

AGRICULTURAL EXTENSION SERVICE

State of NORTH CAROLINA

19 39

Period covered December 1, 19 38 to November 30, 19 39

Name of project: ANIMAL HUSBANDRY

Covering work done by L. I. CASE (full time)

Sam L. Williams (Three months)

Percentage of time devoted to project: Full time - L. I. Case
Three Months - June, July and August 1939 -
Sam L. Williams

Date submitted: 2-7, 19 40. Signed: L. I. Case
Project Leader

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

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

1939

Mr. 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:		4.0					
(1) Home demonstration agents.....							
(2) 4-H Club agents.....		83	58		71	12	214
(3) Agricultural agents.....		1482.6	301.1		395.6	27.9	
(4) Specialists.....		59	26	40.3	22.3		
215. Number of communities in which work was conducted.....		93	58		70	12	215
216. Number of voluntary local leaders or committeemen assisting.....		46	21	24.9	28	2	216
217. Days of assistance rendered by voluntary leaders or committeemen.....		275	21	84	23	2	217
218. Number of adult result demonstrations conducted.....		46	21	82.0	17.5	4	218
219. Number of meetings at result demonstrations.....		50	28		15	7	219
220. Number of method-demonstration meetings held.....		26	10	11.2	8	22	220
221. Number of other meetings held.....		40	20	15	13	1	221
222. Number of news stories published.....		171	54		35	4	222
223. Number of different circular letters issued.....		44	14		17	4	223
224. Number of farm or home visits made.....		140	34		47	5	224
225. Number of office calls received.....		66	29	62	36	1	225
226. Number of 4-H Club members enrolled.....		288	29	67	21	9	226
(1) Boys.....		41	114	53	67	40	227
(2) Girls.....		91	502.9	884	1399	19	228
229. Number of farmers assisted in obtaining purebred sires.....		28	67		64	10	229
230. Number of farmers assisted in obtaining high-grade or purebred females.....		6192	1089		2240	127	230
231. Number of bull, boar, ram, or stallion circles or clubs organized or assisted.....		38	13	18	14	1	231
232. Number of members in preceding circles or clubs.....		6	233		1	29	232
233. Number of herd or flock-improvement associations organized or assisted.....		36	17	10	13	3	233
234. Number of farmers assisted in obtaining purebred sires.....		3	164	12	1	21	234
235. Number of farmers assisted in obtaining high-grade or purebred females.....		36	9	10	13	1	235
236. Number of families assisted in home butchering, meat cutting, and curing.....		77	218	136	24	31	236
237. Number of families assisted in butter and cheese making.....		70	351	99	32	43	237
238. Number of members in these associations.....		7	936	130	9	255	238
239. Number of farmers following parasite-control recommendations.....		7	19	1	9	12	239
240. Number of farmers following disease-control recommendations.....		5	610	10	9	466	240
241. Number of farmers assisted in using timely economic information as a basis for readjusting enterprise.....		3	3	2			241
242. Number of members in these associations.....		3	44	2			242
243. Number of farmers not in associations keeping performance records of animals.....		13	46	10	7	19	243
244. Number of families assisted in home butchering, meat cutting, and curing.....		13	69	5	xxxx		244
245. Number of families assisted in butter and cheese making.....		xxxx	xxxx	xxxx	xxxx	xxxx	245
246. Number of farmers following parasite-control recommendations.....		23	38	442	15	352	246
247. Number of farmers following disease-control recommendations.....		31	179	19	16	416	247
248. Number of farmers following marketing recommendations.....		46	232	30	9	112	248
249. Number of farmers assisted in using timely economic information as a basis for readjusting enterprise.....		34	616	861	20	645	249
250. Number of farmers assisted in using timely economic information as a basis for readjusting enterprise.....		3545	374				250

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

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.....						
(2) 4-H Club agents.....						244
(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.....	(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.....	(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
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:						
(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.....						270
(d) By making own repairs of buildings and machinery.....						

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

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					
(1) Home demonstration agents.....		4.0					
(2) 4-H Club agents.....		93	58		73	17	214
(3) Agricultural agents.....		1472.1	501.1		434.1	40.9	
(4) Specialists.....		57	26		12	22.3	
215. Number of communities in which work was conducted.		83	48		72	16	215
216. Number of voluntary local leaders or committeemen assisting.....		64	249		609	90	
217. Days of assistance rendered by voluntary leaders or committeemen.....		46	276	84	258	24	216
218. Number of adult result demonstrations conducted.....		46	501.5	82.0	217.5	25.0	217
219. Number of meetings at result demonstrations.....		51	272	112	169	13	218
220. Number of method-demonstration meetings held.....		27	10	15	25		219
221. Number of other meetings held.....		44	171	54	37	1	220
222. Number of news stories published.....		66	141	34	52	6	221
223. Number of different circular letters issued.....		42	287	62	96	2	222
224. Number of farm or home visits made.....		31	117	67	71	12	223
225. Number of office calls received.....		58	5042	984	1476	115	224
226. Number of 4-H Club members enrolled.....		58	6204	1087	2274	157	225
(1) Boys.....		6	233	18	1	8	
(2) Girls.....		56	17		14	2	226
227. Number of 4-H Club members completing.....		5	166	12	24	4	227
(1) Boys.....		36	9		1		
(2) Girls.....		77	218	10	34	7	228
228. Number of animals in projects conducted by 4-H Club members completing.....		70	352	23	46	12	229
229. Number of farmers assisted in obtaining purebred sires.....		7	927	130	270	3	230
230. Number of farmers assisted in obtaining high-grade or purebred females.....		7	19	1	12	4	231
231. Number of bull, boar, ram, or stallion circles or clubs organized or assisted.....		3	610	10	466	63	232
232. Number of members in preceding circles or clubs.....		3	3	2			233
233. Number of herd or flock-improvement associations organized or assisted.....		15	44	26			234
234. Number of members in these associations.....		14	46	10	19		235
235. Number of farmers not in associations keeping performance records of animals.....		14	82	5		22	236
236. Number of families assisted in home butchering, meat cutting, and curing.....		14	82	5		22	236
237. Number of families assisted in butter and cheese making.....		14	82	5		22	236
238. Number of farmers following parasite-control recommendations.....		23	179	42	17	3	237
239. Number of farmers following disease-control recommendations.....		31	179	127	18	2	238
240. Number of farmers following marketing recommendations.....		40	653	84	470	8	239
241. Number of farmers assisted in using timely economic information as a basis for readjusting enterprise.....		39	3546	374	112	7	240
					703	10	241

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

1939
ANNUAL REPORT
OF
EXTENSION WORK IN ANIMAL HUSBANDRY
IN
NORTH CAROLINA

By: L. I. Case,
EXTENSION ANIMAL HUSBANDMAN

TABLE OF CONTENTS

	Page
Introduction	1
Beef Cattle Projects	2
Beef Bull Placement	2
Breeding Herds Established	4
Feeds and Feeding	4
Fattening Cattle For Market	5
Management	5
Cattle Feeding Record	14
Beef Calf 4-H Club Work	16
Report of Awards and Sale 4-H Club Steers - Asheville	18
Report of Awards and Sale of 4-H Fat Steers - North Carolina State Fair 1939	21
Sheep Projects	24
Farm Flock Records	24
Ram Placements	27
Parasite and Disease Control	27
Docking and Castrating Lambs	27
Marketing	28
Summary of All Cooperative Lamb Sales 1939	29
Wool Sales	29
Shearing Schools	30
Miscellaneous Activities	31
Farm Tours	31
Lamb Grading School	31

Table of Contents Cont'd.

	Page
North Carolina Hereford Cattle Breeder's Association	32
Judging	33
Out of State Educational Trips	33
Statistical Summary (from county agents reports)	35
1939 Statistical Summary (from specialist reports)	36
Outlook	37
Circular Letters	
News Articles	

INTRODUCTION

The increased interest in livestock both as to numbers and quality that existed in 1938 continued through 1939 unabated. This interest covered beef cattle, workstock and sheep but was especially true of beef cattle. More good bulls were added to already existing herds and more new breeding herds were established than ever before in the history of the farming industry of North Carolina.

Increases in numbers was greater in the Coastal Plains and Tide Water sections of the state than elsewhere. Several factors were responsible for this. There were already large areas of native grazing and many tons of farm roughages not being utilized. The Agricultural Adjustment Administration and Soil Conservation Program are tending more and more to reduce cash crops thus releasing many, many acres for feed crops. Cotton growers feel that the boll weevil and declining market outlets will further reduce the acreage of this crop in North Carolina. The tendency for tobacco to be limited in acreage and also the growing of this crop to be gradually moving southward, are both causing farmers to look for supplementary enterprises that will bring in some revenue. The fact that cattle prices have been higher than most other farm commodities has also been a strong influence towards increased production.

It is believed that it can be truthfully said that increased interest in quality improvement in all classes of livestock has been largely brought about by the educational programs of The Agricultural Extension

Service and allied organizations. Four H Club work with beef calves, colts and sheep, community, county, regional and state shows where animals have been fed, fitted and shown by both juniors and adults; farm tours, grading demonstrations, meetings on livestock farms and in feed lots, herd and flock management demonstrations, out of state tours to good stock farms and leading shows and fairs have all had a constructive influence in creating interest in, a desire for, and the acquisition of breeding stock that more nearly approach the ideal as measured by economy of production and market demands.

I BEEF CATTLE PROJECTS

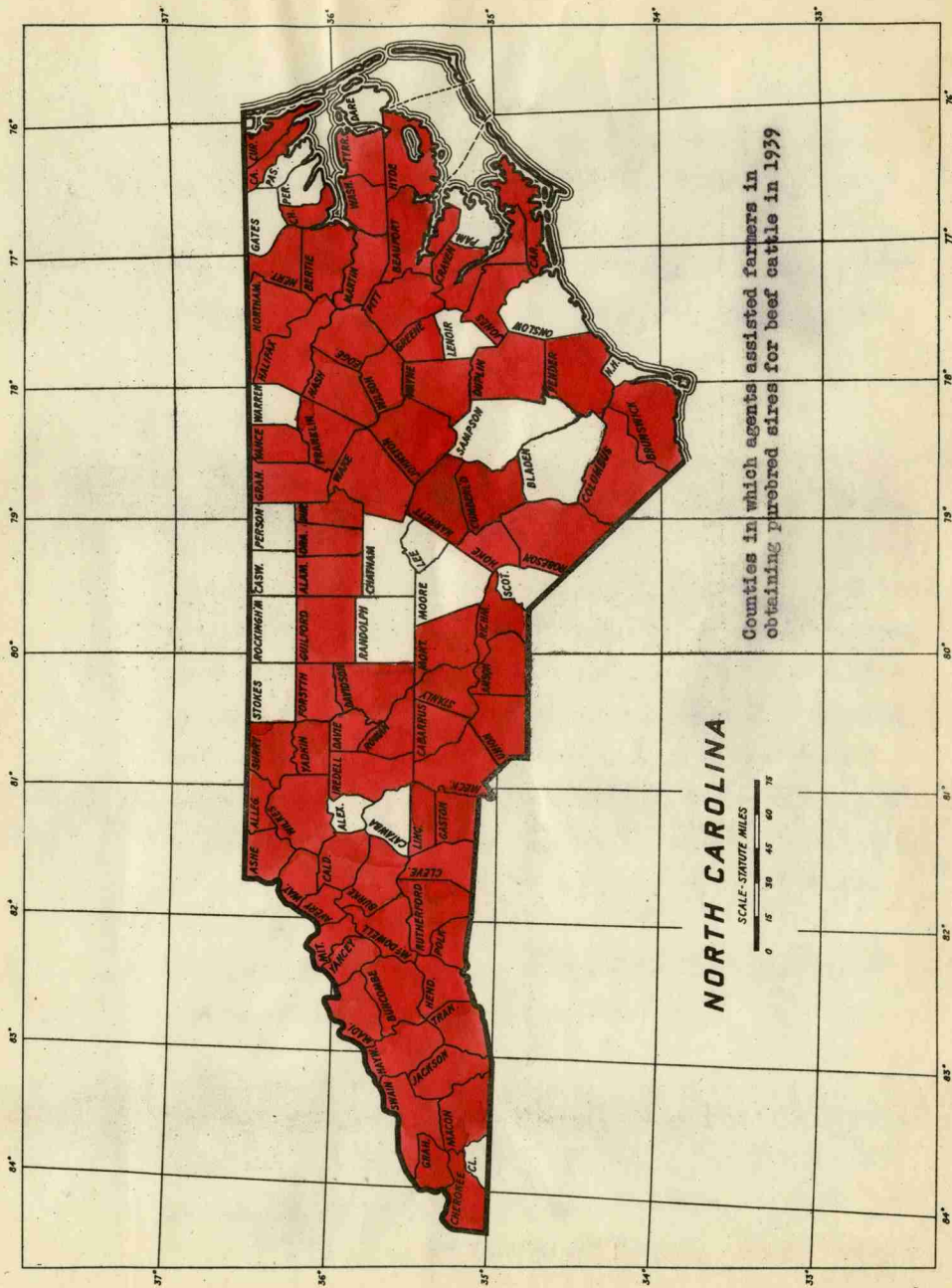
A. Beef Bull Placement

The type and quality of beef type bulls in service in breeding herds throughout the state largely determines the quality of the cattle being raised. For this reason especial emphasis has been placed upon the replacing of common and mediocre bulls with good type purebreds. The problem of beef bull replacement was attacked:

1. By having each county agent, where possible, include this type of work in his plan for the year. Each agent made definite plans and set up a definite goal for the placing of purebred beef bulls in his county during the year.

