

AGRICULTURAL EXTENSION SERVICE

State of North Carolina

ANNUAL REPORT

19 41

Period covered December 1, 19 40 to November 30, 19 41
(Month) (Month)

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

Covering work done by L. I. Case

Sam L. Williams

Percentage of time devoted to project: Full time

Date submitted: _____, 19 ____ . Signed: L. I. Case
Project Leader

Date approved: _____, 19 ____ . Signed: _____
State Director of Extension Work

Date approved: _____, 19 ____ . Signed: _____
Director of Extension Work U.S.
Department of Agriculture

AGRICULTURAL ECONOMICS

Report Only This Year's Extension Activities and Results That Can Be Verified

ITEM	Public problems and economic planning on county or community basis ¹	FARM MANAGEMENT			Outlook	Marketing, buying, selling, and financing
		Farm records (inventories, accounts, etc.)	Individual farm planning	Farm and home financing (short and long time)		
	(a)	(b)	(c)	(d)	(e)	(f)
244. Days devoted to line of work by:						
(1) Home demonstration agents.....						244
(2) 4-H Club agents.....						
(3) Agricultural agents.....						
(4) Specialists.....						
245. Number of communities in which work was conducted.....						245
246. Number of voluntary local leaders or committeemen assisting.....						246
247. Days of assistance rendered by voluntary leaders or committeemen.....						247
248. Number of adult result demonstrations conducted.....						248
249. Number of meetings at result demonstrations.....						249
250. Number of method-demonstration meetings held.....						250
251. Number of other meetings held.....						251
252. Number of news stories published.....						252
253. Number of different circular letters issued.....						253
254. Number of farm or home visits made.....						254
255. Number of office calls received.....						255
256. Number of 4-H Club members enrolled.....						256
(1) Boys.....	x x x x			x x x x	x x x x	
(2) Girls.....	x x x x			x x x x	x x x x	x x x x
257. Number of 4-H Club members completing.....						257
(1) Boys.....	x x x x			x x x x	x x x x	
(2) Girls.....	x x x x			x x x x	x x x x	x x x x
258. Number of farmers keeping farm accounts throughout the year under supervision of agent.....						258
259. Number of farmers keeping cost-of-production records under supervision of agent.....						259
260. Number of farmers assisted in summarizing and interpreting their accounts.....						260
261. Number of farmers assisted in making inventory or credit statements.....						261
262. Number of farmers assisted in obtaining credit.....						262
262½. Number of 4-H Club members receiving instruction in credit.....						262½
263. Number of farmers assisted in making mortgage or other debt adjustments.....						263
264. Number of farm credit associations assisted in organizing during the year.....						264
265. Number of farm business or enterprise-survey records taken during year.....						265
266. Number of farmers making recommended changes in their business as result of keeping accounts or survey records.....						266
267. Number of other farmers adopting cropping, livestock, or complete farming systems according to recommendations.....						267
268. Number of farmers advised relative to leases.....						268
269. Number of farmers assisted in developing supplemental sources of income.....						269
270. Number of families assisted in reducing cash expenditure:						270
(a) By exchange of labor or machinery.....						
(b) By bartering farm or home products for other commodities or services.....						
(c) By producing larger part of food on farm.....						
(d) By making own repairs of buildings and machinery.....						

¹ Include county agricultural planning, taxation, land utilization, and economic basis of extension programs.

Summary White Agents' Report Case

DAIRY CATTLE, BEEF CATTLE, SHEEP, SWINE, AND HORSES

Report Only This Year's Extension Activities and Results That Can Be Verified

ITEM	Dairy cattle (a)	Beef cattle (b)	Sheep (c)	Swine (d)	Horses and mules (e)	Other livestock ¹ (f)	
214. Days devoted to line of work by:							
(1) Home demonstration agents.....		3.0					} 214
(2) 4-H Club agents.....							
(3) Agricultural agents.....		2426.7	426.3		420.7	30.9	
(4) Specialists.....		176.8	52.0		42.6	0.5	
215. Number of communities in which work was conducted.....		9.3	34.1		6.83	.58	215
216. Number of voluntary local leaders or committeemen assisting.....		6.2	3.2		3.8	.6	} 216
217. Days of assistance rendered by voluntary leaders or committeemen.....		4.77	1.34		2.06	.13	
218. Number of adult result demonstrations conducted.....		385.1	148.5		238.5	16.0	217
219. Number of meetings at result demonstrations.....		45	32		13	.2	} 218
220. Number of method-demonstration meetings held.....		2.2	1.0		.7	.228	
221. Number of other meetings held.....		40	2.9		.7	.58	219
222. Number of news stories published.....		40	2.9		.7	.58	} 220
223. Number of different circular letters issued.....		47	3.3		.7	.83	
224. Number of farm or home visits made.....		243	6.0		.7	.1	221
225. Number of office calls received.....		25	3.0		.7	.3	} 222
226. Number of 4-H Club members enrolled.....		404	10.1		10.7	.5	
(1) Boys.....		46	8.4		3.3	.8	} 223
(2) Girls.....		16.7	1.8		.7	.5	
227. Number of 4-H Club members completing.....		90	6.5		7.4	1.4	} 224
(1) Boys.....		84.9	17.6.5		16.12	.91	
(2) Girls.....		13	.2		.7	.18	} 225
228. Number of animals in projects conducted by 4-H Club members completing.....		98	97.77		25.82	2.02	
229. Number of farmers assisted in obtaining purebred sires.....		6.2	2.4		.7	.16	} 226
230. Number of farmers assisted in obtaining high-grade or purebred females.....		1.3	.2		.1	.13	
231. Number of bull, boar, ram, or stallion circles or clubs organized or assisted.....		6.2	3.7		.8	.7	} 227
232. Number of members in preceding circles or clubs.....		13	.2		.1	.12	
233. Number of herd or flock-improvement associations organized or assisted.....		6.2	2.3		.9	.7	} 228
234. Number of members in these associations.....		5.8	2.16		.16	.21	
235. Number of farmers not in associations keeping performance records of animals.....		8.6	4.2		.21	.6	} 229
236. Number of families assisted in home butchering, meat cutting, and curing.....		44.2	15.1		.31	.14	
237. Number of families assisted in butter and cheese making.....		8.2	3.7		.33	.4	} 230
238. Number of bull, boar, ram, or stallion circles or clubs organized or assisted.....		13.4	2.75		.8	.21	
239. Number of members in preceding circles or clubs.....		4	.2		.8	.18	} 231
240. Number of herd or flock-improvement associations organized or assisted.....		2	.28		.42.1	.1	
241. Number of members in these associations.....		2	.2		.1	.1	} 232
242. Number of farmers not in associations keeping performance records of animals.....		8.5	.7		.3	.6	
243. Number of families assisted in home butchering, meat cutting, and curing.....		11	3.3		.3	.6	} 233
244. Number of families assisted in butter and cheese making.....		10	4.9		.5	.2	
245. Number of families assisted in home butchering, meat cutting, and curing.....	x x x x x			9	x x x x x	.5	} 234
246. Number of families assisted in butter and cheese making.....		x x x x x	x x x x x	x x x x x	x x x x x	x x x x x	
247. Number of farmers following parasite-control recommendations.....		5.2	4.2		3.4	.87.9	} 235
248. Number of farmers following disease-control recommendations.....		3.8.5	7.4.6		1.5	.8	
249. Number of farmers following marketing recommendations.....		3.9	3.0		.1.3	.21.2	} 236
250. Number of farmers following marketing recommendations.....		3.9	3.0		.1.3	.21.2	
251. Number of farmers assisted in using timely economic information as a basis for readjusting enterprise.....		5.3	1.0.5		.1.3	.91	} 237
252. Number of farmers assisted in using timely economic information as a basis for readjusting enterprise.....		5.3	1.0.5		.1.3	.91	
253. Number of farmers assisted in using timely economic information as a basis for readjusting enterprise.....		2.4.7.4	8.6.5		.2.3	.5.4.4	241

¹ Do not include rabbits, game, and fur animals, which should be reported under Wildlife Conservation.

Summary of Combined Reports

DAIRY CATTLE, BEEF CATTLE, SHEEP, SWINE, AND HORSES

Report Only This Year's Extension Activities and Results That Can Be Verified

ITEM	Dairy cattle	Beef cattle	Sheep	Swine	Horses and mules	Other livestock ¹	
	(a)	(b)	(c)	(d)	(e)	(f)	
214. Days devoted to line of work by:		2					
(1) Home demonstration agents		3.0					
(2) 4-H Club agents							
(3) Agricultural agents		24632	4263		82	22	214
(4) Specialists		1768	52.0		23	1	0.5
215. Number of communities in which work was conducted		930	341		82	22	215
216. Number of voluntary local leaders or committeemen assisting		63	32		41	7	14
217. Days of assistance rendered by voluntary leaders or committeemen		8771	1485		41	7	18
218. Number of adult result demonstrations conducted		282	103		17	7	18
219. Number of meetings at result demonstrations		56	27		9		
220. Number of method-demonstration meetings held		286	100		19	3	4
221. Number of other meetings held		249	60		21	2	221
222. Number of news stories published		407	101		39	4	6
223. Number of different circular letters issued		173	80		35	4	6
224. Number of farm or home visits made		8543	1765		79	18	118
225. Number of office calls received		10049	1758		73	16	248
226. Number of 4-H Club members enrolled:		503	53		10	7	13
(1) Boys		28	2		11	1	
(2) Girls		392	40		9	7	12
227. Number of 4-H Club members completing:		22	2		1		
(1) Boys		513	216		10	7	21
(2) Girls		444	151		22	8	14
228. Number of animals in projects conducted by 4-H Club members completing		1120	275		35	5	27
229. Number of farmers assisted in obtaining purebred sires		4	2		8		
230. Number of farmers assisted in obtaining high-grade or purebred females		7	2		8		
231. Number of bull, boar, ram, or stallion circles or clubs organized or assisted		154	28		8		
232. Number of members in preceding circles or clubs		2			421		
233. Number of herd or flock-improvement associations organized or assisted		2				1	
234. Number of members in these associations		85				15	
235. Number of farmers not in associations keeping performance records of animals		37	31		3	6	
236. Number of families assisted in home butchering, meat cutting, and curing		66	9			2	5
237. Number of families assisted in butter and cheese making	xxxx				xxxx		
238. Number of farmers following parasite-control recommendations	xxxx	308	746	xxxx	35	5	18
239. Number of farmers following disease-control recommendations	xxxx	2102	230	xxxx	16	4	9
240. Number of farmers following marketing recommendations	xxxx	1009	1010	xxxx	15	4	13
241. Number of farmers assisted in using timely economic information as a basis for readjusting enterprise	xxxx	2554	865	xxxx	26	7	16

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(2) 4 H Club agents.....							
(3) Agricultural agents.....							
(4) Specialists.....							
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246. Number of voluntary local leaders or committeemen assisting.....							246
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251. Number of other meetings held.....							251
252. Number of news stories published.....							252
253. Number of different circular letters issued.....							253
254. Number of farm or home visits made.....							254
255. Number of office calls received.....							255
256. Number of 4-H Club members enrolled.....							} 256
(1) Boys.....	x x x x			x x x x	x x x x	x x x x	
(2) Girls.....	x x x x			x x x x	x x x x	x x x x	
257. Number of 4-H Club members completing.....							} 257
(1) Boys.....	x x x x			x x x x	x x x x	x x x x	
(2) Girls.....	x x x x			x x x x	x x x x	x x x x	
258. Number of farmers keeping farm accounts throughout the year under supervision of agent.....							258
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(b) By bartering farm or home products for other commodities or services.....							
(c) By producing larger part of food on farm.....							
(d) By making own repairs of buildings and machinery.....							

¹ Include county agricultural planning, taxation, land utilization, and economic basis of extension programs.

1961
ANNUAL REPORT
OF
EXTENSION WORK IN ANIMAL HUSBANDRY
IN
NORTH CAROLINA

By: L. I. Case
Extension Animal Husbandman

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INTRODUCTION

The year 1941 in the animal husbandry field in North Carolina was marked by a continued keen interest in beef cattle, sheep and work stock, which reached a high level in 1940. Not only are more farmers getting into the livestock business but in the main they are going in on a sane, conservative basis apparently with more than the usual forethought and preparedness for properly feeding and caring for their newly acquired herds and flocks.

Figured on a percentage basis the Coastal Plain is increasing her livestock faster than other sections of the state with the Piedmont and Mountain areas coming along in the order named. The Mountain section on the other hand is probably more quality conscious than the East, due no doubt to the fact that the farmers in this region have had more experience and, therefore more fully realize the importance of keeping higher grade animals.

Farmers purchased more purebred and high grade beef females, more purebred rams, more good ewes and more mares in North Carolina than they have in several years. Even then the demand was not satisfied, especially in regard to sheep and cattle. Orders were taken for several hundred head of Northwestern ewes which could not be filled due to a strong demand in other states and resulting prices being quite out of reason. On a Western buying trip a member of the staff was unable to fill orders for several herd bulls and high class beef females.

BEEF CATTLE PROJECTS

A - Herd Management. Adult

Demonstrations in Herd Management were conducted on 275 farms in 45 counties. There were 64 meetings held on these farms at which time various phases of good breeding, feeding and managerial practices were discussed by the farmer himself or by a member of the Extension Staff. Such meetings prove excellent for pointing out the advantage of certain improved methods such as the effect of the use of lime and phosphate on pasture, the value of annual grazing crops for supplementing permanent pastures, the advantages of controlled breeding, the extra profits from creep feeding beef calves and etc. These farms were also used for Method Demonstrations such as dehorning, castrating and preparing animals for show. Many of these farms were included on community and county tours and in some cases farmers were invited from adjoining counties when there was something quite out of the ordinary to show.

Number of Herd Management Demonstrations planned was 322 while the number carried out was 275.

A 2 - Feeder Calf. Adult or 4-H

This project was originally planned for the purpose of obtaining high type feeder calves for a fall show in Western North Carolina. Later a feeder calf class was added to the State Fair with the idea of some of our better cattle counties in the west furnishing high class feeder calves to Eastern 4-H Club boys to be fed out for our spring shows. The project for some reason has not proven popular and last year the class for feeder calves was discontinued at the Western Carolina Fair. Ninety

of these projects were planned for 1941 but due to the fact that both 4-H Fattening Project and the Feeder Project are reported under one heading it is not possible to learn just how many of the feeder calf projects were completed. At the State Fair 10 feeder calves averaging 501 pounds sold for an average of \$14.83 per cwt. The top price was \$19.75 paid for the first prize calf. It was exhibited by Burrell Greene of Watanga County and sold to J. C. Johnson a 4-H Club boy of Four Oaks in Johnston County. These top feeder calves have been doing well for the boys in the East. In 1940 the Grand Champion at Rocky Mount was purchased in the State Fair sale and in 1941 the Reserve Champions at both Rocky Mount and Kinston were calves that were sold in the State Fair sale. Others have stood high up in their classes

A 3 - Beef Bull Placement. Adult

Continued interest in the establishment of new beef herds and in the improvement of old ones along with high prevailing prices for breeding cattle as well as stockers and feeders have been responsible for a goodly number of purebred bulls being placed this year. County agents reporting ⁵⁹¹ 444 placed in ⁸⁹ 86 counties falls a little short of 1940, but still exceeds anticipations for the year by 113 head. Next to 1940, when 508 head of purebred beef type bulls were placed, this is the highest number ever reported. Records show that 27 of the total number placed in 1941 went to head purebred herds at about a \$435.00 average. The extreme top paid for a herd bull, as far as our records go, was \$1200.00 with \$500.00 to \$600.00 being not at all uncommon.

Although bull placements were somewhat under last year, there were more females placed than in any year of which records are available.

1537
 There were 1140 purebred and high grade females placed according to a summary of county agents reports which no doubt only covers a part of those actually purchased by farmers.

