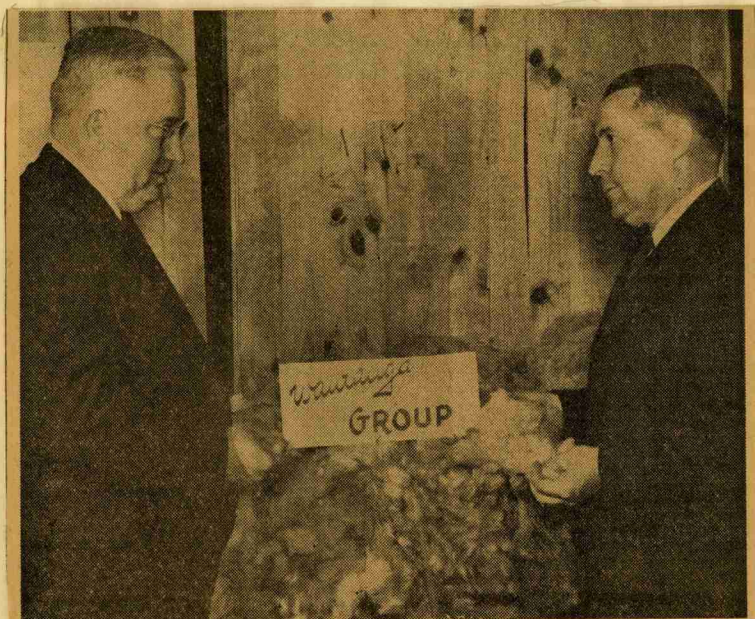
Surplus cattle should be marketed in an orderly manner through the late summer and fall this year rather than be held for heavier weights late in the season, says Leland Case, in charge of Extension animal husbandry at State College.

He points to the record number of beef cattle in the United States and the fact that slaughter quotas for military use, lend lease, and civilian use mean that about 32,000,000 head of cattle and calves must go to slaughter in 1944.

"Packing facilities for slaughtering and processing beef cattle will be inadequate, if the bulk of these cattle are sent to market in the fall of the year, as is the usual practice," says Case. "We may experience such a glutted market as we had with hogs, if we fail to market our cattle in an orderly way and spread the marketing over a longer period than usual."

Good grazing should put many cattle in reasonably good market condition by July 15 to August 1, according to Case. He suggests that animals that are in good condition by these dates should be sent to market rather than be fed for heavier weights.

"In some cases, it may be practical to feed grain or grass so as to get the cattle ready for market a little earlier than they otherwise would be," says Case. "Where this is done, a ration of eight parts by weight of corn and one part of protein meal, fed once a day and preferably during the late afternoon, is recommended."



ELKIN SALE OFFICIALS—
Outstanding leaders in the second annual Elkin Fat Stock and Wool Show and Sale last Wednesday and Thursday were

Neill M. Smith, left, co-manager, and Garland Johnson, manager, who were photographed here as they inspected the grand champion fleece in the wool show,

entered by W. H. Mast, of Watauga County. The show and sale was far more successful than was the first one, held in October of 1943.—(Staff Photo.)

EXTENSION UNIT PLANS CENTRAL WOOL MARKETS

COLLEGE STATION, Raleigh.—The marketing of wool in North Carolina presents a somewhat different picture this year from last, according to Leland Case, in charge of extension animal husbandry at N. C. State college.

In 1933 the majority of the wool was marketed in cooperative sales and through local dealers. Case suggests that the best method of handling the wool clip this year is through the national wool marketing corporation, which in turn markets the wool through the commodity credit corporation under the federal price stabilization plan. North Carolina mills are not taking small amounts of wool this year.

He points out that the government price stabilization plan makes it possible for producers to sell their wool at ceiling prices, provided it is concentrated in car lots of 16,000 pounds, which is a minimum car. It will be shipped to points specified by the commodity credit corporation.

"We are, at present, considering the concentration of North Carolina wool at Williamston, Raleigh and Asheville," Case said, "if we can be given reasonable assurance of getting a full car at these points."