2. By using all the means at hand for making cattle men quality conscious and making them realize that the kind of herd bull they used was largely responsible for the kind of calves raised. (a) News articles. County agents in 66 counties used a total of 288 news stories relative to better bulls and better breeding generally in 1939. (b) Circular letters. A total of 114 circular letters were used by 41 county

agents in calling attention to beef cattle improvement through improved breeding. (c) Meetings. One hundred and forty meetings were held in 44 counties. (d) Farm visits. More than five thousand farm and home visits were made by 91 county agents in that many counties, in connection with beef cattle improvement. (e) Judging contests and judging demonstrations. Two judging contests were held in connection with livestock shows for 4-H Club members during the year. In addition several small county or community judging contests were conducted for 4-H Club members in some cases and for adults in others. Every opportunity possible was used for putting on judging demonstrations in the field. (f) Fairs and exhibitions. Three state or regional exhibitions of beef cattle and numerous community and county shows were held during the year. (g) Out of state trips. Through the efforts of Extension workers several out of state trips were made with farmers and stock men for the purpose of visiting good herds of cattle or attending shows. It is believed that such trips are extremely valuable as it gives our farmers a chance to see what others are doing in other parts of the country and compare his cattle with theirs. Twenty-six stock men from Eastern North Carolina went on a four-day tour into the Blackbelt of Alabama. Sixty-three farmers from one western county made a two-day tour into Southwest Virginia where they visited several good herds of cattle and other things of interest. Numerous trips into Southwest Virginia and East Tennessee were made by small groups of farmers in several mountain counties. About twenty cattle men attended the International Stock Show at Chicago.



3. Selection and purchase of bulls. A large majority of the beef bulls placed during the year were individually selected by the county agents or animal husbandry specialist.

Beef bull placements planned for 1939 were 154. The actual number placed was 351. This accomplishment reflects the increased interest in better type beef bulls in North Carolina.

B. Breeding Herds Established

One of the most serious handicaps in the general improvement of cattle throughout the state is the inadequate supply of good type beef bulls. Out of a large number of purebred herds scattered around the state there are only a few herds that can be designated as first class. It is thought important that our purebred herds be improved in order that the general run of bulls being sold to farmers be raised in standard. With this end in view considerable time and effort has been devoted to our purebred cattle owners. This is especially true in regard to those who show promise of becoming good constructive breeders. The standard of at least 25 already established purebred herds has been raised during the year by the addition of breeding stock that was an improvement over the then present herd.

During the year 936 farmers in 70 counties were assisted in obtaining purebred and high grade females of the beef breed.⁵

C. Feeds and Feeding

Much emphasis was placed on the proper feeding of breeding cattle as well as cattle being fattened for the market. Realizing that good pastures are the foundation of the industry more and more work was done on the establishment of new pastures and the improvement of old ones.

Countries in which agents assisted farmers in obtaining high grade or purebred females for beef cattle in 1939

NORTH CAROLINA



Emphasis was also placed on the production of annual grazing crops, both winter and summer, for cattle feed. Both pasture work, winter cover crops and the growing of feed crops generally will be covered in detail in the Agronomy report.

The following circulars were prepared during 1939 and the same mailed to county agents and cattle men, especially beginners with breeding herds: "Feeding And Management Of The Beef Herd"; "Suggestions For The Feeding, Care, And Management Of Newly Acquired Cattle"; "To Beef Cattle Breeders In Eastern North Carolina."

D. Fattening Cattle For Market

Approximately two thousand head of cattle were fattened for the market in the state in 1939. About the same number were placed in the feed lots in the fall of 1939 to be fattened for the winter and spring market of 1940. Records were secured on 768 head of cattle which number made a profit including manure, of \$16,016.34, or an average of \$28.54 per head. A sample of one of the records follows.

E. Management

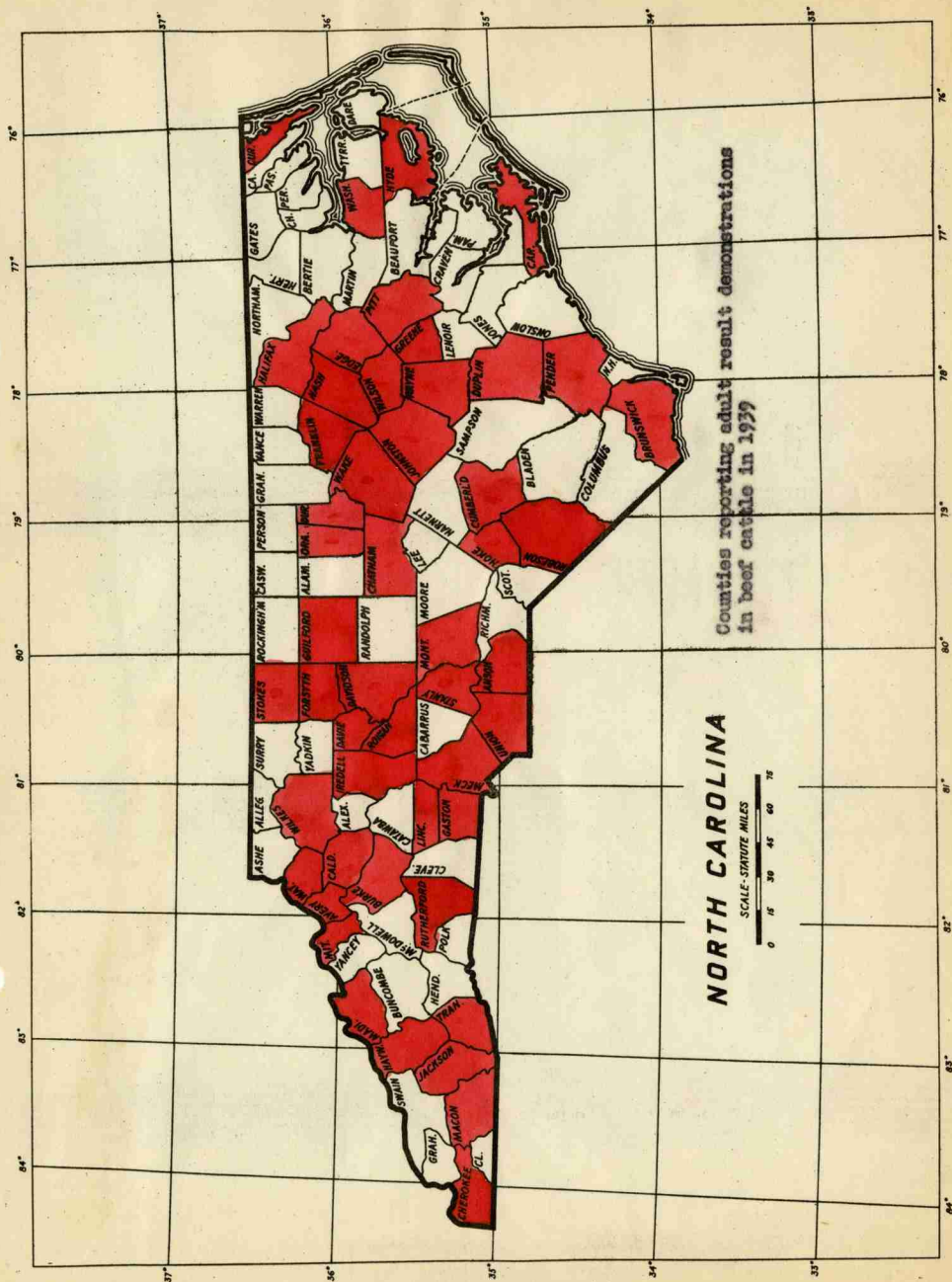
Improvement in managerial practices were taught mainly by means of Herd Management Demonstrations. This project consists of the selection of farms where beef cattle are kept and working closely with the owner or manager. One hundred and twenty-two Herd Management Demonstrations were conducted during the year and some of the things emphasized were:

1. Controlled breeding. (a) To have calves dropped in the spring of the year within a limited period. (b) Prevent heifers from getting bred too young.

2. Dehorning and castration of calves at the proper age and using up to date methods.

3. Adequate shelter and ample bedding to conserve feed and manure.

During the year 288 Herd Management Demonstrations were conducted in 50 counties. Sixty-four meetings were held at these demonstrations in 26 counties and the county agents visited them frequently. These demonstration herds were also visited by the specialist as often as was practical.



FEEDING AND MANAGEMENT OF THE BEEF HERD

On the well managed farm beef cows are generally bred in the late spring or early summer in order that they may calve at the proper time. In Eastern North Carolina under average conditions the bull is allowed to run with the cow herd during May, June and July, and the calves arrive in February, March and April the following year. During the remainder of the year the bull is kept in a small strongly fenced pasture, or lot either by himself or with a bred cow for company. This same procedure, with perhaps some variations to suit local conditions, is followed in Piedmont and Western North Carolina.

There are several advantages for having the calves come at this time of the year. Dry cows can be much more easily and cheaply wintered than cows nursing calves. Winter and early spring calves usually grow off faster and make better animals than calves dropped in the summer and fall. Calves dropped close together in the spring of the year can all be weaned at the same time. Their uniform ages makes it possible to pasture, house and feed them together.

Winter Feeding and Care of Calves. Beef calves are generally weaned at about eight months of age. Unless the herd is running on excellent pasture it is often practical to have the calves eating some grain before they are weaned. This prevents a set-back that might otherwise occur before or at weaning time.

The first year, and especially the first winter, it is a critical period in the calf's life. If it is to be fattened for the market at an early age it should, where practical, be started on grain when two or three months old and never be allowed to lose its calf fat. On the other hand in the case of the heifer calf that is to be kept for breeding purposes, or steer calves to be carried over, one is more interested in proper growth than degree of fatness. Unless the mother is a poor milker the calf will usually do nicely running on good pasture with her until about weaning time. As previously stated, where is it practical to do so, it is well to have the calf on some supplementary feed prior to weaning. When this is impractical, feeding should by all means start at weaning time and be continued until pasture has made a good start the following spring. An average beef calf dropped in February or March should weigh about 400 pounds at weaning time. He should be wintered in such a way that he will gain from 60 to 75 pounds.

SUGGESTIONS FOR THE FEEDING, CARE, AND MANAGEMENT OF NEWLY ACQUIRED CATTLE.

Much of the trouble that often accompany cattle that are shipped in from a distance can be prevented by careful feeding, care, and management. It is well to remember that very often there is a wide change in environment and cattle need more careful attention for the first few months than at any other time. Ample feed of good quality will go a long way toward helping them to become acclimatized.

Feed and water upon arrival should be limited. First only allow cattle a small amount of water then more an hour or two later. Feed only roughage at first. A non-leguminous roughage such as grass hay or corn stover is the safest feed to start with. After they have had a good fill, a gradual change can be made to a legume hay and grain or other concentrated feed.

When strange cattle first arrive on the farm they should be isolated from other cattle until it is certain they are not carriers of any infectious disease.

Two common diseases often affecting cattle that are shipped in are described briefly in the following paragraphs.

Hemorrhagic Septicaemia (Shipping Fever) is a disease caused by a microorganism which is widely distributed in nature. Outbreaks of the disease often occur when animals are devitalized from exposure in shipment or otherwise. Hence the name shipping fever is often applied. As a precautionary measure cattle are often treated either before or after shipment. (See U. S. Department of Agriculture Farmers' Bulletin No. 1018). However good care and management will often prevent occurrence of the disease.

Pink Eye or kerratitis is more common in the west than south. The first symptoms are the flow of tears from one or both eyes. Then the eye becomes a grayish or milky white. The disease spreads rapidly and the affected cattle show signs of intense pain and lose weight very rapidly. If caught in its early stages this disease is not hard to control.

Treatment: Isolate the affected animals so as to prevent the spread of the disease as much as possible.

Bath the affected eyes, gently, with a saturated solution of common salt, a saturated solution of boric acid or a 10% Argylol Solution. Gently pull the lower eyelid out filling it with the solution. Repeat this treatment daily until a remedy is effected.

Put affected animals on a light diet and where possible keep them in a darkened barn that is free from drafts.

In stubborn cases where eye becomes intensely inflamed and swollen call the local practicing veterinarian.

For general suggestions see Extension Circular entitled "Feeding and Management of the Beef Herd."

Suggested Daily Wintering Rations.

For 400 Pound Calves

1
Corn Silage 12 pounds
Legume Hay 5 "
Corn Stover at will

2
Legume Hay 5 pounds
Corn Stover 5 "
Corn & Cob Meal 1.5 "
Cottonseed Meal .5 "

3
Corn Silage 12 pounds
Mixed Hay 4 " "
Cottonseed Meal 1 "

4
Mixed Hay 10 pounds
Corn & Cob Meal 2 "
Cottonseed Meal 1 "

For 665 Pound Yearlings

1
Corn Silage 20 pounds
Legume Hay 5 "
Cottonseed Meal 1 "

2
Legume Hay 5 pounds
Corn Stover - at will
Corn & Cob Meal 1 "
Cottonseed Meal .5 "

3
Corn Stover - at will
Cottonseed Meal 2 pounds

4
Corn Stover - at will
Corn & Cob Meal 1.5 pounds
Cottonseed Meal 1 "

For 850 Pound Cows

1
Corn Silage 25 pounds
Legume Hay 5 "
Corn Stover 5 "

2
Legume Hay 5 pounds
Corn Stover - at will

3
Corn Silage 25 pounds
Corn Stover 7 "
Cottonseed Meal 1.5"

4
Mixed Hay 15 pounds
Corn & Cob Meal 1 "
Cottonseed Meal .5 "

Substitutions: The following substitutions may be made in the above rations: Ground barley, ground wheat or oats for corn and cob meal; soybean meal, peanut meal or other protein rich concentrate for cottonseed meal; grass hay, cottonseed hulls, peanut hay or oat straw for corn stover.