Summary of Bull and Female Placements

1936 - 1941

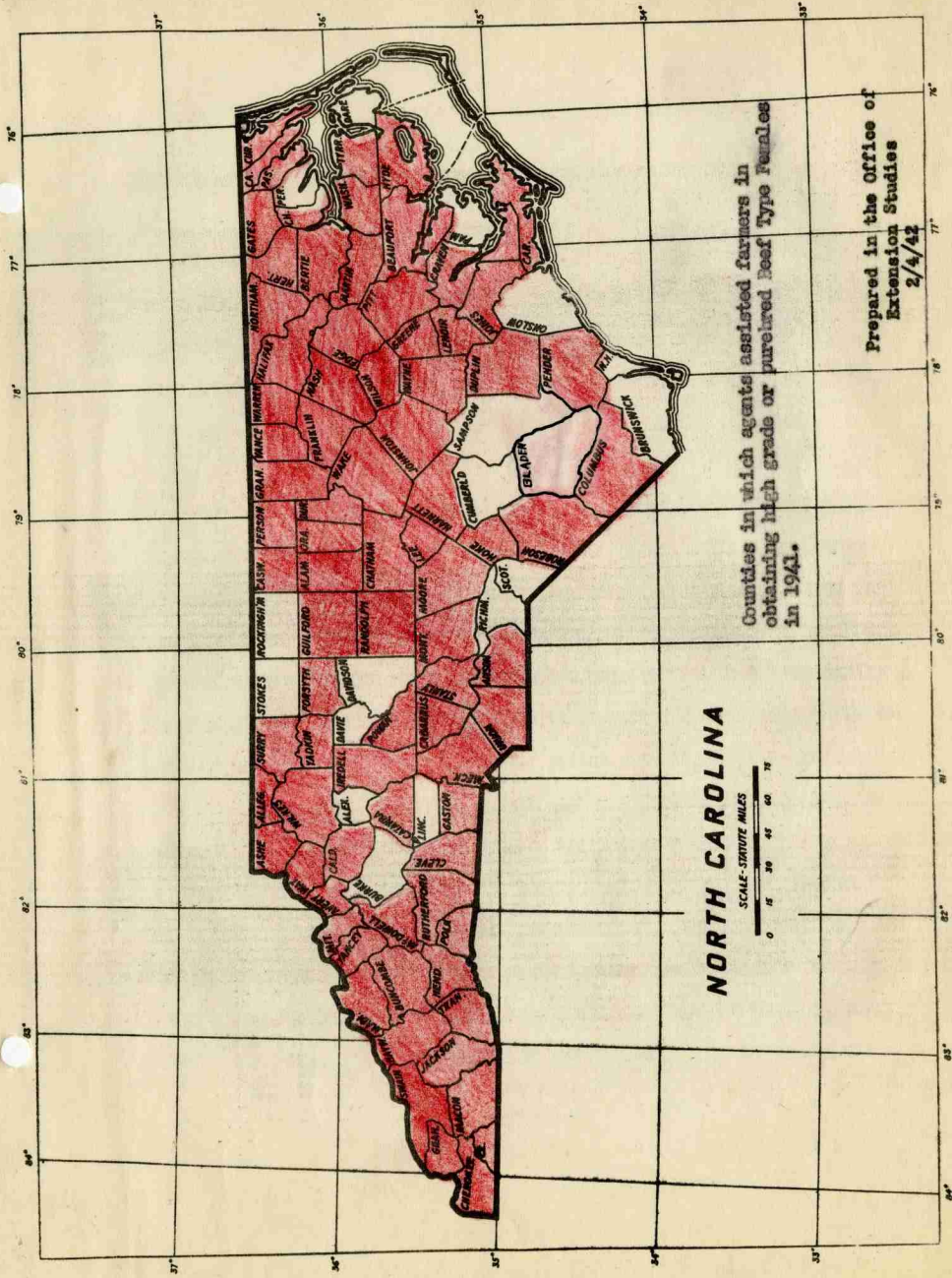
<u>Year</u>	<u>Bulls</u>	<u>Females</u>
1936	160	161
1937	178	211
1938	185	325
1939	351	936
1940	508	909
1941	444	1140
1942	591	1537

Kansas Cattle Shipment

Orders for approximately two car loads of registered cattle of the Angus, Hereford and Polled Hereford breeds were placed with members of the Animal Husbandry Extension Staff necessitating an out of state trip. Scarcity and high prices cut the number of purchases down to one car of 26 head of which 21 were Herefords and 5 Aberdeen-Angus. No orders for Polled Herefords were filled but several bulls inspected on trip have since been purchased and shipped in.

Kansas Shipment - 1941

2 Bred Cows	_____	\$575.00
12 Bred Heifers	_____	2300.00
7 Open Heifers	_____	1173.00
5 Bulls	_____	2000.00
Average price of 21 Females	_____	\$192.66
Average price of 5 Bulls	_____	400.00



NORTH CAROLINA

SCALE - STATUTE MILES
 0 10 20 40 60 75

Counties in which agents assisted farmers in obtaining high grade or purebred Red Type Females in 1941.

Prepared in the Office of Extension Studies
 2/4/42

B Fattening For Market. Adult

Due to the fact that losses in the fattening of cattle in the season of 1939-1940 were quite general smaller numbers were put in the feed lots in the fall of 1940 than usual. Those who did feed, however, were well pleased with the outcome and margins of \$2.00 or more were not unusual. Something short of 2000 head were fattened. Only a very few records were secured. A sample of one of these records follows on page 6.

The fall of 1941 saw more surplus feed on Eastern North Carolina farms than ever before. This together with the fact that the Governor set up a \$25000.00 revolving fund for the placing of cattle in the East, and the appointing of a special man to handle the purchase and resale of cattle, resulted in the placing of more cattle in the feed lots than ever before. Feeder cattle were high last fall due to a heavy demand but the unusual rise in the price of finished cattle should assure profits for the feeders who did a reasonably good job in spite of the high initial cost.

Records show a total of 2942 head of cattle in the feed lots of Piedmont and Eastern North Carolina farmers. These are in the hands of 92 different farmers in 37 counties and are in lots of from 1 and 2 head on small farms up to over 500 head on Caledonia Prison Farm in Halifax County. There are about 40 farms where there are 20 or more head on feed.

CATTLE FEEDING RECORD

Guilford

County

Name of Feeder R. Flake Shaw Address Greensboro, R. 2No. of head fed 10 Age 2 years Sex steersTotal buying wt. 9135 Ave. Wt. 913 Place Galax, Va. Date Oct. 8, 1941

Total wt. unloading point _____ Ave. Wt. _____ Shrink _____

Total wt. when put on feed _____ (a) Ave. Wt. _____ Date _____

How were cattle handled between time received and time started on feed ?

Started on feed immediately after reaching farm.Total home wts. when sold 10,757 (b) Ave. Wt. 1078 Date Jan 6, 1941Total gain feed lot (b) minus (a) 162.2 Ave. Gain 1.8 Ave. DailyGain 1622

Total wt. at stock yards _____ Ave. Wt. _____ Shrink _____

Financial StatementCost of value of feeder cattle \$ 698.43Freight and other charges to farm \$ 15.00Total Initial Cost or Value \$ 713.43 (c)Sale Price: At home 10.00 At stock Yards \$ 1075.70

No. Head _____ at _____ cts. per lb. Total \$ _____

No. Head _____ at _____ cts. per lb. Total \$ _____

No. Head _____ at _____ cts. per lb. Total \$ _____

Grand Total \$ 1075.70 (d)

Freight and Stock Yard Charges to Market \$ _____

Commission Charges \$ _____

Total Marketing Costs \$ _____ (e)

Feed Consumed in Feed Lot

Kind	Amount	How Fed#	Farm Value*
Grain	4.25 T	Corn, wheat and oats coarsely ground	\$103.12
Silage	6.35 T	Twice daily	25.40
Lespedeza hay	1.95 T	At will	19.50

Total Feed Cost Cattle \$ 148.02 (f)

Pork produced from pigs following cattle _____ lbs. Total Value \$ _____ (g)

Total pounds minerals consumed _____ Cost \$ _____

No. lbs. protein supplement consumed _____ Cost \$ _____

Show kinds and amounts of other feeds fed to hogs:

_____ Cost \$ _____

_____ Cost \$ _____

_____ Cost \$ _____

Total Cost of Pork Produced \$ _____ (h)

Profit on Hogs (g) minus (h) \$ _____ (i)

Summary

Total Cost or Value of Cattle (c) \$ 713.43

Marketing Cost (cattle) (e) \$ _____

Feed Cost (cattle) (f) \$ 148.02

Total Cost (c) plus (e) plus (f).....\$ 861.45 (j)

Profit or Loss (cattle) (d) minus (j) \$ 214.25 (k)

Profit or Loss on Cattle and Hogs (k) plus (i) \$ _____ (l)

Estimated Manure Produced 50 Tons Value \$ 50.00 (m)

Profit Including Manure (l) plus (m) \$ 264.25

#Designate whether ground or whole. In case of corn, whether broken ear, shelled, corn and cob meal, etc.

*Show value on farm at beginning feeding period.

B 3 - Fattening Project. 4-H Club

This Baby Beef Club work as it is generally called was started in 1935 and has had a steady growth since that time. In 1935 there was one show and sale, the same being held at Asheville where 30 head of steers and heifers were on exhibit. There was one Choice and probably not over 8 or 10 Good grade cattle in the lot. In 1941 there were two spring shows and four fall shows with 248 head of 4-H Club, 31 F.F.A. and 12 adult exhibits. Official grade records have not been kept except on the 1941 fall shows. In these four shows 176 head of 4-H Club steers were officially graded and sold. There were 85 Choice, 66 Good and 25 Medium steers. In the future complete grade records will be kept.

Report of Sales of 4-H Club Steers in 1941

Rocky Mount Show March 13 - 14: Thirty-eight head (28 4-H, 2 F.F.A. and 8 adult) weighing 29,955 pounds sold for \$3851.64. The weighted average price was \$12.85 per cwt. including the champions and \$12.06 per cwt. excluding the champions.

The Grand Champion was shown by T. A. Madron, Roanoke Rapids, Halifax County. This was a Hereford steer weighing 930 pounds which sold for \$28.00 per cwt. to the A. & P. Tea Company. The Reserve Champion was shown by Q. S. Leonard of Louisburg, Franklin County. This steer was a Shorthorn weighing 1043 pounds which sold to The Pender Grocery Company for \$20.00 per cwt.

Kinston Show April 24 - 25: Forty-seven head (44 4-H and 3 F.F.A.) weighing 35,350 pounds sold for \$4455.45 or an average of \$12.60 per cwt. including the champions and \$11.90 excluding the champions.

The Grand Champion was shown by Woodrow Warren of Spring Hope, Nash County. He was an Angus steer weighing 970 pounds and sold to Pender's Big Star Store for \$30.00 per cwt. The Reserve Champion was exhibited by Delmon Williamson, Lucama, Wilson County. This steer was a Hereford weighing 875 and sold for \$21.00 per cwt. to W. H. Jones of Pink Hill, N. C.

Western Carolina Fair, Hendersonville, N. C., September 23 - 27: Fifty-eight head (53 4-H, 1 F.F.A. and 4 adult) weighing 46,266 pounds sold for \$6640.42 which was an average of \$14.35 per cwt. including the reserve champion. Excluding this champion the sale average was \$14.14 per cwt.

The Grand Champion was a Hereford shown by Max Varnoy, Boone, Watauga County, but was not sold. The Reserve Champion was an Angus shown by Charles Freel of Andrews, Cherokee County. He weighed 862 pounds and sold to the Dixie Home Stores for \$25.50 per cwt.

The Catawba Fair, Hickory, N. C., October 7 - 11: Twenty-six head of 4-H Club steers weighing 21,730 pounds sold for \$4018.40 which was an average of \$18.49 per cwt. including the champions. Exclusive of the champions the sale average was \$17.15 per cwt.

The Grand Champion was a Hereford weighing 1085 pounds, exhibited by Wayne Stacey, Route 2, Canton, Haywood County, and sold for \$44.00 per cwt. to Hickory Packing Company. The Reserve Champion was also a Hereford weighing 970 pounds, shown by Calvin Francis, Route 1, Waynesville, Haywood County and sold for \$32.00 per cwt. to Fresh Air Market, Hickory, N.C.

North Carolina State Fair, Raleigh, N. C. October 14 - 18:
 Seventy-six head (60 4-H and 16 F.F.A) weighing 64,715 pounds, sold for \$9,862.17 which was an average of \$15.24 per cwt. including the champions. Exclusive of the champions the sale average was \$14.69.

The Grand Champion was exhibited by Max Vannoy, Boone, Watanga County and sold for \$44.00 per cwt. or \$376.00. He was a Hereford steer bred and raised on the Vannoy farm and weighed 855 pounds at time of sale. The Reserve Champion was also a Hereford steer weighing 1025 pounds. He was shown by Louise Resce, Route 2, Canton, and sold to The Pender Grocery Company for \$25.00 per cwt.

Southern States Fair, Charlotte, N. C., October 28 - November 1:
 Forty-six head (37 4-H and 9 F.F.A) weighing 40,260 pounds sold for \$5,206.75, an average of \$12.93 per cwt. Exclusive of the champions the average sale price was \$12.22.

The Grand Champion steer was a Hereford exhibited by Kent Miller. He weighed 910 pounds and was bought by the S. and W. Cafeteria, Charlotte for \$30.00 per cwt. The Reserve Champion was an Aberdeen-Angus weighing 950 pounds which sold for \$20.00 per cwt. to the A. and P. Tea Company.

Summary of Fat Steer Sales At Six 1941 Shows

Two hundred ninety-one head of which 248 were 4-H Club, 31 F.F.A. and 12 adult were shown in the classes for Individual steers weighing a total 238,276 pounds (119 Tons) and sold for \$34,034.83, or an average of \$14.25 per cwt.

SUMMARY OF GRADES AND PRICES AT FOUR FALL SALES - 1941

4-H CLUB STEERS ONLY

Sale	No. Sold	No. Pounds	Amount	Wtd. Ave. Incl. Champ	Wtd. Ave. Excl. Champ	Choices			Good			Medium				
						No.	Pounds	Amount	Ave.	No.	Pounds	Amount	Ave.	No.	Pounds	Amount
State Fair	60	59595	\$7625.48	15.07	14.58	300.45	\$4902.79	16.22	21	17335	\$2372.13	13.68	5	3205	\$350.38	10.94
Hendersonville	53	42147	6079.23	Not Sold	14.42	16533	2817.85	17.04	28	21223	2730.94	12.87	7	4331	530.44	12.08
Hickory	26	21730	4018.40	18.49	17.15	10445	2166.20	20.74	8	7025	1189.65	16.92	7	4260	662.55	15.55
Charlotte	37	31665	4308.81	12.98	12.48	19935	2858.32	14.34	9	7245	804.98	10.96	6	4375	445.51	10.18
TOTAL	176	146117	21031.92	14.94	14.45	76958	12745.16	16.56	66	52928	7097.68	13.43	25	16231	1989.08	12.25

Financial Record of Baby Beef Club Members

Financial records of 200 head of 4-H Club steers fed in Franklin, Onslow, Nash, Alamance, Cumberland, Chatham, Wilson, Person, Edgecombe, Robeson, Wayne, Johnston, Halifax, Bertie, Harnett, Davie, Northampton, Alleghany, Watauga, Runcombe, Wilkes, Lenoir, Madison, Clay, Catawba, Anson, Ashe, Cherokee and Union Counties were secured from county agents. This included all except Greene, Macon, Haywood, Durham, Wake and Iredell Counties. The records showed that when the premium money was not considered, that 166 of these steers made a profit of \$4970.84 for the owners while the other 34 head lost a total of \$467.99. Deducting the losses from the profits the 200 head made an average of \$22.51 per head. When the prize money was included 176 head made total profits of \$6769.12 while the other 22 lost \$333.99. Again deducting the losses from the profits, the entire lot made an average profit of \$32.12 per cwt. An interesting sidelight on these financial records is the fact that in no case did a choice steer lose the feeder money. In the majority of cases where money was lost either the 4-H Club member failed to do a good job of feeding and caring for his calf or the animal did not respond due to some constitutional trouble.

A summary of county agent's reports show 526 boys and girls enrolled in 4-H Beef Calf Club work, with 409 completing their projects. These figures are somewhat at variance with the 256 head of 4-H Fat and Feeder Steers of which we have a sale record. Part of this difference can be explained by the fact that we are advising the disposition of calves that are not responding properly by private sale after a short feed. This is teaching the boys good business judgment. Then too, some counties are

carrying 4-H breeding cattle projects in which case animals are kept on the farm.

In spite of some of the imperfections in Baby Beef Club work it is without doubt accomplishing the purpose for which it was intended. It is teaching our boys and girls not only to judge, feed, and care for beef cattle but it is also teaching farmers generally these same things through their interest in the boys and girls. Our cattle men throughout the state are much more conscious of type and quality in beef cattle than ever before and there is no question but Baby Beef Club work with the shows and sales is largely responsible for it. This work is also teaching boys and girls and farm folk generally to have a higher regard for livestock. Without doubt it does humans good financially, physically and spiritually to associate with dumb animals. Someone has said "Animals are such agreeable friends. They ask no questions. They pass no criticisms". The boy who feeds, cares for, trains and associates with a good farm animal every day for from eight to ten months, then exhibits him in competition with other boys is bound to be a better citizen for the experience if his work is properly supervised.