"In view of the distance that much of the wool will have to be hauled, it will be desirable to have it concentrated in each county and delivered to the landing point in a truck large enough to handle the entire clip," he pointed out.

Sheep Shearing Schools This Month

College Station, Raleigh.—Four sheep shearing schools are scheduled for Bladen, Cumberland, Harnett and Alamance counties on May 9, 10, 11, and 12, respectively. It is announced by L. I. Case, in charge of animal husbandry extension work at State college.

"Farmers of these and surrounding counties will be given the opportunity of learning the latest methods of shearing sheep so that they can do a better job in preparing their fleeces for market," Case says. "The schools will be under the direction of H. M. Stamey, Extension specialist in animal husbandry."

Sheep growers should find out from their county agents where the schools are to be held.

Give Sheep Cu-Nic And Phenothiazine

Stomach and intestinal worms—the most serious handicaps to growing sheep in North Carolina, can be easily controlled by the use of phenothiazine and cu-nic if the grower will watch his flock and dose his sheep accordingly, says Leland Case, in charge of Extension animal husbandry at State College.

He recommends that all sheep except lambs, be given doses of cu-nic at this time. Then, mix one part by weight of powdered phenothiazine with 12 parts of loose salt and keep this mixture in the salt box before the sheep at all times until cold weather. Sheep should not receive salt alone in addition to this mixture. The salt box should be raised above the ground and should be protected from the weather.

"If any lambs become unthrifty during the summer and fall, they should be treated with cu-nic," says Case.

He also recommends that the entire flock be dosed with cu-nic about December 1 to make sure that all intestinal parasites are under control.

In preparing cu-nic, dissolve one ounce of copper sulphate (blue stone) in 3 quarts of water. Then add three-fourths of an ounce of a 40 per cent solution of nicotine sulphate (black leaf) to the solution. This will make enough to dose 25 mature sheep.

The county agent can advise as to the required dosage for various weights of lambs and for weak animals.

Sheep Can Provide Fine Extra Income

Farm flock records show that sheep growing can be very successful enterprise in North Carolina and that the flock can provide a good additional income on many farms.

"These records also show that the most successful sheep men use good rams, feed their flocks well, dock and castrate their lambs, treat the flock regularly for internal parasites, control external parasites by dipping, and sell their lambs and wool cooperatively," says Leland Case, Extension sheep man at State College.

The highest income on a per ewe basis were obtained by W. W. Warden of Laurel Hill and Lee Black, both of Allegheny county. Warden raised 17 lambs from 14 ewes and Black got 15 lambs from only 8 ewes.

One of the best records for fairly large flocks was that of T. C. Baird of Valle Crucis in Watauga County, who raised 57 an estimated cost of \$5.50 per ewe. He made a net profit of \$599.00 on the flock.

J. E. McPherson of Camden county grossed \$16.76 per ewe with his flock of 38 ewes, raising 51 lambs.

The highest gross income in Eastern Carolina was made by E. B. Draughn of Whitakers in Edgecombe County. He raised 25 lambs from 21 ewes and sold \$285.00 worth of lambs and \$124.10 worth of wool. His gross was \$19.48 per ewe.

Lamb Shipments In East Starts On Tuesday

Plans have been made to ship lambs to market from Tarboro on Tuesday, according to an announcement just released by L. I. Case, in charge of animal husbandry Extension work at State College.

Later shipments will also be made from Plymouth in early June, Shawboro in early June, and Burlington in July. Growers who have lambs to ship should get in touch with the county agents in these sections and make arrangements for the shipments, Case says.

Top grade market lambs should weigh from 80 to 90 pounds and be fat, he points out. From 120 to 125 lambs are required to fill a single deck 36-foot car, and about 240 to 250 to fill a double deck.

Case estimates that prices should be about the same as those of last year. May shipments a year ago brought these prices at Jersey City: Choice, \$17 per cwt.; Good, \$16.50; Medium, \$15.50; Common, \$12 to \$13.45; and Culls, \$10.30 to \$11. Yearling weathers were as high as \$11.50, and old sheep ranged from \$7 to \$10.