The above rations are for cattle that are kept in dry lot during the wintering period. Much harvested feed can be saved by allowing the cattle the run of stalk fields, winter cover crops, or meadows. Dry cows or two year old cattle in Eastern North Carolina are sometimes carried through the entire winter without any harvested feed or without shelter. To do this, however, one must have ample

feed in the fields and well drained, sheltered ground where the cows may bed comfortably at night.

The younger the cattle the higher the percentage of concentrated feeds they need. Calves can make excellent use of cover crops of grains and winter legumes but as a rule they need some grain in addition.

General Feeding Suggestions: Good Pastures are the basis of economical beef production. The use of both permanent pastures and annual supplementary pastures for summer grazing and both mature and green crops for winter grazing are strongly recommended (See Extension Circular No. 202, "Pastures in North Carolina").

Silage: Made of corn, cane, or even legumes and grasses is becoming more and more popular as a winter feed for cattle. In the Coastal Plains area of the state where much use is made of corn and soybean stalks, velvet beans and green winter grazing crops, silage is excellent for filling in the gaps between permanent pasture and the time the corn fields are ready for gleaning in the fall and between the preparing of the fields and the time permanent pasture is ready for grazing in the spring. In other sections of the state silage preserved either in the trench or upright silo is being used more and more as a winter feed and in some instances as a supplementary summer feed in time of drought. It should not be understood that silage is a complete but is a valuable succulent feed for all classes of cattle.

Water that is clean and fresh should be available at all times.

Salt preferably in the coarsely pulverized form should be accessible to cattle of all ages at all times.

Minerals are playing a more and more important role in the nourishment of livestock as time goes on. The best way to supply minerals is through the feed but in view of the fact that much of our feeds are grown on soils deficient in minerals it is well to keep a mineral mixture where cattle can help themselves to it at will. A simple, inexpensive mixture is: Limestone, ground to a fine powder or part, Steamed Bone Meal one part, Salt one part.

General Suggestions: Regularity in the time of feeding is very important.

Shelter in the form of an open shed or a well lighted and well ventilated barn will conserve manure and make the cattle more comfortable in bad weather if it is kept well bedded. If not the cattle will be better off in the fields or woods where they may select their own bedding ground rather than be forced to lie in the mud and filth.

Cattle barns and sheds should always be provided with gutters and eaves spouts to carry rain water away from the feed lot.

Heifers may be bred when they are 18 to 20 months old providing they have made normal growth at that age. It is a mistake to allow heifers to get bred too young. It generally stunts their growth and often results in calving time trouble and a dead or under developed calf. Do not leave this matter to the discretion of the bull but keep him well away from the heifers that are not old enough for service.

- 4 -

Breed for spring calves unless there is a peculiar situation on the farm that makes fall calves more practical.

The bull is a very important part of the successful herd of cattle. He should be a good individual of the breed represented. The right kind of a bull will improve the herd through his offspring while an inferior animal will in the same way cause the herd to degenerate.

A bull should be at least two years old and well grown for that age before he should be allowed to run with the cow herd during the breeding season. If younger than that hand breeding should be practiced and only one service to the cow allowed. A well grown bull over 14 months of age may be used on 8 or 10 females, one service to each.

Bulls should be kept in strongly fenced enclosures except during the breeding season when they may be allowed to run with the cow herd.

Dehorning in the commercial herd should be done at the proper time. As a general rule the younger the cattle are when dehorned the better. Caustic Soda or Potash used on the buttons of very young calves will prevent the horn from developing. A small calf dehorner, or gouger as it is sometimes called, can be successfully used on calves up to two or three months of age. From this age up to about 10 months a mechanical dehorner especially designed for calves is best. Beyond this age mechanical clippers or a saw is generally used.

It is advisable that dehorning, when done with anything but caustic, be done during cool weather to avoid fly infestation. Even in cool weather it is a good precaution to use pine tar or other good fly repellent.

Castration of bull calves may be done at any age. As a rule it is best done from a few weeks of age up to five or six months. If postponed much longer than this the calves may develop masculine characteristics to the point they will be "staggy" which is quite objectionable in steers. This operation may be done with bloodless pincers or a knife.

TO BEEF CATTLE BREEDERS IN EASTERN NORTH CAROLINA:

Controlled Breeding Pays

There is much evidence that controlled breeding pays in the raising of beef cattle and for that matter, all other kinds of farm animals. The most successful cattlemen breed their cows in May, June and July which brings the calves in February, March and April. By calving at this time the calves are large enough to go to pasture with the cows by the time grass is ready without worry about spoiled udders etc. Then too the calves are all about the same age and they may be weaned at the same time in the fall and handled together during the winter. Dry cows may be wintered much more cheaply than cows nursing calves.

Do Not Breed Heifers Too Young

Heifers should not be bred until they are two years old. If bred younger than this they are very apt to become stunted in growth and never reach normal size. Furthermore, calving time troubles may result and very often they do not give milk enough to raise their calves properly.

With especial reference to the heifer calves shipped in from Texas last fall. These calves are too young to be bred this spring. If bred later on this season they will calve at the wrong time of the year. These heifers have been moved a long way and to quite a different environment from where they were raised. This coming year, the hot summer especially, will be hard on them. Therefore, it is thought best to see that they have plenty to eat to grow them out well and put off breeding them until the spring of 1940. I feel certain

- 2 -

that in the long run it will pay to do this.

The herd bull should be kept in a strongly fenced (a plank fence is best) enclosure of not less than an acre, except during the breeding season when he may be allowed to run with the cow herd or the cows may be brought to him for service. If he is allowed to run with the cow herd be sure that all heifers too young for service are kept well away from the bull.

The herd bull should be the best individual in the herd. He should be thick and deep bodied, short of leg and compactly built. The back and underline should be straight, the heart girt full and deep, the ribs widely sprung, the rump straight and broad and the thighs full and deep. The head is often a good index to the breeding qualities of the bull. It should be short and wide with a large muzzle. The neck should be thick and short and the crest prominent. If you do not now have the right kind of a bull to improve your herd let us help you to locate one.

Bull calves should be castrated when they are a few weeks old. Do not let them go until they are old enough to breed. They will sometimes serve a female at 7 or 8 months of age and at younger ages they do considerable damage in worrying the heifer calves and each other. Steer calves are always quieter and start fattening earlier than bulls.

For further details ask for Extension Circular entitled "Feeding and Management of the Beef Herd".

Yours very truly,

County Agent.

CATTLE FEEDING RECORDCumberland

County

Name of Feeder W. H. MarshAddress Fayetteville, N. C.No. of Head Fed 26 Age 1 year Sex FemaleTotal Buying Wt. _____ Aver. Wt. 427 Place Texas Date Nov. 11, 1938Total Wt. Unloading Pt. _____ Av. Wt. 387 Shrink 40Total Wt. When Put on Feed Same (a) Aver. Wt. Same Date Nov. 11, 1938How were cattle handled between time received and time started on feed? 26 Heifers and 26 Steers were put on 20.0 acres of Ocotan Beans untilthe 28th of DecemberTotal Home Wts. When Sold _____ (b) Aver. Wt. 667 Date April 1, 1939

Total Gain Feed Lot (b) minus (a) _____ Aver. Gain _____ Av. Daily Gain _____

Fayetteville Stock YardTotal Wt. at Stock Yards 667 Aver. Wt. _____ Shrink _____Financial StatementCost or Value of Feeder Cattle \$ 890.52Freight and Other Charges to Farm \$ 8.50Total Initial Cost or Value \$ 899.02 (c)

Sale Price: At Home _____ At Stock Yards _____ \$ _____

No. Head 21 at 9 cts. per lb. Total \$ _____No. Head 5 at 8 cts. per lb. Total \$ _____

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

Grand Total \$ 1473.86 (d) F.O.B. Fayetteville

Freight and Stock Yard Charges to Market \$ _____

Commission Charges \$ _____

Total Marketing Costs \$ _____ (e)

Feed Consumed in Feed Lot

Kind	Amount	How Fed [#]	Farm Value*
Corn	23612 pounds		151.00
Cotton seed meal	2 tons		50.00
Oats	1.2 tons		35.00
Lespedeza hay	7 tons		105.00
Minerals			5.00
Beans in field			135.00

Total Feed Cost Cattle \$ 481.00 (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) \$ 899.00

Marketing Cost (cattle) (e) \$ 6.00

Feed Cost (cattle) (f) \$ 481.00

Total Cost (c) plus (e) plus (f)----- \$ 1386.00 (j)

Profit or Loss (cattle) (d) minus (j) \$ 87.86 (k)

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

Estimated Manure Produced 45 Tons Value \$ 180.00 (m)

Profit Including Manure (l) plus (m) 267.80

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

*Show value on farm at beginning feeding period.

F. Beef Calf 4-H Club Work

Organized club work with beef calves was started in North Carolina in 1935. This work was built around a fat cattle show sponsored by the Chamber of Commerce at Asheville, North Carolina. In 1936 The North Carolina State Fair added a small premium list for 4-H Club steers which has been increased each year since. In 1938 the Rocky Mount Chamber of Commerce started a fat stock show in that city. This work has been mainly carried on with fattening projects with steers. A Feeder Calf Class was added to the Asheville Show in 1936 and the number of club boys taking part has increased each year. In view of the fact that Asheville is in a feeder cattle producing area this Feeder Calf Class has been emphasized with the hope that it will ultimately grow to be the largest class at that show.

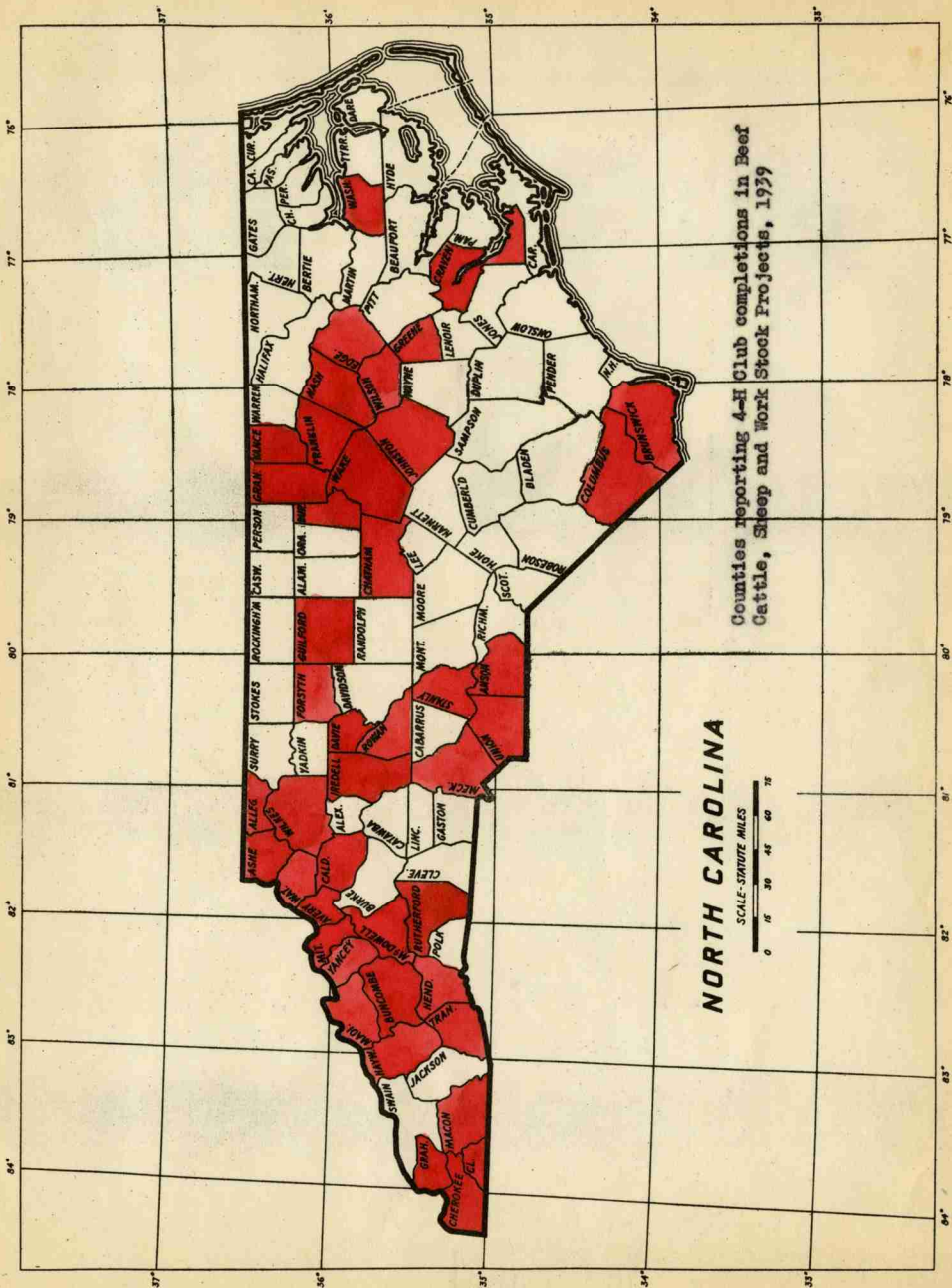
There has been a marked improvement in the quality and condition of the steers exhibited at these shows each year and an increase in the number of counties including this type of club work in their plans.