Following is a copy of the letter which the owner of Grand Champion 4-H Club Steer at the State Fair sent to his buyer:

"Boone, N. C.
Nov. 6, 1941

"Dear Mr. Mundy,

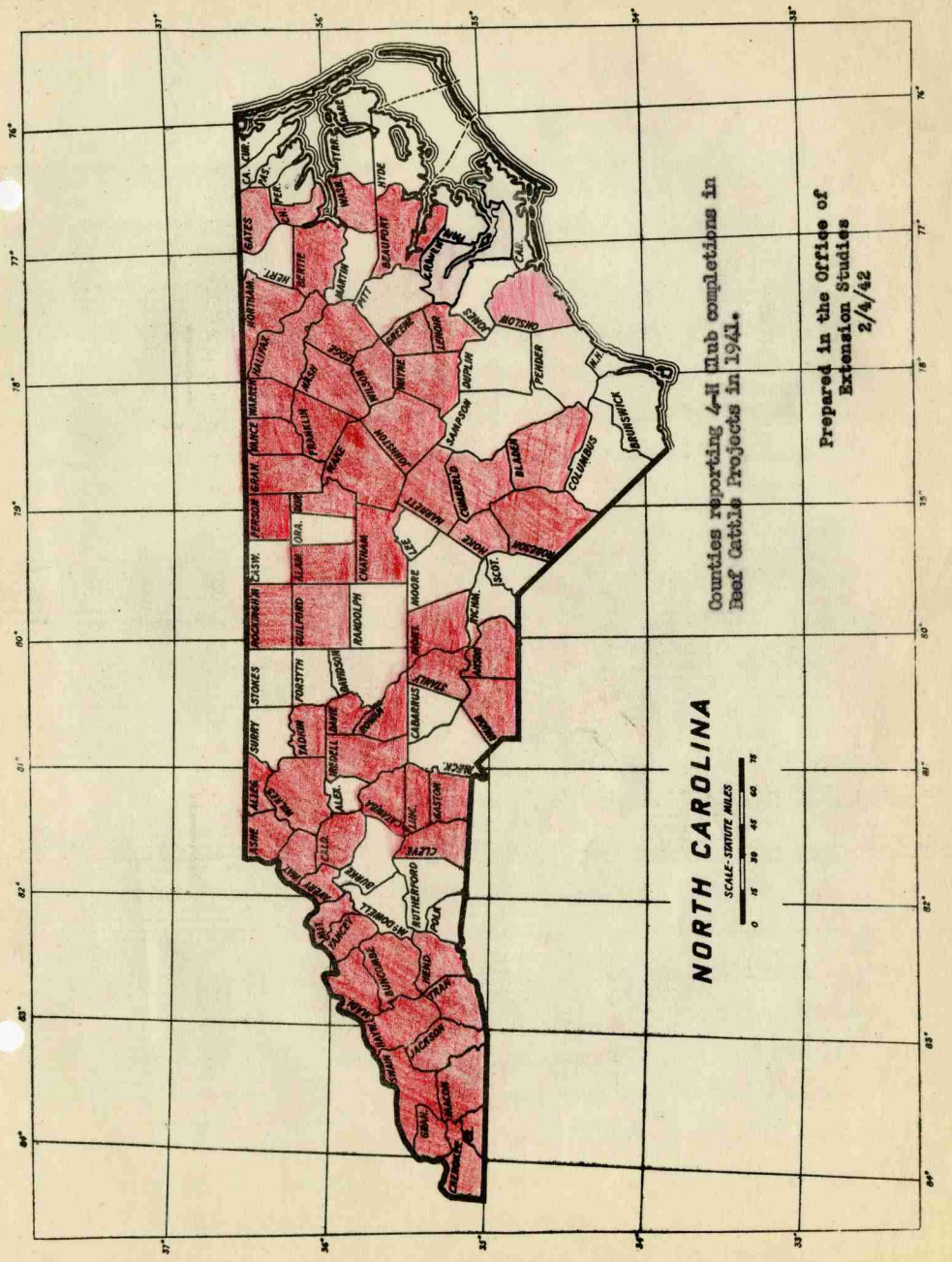
I thought I would drop you a few lines. I am glad that you bought my steer. I hope that Popeye was alright. I hope that you are having some good meat. I have gotten my check and have had it cash. I am going to buy some good heifers with my money and government bonds to help kill Hitler. I hope that Popeye is selling good. I hated to see Popeye sold. I wish that I could see Popeye again. I love Popeye. I got up at 4 o'clock every morning and went to feed him I would brush and curry him. Popeye was the Grand Champion at Boone and Hendersonville too. I am 11 years old and started feeding another calf. I have named him Popeye. I like Popeye for a name. I like to feed a calf pretty good. I thank you for buying my calf. Two of my brothers have started feeding calves. They say they are going to beat me. I am going to try hard to beat them. I hope that I will have the Grand Champion another year. I hope you are alright. I want you to write me a long letter about Popeye. I hope to come back to Raleigh next year.

With lots of love,

Max Vanney"

The "Story of My Calf Project" which this same 11 year old boy wrote in his club record book is just as genuine and just as interesting as his letter. Only the last part of the story follows: "_____ I sure was proud of him and was sorry I had to sell him for I worked with him so much I learned to love him. I sold him for 44 cents, and told him good-bye and came home with mother".

I think no one can doubt that this eleven year old boy will make a better citizen for his experience in Beef Calf Club work.



NORTH CAROLINA

SCALE - STATUTE MILES
 0 15 30 45 60 75

Counties reporting 4-H Club completions in
 Beef Cattle Projects in 1941.

Prepared in the Office of
 Extension Studies
 2/4/42

SHEEP PROJECTS

C - Flock Management. Adult

This project consists of the selection of one or more farms where commercial sheep are kept and working closely with the owner. Careful attention is paid to feeding, breeding, management and parasite control. Also proper shearing and handling of the wool. When practical both lambs and wool should be sold cooperatively and the lambs sold on a graded basis.

County agents in 32 counties reported 103 such projects with 27 meetings held. Twenty-nine counties held 100 method demonstration meetings on these farms. These consisted of lamb trimming, stomach worm treatment, shearing demonstrations and dipping for ticks and lice.

Farm Flock Records

Forty-two flock records secured from all parts of the state showed an average gross income per ewe of \$11.18. Records from previous years were as follows: 1937 - \$9.36, 1938 - \$7.18, 1939 - \$9.27 and 1940 - \$9.56. The estimates of the cost of keeping a ewe per year varied from \$1.00 to \$8.00. The highest as well as the lowest estimates were in the Eastern and Piedmont sections of the state. Sheep should be raised more cheaply in the East on account of the greater use that can be made of winter cover crops. The average estimate was \$3.90 for the entire state.

Farm flock records from 21 farms in Alamance, Chatham, Edgecombe, Franklin, Moore, Nash, Pamlico and Tyrrell Counties, showed an average income of \$9.21 per ewe. Records from 21 farms in Alleghany, Watauga and Yancey Counties averaged a gross income per ewe of \$13.15.

There seems to be a direct relation between profits and the size of the lamb crop. In comparatively few cases where gross income per ewe ran above the average was the percentage of lamb crop below 100. On the other hand small lamb crops and low incomes usually went together.

The flocks reporting the highest income for the year were owned by Hiram Edwards of Sparta and Lee Black of Piney Creek both in Alleghany County. These were both small flocks, Mr. Edwards having 5 ewes, raised 7 lambs and made a gross income of \$19.03 per ewe. Mr. Black's flock consisted of 9 ewes and he raised 13 lambs which brought him an income of \$16.00 for each ewe kept.

Among the larger flocks which made very good records were, Clyde Perry of Sugar Grove, Watonga County, who had a flock of 22 ewes from which he raised 24 lambs and made an income of \$15.02 per ewe; T. C. Baird, Valle Crucis, whose flock consisted of 45 ewes from which he raised 49 lambs and made an income of \$13.54 per ewe; Van Miller, Laurel Springs, Alleghany County, with a flock of 35 ewes, who raised 45 lambs and made an income of \$12.75; J. C. Gambill, Independence, Virginia, whose farm is in Alleghany County and whose flock contained 30 ewes from which he raised 36 lambs. His income grossed \$12.83 per ewe. S. W. Hilemon, Higgins, Yancey County, raised 128 per cent lamb crop from 32 ewes and made a gross income of \$14.10 per ewe. Mr. Hilemon estimates that it costs \$2.50 to keep a ewe one year.

Another good record on one of the larger farm flocks was that of H. W. Higgins, Cane River, Yancey County. Mr. Higgins bred 25 ewes in 1941, raised 30 lambs and made a gross income of \$12.20 per ewe.

A sample Farm Flock Record follows:

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

EXTENSION SERVICE

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

State College Station, Raleigh, N. C.

FARM FLOCK RECORD (SHEEP)
(For Commercial Flocks Only)

On Farm of T. G. Baird
Post Office Valle Crucis
County Watauga
County Agent H. M. Hamilton, Jr.
Number ewes exposed to ram 45 (including ewe lambs)
Were ewe lambs exposed? If so, state number 17
Number lambs raised to market weight 49
Total value of lambs sold or kept 43 sold, 6 kept \$ 445.65
Number fleeces sold 47
Number pounds of wool sold 312
*Total value of wool @ 52.5¢ \$ 163.80
Total Income \$ 609.45
Gross Income per ewe \$ 13.54
Estimated cost of keeping a ewe for one year \$ 5.40

*To include market value of wool made into blankets etc.

- 2 -

Was a purebred ram used? Yes (2 rams)

If so, what breed? Hampshire

At what time did most lambs come? March

When were most of lambs sold? August 1st.

Were lambs creep fed? Only 9

Were lambs docked? Yes Castrated? Yes

How many times was flock treated for stomach worms? Three times (lambs twice)

What treatment was used? Blue stone

Number of times flock dipped None

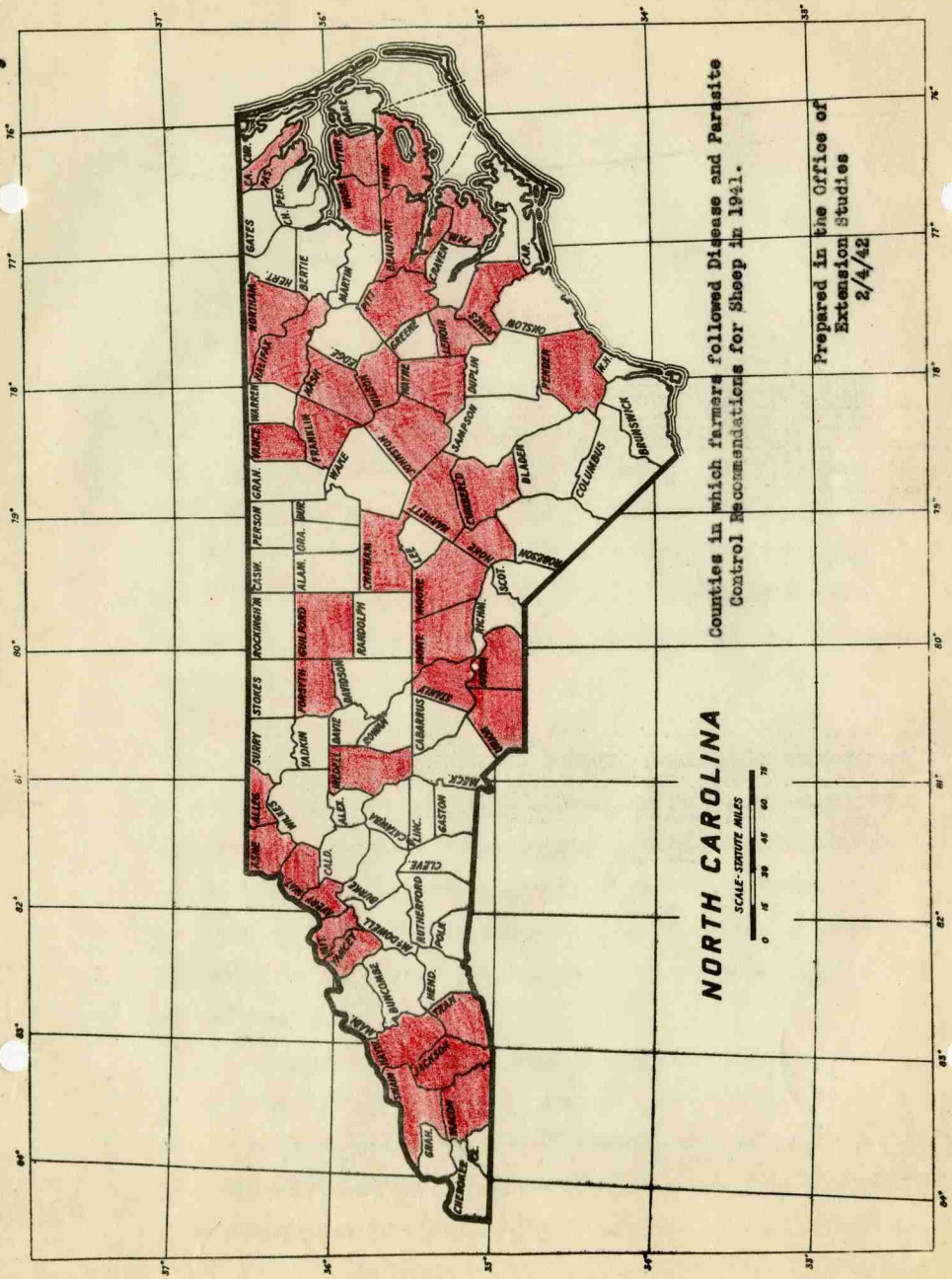
Was flushing practiced? No

Tell briefly how flock was wintered Kept on left over pasture; no hay fed until two or three weeks before lambing time. Then grain fed once a day. When lambing started, fed oats and corn twice daily with legume hay and were turned on pasture about the middle of April.

How was wool sold? Wool Pool

How were lambs sold? Lamb Pool

REMARKS: Cost of keeping a ewe for one year was calculated from amount of corn, oats and hay actually fed plus a charge of 30¢ per month per ewe for pasture for 8 months.



NORTH CAROLINA

SCALE - STATUTE MILES
0 15 30 45 60 75

Counties in which farmers followed Disease and Parasite Control Recommendations for Sheep in 1941.

Prepared in the Office of Extension Studies
2/4/42

C-2 Sheep Club (Market Lambs) 4-H Club

A summary of county agents reports shows 40 boys and 2 girls completing 4-H Sheep Club projects. This work involved 216 head of ewes in 23 counties.

The club work started last year in two of the Southeastern counties is coming along fairly well. The management of the Kinston Fat Stock Show is considering a small premium list for market lambs in the 1942 show scheduled for April 23-24. If this is done we hope to have some club lambs there though it is rather early for such a show.

Plans are being made for the financing of additional sheep club work in several Southeastern counties by Sears, Roebuck and Company. The counties involved are, Greene, Lenoir, Jones, Duplin, Craven, Onslow, and possibly another county or two.

C-3 Ram Placement. Adult

If interest in obtaining purebred rams is a criterion, sheep raising is on the increase in North Carolina. More rams were placed during 1941 than for several years and instead of falling below our goal as was the case in 1940, agents reported the placing of 151 rams in 47 counties.

As mentioned elsewhere in this report, demand for ewes was strong and several car loads could have been placed had they been available at reasonable prices.

Hampshire Ram and Ewe Sale, Rocky Mount - July 9.

In order to meet the demand for purebred sheep in Eastern North Carolina two Rocky Mount Banks financed the purchase of 17 Hampshire rams and 10 ewes in Southwestern Virginia. These sheep were selected by members of the Animal Husbandry Extension Staff. They were price tagged so that

the total would pay the original cost plus trucking and feed charges. They were then put up and sold at auction with the understanding that the opening bid must be the list price and with the further understanding that all money received over the amount needed would be refunded on a percentage basis. The total cost of the 27 head of yearlings was \$731.12. They sold for \$338.00 more than needed which allowed a 31.56 per cent rebate. There was still demand for several head of both rams and ewes. Arrangements were made at the close of the sale to send a truck to Wythe County, Virginia, for the number needed.

Boone Ram Sale

Watauga County held a small sale of purebred Hampshire rams on August 2nd, in which 19 head of mostly yearlings sold for an average of \$28.00 per head with a top of \$37.50.

Plans called for the placing of 123 rams in the state in 1941. The number actually placed according to agents reports was 151. The number of purebred and high grade ewes placed was 275.

Summary of Ram and Ewe Placements 1936 - 1941

<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	576

E-3 Grading and Marketing Lambs. Adult

Lamb grading and cooperative marketing of lambs was carried on in more territory than in former years and graded lambs were shipped from Alleghany, Ashe, Watauga, Edgecombe, Nash, Wilson, Pender, Washington, Tyrrell, Hyde, Martin, Beaufort, Onslow, Alamance, Moore, Chatham, Alamance, Anson and Union. Lambs from the last five counties named were concentrated and shipped from Sanford, N. C. It was the first shipment from that territory, although one or two sheep men in Alamance County have taken their lambs to other parts of the state for shipment for the past two or three years. Lambs from Onslow and Jones were trucked to Plymouth while some Pender County lambs were taken to Tarboro for inclusion in shipments. 7

Summary of Cooperative Lamb Sales in 1941

County	Choice	Choice Bucks	Good	Good Bucks	Medium	Medium Bucks	4 s	44 s	Old Sheep	Total <i>Sheep</i>
Alleghany	225	3	630	98	147	73	19		10	1205 ⁴⁰
Ashe	116	49	224	114	126	89	47	7	5	777 ^{18.6}
Watauga	403	27	861	105	198	71	57	5	9	1736 ¹⁵
*Tarboro	30		57	4	88		88	72	36	375 ⁷³
**Plymouth	26		69	1	83	14	141	79	22	435
***Sanford	14	1	42	2	57	21	30	3	12	182
Total	814	80	1883	324	699	268	382	166	94	4710
Per Cent of Total	17.28	1.70	39.98	6.88	14.84	5.69	8.11	3.52	1.99	

* Edgecombe, Nash, Wilson and Pender Counties.

** Washington, Tyrrell, Hyde, Martin, Beaufort and Onslow Counties.

*** Alamance, Moore, Chatham, Union and Anson Counties.

E-7 Wool Pool. AdultRecord of Wool Sold Cooperatively 1941

<u>County</u>	<u>No. Pounds</u>	<u>Price</u>	<u>No. Farmers Cooperating</u>	
Allegheny	13,860	52 cents	237	\$ 7207.20
Ashe	4,816	52 "	not reported	2504.32
Avery	6,500	50 ½ "	not reported	3282.50
Watuga	27,143	52 ½ "	353	13707.21
Edcombe	3,333	48 ½ "	not reported	1616.50
Totals	55,652			\$ 28,317.73

Figures given in the price column is that paid for clear 3/8 and 1/4 blood medium wool. Lower prices were paid for burry, dead and damp wool.