Early June prices were about the same as those of May. July was about 50 cents less, and August was still lower. Buck lambs are usually discounted one dollar per hundredweight after June 1.

Freight, shrink and commission usually amount to \$1.75 to \$2 per hundred weight, Case adds.

\$75 Mule Turns Out To Be Worth \$300 After Slight Operation

Farmers Need Home-Grown Work Stock Replacements

College Station, Raleigh, May 11.—North Carolina farmers need home-grown work stock replacements. "If you don't believe this statement is true, take a trip over the state; make some observations; and ask a few questions about the price of a good pair of five-year-old mules," says H. M. Stamey, animal husbandry Extension specialist at State College.

Veteran buyers of work stock, who buy directly from the farms, agree that they have never seen such a scarcity of young horses and mules from one to four years old. Therefore, prices have gone up and they are destined to rise still higher because last year only six states in the Union had enough for replacements in horses and only eight mules. The other states did not produce enough. North Carolina needed approximately 8,000 colts and estimates show that about 2,000 were produced.

"Raising horse and mule colts is a profitable business for a farmer who is favorably located," says Stamey. "It does not pay to keep idle mares to raise colts but it does pay farmers to keep good mares for farm work and to raise foals annually for replacements so that older work animals can be sold at five or six years of age. Mule foals are in good demand at weaning age. Young work stock can be raised economically but efficiently from weaning time to three years of age on good pasture and plenty of good legume hay, without any grain.

"Every effort should be made by all those interested in horses and mules to encourage breeding of good mares to a purebred stallion or jack this spring."

Carry Workstock To Local Clinics

Nineteen out of every twenty horses and mules in North Carolina are infested with internal parasites and need treatment to rid them of the parasites and put them in good condition to do a full days work, says Howard Stamey, Extension animal husbandry specialist at State College.

During the next three months horse and mule clinics are being scheduled by communities for many counties throughout North Carolina. Growers should watch the local papers and consult the county agent for the schedule.

In the Piedmont and Mountain counties, botflies annoy workstock during the summer and fall months but they cause far more damage when they work inside the horse or mule, according to Stamey. He suggests that growers check their workstock now and, if botfly eggs are deposited on the forelegs of the animals, the eggs should be washed off with water at a temperature of 105 degrees. This temperature should be checked with a thermometer.

The warm water causes the larvae of the botfly to burst out of their shells, and they soon die from exposure to air. "This simple treatment may save the expense of buying a new horse or severe cases of colic or digestive troubles," Stamey explained.

In discussing the clinics, he said that a licensed veterinarian will examine all the workstock at the clinics free of any charge. Treatments will be given for bots and roundworms, where needed; teeth will be floated; demonstrations given in trimming feet; and good feeding and management practices emphasized.

RALEIGH — A Martin county farmer bought a mule for \$75.00 because of a lump on his jaw; carried him to a horse and mule clinic, where he spent \$1.00 in having a tooth extracted; and went home with a \$300.00 mule.

H. M. Stamey, Extension animal husbandry specialist at State College, explains that the veterinarian discovered that the animal had a split tooth and that feed was compacting behind the tooth, thus causing the lump on the jaw. The feed was removed; the tooth was extracted; and the farmer had a "new" mule, purchased at only \$75.00 because of the condition of his jaw.

Stamey reports that the State College Extension Service has recently held horse and mule clinics in 59 counties, in cooperation with

local veterinarians, and that 6,549 animals have been treated.

In Eastern Carolina the animals were chiefly treated for such internal parasites as large round worms, small round worms, and pin worms. In the central and western part of the State, the chief trouble was bots, another type of intestinal parasite. The teeth of many work stock had to be floated so that they could thoroughly chew their food.

The veterinarians also performed such special operations as removing tumors and correcting bad feet.

Farmers were given detailed instructions on the feeding and management of work stock so that they would be able to get all the work possible out of their animals this summer in producing increased yields of feed crops for the war effort.