According to county agent's reports 174 boys and girls in 41 counties completed their projects in Beef Calf Club work during the year.

Records of the sale of 4-H Club steers shows that 140 head weighing 105,723 pounds sold for \$13,257.50. The disposition of the calves at auction at the three shows was very satisfactory in 1939 and the local support of these sales was a decided improvement over previous years. Complete financial records on 80 head of these 4-H Club steers were secured and exclusive of premiums won a profit of \$2,306.37, or an average of \$28.83 per head was made, over and above the initial cost or value of the calves plus the feed cost. Sixty-nine out of the 80 head

made a profit of \$2,440.18 and the other 11 head lost a total of \$133.81. When prize money is included 5 out of the 80 head lost money and the average profit on the total number was \$47.04 per head. //

Report of awards and sale of 4-H Club steers at the Asheville Fat Cattle Show and The North Carolina State Fair follow.



Class 1

Light Weight Class

Place	Award	Name	County	Selling Weight	Price	Buyer
1st	\$12.00	Jimmie Dugger	Watauga			Not sold
2nd	10.00	Russell Hodges	Watauga			Not sold
3rd	9.00	Jack Rogers	Haywood			Not sold
4th	8.00	Burl Green	Watauga	605	\$11.00	Dixie Home Stores
5th	7.00	Mastin Hodges	Watauga	840	13.25	Biltmore & Battery Park Hotels
6th	6.00	Benjimon Owenby	Buncombe			Not sold
7th	4.00	Robert Whitmire	Transylvania	710	13.25	A. & P. Tea Co.
8th	4.00	Way Abel	Haywood			Not sold
9th	3.00	Benjimon Owenby	Buncombe			Not sold
10th	3.00	Robert Whitmire	Transylvania	620	12.50	A. & P. Tea Co.
11th	3.00	Rafe Teague	Macon	830	13.25	Verne Rhodes
12th	2.00	Wayne Thompson	Buncombe	750	12.00	A. & P. Tea Co.
13th	2.00	Joe Brown	Watauga	495	11.00	E. Tenn. Packing Co.
14th	2.00	Russell Dockery	Buncombe	785	11.00	Morrocroft Farm
15th	2.00	David Smart	Haywood	595	10.50	E. Tenn. Packing Co.

Class 2-Medium Weight Class

1st	\$12.00	John Edmisten	Watauga			Not sold
2nd	10.00	Dan Hill	Buncombe			Not sold
3rd	9.00	Council Henson	Watauga			Not sold
4th	8.00	Gene Reese	Watauga			Not sold
5th	7.00	Romulus Dockery	Buncombe			Not sold
6th	6.00	Gilbert & Earl Edmisten	Watauga			Not sold
7th	4.00	R. G. Moss Jr.	Buncombe			Not sold
8th	4.00	Raymond Dockery	Buncombe			Not sold
9th	3.00	J. C. Dockery	Buncombe			Not sold
10th	3.00	John Abel	Haywood			Not sold
11th	3.00	Richard Bradley	Haywood			Not sold
12th	3.00	Jr. & Billy Henson	Watauga	875	12.25	Dixie Home Stores
13th	3.00	Loyd Buchanan	Haywood			Not sold
14th	2.00	Way Abel	Haywood			Not sold
15th	2.00	Calvin Francis	Haywood	880	12.00	Dixie Home Stores

Class 3 - Heavy Weight Class

1st	\$12.00	Joe Brown	Watauga	1075	18.50	Geo. Vanderbilt Hotel
2nd	10.00	Asa L. Reese	Watauga			Not sold
3rd	9.00	Burl Green	Watauga			Not sold
4th	8.00	H. W. Mast Jr.	Watauga			Not sold
5th	7.00	Gilbert Edmisten	Watauga			Not sold
6th	6.00	Frank Mast	Watauga	985	13.00	Dixie Home Stores
7th	4.00	Baker Edmisten	Watauga	1180	12.25	Morrocroft Farm
8th	4.00	John Abel	Haywood			Not sold
9th	3.00	Earl Edmisten	Watauga			Not sold
10th	3.00	Boyd Messer	Haywood			Not sold
11th	3.00	Paul Brown	Watauga	960	13.25	A. & P. Tea Co.
12th	2.00	Hastings Farley	Transylvania	935	12.00	Dixie Home Stores
13th	2.00	Jamie Hill	Buncombe	1100	13.50	Teague's Market
14th	2.00	Carmen Curto	Transylvania	950	12.00	Morrocroft Farm
15th	2.00	Frits Waldrop	Macon	995	11.75	Morrocroft Farm

Feeder Calf-Class 7

Place	Award	Name	County	Selling Weight	Price	Buyer
1st	\$12.00	J. D. Wallin	Madison			Not sold
2nd	10.00	Tom Lawrence	Watauga			Not sold
3rd	9.00	Horace Edmisten	Watauga			Not sold
4th	8.00	Tom Lawrence	Watauga			Not sold
5th	7.00	Dennis Franklin	Madison	425	\$10.00	Dr. J. P. Mauney
6th	6.00	Ruth Ball	Madison			Not sold
7th	5.00	Earnest Teague	Madison	425	9.00	E. Tenn. Packing Co.
8th	4.00	J. P. Ramsey	Madison	370	9.00	W. F. O'Donnell
9th	3.00	F. M. Noland	Haywood			Not sold
10th	3.00	General Ledford	Madison	420	9.50	Alden Barefoot
11th	3.00	J. D. Wallin	Madison			Not sold
12th	3.00	Kenneth Davis	Jackson	365	8.75	Dr. J. P. Mauney
13th	2.00	J. D. Wallin	Madison	425		Not sold
14th	2.00	Lawrence Carver	Haywood			Not sold
15th	2.00	F. M. Noland	Haywood			Not sold
16th	2.00	C. N. Willis	Madison	410	8.25	Dr. J. P. Mauney

Class 4 - County Group

First Prize - \$25.00 Watauga County
 Second " - 20.00 Buncombe "
 Third " - 15.00 Haywood "
 Fourth " - 10.00 Transylvania

Class 5 - Get-of-Sire

First Prize - \$20.00 Watauga County
 Second " 15.00 Haywood "

Class 6 - Champions

Grand Champion - John Edmisten - Watauga County
 Reserve Champion - Joe Brown - Watauga "

Class 8 - Get-of-Sire (Feeders)

First Prize - \$15.00 Watauga County
 Second " 10.00 Madison "
 Third " 5.00 Haywood "

Class 9 - Showmanship

First - Mastin Hodges - Watauga County
 Second - Way Abel - Haywood "
 Third - Romulus Dockery - Buncombe "

North Carolina Hereford Breeder's Special

First Prize - \$25.00 John Edmisten - Watauga County
 Second " - 15.00 Joe Brown - Watauga County
 Third " - 10.00 Asa L. Reese - Watauga County

ASHEVILLE FAT AND FEEDER CATTLE SHOW - OCTOBER 4, 1939

Grand Champion - Not sold

Reserve Champion purchased by George Vanderbilt Hotel, Leonard E. Jones, Manager, Asheville, N. C., at \$18.50 per cwt.

Thirty head of fat steers sold for an average of \$12.08 per cwt.

Twenty-nine head excluding the Reserve Champion averaged \$11.41 per cwt.

Morriscroft Farm, Charlotte, N. C. purchased 7 head at an average of \$11.83 per cwt.

A. & P. Tea Company, L. A. Bell, P. O. Box 1205, Charlotte, N. C. purchased 5 head at an average of \$12.66 per cwt.

Dixie Home Stores, Harry Falls, Manager, Asheville, N. C. purchased 5 head at an average of \$12.14 per cwt.

Teague's Market, Asheville, N. C. purchased 2 head at an average of \$12.90 per cwt.

Asheville Fish Market purchased 2 head at an average of \$10.35 per cwt.

East Tennessee Packing Company, Mr. Herbert Madden, Knoxville, Tenn. purchased 2 head at an average of \$10.73 per cwt.

May's Market bought 1 head at \$11.00 per cwt.

The Asheville Biltmore and Battery Park Hotels bought 1 steer at \$13.25 per cwt.

Mr. Verne Rhodes, Leicester, N. C. bought 1 steer at \$13.25

Others who bought one head each were R. E. McLemore, Statesboro, Ga., and W. W. Shope, Weaverville, N. C.

Twenty-eight head of feeder calves were shown this year, 18 of which were sold at an average of \$8.03 per cwt.

Light Weight Class

Place	Award	Name	County	Selling Weight	Price	Buyer
1st	\$12.00	Henry C. Martin Jr.	Anson	785	\$17.00	Carolina Hotel
2nd	12.00	Way Able	Haywood	790	12.00	A. & P. Tea Co.
3rd	12.00	Jimmie Dugger	Watauga	755	12.75	A. & P. Tea Co.
4th	10.00	Jack Rogers	Haywood	675	15.00	Q. S. Leonard Jr.
5th	10.00	Russell Hodges	Watauga	555	12.25	E. L. Talbott
6th	10.00	Benjimon Owenby	Buncombe	550	10.25	J. T. Taylor
7th	8.00	Benjimon Owenby	Buncombe	795	12.00	Swift & Co. S.W.H.
8th	8.00	Wilson Braswell	Union	710	14.00	Pender Stores
9th	6.00	Fielden Miller	Alleghany	780	12.75	White Packing Co.
10th	6.00	John Robt. Fugh	Alleghany	765	12.25	White Packing Co.
11th		J. W. Knight	Davie	780	11.25	White Packing Co.
12th		Kent Ketner	Haywood	615	10.50	Pender Stores
13th		Verdery Pate	Cumberland	815	13.00	A. & P. Tea Co.
14th		Lloyd Pate	Cumberland	670	11.50	Pender Stores
15th		Glen Taylor	Durham	740	11.50	Pender Stores
16th		Jones Andrews	Alleghany	795	12.25	Swift & Co. S.W.H.

Medium Weight Class

1st	\$12.00	Dan Hill	Buncombe	850	15.50	Pender Stores
2nd	12.00	Council Henson	Watauga	890	17.50	White Packing Co.
3rd	12.00	Gene Reese	Watauga	850	14.50	Carolina Hotel
4th	10.00	Gilbert & Earl Edmisten	"	895	13.75	Morrowcroft Farm
5th	10.00	Samuel Johnson	Cumberland	905	14.50	Pender Stores
6th	10.00	Richard Bradley	Haywood	885	14.25	Morrowcroft Farm
7th	8.00	Raymond Dockery	Buncombe	860	14.00	Kingan & Co.
8th	8.00	John Abel	Haywood	870	14.00	A. & P. Tea Co.
9th	6.00	R. G. Moss Jr.	Buncombe	835	13.00	Swift & Co.
10th	6.00	Sam Satterthwaite	Edgecombe	880	14.00	Pender Stores
11th	3.00	Way Abel	Haywood	870	13.75	Morrowcroft Farm
12th		Glen Taylor	Durham	835	13.25	Pender Stores
13th		Nolan Talbott	Cumberland	890	12.75	White Packing Co.
14th		George Leonard	Franklin	870	12.50	Swift & Co.
15th		James Miller	Alleghany	920	12.75	White Packing Co.
16th		Fred Caudle	Anson	860	11.50	Pender Stores

Heavy Weight Class

1st	\$12.00	John Edmisten	Watauga	910	39.50	A. & P. Tea Co.
2nd	12.00	Romulus Dockery	Buncombe	895	26.00	Carolina Hotel
3rd	12.00	Asa L. Reese	Watauga	995	16.50	White Packing Co.
4th	10.00	Gilbert Edmisten	Watauga	975	16.00	Morrowcroft Farm
5th	10.00	H. W. Mast Jr.	Watauga	1065	14.50	White Packing Co.
6th	10.00	John Abel	Haywood	960	14.00	Morrowcroft Farm
7th	8.00	Earl Edmisten	Watauga	1025	14.00	Holler Grocery Co.
8th	8.00	Carl Woodard	Nash	1055	15.50	Pender Stores
9th	6.00	Lloyd Buchanan	Haywood	910	15.00	Swift & Co.
10th	6.00	Q. S. Leonard Jr.	Franklin	895	15.50	Pender Stores
11th	3.00	Van Miller Jr.	Alleghany	1025	14.00	Morrowcroft Farm
12th	3.00	Boyd Messer	Haywood	1120	13.50	Morrowcroft Farm
13th	3.00	J. C. Dockery	Buncombe	935	13.50	Swift & Co.
14th	3.00	Carl Goslen	Forsyth	1180	13.50	White Packing Co.
15th	3.00	Sam Satterthwaite	Edgecombe	970	13.50	Pender Stores
16th		Carey Talbott	Cumberland	955	12.50	Kingan & Co.

County Groups of Three Steers

First Prize	Watauga County
Second "	Buncombe "
Third "	Haywood "
Fourth "	Alleghany "
Fifth "	Cumberland "
Sixth "	Watauga "
Seventh "	Haywood "
Eighth "	Buncombe "

Get-of-Sire Class

First Prize	Watauga County
Second "	Haywood "
Third "	Alleghany

Showmanship (For 4-H Club Members Only)

First Prize	- Asa L. Reese,	Watauga County
Second "	- Nolan Talbott,	Cumberland "
Third "	- Council Henson,	Watauga "

RESUME OF AUCTION SALE 4-H CLUB FAT STEERS AT NORTH CAROLINA STATE FAIR - 1939

Grand Champion sold to A. & P. Tea Company for \$39.50 per cwt.