The above represents the most of the wool handled cooperatively in the state. There were several small pools not reported and much help given to individual farmers in the selling of wool. In the majority of the sheep producing counties circular letters were sent sheep men keeping them advised as to prices and buyers whom we thought could be depended upon to pay a fair price. One county which pooled wool for the first time had a very unsatisfactory experience with The United Wool Growers Association. The price paid for clear wool was satisfactory but farmers felt that they were not treated fairly in the classification of their wool.

It is believed that the wool pooled brought at least 5 cents per pound more than it would have if each lot had been sold individually. If this assumption is correct the 55,652 pounds of wool netted the farmers \$2732.60 more than otherwise. No doubt other wool sold privately in counties where pools existed brought several cents more than it would have otherwise.

Watauga County without doubt did the most outstanding work with sheep of any county in the state. More wool was pooled than from all other counties combined and more lambs were sold cooperatively. The county narrative report on sheep is most interesting. //

Shearing Schools

Mr. E. S. Bartlett of the Chicago Flexible Shaft Company spent a week in the state and four shearing schools were attended by 114 farmers, farm boys and county agents. Four assistant agents took these schools very seriously and each sheared enough sheep to learn how. On Friday a shearing contest was held on the J. H. Doughton farm at Laurel Springs with the following winners: First, Delmar Nash, Smithport, Ashe County; Second, Howard Hendricks, Alleghany County; Third, R. I. Austin, Alleghany County and Fourth M. E. Reeves, Alleghany County.

Ashe County Sheep Breeder's Association

Ashe County formed a Sheep Breeder's Association in 1940 which included a Protective Association covering dog losses. This organization incurred 582 sheep the first year and paid losses and inspection fees amounting to \$57.50 leaving a balance of \$0.70 in the treasury. During the current year 938 sheep have been insured. It is planned for the association to sponsor legislation in the next session of the legislature relative to remuneration for losses from sheep killing dogs. Another thing that the association is sponsoring is control of external parasites. It purchased a Portable Dipping Vat in 1940. Two thousand three hundred and eight sheep were dipped during 1941, which was a large increase over 1940. Sheep owners who had sheep dipped in 1940 reported very favorable results and repeated the dipping in 1941.

WORK STOCK PROJECTS

Comparatively little definite work along these lines were done by the specialists with the exception of clinics. Agents in 22 counties reported assistance given in obtaining ²³ 35 purebred stallions and jacks; ³³ in ²¹ 35 counties ²⁶¹ 345 high grade and purebred mares. Furthermore 17 4-H Club projects with horses and mules were reported completed; 10 stallion circles were assisted with which contained 421 members.

Horse and Mule Clinics

Clinics were held in 23 counties during December, January and February. The following services were offered at the clinics:

1. Free examination of all horses or mules brought to the clinics.
2. Internal parasite treatment.
3. Floating and pulling teeth where needed.
4. Advice on other ailments and injuries.
5. Advice on feeding and management.

It was suggested that all county agents and veterinarians follow as closely as possible the following scale of charges for the internal parasite treatment and floating teeth:

1 to 10 horses or mules	-	\$1.00	each
10 to 20 "	"	.75	"
20 and up "	"	.60	"

Where additional dental work or other treatments were administered additional charges were made by the veterinarian.

Records were kept on all horses and mules receiving treatment at the clinics. In 60 to 90 days after treatment, the following questionnaire was sent to all farmers who had horses or mules treated.

1. Did the appetite improve after treatment?
2. Is the animal in better flesh?
3. Did you see any worms passed in the manure?
4. Has the general condition of animal improved?
5. Are you interested in having animals treated next year?

Six hundred twenty-three farmers brought 2152 horses and mules to the clinics. One thousand five hundred twenty-one were treated for parasites and 459 received dental work. Fifty-eight per cent of the farmers who returned the questionnaire indicated favorable results from the worm or bot treatment.

Treatments Used

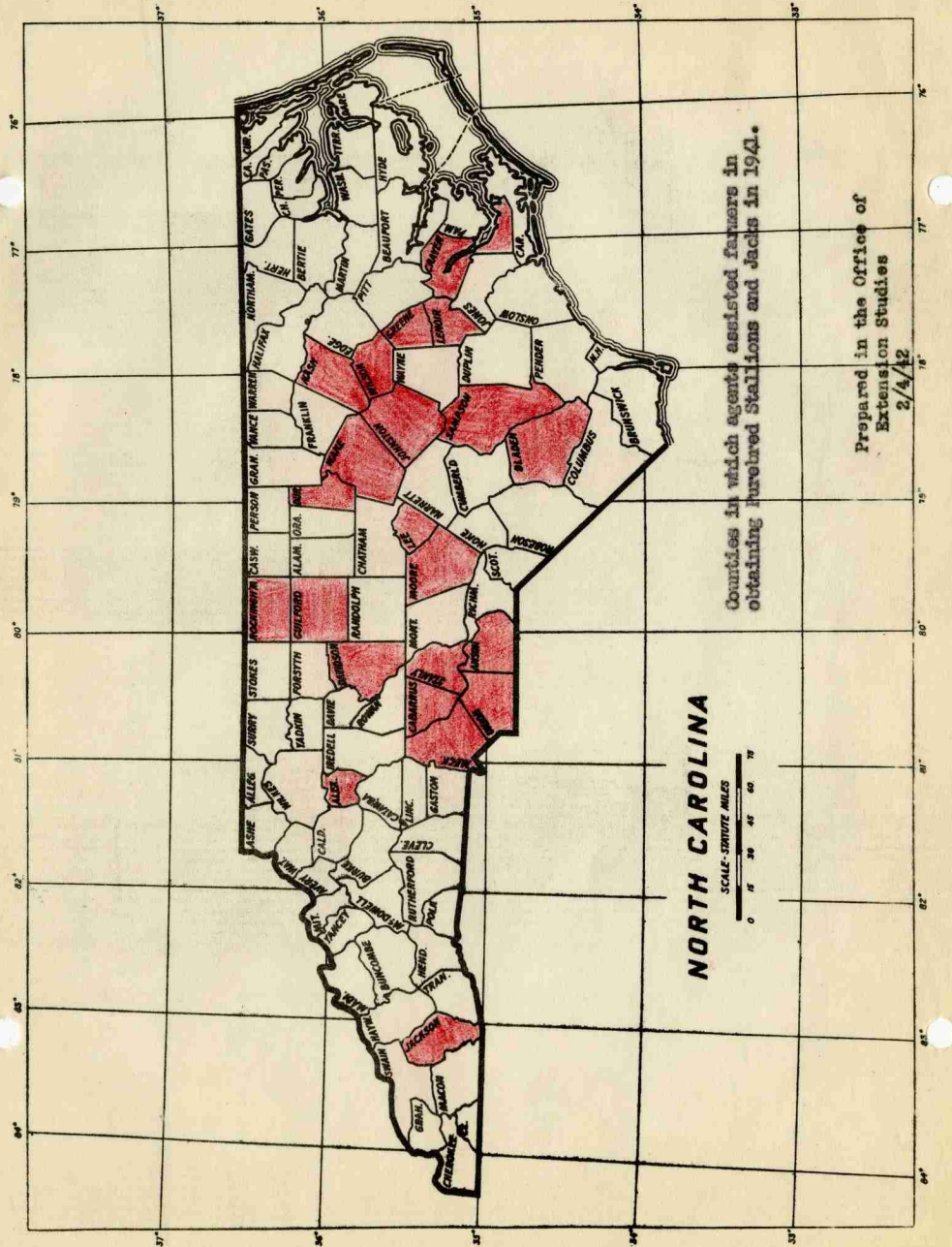
Some veterinarians used Carbon Tetrachloride while others used Phenothiazine for the round worm treatment. In some cases the horses and mules were divided into two groups on the same farm, one group receiving Phenothiazine and the other Carbon Tetrachloride. In other sections one county used Carbon Tetrachloride while the adjoining county used Phenothiazine. From the returns of the questionnaire sent to farmers there was some indication that Phenothiazine gave more favorable results than Carbon Tetrachloride. No deaths as a result of treatment were reported in counties where Phenothiazine was used. Three deaths were reported where Carbon Tetrachloride was used, but in each of these cases the animal was in a very low state of health at the time of treatment.

A very peculiar situation exists in this state as to the section in which the Bot does most damage. Where fecal and other examinations were made, very little evidence of infestation was found in Eastern North Carolina. However, in the Piedmont and Mountain sections of the state Bot infestation was numerous and treatments were administered.

Plans have been made for conducting Horse and Mule Clinics in 60 counties in 1942.

TABLE I. HORSE AND MULE CLINICS BY COUNTIES, COOPERATING VETERINARIANS,
NUMBER TREATED AND TREATMENT

County	Cooperating Veterinarian	Date	Number Clinics	No. Animals Treated	Treatment
Bertie	P.W.Tedder A.J.Osteen	Jan.1941	8	294	Phenothiazine
Bladen	J.I.Weeks	Dec.1940	4	42	"
Carteret	Dr.B.E.Moore	Dec.1940	11	80	Carbon Tetrachloride
Craven	Dr.B. E. Moore	Feb.1941	8	56	Carbon Tetrachloride
Gurrituck	Dr.Victor Finch	Feb.1941	6	65	Carbon Tetrachloride
Franklin	Dr. W. R. Bass	Mar.1941	3	39	Phenothiazine
Gates	Dr.P.W.Tedder	Feb.1941	2	29	" Carbon
Harnett	Maj.V.B.Wright	Dec.1940	4	37	Tetrachloride Carbon
Hoke	Maj.V.B.Wright	Dec.1940	4	45	Tetrachloride
Iredell	Dr.O.C.Lynch	Jan.1941	1	15	Phenothiazine Carbon
Jones	Dr.N.B. Moore	Jan.1941	6	32	Tetrachloride Carbon
Lenoir	Dr.N.B.Moore	Jan.1941	6	89	Tetrachloride
Moore	J. I. Neal R.H.Parker	1941 Jan.-Feb.	8	151	Phenothiazine
Mecklenburg	I.T.Lewis	Jan.1941	3	40	" Carbon
New Hanover	R.P.Hofmann	Dec.1940	4	42	Tetrachloride Carbon
Onslow	Dr.B.E.Moore	Jan.1941	4	12	Tetrachloride Carbon
Polk	Dr.B.E.Moore	Jan.1941	15	85	Tetrachloride Carbon
Perquimans	Dr.P.W.Tedder	Feb.1941	1	36	Tetrachloride
Richmond	H.J.Rollins	Feb.1941	2	25	Phenothiazine
Sampson	J. I. Weeks	Jan.1941	9	58	"
Tyrrell	A.J.Osteen	Jan.1941	3	45	" Carbon
Union	Dr.R.B.Staton Dr.S.A.Alexander	Jan.1941	2	42	Tetrachloride
Washington	A.J.Osteen	Jan.1941	4	31	Phenothiazine
Wake	Dr.L.F.Koonce Dr.Wm.Moore,Jr. W.T.Scarborough	Feb.1941	14	131	"
24 Counties			132	1521	

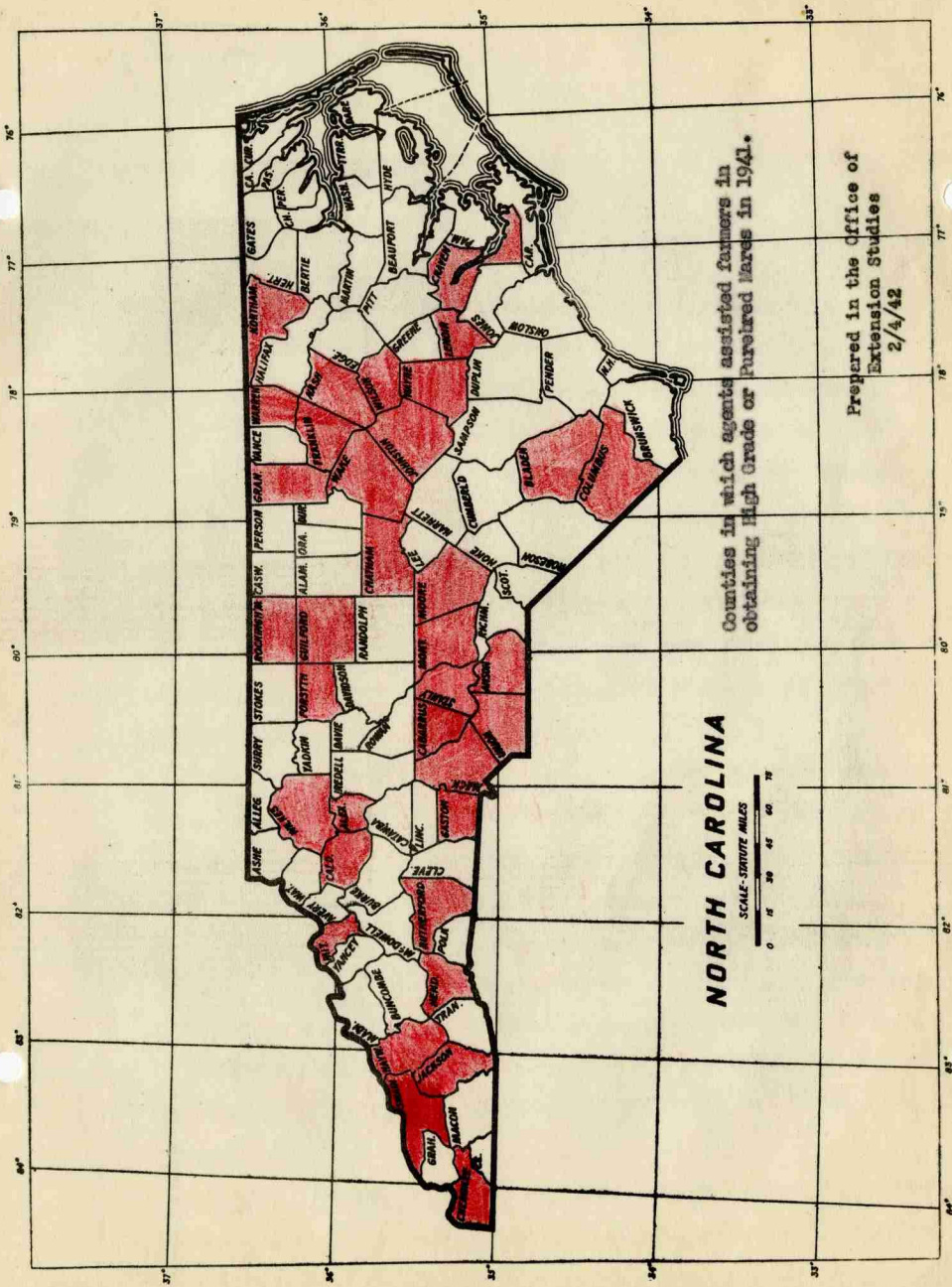


NORTH CAROLINA

SCALE - STATUTE MILES
 0 10 20 30 40 50 75

Counties in which agents assisted farmers in obtaining purebred Stallions and Jacks in 1942.

Prepared in the Office of
 Extension Studies
 2/4/42



NORTH CAROLINA

SCALE - STATUTE MILES
0 15 30 45 60 75

Counties in which agents assisted farmers in obtaining High Grade or Purebred Hares in 1941.

Prepared in the Office of
Extension Studies
2/4/42

MISCELLANEOUS ACTIVITIES

1. Pasture Demonstrations:

Pasture Demonstrations were carried on again this year in cooperation with the Plant Food Institute and the Agronomy Department. This year the Institute gave a fellowship to F. M. Islam from West Virginia who was put in charge of this work. The purpose of these demonstrations was to show the beneficial effects of lime and phosphate when applied to old pasture sods. This year a few complete fertilizer demonstrations were added to the lime and phosphate work started in 1940. The work being carried on in over fifty counties in the Piedmont and Coastal Plain has already created much interest among farmers and county agents. Many applications of lime and phosphate have been made voluntarily by farmers as a direct result of these tests.

Procedure: Farms were selected and soil samples tested to determine the amount of lime needed. Superphosphate, at the rate of 400 pounds per acre was furnished by the Plant Food Institute. Demonstrations started in 1940 were not treated in 1941. New demonstrations were started in 1941 on the same basis and a few complete fertilizer demonstrations were started in 1941 using 400 pounds of 4-8-4 fertilizer per acre. A 30 foot strip across the pasture was not limed or fertilized but left as a check. A rod-square fence was built with half on the treated and half on the untreated ground. Clippings and botanical counts were made inside this square rod area.

Summary: On 58.5 per cent of the demonstrations undesirable species has been reduced as a result of fertilization, 32 per cent were unchanged,

and 9.4 per cent showed more undesirable species on the treated area. Treatment increased the percentage of desirable grasses on 61.4 per cent of the demonstrations. This was unchanged on 26.4 per cent of the farms while 12.2 per cent showed more desirable grasses on the untreated areas.

On 70.8 per cent of the demonstrations legumes increased. This was unchanged on 17.0 per cent and 12.2 per cent showed more legumes on the untreated or check plots. On 82.1 per cent of the demonstrations the percentage of bare ground decreased as a result of treatment.

In some sections of the Coastal Plain notably Jones County very little if any results were secured from lime and phosphate while the addition of 100 pounds of muriate of potash greatly increased the percentage of legumes.

The heavier soils and those soils with a fair amount of organic matter have in most cases given best results from the superphosphate and lime treatments.

Complete fertilizer in Lenoir and Fender Counties showed increased yields in every case.

Demonstrations that gave a greater yield on the untreated area, in most cases have a very high percentage of undesirable species.

Mr. Milan says in summing up the results of his work in 1941:

"The data in this report are preliminary, but it seems significant that from 41 counties scattered over the state that 82 per cent of the demonstrations gave a response to treatment."

Increased pasture acreage in North Carolina will mean millions of dollars to the farmers of the state. It will tend to put the farm

income on a more stable basis by reducing erosion, encouraging the production of more livestock and indirectly producing a steady income for the farm people throughout the year.

2. North Carolina Hereford Cattle Breeders:

The North Carolina Hereford Association held its annual get-together at J. Z. Cleveland's farm in Henderson County on September 4th. The attendance was good and instead of the almost universal pig barbecue a lunch with beef barbecued in a pit was served. Following the lunch Professor L. V. Starkey of Clemson gave a very interesting talk.

This association is continuing to function in good shape and is an organization that is doing a lot of good not only for the breed but for livestock generally. It again supplemented the premium money on Hereford breeding cattle at the State Fair by adding 25 per cent to all prizes won and also paid \$50.00, \$25.00, \$15.00 and \$10.00 to the best county groups of three Hereford fat steers exhibited by 4-H Club members at the State Fair.

The directors of the association decided not to hold a sale in 1941 but to plan one for the spring of 1942 and then to hold one each spring at some point in the state. The 1942 sale is scheduled for Wilson, N.C. on April 17.

The new officers and directors of the association are: President, Dr. J. M. Lynch, Fairview; Vice-President, George L. Pate, Rowland; Secy-Treas., Dr. R. E. Earp, Selma. The other directors are W. E. Webb, Statesville; J. H. Doughton, Sparta; C. T. Francis, Waynesville and J. E. Bryan, Goldsboro.

3. Livestock Freight Rates in Southern Territory:

After a series of public hearings before examiners for the Interstate Commerce Commission, in which this office cooperated, a proposed report has finally been handed down. The proposals, if finally adopted by the commission will place the southern growers of livestock and the carriers in the best position they have ever been to compete with other areas.

4. Out of State Trips:

February - Atlanta, Ga., to attend meeting of Southern Agricultural Workers.

February - Kansas City, Mo., to attend Southern Livestock Rate Hearing.

April - Atlanta, Ga., to judge annual Fat Cattle Show.

June - Lexington, Ky., to attend annual Market Lamb Conference.

July - Points in Southwestern Virginia to purchase purebred Hampshire rams and ewes for sale at Rocky Mount.

July - Wytheville, Va., to select Hampshire sheep for W. A. Davis, Clayton, N. C. for foundation of new flock.

November - Points in Kansas to purchase Hereford and Aberdeen-Angus cattle on order.

November - Chicago, Ill., to attend International Livestock Exposition.

Cooperating Agencies

Rocky Mount bankers in financing without charge shipments of registered cattle and sheep and selling them at no profit.

State and local veterinarians in helping to organize and conduct Horse and Mule Clinics, etc.

Chicago Flexible Shaft Company, in conducting shearing schools and contest.

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.

Farm Security Administration in the cooperative purchase of stallions, jacks, bulls, etc.

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

State, District and County Fair Associations in offering classifications for 4-H livestock exhibits, etc.

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

STATISTICAL SUMMARY

(As taken from Annual Reports of County Agents)

	<u>Beef Cattle</u>		<u>Sheep</u>		<u>Work Stock</u>	
	Co's.	Units	Co's.	Units	Co's.	Units
1. No. days devoted to line of work by county agents and assistants	99	2463	68	4263	82	461
2. No. days devoted to work by specialist	72	176	29	52	23	42
3. No. adult result demonstrations conducted	46	282	32	103	17	235
4. No. meetings at result dems.	22	56	10	27	9	60
5. No. method demonstration meetings held	42	286	29	100	19	85
6. No. other meetings held	49	249	23	60	21	83
7. No. news stories published	75	407	30	101	39	108
8. No. different circular letters issued	46	173	34	80	35	69
9. No. farm visits made	98	8543	65	1765	79	1734
10. No. office calls received	99	10049	62	1758	73	2621
11. No. 4-H Club members completing projects	75	414	25	42	10	16
12. No. farmers assisted in obtaining sires	86	444	47	151	22	35
13. No. farmers assisted in obtaining high grade or purebred females	82	1140	34	275	35	1
14. No. families assisted in home butchering, meat cutting and curing	11	66	5	9		
15. No. farmers following parasite & disease control recommend's.	73	2410	72	976	51	1212
16. No. farmers following marketing recommendations	53	1009	44	1010	15	93

1941 STATISTICAL SUMMARY
 (From Specialists Reports)

	<u>L.I. Case</u>	<u>Sam L. Williams</u>	<u>Total</u>
Number days in the field.....	156	190	346
Number days in the office	138	110	248
Number days on annual leave.....	6	5	11
Number days on sick leave.....	6	1	7
Number miles traveled by automobile	18,358	18,268	36,626
Number miles traveled by railroad and air	2,600	190	2,790
Number visits to county agents.....	199	198	397
Number visits to demonstrations....	264	320	584
Number other visits.....	107	178	285
Number meetings attended.....	55	109	164
Total attendance at above meetings	2,334	3,666	6,000
Number office consultations.....	300	219	519
Number letters written.....	1,522	629	2,151
Number different circular letters.....			25
Number articles prepared	7	9	16
Number radio talks prepared and given	3		3

OUTLOOK

The outlook for accomplishments in the Animal Husbandry field is very favorable for 1942. Horse and Mule Clinics started in 1941 and carried on in 23 counties will be spread to 60 counties, according to plans. Sheep raising will receive a stimulus and if western ewes are available at prices within reason, the state should easily absorb a few car loads. Plans are under way for extending 4-H Club work with sheep in several eastern counties. If plans materialize extreme Eastern Carolina Banks ewes and good Hampshire rams will be used for this work. Beef cattle interest is strong and more and more are going in the business especially in Eastern North Carolina and the Piedmont. The Mountain area of our state especially the counties adjacent to extreme Eastern Tennessee and Southwestern Virginia have always produced a considerable number of feeder cattle. The quality of these steers improved very noticeably during recent years largely as a result of 4-H Baby Beef Club work, placement of bulls with those of better type and other phases of extension activities. It is hoped that these gains will not be nullified. In this section many farmers have made a practice of milking at least part of their cows to furnish milk and butter for home consumption and when prices are favorable a considerable amount of milk has been sold to cheese factories and condensaries. In other words many of the herds of cattle have been on a flexible basis and the owners could change from milk to beef or beef to milk without any large outlay of cash or disrupting their working plans seriously. At this time prices of milk are high and competition is keen,

resulting in a considerable amount of pressure being brought upon the farmers to produce more milk. There is danger of some getting over enthusiastic as they did twenty some years ago and changing completely over to cows of the dairy breeds only to have to change back again when the prices went down. The level headed cattle farmers will continue with their more or less two-way herds and get their extra milk by better feeding and care. Those who have the feed and labor for carrying more cattle will do well to lay in some of the "Red cow" type that will furnish a quick return in the form of dairy products yet will be useful beef producers when bred to a good beef type bull. Above all our mountain farmers will be careful to avoid incurring debts that may be very difficult to meet when adjustment comes.

Baby Beef and Feeder Calf 4-H Club work will continue to be an important part of extension activities in the Animal Husbandry field in 1942 and no doubt our club boys and girls will help materially in increasing the amount of beef to be marketed in the Food For Defense Program this year as compared with 1941. Instead of 4 fall shows and sales we hope to reduce this number to 2, one in the Western part of the state and our State Fair at Raleigh. These together with two spring shows should serve the territory and not require as much time out of the county as was the case with county agents and club boys alike in 1941.

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

EXTENSION SERVICE

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

State College Station, Raleigh, N. C.

December 13, 1941

To the Supporters of 4-H Baby Beef Club
Work in North Carolina

Nineteen hundred and forty-one was a very favorable year in baby beef club work in North Carolina. One hundred seventy-six head of steers went through the sales at Hendersonville, Hickory, Raleigh, and Charlotte. These cattle represented 146,117 pounds of beef on the hoof which sold for \$21,831.92 and the very satisfactory average of \$14.94 per cwt. The average price excluding the champions was \$14.45 per cwt. Eighty-five head grading U. S. Choice averaged \$16.56; sixty-six grading U. S. Good averaged \$13.41; and twenty-five head grading U. S. Medium averaged \$12.25 per cwt. We secured dressed yields on forty-six head of the cattle sold at the State Fair which ran as high as 66.72 per cent with an average of 60.75.

We feel that great progress has been made since baby beef club work was started in this state in 1935. In our first show and sale only one steer graded choice and a very small number graded good. This work is very definitely accomplishing the purpose for which it was intended. Farm boys throughout North Carolina are learning better breeding, feeding, and management methods and adult farmers are in turn learning from the 4-H Club members.

The encouragement which you and other supporters of this project are giving through your interest and financial support of our shows and sales is invaluable and we are sure we reflect the thoughts of everyone connected with the Agricultural Extension Service as well as the boys and girls who fed, exhibited and sold these 4-H Club steers when we say - thank you for your support and cooperation.

Yours sincerely,

L. I. Case,
Extension Animal Husbandman

Sam L. Williams,
Assistant Extension Animal Husbandman

H. W. Taylor,
Extension Economist in Marketing

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.
April 21, 1941

TO ALL COUNTY AGENTS:

Dear County Agent:

Plans for sheep shearing schools and demonstrations for the week of May 5th have been made as follows:

Monday May 5 - 9:00 A.M.: Washington County at Westover Farm owned by J. M. Staton. This farm is on the old Plymouth - Mackey's Road, 5 miles from Plymouth and 2 miles from Mackey's.

Tuesday May 6 - 9:00 A.M.: Johnston County at Dr. R. E. Earp's farm, Selma, N. C. This farm is on State Highway No. 42, twenty-four miles west of Wilson and 25 miles east of Raleigh. Route 42 intersects U.S. 70 just east of Clayton.

Wednesday May 7 - 10:00 A.M.: North Carolina State College in basement of Polk Hall.

Thursday and Friday May 8 and 9 - Hort Doughton's farm, Laurel Springs, N. C.

Shearing schools are to be conducted by E. S. Bartlett of the Chicago Flexible Shaft Company. This year they are especially for custom shearers or prospective custom shearers although farmers or farm boys who plan to shear at home will be given instructions.

On the afternoon of Friday May 9, we will hold a shearing contest and liberal merchandise and cash prizes will be awarded.

I am asking all county agents in so far as possible to bring custom shearers, sheep owners, 4-H Sheep Club boys and anyone else interested out for these schools. Mr. Bartlett has had years of experience in shearing and it's worth a long trip to see how easily and quickly he can undress a sheep.

We want just as many custom shearers as we can get from all parts of the state to enter the contest on Friday May 9th. Do your part and bring your best men. It may be that we can arrange to send the winner of the contest to the International Stock Show next winter to enter the National Sheep Shearing Contest.

It is suggested that you arrange to obtain wool bags and paper twine for all your sheep men, especially where you plan selling cooperatively. Wool dealers will usually supply both or at least tell you where to obtain them. The Producer's Cooperative Exchange, 1114 E. Cary Street, Richmond, Virginia, will sell paper twine for 15 cents per pound plus 2 cents for postage. One pound of twine is enough for 40 or 41 fleeces allowing 8 feet per fleece. They also sell large wool bags at 40 cents each.

Yours very truly,

L. I. Case,
Extension Animal Husbandman

COOPERATIVE EXTENSION WORK
IN

AGRICULTURE AND HOME ECONOMICS
STATE OF NORTH CAROLINA

EXTENSION SERVICE

NORTH CAROLINA STATE COLLEGE OF
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AGRICULTURE COOPERATING

State College Station, Raleigh, N. C.

May 27, 1941

WOOL BULLETIN

TO ALL COUNTY AGENTS AND ASSISTANTS:

The following is quoted from the "Weekly Review of the Boston Wool Market" for week ending Friday, May 23rd, 1941:

"Inquiries broadened on domestic wools of 3/8 Elood and finer grades, and inquiries resulted in a few sales. Prices were firm to slightly higher despite a limited increase in the volume of actual business. Foreign wools received a fair demand for future shipment from foreign markets while the demand for spot wools was somewhat slower than in the previous few weeks".

The same issue quotes 1/4 and 3/8 Elood Combing wool in the grease at 46 to 47 cents per pound. This is 9 cents higher than last year's quotation on the same date, and I think the highest wool has been quoted since 1929.

In view of the fact that this office has been receiving a good many inquiries we have obtained the following statements from two wool buyers which will give you some line on the market and prices being offered:

Mr. A. L. Butler, Vice-President of the Chatham Manufacturing Company, Elkin, N. C. says in a letter dated May 23rd that they are offering 45 cents per pound, delivered Elkin, N. C., for clear, unwashed wool from Eastern North Carolina, South Carolina and southern points. He further states that they will pay proportionately more for the extreme Western North Carolina wools, which are of lighter shrinkage.

Mr. K. A. Keithly, Manager, The United Wool Growers Association, Harrisonburg, Virginia, in a telegram May 24th, offers 48 1/2 cents for clear medium wool delivered Harrisonburg.

Both of these price quotations are subject to change without notice and I suggest you keep in touch with these buyers and others when your county wool is ready to sell.

Let me suggest that you keep your growers informed.

Yours very truly,

L. I. Case,
Extension Animal Husbandman

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

EXTENSION SERVICE

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

State College Station, Raleigh, N. C.

June 30, 1941

SALE OF HAMPSHIRE RAMS AND EWES

The Time: - Wednesday July 9, 1941

The Hour: - 10:00 A.M.

The Place: - P. R. Worsley's Livestock Market, one mile South of Rocky Mount city limits on U. S. Highway 301.

These are registered Hampshire yearlings to be selected from leading flocks in Southwestern Virginia.

They will be sold at auction or at private treaty depending upon the wishes of the buyers.

The Planters National Bank and Trust Company and the Peoples Bank and Trust Company of Rocky Mount are financing this sale, on a no-profit basis.

Please get immediate word to your prospective buyers so they can make plans to be on hand for the sale. Have them bring trucks along so purchases can be taken away the same day.

L. I. Case,
Extension Animal Husbandman

P.S: We have given up the purchase of Northwestern cross-bred yearling ewes this summer due to lack of definite interest but plan to import some ewe lambs this fall.

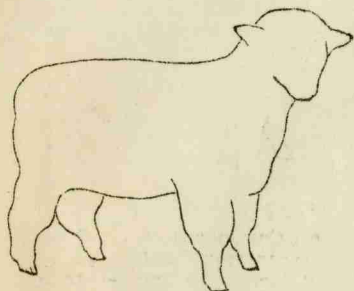
L.I.C.

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

EXTENSION SERVICE

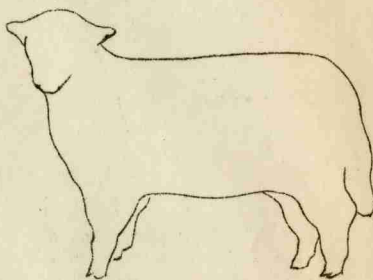
NORTH CAROLINA STATE COLLEGE OF
AGRICULTURE AND ENGINEERING
NORTH CAROLINA COUNTIES AND
UNITED STATES DEPARTMENT OF
AGRICULTURE COOPERATING

State College Station, Raleigh, N. C.



THE TRIMMED LAMBS

carries a better covering of flesh, a higher percentage of hind-quarter compared to fore-quarter and is more highly desired by packer, retailer, and consumer.



THE UNTRIMMED LAMB

spends less of his time feeding lacks the desirable finish and conformation and usually sells for \$1.00 per cwt. less than wether and ewe lambs on a good market.

SUGGESTIONS FOR FEEDING AND CARE OF LAMBS TILL MARKET TIME

By L. I. Case
Extension Animal Husbandman

Some lambs are already here and many more will be coming soon. The lamb crop is the sheepman's harvest and it pays to save as high a percentage as possible and to grow and fatten them rapidly up to marketing time.

Care of Ewes: The ewes should be in good strong condition at lambing time. Plenty of green winter cover crops will go a long way toward furnishing feed for the ewe flock. Good green, leafy legume hays should also be fed at will as they furnish the proteins and minerals so necessary for developing the unborn lambs. Corn or oats, or a mixture of the two in amounts of one half to one pound daily may be profitably fed for about one month before lambing time. Unless a good legume hay or plenty of green cover crop is available it is well to add a small amount of a protein feed, such as cotton seed meal, soybean meal or peanut meal to the grain. When grain is being fed in appreciable amounts it is well to reduce this feed for a few days before and after lambing. At this time give the ewes all the green feed, legume hay and water that they want.

If the ewe flock is being housed at night those heavy with lamb should be separated from the others. A lambing pen 4 x 4 feet square will often prevent lambs from wandering off and causing the ewes to disown them.