Reserve Champion sold to Carolina Hotel, Raleigh, N. C. for \$26.00 per cwt.

Forty-eight head including champions averaged \$15.70

Forty-six head excluding champions averaged \$13.65

H. L. Gregory - Pender Grocery Company, Norfolk, Va., purchased 12 head at an average of \$13.57 per cwt.

White Packing Company, Salisbury, N. C., purchased 9 head at an average of \$13.86 per cwt.

Morrowcroft Farm, Cameron Morrison, Charlotte, N. C., purchased 7 head at an average of \$14.17 per cwt.

Swift & Company, W. A. Gravely, Manager, Raleigh, N. C., purchased 6 head at an average of \$13.09 per cwt. Two of this number were for the Sir Walter Hotel, Rowland Mumford, Raleigh, N. C.

A. & P. Tea Company, L. A. Bell, P.O.Box 1205, Charlotte, N. C. purchased 5 head including the Grand Champion at an average of \$18.80 per cwt.

Hotel Carolina, Raleigh, N. C., Robert I. Lee, Manager, purchased 3 head including the Reserve Champion at an average of \$19.34 per cwt.

Kingan & Company, Richmond, Va., George G. Munce, purchased 2 head at an average of \$13.21 per cwt.

Q. S. Leonard Jr., Route 4, Louisburg; E. L. Talbott, Route 1, Fayetteville; and J. T. Taylor, Nashville, each purchased a light calf to be fed on by 4-H Club boys for the Rocky Mount Show next spring.

II. SHEEP PROJECTS

Lamb and wool prices were a little more favorable in 1939 than in 1938 and there seems to be some tendency for increased production throughout the state. Statistics show that this is the first year that numbers have not decreased for several years, although they do not show an increase. Damage by sheep killing dogs is a serious menace to the industry and ways and means of checking the dog losses have been considered at sheep meetings throughout the year. One thing that we are considering using is mutual insurance such as the Kentucky sheep growers are using in several counties.

A. Farm Flock Records

Farm flock records secured from various parts of the state show an average gross income per ewe of \$9.27. This compared with \$7.18 in 1938 and \$9.36 in 1937. A sample Farm Flock Record follows.

COOPERATIVE EXTENSION WORK

25

IN

AGRICULTURE AND HOME ECONOMICS

EXTENSION SERVICE

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

STATE OF NORTH CAROLINA

FARM FLOCK RECORD (SHEEP)

(For Commercial Flocks Only)

On Farm of T. C. Baird
Post Office Valle Crucis
County Watauga
County Agent H. M. Hamilton
Number ewes exposed to ram 34
Were ewe lambs exposed? If so state number Yes 10
Number lambs raised to market weight 47
Total value of lambs sold or kept \$ 341.44
Number fleeces sold 35
Number pounds of wool sold 241 1/2 lbs. @ 31¢
*Total value of wool \$ 74.86
Total Income \$ 416.30
Gross Income per ewe \$ 12.24

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

Was a purebred ram used? Yes

If so what breed? Hampshire

At what time did most lambs come? March

When were most of lambs sold? August 1

Were lambs creep fed? No

Were lambs docked? Yes Castrated? Yes

How many times was flock treated for stomach worms? Three

What treatment was used? Bluestone

Number of times flock dipped None

Was flushing practiced? Just run on good pasture

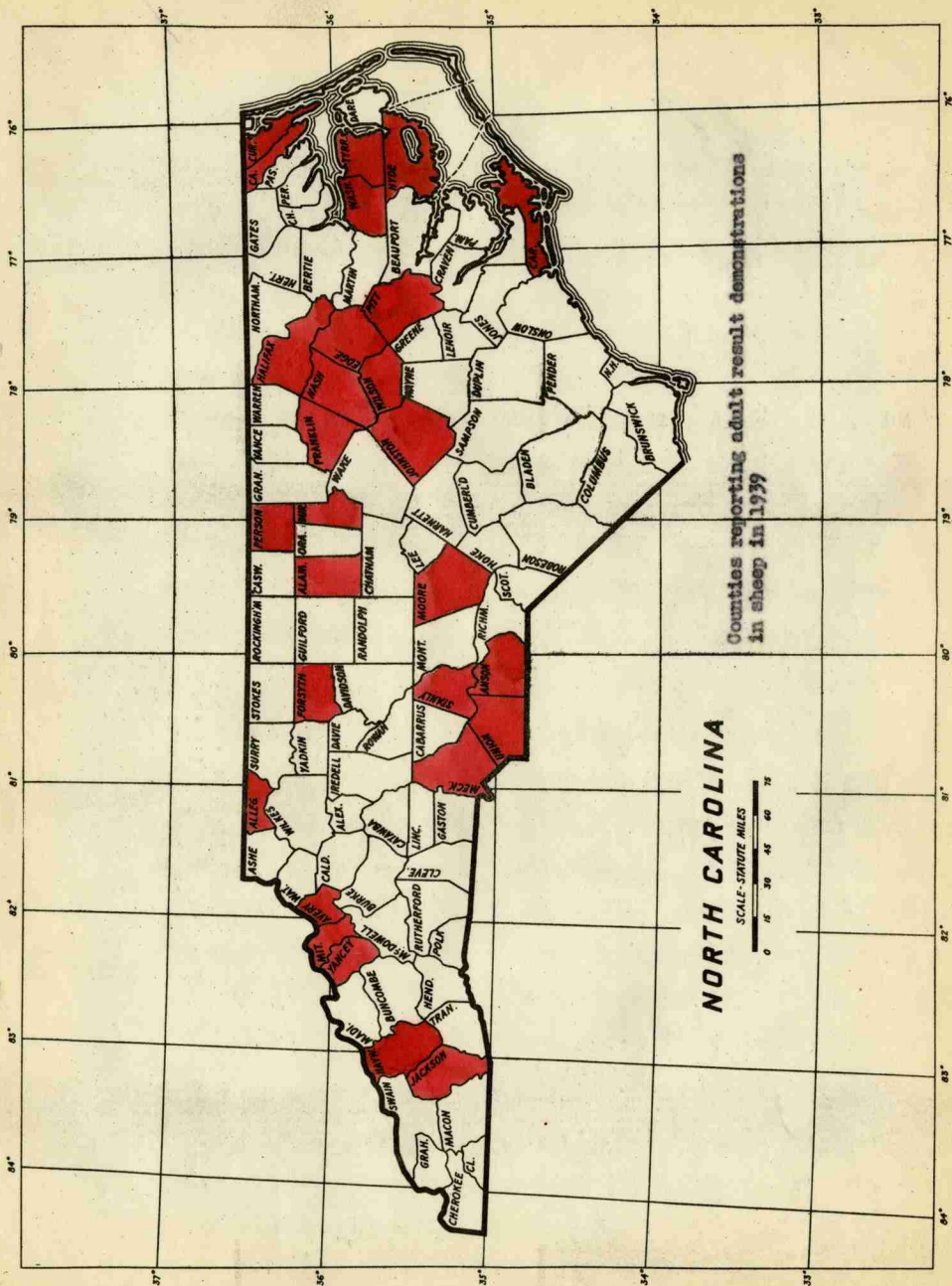
Tell briefly how flock was wintered.

~~Run on left over pasture grass until about February 1, then fed 1/2 bushel of shelled corn and oats once every other day for two weeks then 1/2 bushel every day until lambing. Then one bushel per day until they went to pasture April 10 to 20. Finished on pasture~~

How was wool sold? Pool

How were lambs sold? Pool

REMARKS: ~~Fed either hay or corn and oats when ground was covered by snow. That did not happen more than 4 to 6 days during the winter.~~



B. Ram Placements

Thirty counties reported the placing of 99 purebred rams with farmers during the year. In 23 counties 130 high grade or purebred ewes were placed.

This state has very few, if any, good purebred flocks of sheep. It is hoped to develop a few good flocks scattered well over the sheep territory for the furnishing of good type rams for commercial flocks. Three such flocks were started during the year and one particularly located in one of the heavily populated sheep counties is in good hands and should develop into an outstanding flock. These purebred flocks are being worked with carefully and every assistance given to encourage their improvement.

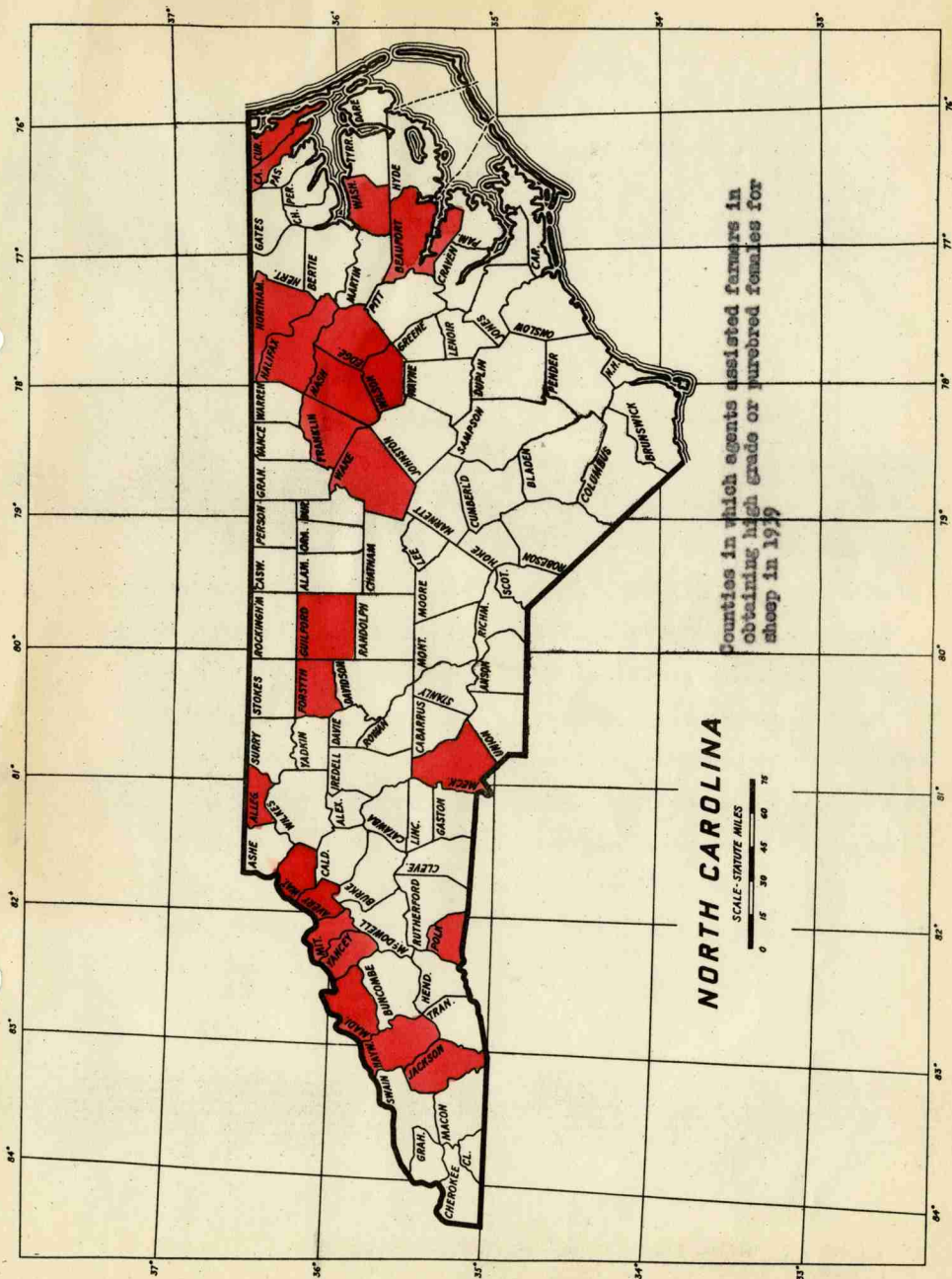
C. Parasite and Disease Control

The matter of parasite control in sheep is one that is always with Extension workers. It seems to be very difficult to get sheep men to follow a regular system of control. Nineteen hundred and thirty-eight was a wet year and parasitic infection was, therefore, more serious than usual. In 1939, therefore, there was more interest in stomach worm treatment demonstrations than usual and in 38 counties 442 farmers were reported as following parasite control recommendations. Nineteen counties reported 187 farmers following disease control recommendations with sheep.