Feeding the Lambs: Of first importance in feeding lambs is milk and plenty of it. See that the ewes are fed for milk production. The same feeds recommended for pregnant ewes may be fed, only in larger amounts, after the lambs are a few days old.

Creep Feeding the lambs usually pays. Partition off a bright corner of the barn or shed and leave a small opening or two that will admit the lambs yet exclude the ewes. Inside this creep keep a small raised trough supplied with feed. Corn should make up the majority of this ration and often it is the only grain feed. It should be ground until the lambs are six weeks old after which it may be fed shelled. Do not feed corn and cob or corn cob and shuck meal to lambs or ewes. If the ewes are not giving much milk it may pay to feed a more complete ration to the lambs. Four parts corn, two parts oats, and a small amount of a protein feed makes an excellent lamb feed. In addition to grain keep a small rack full of the choicest hay inside the creep where the lambs can nibble it as they like.

Trim the Lambs when they are from one to two weeks old. The docking and castration may both be done at one time. Do not neglect this for the packers usually pay \$1.00 per cwt. more for trimmed lambs than for rams.

Stomach Worm Control can be effected by sanitation, (keeping sheep on ground that is plowed each year) or by regular treatment. Lambs should generally be treated every two weeks from June 1, to November 1, inclusive, unless they are kept on annual grazing crops. Detailed instructions for treating sheep for stomach worms accompany this circular.

Lamb grading and cooperative marketing is planned for Camden, Chowan, Pasquotank, Washington, Hyde, Tyrrell, Martin, Edgecombe, Pitt, Wilson, and Onslow counties in the East; and Alleghany, Ashe, Watauga, Mitchell, and Buncombe in the West. Shipments will start in May in the East and probably in June in the West. Farmers in these or other counties who are interested should get in touch with their county agents.

PUBLICITY MATERIAL FOR HORSE & MULE CLINICS

Prepared By
Sam L. Williams, Asst. Ext. An. Husbandman

I. Economic Value:

The value of horses and mules on North Carolina farms is two times as great as that of all cattle and calves, five times as great as the value of all hogs and sheep. The latest United States Department of Agriculture estimates on horse and mule numbers indicates that we had on January 1, 1940 a total of 71,000 horses and a total of 305,000 head of mules. The death rate in horses is about 1/15 of the total and about 1/18 in mules. To replace this number of horses and mules from 20,000 to 25,000 head would have to be purchased annually. These losses can be largely attributed to the following factors: Improper feeding and management, old age and internal parasites.

It is a well known fact that about 95 per cent of the horses and mules on North Carolina farms are infested with worms of various kinds. The large and small roundworms doing most harm, with bots being more numerous in the Western half of the state.

II. Symptoms of Internal Parasites:

1. Loss of body weight, unthriftiness.
2. A rough coat of hair and not shedding in the spring.
3. Loss of appetite.
4. Digestive troubles, especially cholera.
5. Weakness, and lack of ability to do work.

III. Treatments Recommended:

1. Phenothiazine, liquid or capsules, for roundworms.
2. Carbon tetrachloride, capsules, for roundworms.
3. Carbon disulphide, capsules, for bots.

IV. Control Measures Recommended:

1. The feeding of grain and hay in boxes and mangers well up from the manure.
2. Rotation of pastures and avoid low wet pastures.
3. Sanitation of stables and removal of manure to prevent larva from developing.
4. A wholesome food supply and clean surroundings are the safeguards against horse and mule parasite infestation.

V. Services Available at Clinics:

1. Free examination of all horses and mules brought to clinics.
2. Internal parasite treatment when needed.
3. Floating and pulling teeth.
4. Advice on other ailments and injuries.
5. Advice on feeding and management.

75

(Suggested Letter)

Good Horse Sense



Dear Cooperator:

There will be Horse and Mule Clinics held in _____ County on December 8 and 9, Dr. _____, Veterinarian will examine all horses and mules for internal parasites, defective teeth and other ailments,

1, The examination of all horses and mules is free. ~~A small charge per head will~~
 2 ~~be made for the internal parasites and dental treatment when animals show need~~
 3 ~~of such.~~
 4

~~Feed should be withheld for at least 18 hours before treatment. The following schedule has been arranged for your convenience:~~

~~Monday - December 8:~~

~~Adren's Chapel from 9 - 11 A.M.
 Mill Creek Store " 11 - 2:30 P.M.
 Turkey Knob School " 3 - 5 P.M.~~

~~Tuesday - December 9:~~

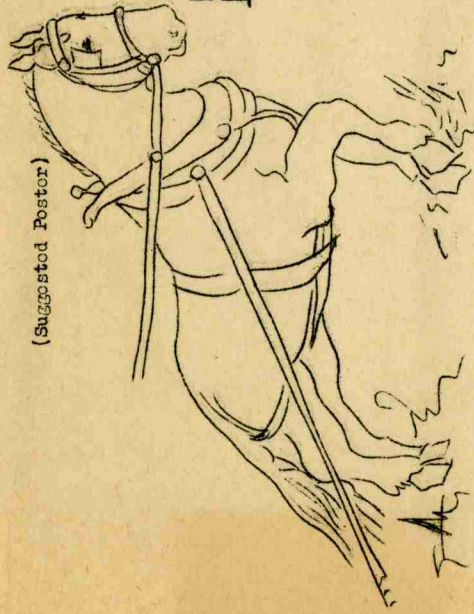
~~Chappel's Store from 9 - 11 A.M.
 Brook's X Roads " 12 A.M. to 3 P.M.~~

Please be on time ^{because} ~~as~~ we will have to ^{follow} ~~keep~~ our schedule.

Very truly yours,

County Agent

(Suggested Poster)



PULLING FOR HORSE AND MULE CLINIC

1. Free Examination of All Animals Brought to Clinic.
2. Treatment For Roundworms And Bots When Needed.
3. Floating Teeth And Advice On Foot Trimming.
4. Advice On Feeding And Management.

PLACE _____
DATE _____
TIME _____

In Cooperation With -

County Agent _____

Veterinarian _____

October, 1941

Extension Folder No. 49

Creep Feeding Beef Calves

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. SCHAUB, DIRECTOR
STATE COLLEGE STATION
RALEIGH

DISTRIBUTED IN FURTHERANCE OF THE ACTS OF CONGRESS OF
MAY 8 AND JUNE 30, 1914

CREEP FEEDING BEEF CALVES

By SAM L. WILLIAMS

Assistant Extension Animal Husbandman

Creep feeding of beef calves consists in supplementing milk and pasture with grain and other concentrated feeds, fed from a trough or self-feeder enclosed in a creep (see page 4) to which the calves, but not the cows, can gain access. These are the basic principles involved in creep feeding.

Kind of Calves To Use

Good quality, early spring calves are well suited to this method of beef production. Calves that are dropped in January, February and March have a decided advantage over late calves for creep feeding, because they can be taught to eat grain before they go to pasture with their mothers in the spring. It is quite important to teach the calves to eat grain before they are placed on pasture, due to the fact that after they have received young, tender and succulent grass it is difficult to get them to eat dry grain. The calf that has considerable size when it follows its mother to pasture in the spring and has already been taught to eat grain will respond much more satisfactorily when creep fed than the late calf.

How to get early calves is a question often asked. In a herd already established and late calving is practiced, it is, of course, a gradual process. It has been found that there is very little difficulty encountered in moving back the calving date of a herd of cows a month earlier each year provided the cows are well fed and in a thrifty condition at breeding time.

The type and quality of breeding herds also is of importance. Thick, deep-bodied, low-set cows weighing 1,000 pounds or more have given good returns. Some use Herefords,

some Aberdeen-Angus, and some Shorthorns, both high grades and purebreds, the breed being a matter of personal choice so long as they are of the right general type. The cows could be bred to good quality low-set, thick-shed, compact, registered beef bulls.

Who Can Creep Feed to Advantage

The practice of creep feeding is primarily for the man who produces his own grain and his own calves from a cow herd and sells them at weaning time. In case one has sufficient grain and wishes to sell a finished product these creep fed calves can be placed in a dry lot at weaning time and full fed for 30 to 60 days, making a market weight of 650 to 700 pounds at about 10 to 12 months of age.

The amount of grain necessary for creep feeding calves varies considerably with their age and the time that they are started on the creep. Calves started in February, March or April make economical gains, learn to eat readily, and will consume 10 to 15 bushels of corn or other grains by weaning time.

Suggested Rations

Shelled corn is the most essential feed for calves being pushed for market, but experience has shown that a protein supplement fed with corn produces more rapid gains and a higher finish. This factor is probably of greatest importance in late summer when the cows slow down in milk production. The use of oats in the ration is very valuable in getting the calves on to feed. Since oats is a growing feed rather than a fattening feed it is advisable to remove them from the ration after the calves are on feed. The following grain mixtures are suggested for creep feeding:

Age of Calf	Grain Mixture
2-3 months	2 parts shelled or coarsely crushed corn 1 part oats
3-5 months	8 parts shelled corn 1 part cottonseed meal
5-10 months	10 parts shelled corn 1 part cottonseed meal

There is little or no advantage in grinding corn for calves as the cost of grinding usually more than offsets any advantage that there

may be. Calves do their own grinding to better advantage than older cattle.

Location of Creeps in the Pasture

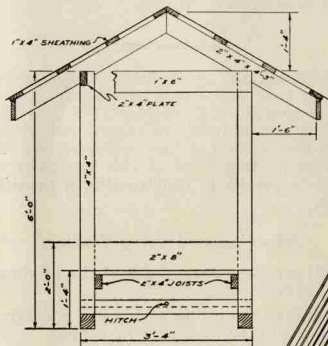
The creep should be located on ground that is well drained near a watering place that the cows and calves visit often. An ideal place is in the shade near the watering and loafing place of the herd. If a salt box is placed near by it will cause the herd to spend more time in that vicinity.

Construction

The creep may be made of boards, woven wire, or poles and should be made from 20 to 40 feet square, with openings 18 to 20 inches in width and 36 inches in height, on the sides or at the corners of the enclosure. See the drawing on pages 5-6 of this pamphlet for complete details in constructing a practical creep.

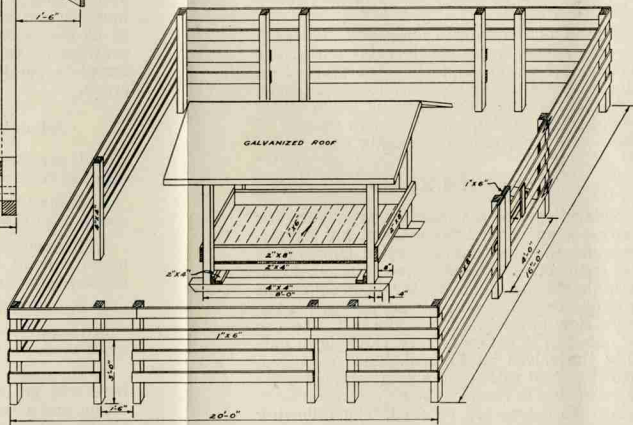
Advantages of Creep Feeding

1. It produces grain-fed beef at a minimum expense for grain.
2. Selling the calves at a young age brings about a quicker turn over of capital.
3. It produces a product in favorable demand among consumers and intermediate marketing agencies.
4. It adds weight and finish to the calves.
5. Creep feeding tends to make the calves more uniform in size.
6. By creep feeding the calves the cow herd will go into the winter in better condition and a larger percent will have strong, thrifty calves as a result.
7. Heifer calves will sell along with the steers without the discount that is always put upon older heifers.



DETAIL OF END
Scale: 1"=1'-0"

NOTE:
THERE IS AN OVERHANG
OF 1\"/>



OBLIQUE VIEW
Scale: 1/2"=1'-0"

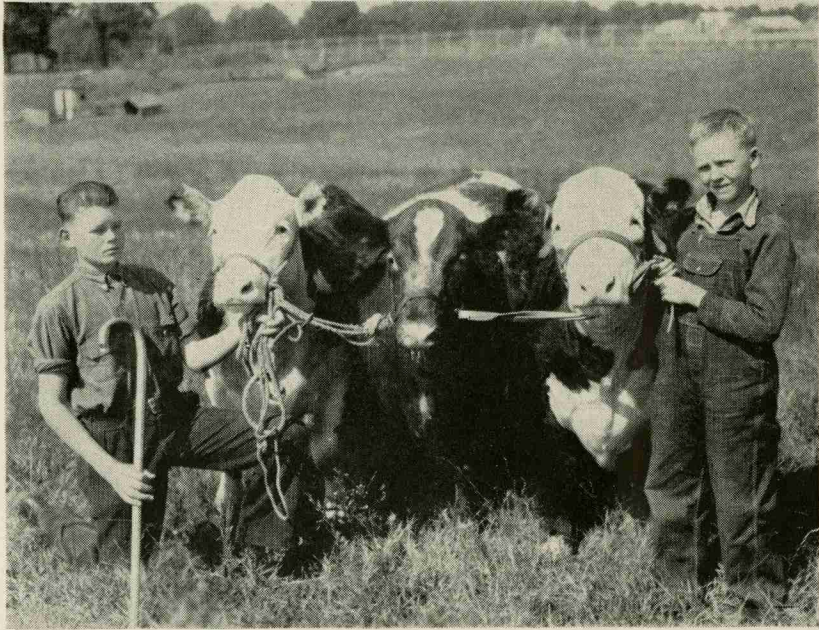
COOPERATIVE EXTENSION WORK IN
AGRICULTURE AND HOME ECONOMICS
STATE OF NORTH CAROLINA
NORTH CAROLINA STATE COLLEGE
AND
U.S. DEPT. OF AGRICULTURE COOPERATING
EXT. AGR. ENGINEER - RALEIGH, N. C.
CALF CREEP
N. C. NO. 48 SHEET 1 OF 1
JULY - 1941

November, 1941

Club Series No. 27

Baby Beef Production *for* 4-H Club Members

IN NORTH CAROLINA



NORTH CAROLINA STATE COLLEGE OF AGRICULTURE AND ENGINEERING
OF THE
UNIVERSITY OF NORTH CAROLINA
U. S. DEPARTMENT OF AGRICULTURE, CO-OPERATING
N. C. AGRICULTURAL EXTENSION SERVICE
I. O. SCHAUB, DIRECTOR
STATE COLLEGE STATION
RALEIGH

DISTRIBUTED IN FURTHERANCE OF THE ACTS OF CONGRESS OF MAY 8 AND JUNE 30, 1914

Baby Beef Production for 4-H Club Member

By L. I. CASE, *Extension Animal Husbandman*
North Carolina State College

AGE OF CALF TO FEED

As a general rule steers suitable for 4-H Club work should be from 12 to 18 months of age at show time. This means that they should be from 4 to 10 months old when put on feed, as it generally takes about eight months to properly fatten a young growing calf.

Steers only will be eligible to show. They must be without horns.

All breeds will show together and animals may be purebreds, grades or crossbreds but they should by all means show a high percentage of beef breeding.

SELECTION OF CALVES

In view of the fact that there will be county group classes as well as individual competition, it will be well for all calves fed in a county to be as uniform as possible in general conformation and quality. Each club member may select his or her own calves with the guidance of the county agent or club leader, or the calves may be selected and purchased in a group and distributed among the members by some equitable means.

When possible each club member should have two calves because two fed together will do better than one. Then too, he will have a better chance of winning.

The price of calves should be closely in line with commercial prices of stockers and feeders although in topping a man's calf crop it is only reasonable that some slight premium be paid. It is felt, however, that most cattle breeders in the State will be interested in the promotion of Baby Beef Club Work to the extent of selling calves to 4-H Club Members at reasonable prices.

THE KIND OF CALF TO FEED

It takes a good calf to make a good baby beef. Proper feed and feeding will do a lot for a calf but no amount of flesh will make a top-finished animal out of a naturally poor type individual.

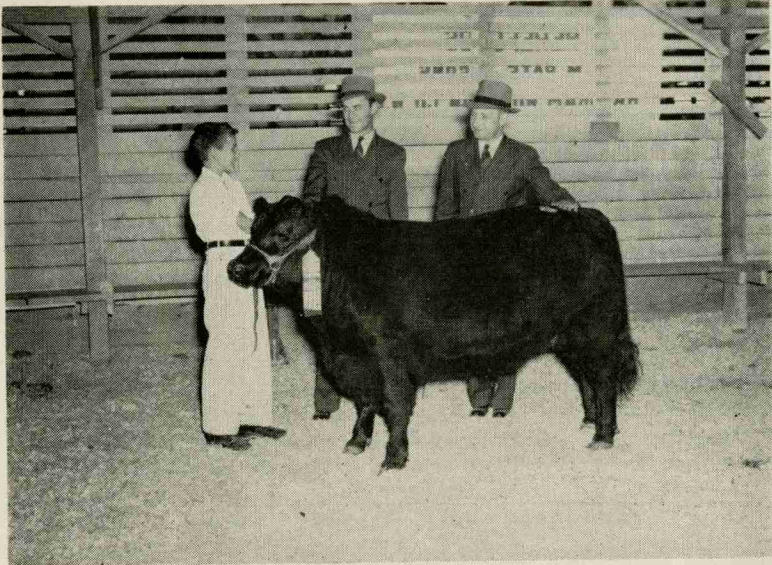
Form: In form the calf should be thick, deep, blocky, compact and close to the ground. He should have a straight top and underline, carry his width and depth evenly from end to end, be smooth in the shoulders, wide in the spring of rib, thick in the loin, smooth over the hips, level in the rump with a smooth tail setting. The hind quarters should be well developed, both in width and depth, with a deep, full twist. The legs should be short and straight.

Head and Neck: The head should be wide between the eyes and short from eyes to muzzle. The muzzle should be broad and the entire head have a neat appearance. The neck should be short and thick and neatly and smoothly joined to head and shoulders.

Constitution: A good constitution is an indication of good feeding qualities. The chest should be deep and wide, the heart girth well developed and the fore flank deep and full.

Quality: The calf should show good quality which is indicated by a clean cut appearance of the head, medium sized bone, a loose pliable hide, and a silky coat of hair.

Breeding: In order to get the desirable form, quality and feeding ability to make a good baby beef it is necessary to obtain a calf with a high percentage of beef breeding. He may be purebred, high grade or a cross of two of the beef breeds. Avoid animals with any appreciable amount of dairy breeding. Occasionally, one may look good as a calf but in most cases the older he gets the worse he will look.



A TYPICAL WELL CONDITIONED ANIMAL

FEEDS

Corn is probably the best fattening feed we have and generally makes up a liberal part of any fattening ration. It is best to feed shelled corn to young calves, then as they get older have it coarsely cracked. Corn and cob meal is too bulky for young fattening calves.

Barley is about equal to corn in fattening ability. Many feeders use it for replacing part of the corn, especially during the last few months of the fattening period, contending that it puts on a smoother and mellow finish. Barley should be coarsely ground, soaked or cooked as it is too hard to be digested whole.

Wheat is about equal to corn or barley in feeding value and if cheaper may be used to replace part of either of these grains during the early part of the feeding period. Wheat is not as palatable as these other grains and should not be fed in large quantities or over a long period of time. It should be coarsely ground.

Oats are too high in fiber to make up any large part of the fattening ration. However, if home grown or not unreasonable in price small amounts should be fed for variety and for furnishing the necessary bulk to the ration. They should be rolled, crushed or coarsely ground.

Wheat Bran is high in protein and minerals, is slightly laxative and may be used to replace part of the oats if the price is not too high.

Cottonseed Meal is the leading protein feed available in the South. It is sometimes used as the sole concentrate in feeding commercial cattle for a 90 to 100 day feeding period but more often is fed as a protein supplement to balance carbonaceous feeds such as corn or barley.

Linseed Oil Meal is quite similar to cottonseed meal in feeding value although it contains more minerals and is more laxative. It is often used by show men to put a better bloom on cattle. In the South, however, it is usually too high in price to be practical. If it is not unreasonable in price use the "pea size" cake to replace part or all of the cottonseed meal or other protein concentrate in the ration, especially toward the end of the feeding period.

Other Protein Concentrates include soybean meal and peanut meal, either of which may be used in place of cottonseed meal.

Milk is the best feed for the young calf. He should be kept on his mother's milk as long as possible and it is often practical to supply a nurse cow when the mother fails to give enough milk. After the calf is two or three months old he should be allowed to nurse twice each day just before he is fed his grain ration. When calves reach a weight of 700 pounds *they must be taken off milk*. It is also a requirement that all calves regardless of weight *be taken off milk* at least *two months before* they are to be shown.

Black Strap Molasses is sometimes fed as an appetizer by mixing a small amount with enough water to moisten the feed. Only such feed as is to be fed at once should be prepared in this way. If this sweet, moist feed is allowed to stand long it will become sour and if eaten will cause digestive troubles. Some prefer using a small amount of a commercial sweet feed. This is less trouble but usually more expensive.

ROUGHAGES

Silage is a valuable feed for fattening cattle. One to two pounds of good sweet silage mixed with the grain will increase the palatability of the baby beef ration.

Legume Hays such as alfalfa, clover, soybean, lespedeza, or cow pea are valuable in cattle feeding. They not only furnish the dry roughage which is needed but effect a saving in protein supplement. They also contain more

minerals and vitamins than most other feeds. An unlimited amount of legume hay is sometimes too laxative for certain individuals. In these cases reduce the amount fed and substitute a carbonaceous roughage such as grass hay or corn stover.

Mixed Hay is the term usually applied to a timothy and clover mixture although it may indicate any grass and legume combination. Such a hay may be used as the dry roughage in fattening calves and is often preferable to a straight legume.

Timothy or other grass hay is not as nutritious as legume hay but many experienced show men prefer them just prior to and on the show circuit because they are less laxative.

Corn Stover is that part of the corn plant remaining after the ears are removed. It is sometimes used as the sole roughage in the commercial feeding of mature cattle and may be fed to calves in limited amounts with a good legume hay.

FEEDING

The calf should be gotten onto feed as early as possible in order that he may be fat for the fairs and shows. A calf finishes much slower than older animals because he is growing as well as fattening. Do not get the mistaken idea that a calf should be grown first and then fattened. Feed a fattening ration from the start and the growth will take care of itself. It generally takes at least 8 months of intense feeding to put a calf in good condition and more time will do no harm. Do not be afraid of getting a calf too fat. Experience in 4-H Club baby beef feeding in many states has proven that for every calf that is fat enough there are many that lack finish and the overfat animal is very rare indeed.

Only feeds that are generally produced in North Carolina are given in the following rations. Substitutions may be made where practical, being guided by the suggestions under the heading "FEEDS" in this circular.

SUGGESTED RATIONS

The rations given below only indicate the proportions of the various feeds to be fed. In starting a calf feed only a small amount, 1 to 4 pounds depending on the size of the calf, then gradually increase it until he is on full feed, or in other words getting all he will eat. See GENERAL FEEDING DIRECTIONS.

STARTING RATION

Corn	4 parts by weight
Oats	2 parts by weight
Protein concentrate	1 part by weight
Hay	at will*

After the calf gets to eating well, gradually increase the proportion of corn until four or five months before show time he will be getting the following ration:

Corn	7 parts by weight
Oats	2 parts by weight
Protein concentrate	1 part by weight
Sweet Feed (See Black Strap Molasses under FEEDS)	
Hay	at will*

* As a rule roughage consumption decreases as the feeding period advances and the calf is eating more and more grain. When an individual has an abnormal appetite for hay and fails to eat enough grain, the hay should be limited. A calf that has a tendency to be paunchy should have his hay allowance cut down.

GENERAL FEEDING DIRECTIONS

In getting calves started on feed it is best to feed only a small amount at first, gradually increasing it until they are on full feed or, in other words, getting all they will eat. For calves that are to be fed six months or longer six or eight weeks time should be taken to get them on full feed.

The grain mixture should be kept coarse and flaky at all times. If finely ground and floury, digestive troubles often result. Some good feeders chop up some good quality hay and mix it with the grain.

Regularity in the time of feeding is very important, set times for feeding and let nothing prevent feeding at those times each day.

How Often to Feed—During the first part of the feeding period feed twice each day, for example: 7:00 a.m. and 6:00 p.m. By the middle of the feeding period this may well be increased to three times a day, 7:00 a.m., 12:30 p.m., and 6:00 p.m.

Avoid Abrupt Changes in the ration. This applies both to kinds and amounts of feed.

The amount of feed given at each feeding after calves are on full feed should be such as will be cleaned up within a reasonable length of time. If any feed is left over from one feeding period to the next, clean it out and give it to the breeding cattle or hogs. **Keep the appetites keen.** If calves go off feed for any reason cut the amount down, then as their appetites come back, gradually increase it again. Sometimes it may be advisable to miss a feed or two.

Water: Clean, fresh water should be available for calves at all times.

Salt should be kept in a box where calves can help themselves at will. Some feeders also mix a small amount with the feed.

CARE AND MANAGEMENT

Feed Boxes should be reasonably close to the ground so that calves will not have to strain to reach them. They should be kept clean at all times.

Shelter sufficient to keep calves comfortable and free from drafts should be provided.

A **dry, clean bed** is necessary for calves to do well. Remove all wet bedding and manure daily.

Castrate bull calves at an early age. Use a bloodless castrating instrument if one is available. If not make two incisions with a sharp knife, one for each testicle, on the front part of the scrotum, seeing that each cut runs low enough to insure good drainage.

Dehorning: Calves intended for slaughter should be dehorned. This is best done when they are a few days old by the use of caustic or a calf dehorner. If this is not done when the calf is young a saw or regular dehorning instrument is necessary.

Halter Break calves early. It is usually best to keep calves tied for a few days before attempting to lead them. A halter made of one-half inch rope is best for breaking calves to lead. After they are halter broken let them run loose. If kept in a stall, turn them out in a small dry lot each day for exercise except in very bad weather.

Groom calves frequently. A comb may be used for loosening dirt but do most of the grooming with a stiff brush. Never use a comb on the switch.

Wash calves each week for several weeks before show time. Scrub thoroughly with soap (tar soap is best) and water, being sure to rinse all the soap out of the coat. After rinsing and scraping surplus water from the coat dampen all over with a weak coal tar dip solution and curl. Get some one with experience to show you how to curl and dress the coat of hair.

Train calves to lead and stand properly. The calf should stand with the feet squarely under him, the back straight, and the head in a natural position. During the latter part of the feeding period when the calf is getting quite fat he often fails to take enough exercise. Then it is necessary to lead him each day. Start in with a short walk increasing the distance daily up to a quarter or half mile.

Be firm, yet quiet and gentle as possible with the calf. He will show to better advantage if well trained but not spoiled.

In summer when flies are bad the calf should be kept in a darkened, but well ventilated stall during the day and outside in a dry lot at night. This tends to promote a better coat of hair and avoids bleaching by the sun.

The hair may be improved in appearance and feel by using a mixture of olive oil and alcohol, half and half. Apply by moistening a woolen cloth and rubbing on the coat. Do not use enough to mat the hair.

Records are an important part of Baby Beef Club Work. A neat, accurate record should always be kept. Be sure to record the initial weight, and cost or value. Also keep a complete record of weights and values of all feeds fed. If scales are available record weight of calf every 28 days. This will show how the calf is gaining in comparison with other 4-H Club calves.

W. N. C. Beef Men Adopt New Methods

(Written Special for The Mountaineer).

"Pass me another piece of that Western North Carolina beefsteak, Ma, and leave off the sauce, the natural flavor's too good to disturb."

That's what beef eaters over a wide area should be saying within the next year or so, says L. L. Case, Extension animal husbandman of State College in outlining plans recently adopted by Western North Carolina beef cattle farmers for immediate improvement of their \$6,000,000-a-year industry.

Beef cattle in western counties, listed as worth about \$6,000,000, brought an average income of \$225 to each farm in the cattle area in 1939—considerably more than the income per farm from any other source.

"Western farmers have been smart enough to see that the grass in their own back yard is just as green as it is on the other side of the fence and have laid extensive plans for continuing the beef business which they already have," Mr. Case declares.

In the recent Western North Carolina Farm and Home Week, mountain cowboys adopted a four-point program of speed which aims to improve beef quality and increase the number of cattle for beef through a simple plan of better management.

The four points of improvement include:

1. Breeding—use and exchange with your neighbor of a registered bull, Hereford, Shorthorn or Aberdeen-Angus of the accepted type; discourage removal from breeding of outstanding bulls; use bred or high grade cows and practice of artificial breeding where practical;

2. Feeding—improve both summer and winter pastures by use of lime and phosphate, clipping and reseeding when necessary; avoid damage to pastures by waiting until grass is right before turning cattle in to graze and regulate grazing period to save pasture; use creepers for feeding purchased or early calves for sale.

3. Management—replace poor producing cows for good heifers; employ controlled breeding calves; should be dropped not later than March or April and heifers should be bred under 18 months of age; put in sufficient housing and feeding; make salt available to cattle at all times and dehorn calves at early ages;

4. Marketing—the practice of selling calves at or soon after weaning time is advocated.

Animal Specialist Case says that 171,640 head of cattle were kept in western counties in 1939 at an average value of \$31.20. He now says that while 1941 figures are not yet available both the number of cattle and their value will show a considerable increase in the same area.

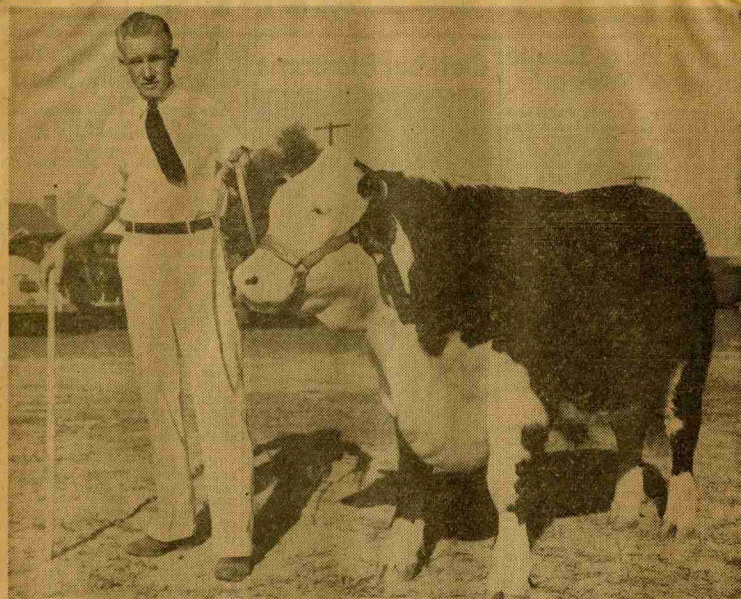
Everything points to the continued growth of the beef cattle business in the mountain area of the state, Mr. Case observes, reminding that "it's the natural course, what with beef the main source of income in most of the mountain counties." The steep, inaccessible mountain pastures are more suitable for beef cattle than for other kind of livestock except sheep, the State College Specialist adds, declaring:

"And if the cattle growers of our state will just bear down in support of the four-point improvement program they have set up for themselves, they'll be breeding some right tough competition for other cattle raising sections of this country."



L. L. CASE
Beef Cattle Extension.

44-Cents Per Pound On Hoof



The White-faced Hereford pictured above with its owner, Wayne Stamey of Route Two, Canton, won the grand championship of the Catawba Fair baby beef cattle

show. Incidentally this animal brought the top figure—forty-four cents per pound—at a baby beef sale held at the fair Thursday afternoon, with Oscar Pitts, director

of State prisons, as the auctioneer. Young Stamey, a son of Mr. and Mrs. George E. Stamey, plans to use the money he received to further his education, it is said.

SUCCESSFUL SALE

The baby beef cattle sale which was held here Thursday at the Catawba Fair was a most successful added feature. State College representatives including L. I. Case, head of the animal husbandry department, were unanimous in declaring that the auction was one of the best ever held at a similar exhibit, in North Carolina.

The fact that the grand champion baby beef, brought here from Haywood county, was bid in at a price of forty-four cents per pound by the Hickory Packing Company, is evidence of the enthusiastic support which was given locally to the project. The Catawba county champion baby beef commanded a price of forty cents per pound on the hoof, which was also a very "fancy price" even in these times of high market quotations for all sorts of livestock.

Oscar Pitts, director of State Prison, who returned "home" to serve as auctioneer at the sale, was especially well pleased that the twenty-six head of baby beeves which he disposed of to the highest bidders, brought a grand total of \$4,010.80—or an average per animal of approximately \$154. The lowest price paid was thirteen cents per pound.

Interest In Beef Cattle Increases In This Area

—BY L. I. CASE—
Extension Animal Husbandman
N. C. State College

North Carolina farmers are becoming more and more interested in livestock. There is evidence of this where ever one goes in the State. More and more inquiries for breeding stock are being received by members of the Animal Husbandry Staff at State College. We believe this is as true of the west as the North Carolina State and that North Carolina has a better balanced State and coming a richer State through greater diversification.

Western North Carolina has long been known for its beef cattle and sheep. Piedmont North Carolina for its good herds of dairy cattle, and the western North Carolina for its hogs. There is no waning of this interest. On the other hand, classes of stock being not only regarded as a growing but quality as well. More good beef type bulls and mutton type rams are being shipped into our mountain districts than ever before. Pastures are being improved, more winter feed produced, and better management followed. Last summer and fall more calves and yearlings were shipped back for the replenishment of flocks than in many years.

There is a marked improvement in the quality of the feeder cattle shipped from our mountains and our market lambs are becoming better and better. In **Beef Cattle**

Now we are finding more interest in beef cattle through the Piedmont and Coastal Plains areas of our State. Low prices for cotton and other cash crops and the production of more soil conserving crops are the two main factors responsible for this increased interest. Some farmers and the whole others are fattening of cattle. This past fall the demand for cattle was so much greater than the supply that our farmers were forced to ship in females from the west. Several car loads of Hereford heifers were shipped in from Texas, Nebraska and several other States west of here. Many of our Coastal Plains counties received a number of these heifers, and we look for many good commercial herds to develop from them.

More pastures and feed crops are needed. Farmers who have cattle now or who are planning on purchasing more are already giving their attention at this time to the improvement of new pasture and the introduction of old ones. They realize that good pastures are the foundation of practical and profitable production of cattle, sheep and other farm animals. Our better farmers are showing that pastures are crops and should be treated as such. Land for pastures is being built in and prepared, fertilized and seeded with just as much careful thought and judgment as for any other crop. Adaptable seed of a variety of grasses and legumes are being sown at this season of the year and the wise farmer is being careful to have plenty of seed in hand.