D. Docking and Castrating Lambs

The selling of lambs by grade cooperatively in North Carolina has helped materially in creating more interest in the docking and castration of lambs intended for market. A discount of \$1.00 per hundred weight for bucks as compared with ewe and wether lambs of the same grade is

Counties in which agents assisted farmers in obtaining purebred sires for sheep in 1939

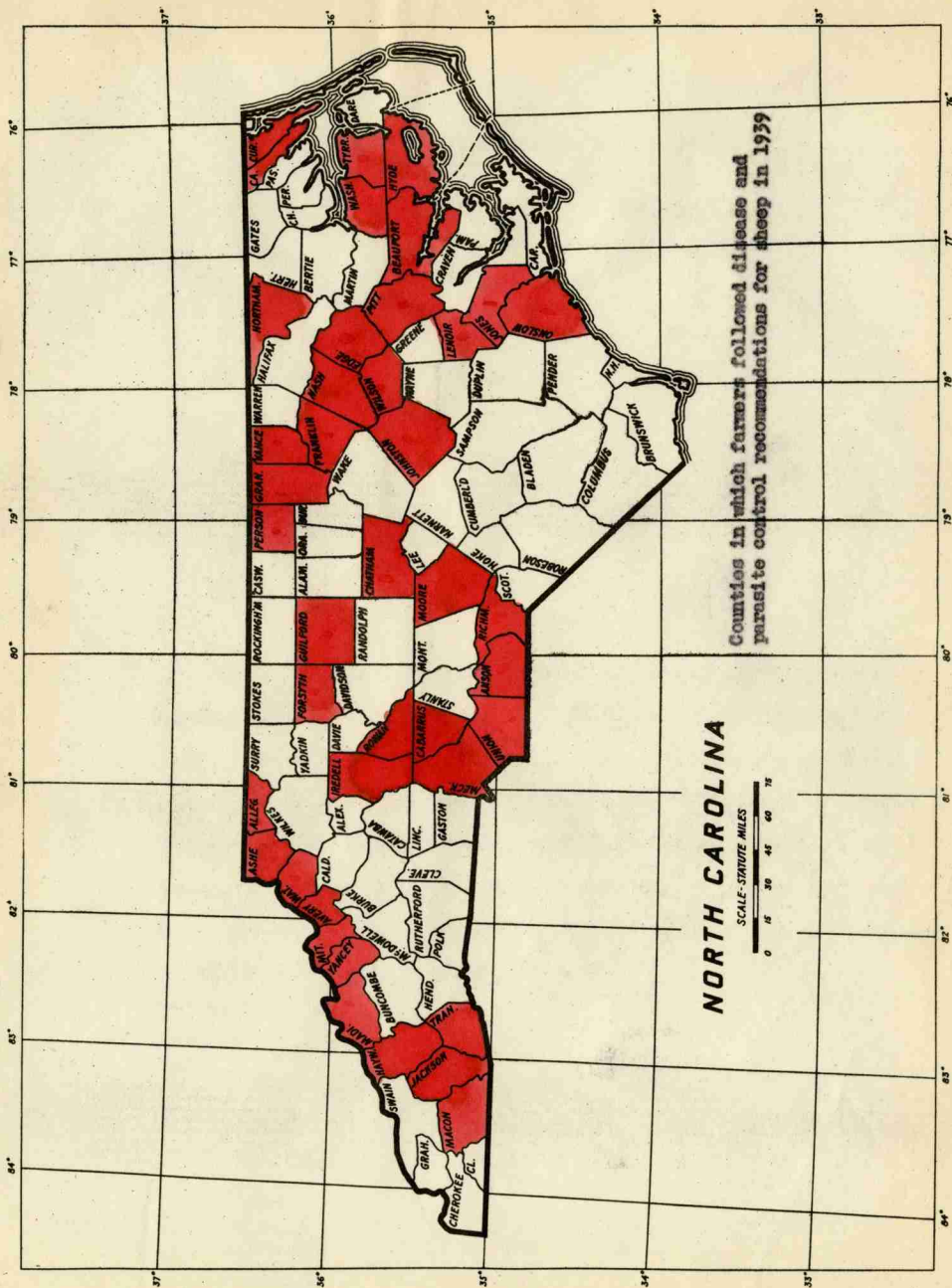


convincing evidence of the value of this practice. Nevertheless there was a slight increase in the number of ram lambs shipped cooperatively in 1939 compared with the previous year. On a percentage basis this was 1.22 compared with 1.02 the previous year.

B. Marketing

// 1. Lamb Grading and Cooperative Sales.

Prior to the marketing season of 1939 the Eastern Livestock Cooperative Marketing Association ceased functioning necessitating other arrangements for the selling of our lambs. Mr. Sam Nagle who had been the lamb salesman for the Eastern at Jersey City became affiliated with the Arbree Commission Firm at the Jersey City Yards. Arrangements were, therefore, made for this company handling our lambs on the same basis as the Eastern had been doing. As the result the majority of the lambs shipped out of the state went to this firm, although on two or three occasions one of the mountain counties sold outright to an auction market in Southwest Virginia and one small Eastern North Carolina shipment went by truck to Philadelphia. Grading service was also started at the auction market in Asheville, North Carolina, for the first time. We failed to get a report of the lambs graded at this market, although it was asked for several times. //



Summary of All Cooperative Lamb Sales 1939

<u>Grade</u>	<u>Number</u>	<u>Per Cent of Total</u>
Choice	897	20.51
Choice bucks	69	1.58
Good	1901	43.47
Good bucks	299	6.84
Medium	612	13.99
Medium bucks	169	3.86
Plain	181	4.14
Common	159	3.64
Sheep	<u>86</u>	<u>1.97</u>
	4373	100.00

There was a total of 317,950 pounds of lambs sold at their home weight which brought a net return of \$26,082.61. It is estimated that these lambs brought fully one cent per pound more through grading and cooperative selling than they would have brought under the usual method of selling. This means a total of \$3179.50 increased returns to the producers. Further it is the logical conclusion that other lambs sold in the territory where cooperative marketing was being done brought a higher price than they would have otherwise. //

2. Wool Sales.

Record of Wool Sold Cooperatively 1939

<u>County</u>	<u>Lbs. of Wool</u>	<u>No. Farmers Cooperating</u>
Alleghany	14,843	250
Ashe	2,315	38
Avery	4,400	34
Watauga	20,112	370
Chatham	280	6
Washington	1,500	70
Mitchell	<u>3,100</u>	<u>35</u>
	46,550	803

A complete record of the prices received is not available, however, 37,270 pounds of the wool which was sold in Alleghany, Ashe and Watauga Counties brought 31 cents per pound on a clear wool basis. Much of the wool that was sold privately to country dealers brought 24, 25 and 26 cents per pound. It is believed that conservative estimates, therefore that the pooled wool brought fully 5 cents per pound more than it would have otherwise. This means, therefore, that the 46,550 pounds of wool sold cooperatively brought the growers \$2327.50 more than it would have brought by individual private sales. It is also true, as in the case of ^{March} lambs, that buyers always pay more money in sections where cooperative marketing is being done. It is, therefore, thought that wool sold throughout the territory privately brought considerably more money due to cooperative marketing of wool. //

Shearing Schools

Mr. E. S. Bartlett of the Chicago Flexible Shaft Company, Chicago, Ill. spent two weeks in the state putting on shearing schools and shearing demonstrations. A total of 11 schools were held during the two week's period with 382 in attendance. One hundred and thirteen received definite instructions from Mr. Bartlett. In addition to the shearing schools and demonstrations, sheep growers were addressed by the Extension Animal Husbandman and a representative of the Division of Markets State Department of Agriculture in regard to production and marketing methods and the outlook for lambs and wool for the coming season. These meetings were held the last week in April in Eastern North Carolina and the first week in May in the western part of the state.

III. MISCELLANEOUS ACTIVITIES

1. Farm Tours

For the past two years it has been customary for the majority of the counties in the state to hold county farm and home tours during July and August. During 1939 the Animal Husbandry Specialist went on six of these farm tours, one in Eastern North Carolina, and five in the western part of the state. Approximately 700 farmers and farm women participated in these six tours which included the visiting of farms and farm homes where something out of the ordinary in the way of farm or home practices were inspected. Particular emphasis was placed on good pastures and many of these that had been improved by the use of lime and phosphate were viewed. Outstanding livestock farms were visited and in many cases 4-H Club boys carrying Beef Calf Projects exhibited their animals. Particular attention was given to outstanding herd sires on the farms visited and in several cases judging demonstrations and judging contests were held.

2. Lamb Grading School

Mr. L. B. Burk of the Bureau of Agricultural Economics, Washington, D. C., was with us for our first lamb shipment and put on a grading demonstration for the farmers cooperating. He also came to State College and conducted a lamb grading school and contest for junior and senior animal husbandry students.

3. North Carolina Hereford Cattle Breeder's Association

In 1935 there was some sentiment expressed among the Hereford Breeders of the state for a state association. The Animal Husbandry Specialist was consulted in this regard and it was decided to postpone the formation of an association until later and to substitute for the time being an annual Hereford get-together to be held on breeders farms throughout the state. These annual get-togethers were interesting affairs and at each matters of mutual interest to the breeders were discussed. At the 1938 meeting the matter of a state association was brought up and after considerable discussion the matter was placed in the hands of a committee of five. This committee met at a later date and decided to form a state association. The matter of an annual sale was also discussed but no definite action taken.

The 1939 meeting was held in Anson County early in September. The recommendations of the special committee were read and the group of over 100 Hereford breeders in attendance voted to form the association and the constitution and by-laws that had been drawn up by the committee were adopted and officers elected for the coming year. These officers are as follows: Adam Lockhart, Wadesboro, President; W. E. Webb, Statesville, Vice President; Dr. J. M. Lynch, Asheville, Secretary-Treas.; and the four additional Directors were George L. Pate, Rowland; H. G. Shelton, Speed; W. E. Shipley, Vilas; and Cameron Morrison, Charlotte. The association started off with 44 paid memberships at \$2.50 each and voted to give Hereford men an additional 30 days to become charter members of the organization. The matter of an annual Hereford sale and other items were discussed but they were left to the executive committee to decide.

4. Judging

At the request of R. E. Davis, Extension Animal Husbandman, in Georgia, a trip to Atlanta was made on April 18 - 19, for the purpose of assisting with the judging of the fat cattle show there.

5. Out of State Educational Trips

The following out of state trips were made during the year:

December 1 - 5, International Livestock Exposition and American Society of Animal Production Meeting. Five county agents, or assistant agents, also made this trip.

February 16 - 17, Market Lamb Conference at Roanoke, Virginia. This conference has been held for several years in cooperation with representatives from Virginia, West Virginia, Tennessee, Maryland and Kentucky. Both the production and marketing of lambs were discussed.

June 10, to attend demonstration of the use of a portable dipping vat for sheep at Wytheville, Virginia. Two county agents and several farmers also made this trip.

June 13 - 14, Market Lamb Conference and tour of sheep farms at the University of Kentucky, Lexington, Kentucky. Two county agents and five sheep growers from two of the largest sheep producing counties of the state also made this trip. The main purpose of which was to see what Kentucky has been doing in the matter of the use of western ewes for market lamb production and mutual insurance against dog losses. Many of our sheep men are showing considerable interest in both of these matters.

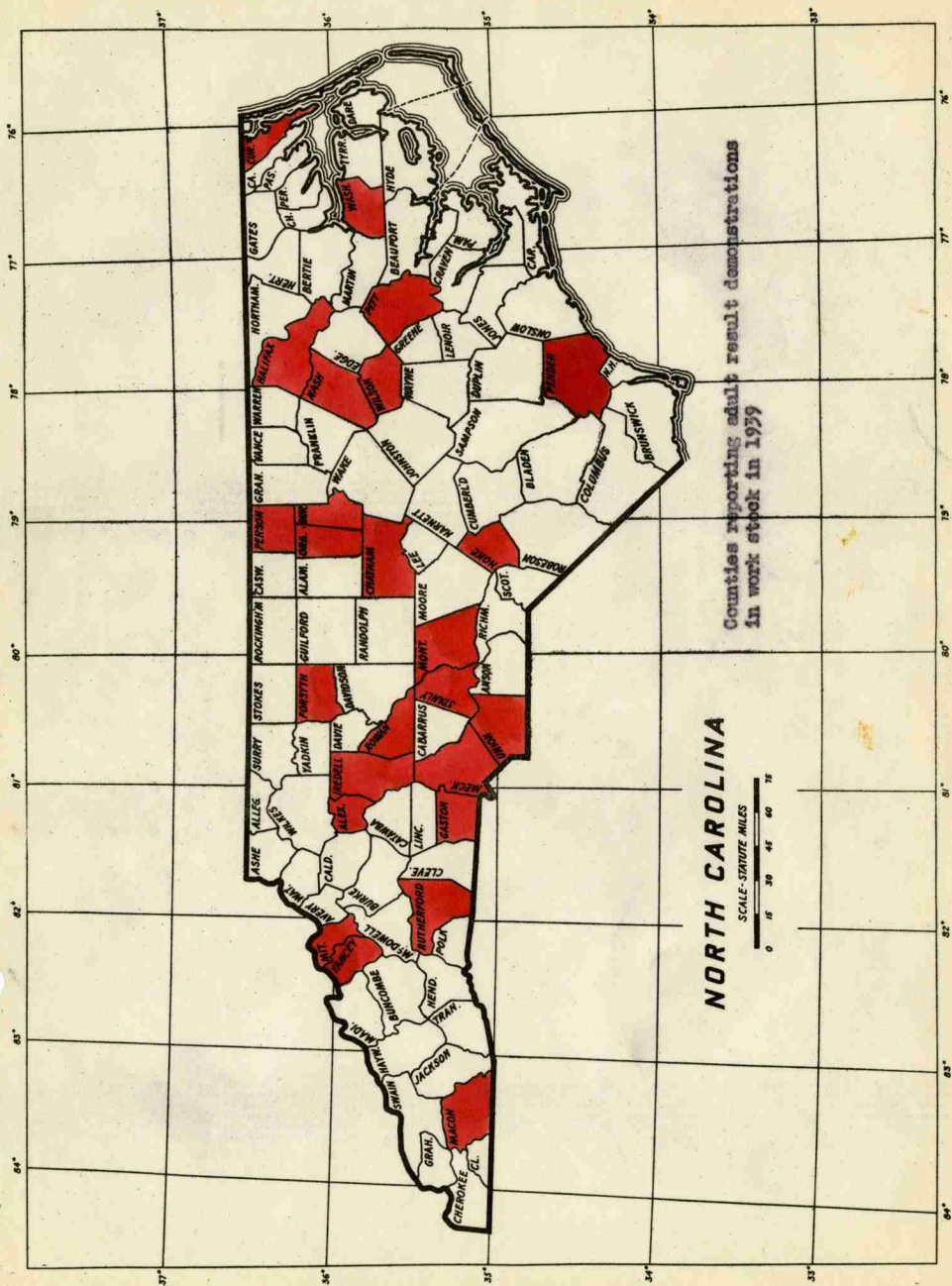
July 18 - 21, Tour to the Black Belt of Alabama. Twenty-six farmers and county agents made this tour with similar representatives from South Carolina, Georgia, Mississippi, Alabama and Tennessee. The North Carolina

representatives were all from cash crop sections of Eastern North Carolina and something over 500 head of cattle were later purchased from this section of Alabama. Most of these cattle were heifer calves, although a few steer calves were shipped in also.

STATISTICAL SUMMARY

(As taken from Annual Reports of County Agents)

	<u>Beef Cattle</u>		<u>Sheep</u>		<u>Work Stock</u>	
	<u>Co's.</u>	<u>Units</u>	<u>Co's.</u>	<u>Units</u>	<u>Co's.</u>	<u>Units</u>
1. No. days devoted to line of work by county agents and assistants	93	1482	58	301	71	395
2. No. days devoted to work by specialist	59	175	26	40	12	22
3. No. adult result demonstrations conducted	50	288	28	112	25	163
4. No. meetings at result dems.	26	64	10	15	8	22
5. No. method demonstration meetings held	40	171	20	54	13	35
6. No. other meetings held	44	140	14	34	17	47
7. No. news stories published	66	288	29	62	36	91
8. No. different circular letters issued	41	114	29	67	21	40
9. No. farm visits made	91	5029	53	984	69	1399
10. No. office calls received	88	6192	67	1089	64	2240
11. No. 4-H Club members completing projects	41	175	10	12	14	22
12. No. farmers assisted in obtaining sires	77	351	30	99	24	43
13. No. farmers assisted in obtaining high grade or purebred females	70	936	23	130	32	255
14. No. families assisted in home butchering, meat cutting & curing	13	69	2	5		
15. No. farmers following parasite & disease control recommend's.	54	1132	57	629	31	768
16. No. farmers following marketing recommendations	40	616	30	861	7	112



Counties in which agents assisted farmers in obtaining purebred sires for horses and mules in 1939

Countries in which agents assisted farmers in obtaining high grade or purebred females for work stock in 1939

1939 STATISTICAL SUMMARY

(From Specialist Reports)*

Number days in the field	233
Number days in the office	139
Number days on annual leave	2
Number days on sick leave	1
Number automobile miles traveled	25,163
Number railroad miles traveled	0
Number visits to county agents	293
Number visits to demonstrators	317
Number other visits	289
Number meetings attended	63
Total attendance at above meetings	4,197
Number office consultations	242
Number letters written	1,752
Number different circular letters	36
Number articles prepared	7
Number radio talks prepared and given	2

*(This report includes work done by Sam L. Williams, Assistant Extension Animal Husbandman, for a period of three months)

IV. OUTLOOK

The outlook for accomplishments in the Animal Husbandry field in North Carolina are extremely bright for 1940. The Soil Conservation Program and the Agricultural Adjustment Administration together with other factors is bringing about a decided increase in livestock interest throughout the state, especially in the cotton, tobacco and cash crops sections. In fact there is so much interest in beef cattle development that it is found necessary to advise caution with beginners. It is thought that 4-H Club work is an excellent foundation for increased livestock production and plans for 1940 show a decided increased interest among county agents and farmers in this type of work. A summary of Plans of Work by county agents shows 33 counties planning on 181 Fat Steer Projects and 13 counties planning on 98 Feeder Calf Projects for the coming year.

Lines of Work to be Emphasized in 1940.

1. Better feeding with especial emphasis on improved pastures.
2. Increase in sheep growing throughout the state.
3. Better type sires. It appears that banker's organizations throughout the state will sponsor the importation and sale of at least two car loads of good beef type bulls in 1940.
4. Improved purebred herds and flocks for supplying better stud sires.
5. Beef Calf Club work.

Circular Letters and News Articles.

On the following pages will be found sample circular letters used during 1939 and clippings of news articles published.

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

EXTENSION SERVICE

State College Station
Raleigh, N. C.
March 14, 1939

To County Agents in Western District:

This letter is to call your attention to sales of registered beef cattle in nearby states this spring. Perhaps there are farmers in your county who will want to attend.

April 3 - 1:30 P. M. - Abingdon, Va.
Herefords, 23 bulls, 15 females.
Kenneth E. Litton, Mgr., Blacksburg, Va.

April 4 - 1:30 P. M. - Blacksburg, Va.
Shorthorns, 10 bulls, 27 females.
Kenneth E. Litton, Mgr., Blacksburg, Va.

April 5 - Staunton, Va. - Angus.
Kenneth E. Litton, Mgr., Blacksburg, Va.

April 7 - Campus, College of Agriculture, Athens, Ga.
Angus and Herefords, 30 Angus and Hereford
bulls, 10 Angus heifers.
Kenneth E. Litton, Mgr., Blacksburg, Va.

April 19 - Staunton, Va. - Herefords.
Kenneth E. Litton, Mgr., Blacksburg, Va.

April 22 - Lewisburg, W. Va. - Herefords.
Oscar Nelson, Mgr., Lewisburg, W. Va.

I am asking L. A. Richardson, P. O. Box 1071, Knoxville, Tenn. to send you notices of sales to be held in Tennessee during the next few weeks.

Yours very truly,

L. I. Case
Extension Specialist in Beef Cattle and Sheep

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EXTENSION SERVICE

State College Station
Raleigh, N. C.
March 24, 1939

TO COUNTY AGENTS IN EASTERN NORTH CAROLINA:

Dear County Agent:

A copy of circular letter entitled "Controlled Breeding Pays" is being enclosed. The purpose of this is self explanatory and we suggest that you see that a copy is put into the hands of your beef cattle men, especially those who purchased western heifers last fall.

Let us know how many copies you need.

Yours very truly,

L. I. Case,
Animal Husbandry Specialists.

Encl.

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

EXTENSION SERVICE

April, 1939

To Sheepmen in _____ County:

On _____ , a sheep meeting and
Hour, Day of week and date

shearing school will be held at _____
state location of farm and how to

reach same.

The morning program will consist of talks on the outlook for lambs and wool for this year, the grading and marketing of lambs, and the proper methods of handling wool after it is off the sheep's back in order that it may bring the high dollar.

Then there will be a SHEARING DEMONSTRATION by E. S. BARTLETT of Chicago, Illinois. Mr. Bartlett is an expert in his line and has put on demonstrations in nearly every state in the Union.

In the afternoon Mr. Bartlett will conduct a SHEARING SCHOOL for a number of young men who want to learn how to shear sheep in the easiest and best way.

Lunch will be served at a reasonable charge for those who play to stay for the afternoon shearing school.

Trusting that you and your neighbor sheep men may be able to attend this meeting, I am

Yours very truly,

County Agent

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EXTENSION SERVICE

NORTH CAROLINA STATE COLLEGE OF
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AGRICULTURE COOPERATING

May 15, 1939

To All County Agents:

An article entitled "Preparing The Wool For Market" is enclosed. Use it for newspaper publicity, a circular letter to your sheep growers or in any way you see fit.

Relative to marketing wool this season let me say that I think it will be to your growers advantage to concentrate as much wool as possible in one place and sell to the highest bidder in case bids are in line with the market. If not wool may be shipped by individual farmers or in larger lots to Producers Cooperative Exchange, Inc., 1114 East Cary Street, Richmond, Va., or to Chatham Manufacturing Company, Elkin, N.C.

The first company named will pay the Richmond market upon receipt of the wool if it is the wish of the growers to sell outright. If they desire to consign the wool they have an arrangement with The Commodity Credit Corporation to finance the 1939 clip as per the following plan which is quoted from a letter dated April 27, 1939 from The Producers Cooperative Exchange:

"The growers will ship or deliver their wool to us at Richmond, we will advance immediately 60% of the market value of the wool and as soon as we accumulate a carload, in order to get carload storage rates, an appraisal of the wool will be made and a further advance to equal 75% of the market value of wool will be mailed to the growers. Of course, as soon as the wool is sold the net balance will be sent to the growers.

"The advantages, as we see them, in following this course are as follows: First; There will be an outright loan of 75% of the value of the wool without recourse to the grower. Second: It will entitle the grower to all the results accruing from an advance in the market."

With reference to the Chatham Manufacturing Company I quote from a recent letter:

"We buy some Eastern North Carolina wool and pay cash for it and we have had no complaints about the price. Of course this eastern wool is usually heavy with sand which makes the scouring loss heavy. On such wool we try to pay a grease price that will make the clean wool cost us the same as we get out of the grass sections. The worst thing is burrs. They won't wash out and we have to carbonize which costs 3 to 5 cents a pound in addition to loss of the weight of the burrs. However, we will buy for cash from any section of North Carolina allowing

best price possible but because of sand, burrs, etc. we can't quote without seeing the wool. We think most of the growers understand this, but some see a market quotation for clear wool and expect that price without regard to sand, burrs, etc."

Last year wool growers who sold outright in Richmond received 21 cents per pound for clear 3/8 blood wool and correspondingly less for burry wool and rejects, to as low as 14 cents for heavy burry wool. Those who consigned their wool received 20 cents down payment and an additional seven cents when the wool was finally sold which was in early March this year.

The only wool I know of that was sold last year to the Chatham Manufacturing Company was that pooled by the Alleghany and Ashe County growers which brought 25 cents on a clear basis on an outright sale in June. This wool was taken up and weighed in the country. Watauga County also sold last year at 25 cents to a local buyer. This is the highest price received anywhere in the state last year on outright sales.

Both of the companies above referred to have been asked to quote prices that they will pay on today's market for clear, light burry and heavy burry wool. In case definite information is received the same will be sent on to you.

Yours very truly,

L. I. Case,
Animal Husbandry Specialist

Encl.

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Yours very truly,

L. I. Case,
Animal Husbandry Specialist

Encl.

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EXTENSION SERVICE

State College Station
Raleigh, N. C.
May 17, 1939

TO BREEDERS OF PUREBRED SHEEP IN NORTH CAROLINA:

There seems to be more than the usual interest in good rams this year and I will appreciate it if you will write me at your earliest convenience stating the number of yearling registered rams which you have for sale and the prices which you are asking for them.

In case it appears advisable to hold an auction sale of rams this year how many yearlings would you be interested in consigning? In my opinion it is best to put in a public sale only the better kind of rams which will be a good advertisement for your flock.

Awaiting your reply, I am

Yours very truly,

L. I. Case,
Animal Husbandry Specialist.

COOPERATIVE EXTENSION WORK
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AGRICULTURE AND HOME ECONOMICS
STATE OF NORTH CAROLINA

EXTENSION SERVICE

State College Station
Raleigh, N. C.
June 20, 1939

Gentlemen:

Perhaps you will be interested in the way lambs are selling at various points and under various methods of marketing. On June 8th lambs were graded in Alleghany, Ashe and Watauga. The latter county made a deal over the telephone with an auction market in Southwest Virginia and delivered 160 lambs on Friday, the 9th, at the following prices: Choice \$10.00, Good \$9.50, Medium \$8.50, home weights and 15 cents per head for trucking. This was apparently bait. Alleghany and Ashe had same chance but chose to ship to Sam Nagle, Arbree Commission Company, Jersey City. Their lambs 150 head a 40 foot single, with \$2.40 per cwt. to cover drift, freight, trucking from farm to loading point, commission, feed, etc. (this cost ran higher than usual) sold on June 12th to net the growers as follows: Choice \$9.50, Choice Bucks \$8.50, Good \$9.00, Good Bucks \$8.00, Medium \$8.00 and Medium Bucks \$7.25.

Last Friday the Asheville Market handled a single deck of lambs, 134 head. They were officially graded and sold as follows: Choice \$10.50, Choice Bucks \$9.10, Good \$9.60, Good Bucks \$8.80, Medium \$8.70 and Medium Bucks \$8.00. You will note that when shrink from farm to market, and commission are considered, these prices are closely in line with net prices for lambs shipped to Jersey City. Lambs will be graded and sold by grade each Friday at Asheville.

Yours very truly,

L. I. Case,
Animal Husbandry Specialist

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EXTENSION SERVICE

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State College Station
Raleigh, N. C.
July 8, 1939

Dear County Agent:

Am enclosing tentative classification and premium list for the 1939 Asheville Fat and Feeder Cattle Show. You will note some changes from last year. The most important change is the moderate reduction in first to tenth premiums, in the single classes and the addition of five prizes on a Grade basis. This is somewhat similar to the State Fair premium list which proved satisfactory last year. Another change is the doing away with the dehorning rule as applied to Class 7 - Feeder Calves. I was reluctant to drop this requirement but many agents said they could get more entries if they did not have to have the calves dehorned. It is still desirable and I urge that you have it done when possible.