Annual grazing crops are important in the production of livestock. Plans should be made now for the seeding of crops such as soybeans, sudan grass, lespedeza and other annual summer crops that may be used as supplementary grazing crops for sheep and cattle. In cases where permanent pastures are being developed, crops are good insurance against drought. If they are not needed for grazing, these crops may be harvested for hay or seed.

planned to be made from the following points this year: Tarboro in Edgecombe county; Shawboro in Currituck county; Plymouth in Onslow county; and from Albemarle, Ashe, Wayne and Johnston counties can be made for shipping lambs from other points if there is sufficient interest. Farmers who should get in touch with their county agents. They should also do everything possible to make their lambs as good as possible and have them for an early market.

In the production of lambs of the better grades, good breeding, good feeding, and good management are all important. Lambs should be trimmed better. Meat packers usually and weather lambs that are from farm lambs. Lambs should be fat on ground corn or other concentrated feed. In order to have plenty of milk of course the ewes must be fed for milk production. Plenty of green feed over crops are extremely important in producing good lambs. Many of our best lambs, good Eastern North Carolina are produced on cow or legumes.

M. C. HEREFORD ASSOCIATION TO MEET SEPT. 4TH

Annual Gathering Will
Be Held On Farm In
Henderson County

L. I. Case, extension animal husbandman of N. C. State college, Raleigh, has announced that the annual meeting of the North Carolina Hereford Cattle Breeders' association will be held in Hendersonville, September 4.

The meeting will take place on the J. Z. Cleveland farm. The miles northwest of Hendersonville on Highway No. 101.

Mr. Case said the program includes the election of officers for the year, a report on the progress from out-of-state callenmen interested in establishing good herds in North Carolina, and discussions of the Hereford breed's future.

The business meeting will be held in a school auditorium located near the Cleveland place. Following the meeting, the group will go to the Hendersonville Hotel where the hosts will be lined up for a thorough inspection. Lunch will be served on the grounds.

"Since the annual meeting last September," Mr. Case said, "there has been an unbelievable increase both in demand and price for Hereford cattle. For that reason, officers of the association are asking every member to be present at the September session so that the membership keeps abreast of developments."

N. C. Farm Youths Score Big Success In 4-H Baby Beef

Great progress has been made since 4-H Baby Beef Club work was started in North Carolina in 1935, reports L. I. Case, Extension animal husbandman of N. C. State College. Farm boys are learning better breeding, feeding and management of beef cattle, and adult farmers are, in turn, learning from the 4-H members.

Case said that the first 4-H Baby Beef Show and Sale held six years ago attracted only one steer that graded choice. In the four shows and sales held this fall, 85 steers graded U. S. Choice.

The four fall shows and sales were held at the Western North Carolina Fair in Hendersonville, at the Catawba Fair in Hickory, at the State Fair in Raleigh, and at the Southern States Fair in Charlotte. One hundred and seventy-six steers went through the sale rings at these events, and several of the calves were shown at two or more of the fairs.

These 176 head of cattle represented 146,117 pounds of beef on the hoof, which sold for \$21,831.92, or a very satisfactory average of \$14.94 per hundredweight. The average price, excluding the champions, was \$14.45 per cwt.

The 85 steers grading U. S. Choice averaged \$16.56; the 66 grading U. S. Good averaged \$13.41; and the 25 grading U. S. Medium averaged \$12.25 per cwt.

Spring baby beef shows for Eastern North Carolina club members will be held at Rocky Mount March 12 and 13, and at Kinston at a date not yet selected. Case said 4-H Club members should keep in touch with their county farm agents, and assistant agents, so that they will know when to have their steers ready for these shows. Swine also will be exhibited at each of the Eastern North Carolina shows.

BEEF-CATTLE GAIN NEW IMPORTANCE

Various State Fairs Offer
Many Cash Prizes For
Exhibit Divisions

COLLEGE STATION, Sept. 28.—Growing importance of beef-cattle in North Carolina is fully recognized in North Carolina is fully recognized animal husbandman of N. C. State college, reported yesterday.

Three important fairs to be held next month and one now going on have sizeable cash premiums for the exhibitors of baby beefs, the State college man said.

The Western North Carolina Agricultural and Industrial fair, which closes at Hendersonville Saturday, is offering \$350 on individual calves. There are also five premiums of \$30, \$25, \$20, \$15, and \$10 on county groups of five head.

The Catawba fair, scheduled for Oct. 6-11, is offering \$200 in premiums by grade on individual steers, \$10 on the grand champion steer, and four premiums on county groups of three steers as follows: first, \$15; second, \$10; third, \$7.50; and fourth, \$5.

The 4-H baby beef classification at the annual State fair in Raleigh, Oct. 14-18, will be much the same as in 1940. The first 10 premiums in the lightweight class follow: \$12, \$12, \$12, \$10, \$10, \$10, \$8, \$8, \$6, \$6. Eleventh to 20th place awards are based on slaughter grade with \$5 for choice and \$3 for good. The medium and heavyweight classes are the same as the lightweight except that prizes on choice and good steers extend down to 25th place. There are 10 prizes on county groups of three steers ranging from a top of \$40 down to \$20.

Interest In Sheep Is High In State

A demand, far exceeding the supply, for commercial ewes and registered rams is indicative of a very definite increase in the interest in sheep throughout North Carolina, reports L. I. Case, Extension animal husbandman of N. C. State College. Response to the interest, in the form of importations of Western ewes and rams, has been suggested to county farm agents by the Extension specialist.

Case said that Kentucky, one of the major lamb-producing states, is now buying about 80 per cent of her ewe stock. Tennessee and Virginia are also increasing purchases of breeding sheep.

County agents are compiling lists of farmers who are interested in buying Western ewes, and registered rams from either Western North Carolina or neighboring States. "We think we can buy Western ewes for around \$10.50 for yearlings and \$6.50 for lambs, delivered," Case said.

The ewes are mainly coming in to the Southeast from the Northwest, and are Hampshire-Rambouillet cross-breds. They will weigh about 75 pounds at the unloading point. They are plain in appearance but will develop nicely under good care and will shear about 8 pounds of high quality wool. They are practically parasite free. When they are bred as yearlings they will usually bring from 90 to 100 percent lamb chops. After the first year the ewes bought by Kentucky sheep men have averaged about 130 percent lamb crops.

Case also reported to county agents the sources of registered rams available at this time. He suggested that farmers interested in increasing or entering the sheep-raising business should contact their farm agent immediately. Several Eastern North Carolina bankers have shown interest in financing the importations of Western ewes.

16 Counties To Have Co-Op Lamb Markets

L. L. I. Case, Extension animal husbandman of N. C. State College, says lamb grading and co-operative lamb marketing will be conducted this year in 16 North Carolina counties. He invites farmers who are interested in this improved method of selling livestock to contact their county agents.

The counties where the co-op sales will originate are: Camden, Chowan, Pasquotank, Washington, Hyde, Tyrrell, Martin, Edgecombe, Pitt, Wilson, and Onslow in the East; and Alleghany, Ashe, Watauga, Mitchell and Buncombe in the West.

Case suggests that farmers in these and nearby counties avail themselves of the opportunity to market their lambs at higher prices, and on a graded basis whereby they may learn from others how they rate as producers of quality sheep.

The Extension specialist strongly urges that lambs be trimmed when they are one to two weeks old. "The trimmed lamb," he says carries a better covering of flesh, a higher percentage of hind-quarter, and is more highly desired by packer, retailer, and consumer.

"In fact," he continued, "the packers usually pay \$1 moer per hundredweight for trimmed lambs than for rams. This is sufficient

justification for offering only wether and ewe lambs on the market."

Another suggestion by the animal husbandman is that the ewes be in a strong condition at lambing time, which is in progress in the State. "At this time give the ewes all the green feed, legume hay and water they want," he said. "The lamb crop is the sheepman's harvest, and it pays to save as high a per centage as possible and to grow and fatten them rapidly up to marketing time."

Coastal Plain Stock Show Is Good; Steer and Swine Exhibit'n

Gets Compliments From Experts—Greene County Man Has Best Hog, Spring Hope Lad Best Baby Beef—Exhibitors From Distant Points—Sale to Be Last Event at Warehouse

Experts on livestock gathered at Hotel Kinston Thursday night said Kinston's first fat stock show—the first annual Coastal Plain Fat Stock Show—was a "remarkable"

exhibition. L. I. Case, extension man at State College, said it was remarkable for the large number of entries and the quality of the beef cattle and hogs displayed. It had to be remembered, he said, that a year ago there were very few heeves in the section.

In the show, according to John Fox, associated with Frank Jeter, agricultural editor at the college, were 63 steers and 246 hogs.

W. D. Cobb, of Greene County, came through a winner. He never fails to win in a stock show in this part of North Carolina. He had the grand champion pen of Durocs and the grand champion individual among the hogs, a cross, Poland China and Duroc.

Woodrow Warren, Spring Hope, Nash County, 4-H club boy, had the grand champion steer. His Aberdeen Angus, "Blackie," was a healthy baby beef indeed, weighing 970 pounds.

The show got under way in the Knott tobacco warehouse Thursday afternoon. It will end Friday afternoon with a sale. On hand for the sale were representatives of large packing companies, chain store companies and other encouragers of more and better livestock, ready to pay premium prices. What was a coal and iron company man doing at the stock show? Well, the company owns 1,400 horses and mules, has many thousand employees, and grazing and meat are important to it.

On hand were Case, Ellis Vestal, Sam Williams and H. W. "Pop" Taylor from State College, beef cattle and hog experts; Paul Swaffar, Virginia Polytechnic Institute; Pete Swaffar, Savannah, employed by the Atlantic Coast Line Railroad Company; Joe Sugg, Rocky Mount, another "Coast Line" man; Paul Fletcher, State Department of Agriculture marketing specialist, and others. The Swaffars, brothers, were in charge of the judging.

Ruby Galloway, Walstonburg 4-H club girl, had the reserve champion pig; Delmon Williamson, Lucama, the reserve champion steer; W. A. Humphrey, Kinston, RFD, the reserve champion pen of hogs; J. C. Johnston, Four Oaks, the best medium weight steer; Ben Moore, Kennedy Memorial Home, Kinston, the best lightweight steer; M. Pate & Sons, Robeson County, the best group of three steers, with Herman McLawhorn, Winterville, taking second and third prizes and J. A. Speight, Windsor, fourth.

Stallions Require Adequate Exercise

Lack of exercise ruins more stallions for breeding purposes than any other cause, says Sam L. Williams, assistant extension animal husbandman of N. C. State College.

The best way to exercise these animals is to work them. However, if this is impossible, they should be led, driven, or ridden at least three miles each day. In addition, they should have long paddocks seeded to some good permanent or temporary pasture into which they can come and go at will.

Williams said a recent development in horse breeding has been the wide adoption of the trailer in transporting stallions and jacks dur-

ing the breeding season. This plan is particularly recommended in counties or communities where the maximum number of mares are not serviced.

Stallions and jacks should be kept in a thrifty condition, not being allowed to become either overfat or run down at any time, the State College specialist said. They should be fed at the rate of about 2-3 pound of grain per 100 pounds liveweight when not in service. This amount should be increased to 1 1-4 pounds per 100 during the breeding season.

These breeding animals standing for public service should be purebred, sound, and of good type and quality. The most essential points of conformation are: a straight strong back, closely coupled and well-muscled over the loin; a long level rump; and a deep body with well-sprung ribs to allow ample room for lung development.

BEEF CATTLE REQUIRE PROTEIN SUPPLEMENT

Sam L. Williams, assistant extension animal husbandman of the N. C. State College, has an answer to the question: "Can beef be produced without a protein supplement?"

This is what he has been telling beef cattle breeders and feeders who have asked the question in recent weeks: "In my opinion it can be done, but it is neither practical nor profitable."

Then he goes on to explain that the important thing to the cattle producer is how much weight and finish he can put on his cattle and how long it will require. Efficient production is essential to greatest profit in any business, and this is especially true in the cattle business.

Some of the more common protein supplements are: cottonseed meal, soybean meal, linseed meal, and corn gluten meal. All of these are about equal in feeding value.

Williams explained that the economy of feeding a protein supplement lies in the fact that such feeds are responsible for more efficient utilization of feed, larger gains, higher finish, and a greater selling price.

Numerous experiment stations have shown that a protein supplement in fattening and breeding cattle rations will save on both corn and silage. Then, too, it has the added advantage of producing a superior quality of beef.

As to the amount of this material to feed, the State College specialist said that ordinarily in winter rations for beef cattle from one to two pounds of a protein supplement is satisfactory if a fair quality of roughage is fed.

SHEEP GROWERS BODY TO MEET ON SATURDAY

WEST JEFFERSON, March 31. (Special)—The first annual meeting of the Ashe County Sheep Growers association will be held on Saturday afternoon, April 5, at 2 o'clock in the courthouse, H. D. Quessenberry, secretary, announced yesterday.

At the annual meeting, directors and officers will be elected, financial reports of the insurance program and complete reports of the dipping vat will be given.

"Our year ends on April 1 and all township directors are urged to send in immediately full information about any losses in their township," Mr. Quessenberry stated.

L. I. Case, of the extension service, plans to attend the meeting and discuss the outlook for sheep growers.

W. B. Austin is president of the sheep growers association and Bob Phipps is treasurer. It was one of the first organizations of its kind in this section of the South. Its membership numbers over 100.

Clinics For Horses And Mules Will Be Repeated This Winter

Physical Check-ups For Farm Animals To Be Repeated At State College, Specialist Says

The "Dobbins" and "Mauds," faithful horses and mules of rural North Carolina, will receive physical check-ups this winter, according to plans announced by Sam L. Williams, assistant extension animal husbandman of N. C. State College.

Williams said that horse and mule clinics, operated successfully in 24 counties last December, January and February, will be repeated this winter. The 1940-41 clinics resulted in 1,182 head of work-stock being examined for 623 farmers by Federal-State and local veterinarians, who cooperated with farm agents and the extension animal husbandry office in offering the service to horse and mule owners.

"We feel that the first clinics, held last winter, were very valuable in improving the health of work stock in North Carolina," Williams declared. "Records were kept on all horses and mules receiving treatment at the clinics. Of the 2,152 examined, 1,521 were found to be suffering from internal parasites.

"Within 60 to 90 days after the clinics were completed," the extension specialist continued, "we sent questionnaires to all 623 farmers who had animals treated. About 58 per cent of the farmers returned the questionnaire and indicated that results were very satisfactory. They were asked such questions as: Did the animals' appetite improve after treatment? Is the animal in better flesh? Has the general condition of the animal improved? Are you interested in having animals treated next year?"

The following services are offered at the clinics: (1) free examination of all horses and mules brought in; (2) internal parasite treatment, where necessary; (3) floating and pulling teeth, where needed; (4) advice on other ailments and injuries; and (5) advice on feeding and management.

The average charges for internal parasite treatment and floating teeth were: 1 to 10 animals, \$1 each; 10 to 20 animals, 75 cents each; and 20 or more animals, 60 cents each. Where additional dental work or other treatments were administered, additional charges were made by the veterinarians.

In pointing out the importance of

the clinics, Williams said: "The value of horses and mules on North Carolina farms is twice as great as that of all cattle and calves, and five times as great as the value of all hogs and sheep. The latest United States Department of Agriculture estimates on work stock indicated that North Carolina had on its farms 71,000 horses and 305,000 mules.

"About one-fifteenth of the horses and one-eighteenth of the mules die annually, from such causes as improper feeding and management, internal parasites, and old age. To replace the numbers which die under present conditions, it is necessary that 20,000 to 25,000 head of work stock be bought or bred annually."

The animal husbandman said that plans are being made by the extension service and the N. C. State Department of Agriculture to extend the clinics to a number of counties which did not cooperate last year. Several county farm agents who organized clinics last year are planning to offer the service again in 1941-42. Williams said that it is hoped to extend the service on a state-wide basis within a few years.

The counties which cooperated last winter, and the number of horses and mules treated in each are: Bertie, 294; Bladen, 42; Carteret, 80; Craven, 56; Currituck, 56; Franklin, 39; Gates, 29; Harnett, 37; Hoke, 45; Iredell, 15; Jones, 32; Lenoir, 89; Moore, 151; Mecklenburg, 40; New Hanover, 42; Onslow, 12; Pamlico, 35; Perquimans, 36; Richmond, 25; Sampson, 58; Tyrrell, 45; Union, 42; Washington, 31; and Wake, 131.

The veterinarians who cooperated included: Dr. J. W. Tedder, in Bertie, Gates, and Perquimans; Dr. A. J. Osteen, in Bertie, Tyrrell, and Washington; Dr. J. I. Weeks, in Bladen and Sampson; Dr. B. E. Moore, in Carteret, Craven, Onslow, and Pamlico; Dr. I. Victor Finch, in Currituck; Dr. W. R. Bass, in Franklin; Major V. B. Wright, in Harnett and Hoke; Dr. O. C. Lynch, in Iredell; Dr. N. B. Moore, in Jones and Lenoir; Dr. J. I. Neal, in Moore; Dr. R. H. Parker and Dr. I. T. Lewis, in Mecklenburg; Dr. R. P. Hofmann, in New Hanover; Dr. H. J. Rollins, in Richmond; Dr. R. B. Staton and Dr. S. A. Alexander, in Union; and Dr. L. F. Koonce, Dr. William Moore, Jr., and Dr. W. T. Scarborough, in

Wake.