I am also enclosing a proposal in regard to placing a ceiling on the amount that any 4-H Club member can receive for his or her steer. This is in line with what is being done in other states and has for its object the discouraging of paying unreasonable prices for calves to be fed and other undesirable practices. Such an agreement may apply to all steers exhibited and sold at a given show or it might mean only the distribution of surplus money among the exhibitors from the county from which the champion or champions come.

Please look over both the premium list and the proposal and let me have your suggestions and comments.

Also give me your suggestions as to judges for the Asheville Show.

Yours very truly,

L. I. Case,
Animal Husbandry Specialist

Encls.

COOPERATIVE EXTENSION WORK
IN

AGRICULTURE AND HOME ECONOMICS

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STATE OF NORTH CAROLINA

State College Station
Raleigh, N. C.
September 6, 1939

TO ALL COUNTY AGENTS AND ASSISTANTS:

A recent letter from W. B. Mitchell and Sons, Marfa, Texas, gives us definite quotations on stocker and feeder cattle as follows: "Choice heifer calves weighing 400 to 450 pounds at 8 $\frac{1}{2}$ ¢ per pound; choice heifer yearlings weighing 550 to 600 pounds at \$42.50 per head on the lighter weights and \$45.00 per head on the heavier weights (all of these bred to the best of registered bulls); steer calves weighing 400 to 450 pounds at 9 $\frac{1}{2}$ ¢ per pound, and steer yearlings weighing 600 to 650 pounds at 8 $\frac{1}{2}$ ¢ per pound. All of these prices are f.o.b. the cars here." They also invite us to attend their Highland Feeder Show and Sale on October 6th. This show and sale is to be held in connection with their Highland Fair and Rodeo. They state that they will have 3000 hand picked calves and yearlings which will be sold by the pound with freight prepaid to any point in the United States.

To repeat a statement made in my letter of August 7, Western North Carolina offers a good source of supply for cattle to be put into the feed lot and fattened for the winter and spring market. These cattle are farm raised and will do better for the average feeder than cattle shipped in from other states. Our mountain counties also have a limited supply of female stock of various ages and breeds for sale. If you have not received a copy of the list of cattle for sale in Western North Carolina, write for same.

Recently, I have been getting some inquiries about cattle for sale in Southeastern Iowa. Evidently the cattle racketeers in that section are at it again with their advertising, post card announcements, etc. Whenever stocker and feeder cattle are scarce they reap a new crop of suckers. They lure the prospective buyer by talking high quality and low prices. If the buyer goes to see the cattle they usually show him some good cattle and ship something else or take advantage of him in some other way. Some of our cattle men of wide experience and excellent trading ability have been robbed in this section and I have never known anybody to get a square deal. My advice and warning is STAY AWAY FROM IOWA IF YOU WANT TO BUY CATTLE.

In order to give you some insight into the cattle situation I am herewith quoting extracts from a recent issue of "The Livestock Situation" published by the Bureau of Agricultural Economics. "Prices of all livestock declined during July and early August". - "Prices of slaughter cattle declined only moderately in July after a sharp drop from early April through mid-June". - "The average price of good grade slaughter steers at Chicago for the week ending August 12, was \$8.95 per cwt. about 75 cents lower than a year earlier".

I have compared recent quotations on choice and prime steers with a year previous and find prices at Chicago about \$2.50 lower than 1938. Grass fat heavy steers from Southwest Virginia are bringing about \$1.50 under 1938 prices. In other words, it looks as though the higher the quality the greater the spread between prices last year and this.

To again quote: "Prices of stocker and feeder cattle also declined in recent months, partly because of the drop in prices of fed cattle and partly because of seasonally larger supplies from the Southwest." Let me add that quotations on good to choice white faced steer calves at Kansas City on August 25th were \$9.00 to \$9.50 while on August 26th, 1938 they were \$8.50 to \$9.00. Yearling feeders, however comparing the same dates are lower this year than last.

Beef Cattle Outlook

B.A.E.

"The number of cattle on feed for market in the Corn Belt States on August 1, this year was estimated to be 16 per cent larger than the number on feed August 1, last year." --- "This doubtless reflects the record stocks of corn in the Corn Belt States on July 1, and the high prices of cattle relative to corn prices that have prevailed since last fall."

If you wish to receive copies of "The Livestock Situation" write the Bureau of Agricultural Economics, United States Department of Agriculture, Washington, D. C., for the same.

Yours very truly,

L. I. Case,
Animal Husbandry Specialist

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NORTH CAROLINA COUNTIES AND
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AGRICULTURE COOPERATING

EXTENSION SERVICE

State College Station
Raleigh, N. C.
September 25, 1939

TO COUNTY AGENTS IN ASHEVILLE SHOW TERRITORY:

Gentlemen:

I am herewith enclosing lists of owners of Fat and Feeder calves in your county as furnished me by Sam Williams. Please check this over carefully, complete the information asked for, make any corrections necessary and return to me as soon as possible. I want to list all the names and addresses, etc., on a special sheet for use at the Asheville Show and the nearer correct it can be made prior to the show the better.

There seems to be some question about the date of the Asheville Show. It is Wednesday, October 4th, and all cattle must be on the grounds not later than 3:00 P.M. October 3rd. This will be best for everyone concerned.

For those of you intend to bring some cattle to the State Fair it is suggested that you make your own arrangements for transportation. If you only have a few head of either 4-H Club steers or breeding cattle make arrangements for shipping with some other county. Freight shipments will probably be a little more expensive than truck but the cattle will no doubt go through in better shape in a box car. The freight rate from Asheville to Raleigh is 35 cents per hundred weight with a minimum of 20,000 pounds for a 36 foot car. Each person who rides in the car will have to pay regular fare of \$5.50.

Be sure that you have the necessary equipment for your cattle. This includes tubs or feed boxes, one for each animal, ample buckets for watering, good rope halters for tying and showing, forks for handling litter and the necessary supply of brushes, combs, etc.

Just a few suggestions for the handling of the steers from now until show time. Have each owner practice leading and showing his or her steer each day. A good walk each day will help the appetite and keep the animal on his feet in better shape. Wash each steer at least three times between now and the Asheville Show. Groom each day and curl as often as possible. A few days before the Asheville Show clip the heads and tails of all cattle. This should be done or at least directed by one who has had experience. Use a small amount of olive oil and alcohol, half and half, on a woolen cloth for softening hair for a few days prior to show.

Avoid too much washing at shows. If necessary wash calves soon after arrival at show yards. Then keep calves well bedded and clean, avoiding further washing as far as possible.

There has been a considerable amount of trouble in former years with calves scouring and going off feed at the shows. It is believed that the following suggestions will help correct this trouble: 1. Feed and water regularly. 2. Avoid sudden changes in ration. 3. Cut down amount of salt fed to calf for a few days prior to and at show. 4. Gradually reduce or cut out entirely any succulent feed and legume hays and substitute grass hays instead. Most professional showman feed timothy hay at shows to avoid scouring.

I hope it will be possible for one of the agents or at least a reliable man who will follow instructions to be with the cattle at Asheville and Raleigh, night and day.

Don't forget to have blankets, etc. for men and boys who will sleep at the barns.

Have all club boys and girls as far as possible on hand to show his or her calf. at Asheville. Also as far as practical have them at the State Fair.

Review the rules of the show and see that all are carefully observed. If there are any questions of which you are not certain write me or the show management.

Everything possible is being done to assure successful sales at both Asheville and Raleigh. You do all you can to interest local buyers for some of your calves.

Very truly yours,

L. I. Case,
Animal Husbandry Specialist.

Encl.

P. S. I am trying to interest Eastern County Agents in buying the better end of the feeder calves to be shown at Asheville for their 4-H club boys to feed for the Rocky Mount show in the spring. Am telling them that I think arrangements can be made to have these calves brought to Raleigh with the Fat Steer exhibits with no delivery costs. This should develop a good market for feeder calves of quality. It will mean some cooperation on the part of those of you who will be shipping to Raleigh in order to help those who are not. Will you cooperate in this?

L. I. C.

COOPERATIVE EXTENSION WORK
IN
AGRICULTURE AND HOME ECONOMICS

EXTENSION SERVICE

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

STATE OF NORTH CAROLINA
State College Station
Raleigh, N. C.
November 15, 1939

NOT FOR PUBLICATION

To All County Agents and Assistants:

Records show that we have past the low point in cattle numbers in the United States and restocking is the order of the day. This also means that we are at or near the peak of prices. The cattle cycle is usually from 14 to 16 years which means that under normal conditions the tendency will be for numbers to increase and prices tend downward for the next 6 or 7 years.

As for slaughter cattle, there are more cattle on feed than last year and the Bureau of Agricultural Economics looks for larger supplies of grain fed cattle during the next six months than in the corresponding period of 1939. However supplies next summer and fall may be no larger than in the summer and fall of 1939.

In regard to the effect of the European war on the cattle situation it is not likely that we will ship any beef to Great Britain as that country will probably get most of its beef from South America, Australia and New Zealand. A moderate increase in exports of pork are anticipated but no increase comparable to that which took place during the previous war is expected. Increased demand for meats as a result of improved business conditions will likely take place. Summing the situation up from every angle it is believed that we should take a conservative stand and advise our farmers to go into cattle only on a sound basis. Let us not forget that in 1933 the price of Good grade slaughter steers was in the neighborhood of 5 cents per pound and that in the summer and fall of 1934 stocker and feeder steers sold below 4 cents per pound. Also remember that history repeats itself.

Ample pasture and feeds of other kinds for the year around should be given first consideration on both new and old cattle farms. Good purebred bulls are always a safe and sound investment.

Beginners in the cattle business can best invest their money in good type purebred bulls for use on native or grade females. Only in very rare instances should farmers without considerable experience go into the purebred business. They should get their experience with limited numbers of cattle of the kind that require smaller invested capital.

Established herds should be culled during the present period of good prices and replacements made by keeping back the best heifer calves, or, in some cases by purchase of better females.

It is realized that few will go into cattle or anything else when prices are low. On the other hand the majority go in when prices are high. We who are working for the farmers good should be careful not to get over enthusiastic ourselves at a time like the present. One success is better than several failures.

Yours very truly,

L. I. Case,
Extension Animal Husbandman.

IMPORTANCE OF GOOD PASTURES STRESSED

**Specialist Says Land Should
Be Built Up Just As For
Any Other Crop.**

A good pasture is essential to economical livestock production, says L. I. Case, animal husbandman of the State college extension service. It should be produced on land that is suitable for the growing of pasture plants. The land should be built up, prepared and fertilized for pasture with just as much careful thought and judgment as for any other crop.

Now is the time to improve old pastures and seed larger acreage to adaptable, edible and nutritious grasses and legumes, Case points out. Present increased interest in the growing of more livestock in North Carolina should logically be accompanied by an increased interest in pastures. It is only under rare circumstances that farm animals of natural grazing habits can be produced at a profit unless they are provided with good grazing for at least half of the year. The longer this good grazing can be provided, the greater the profits as a rule.

Very often soil tests should be made to see what elements are lacking and these elements added in order to build a pasture worthy of the name, the beef cattle and sheep specialist advised. Stable manure, commercial fertilizers and lime are often needed to make good pastures. Where part of a pasture is fertilized one will usually find the stock doing most of their grazing on this particular area, showing that they are getting what they like and need for growth and development. Livestock need to get a good fill in a comparatively short time and then lie comfortably in the shade while this feed is digested and converted into beef, milk or mutton.

The selection of adaptable varieties of pasture plants is one of the points stressed by Case. "The kinds of grasses and legumes that are now thriving under similar conditions is often a good indication of what will do best," he said. "Many times certain pasture plants will be found growing luxuriantly along road sides and fence rows. This often gives a good lead as to what will do well in this particular locality."

FAT STOCK SHOW MARCH 16-17

Plans for the second annual Eastern Carolina Fat Stock Show and Sale in Mangum's Warehouse at Rocky Mount have been announced by H. W. Taylor, swine specialist, and L. I. Case, beef cattle specialist of the State College Extension Service. The event will be held March 16 and 17 under the sponsorship of the Rocky Mount Chamber of Commerce with the cooperation of the Extension Service.

J. C. Powell, Edgecombe County farm agent, and T. E. Alphin, farm agent-elect in Nash County, are co-chairman of the show, with E. H. Austin of the Rocky Mount Chamber of Commerce as secretary.

All beef cattle and swine growers east of and including Wake, Granville, Durham, Harnett, Hoke and Scotland Counties are eligible to exhibit and complete for premiums totaling \$803 in cash. Special divisions and contests for 4-H Club members and vocational agriculture students have been arranged. Entries should be made to Mr. Austin before March 11.

Hogs to be eligible must be barrows or gilts weighing at least 160 pounds but not more than 240 pounds. Beef cattle will be divided into the customary three classes — lightweight, medium-weight, and heavyweight.

All animals will be judged Thursday afternoon, March 16, starting at 1 o'clock. A junior judging contest for 4-H Club members and vocational agriculture students will be held Friday morning, March 17th, starting at 9 o'clock. The sale will begin that afternoon at 1 o'clock.

A new class in hogs will be for 4-H Club members and vocational agriculture students, with 16 prizes offered.

Interest Spreads Over Entire State In Livestock

RALEIGH, June 12.—Interest in livestock is spreading from one end of the State to the other, reported L. I. Case, beef cattle specialist of the State College Extension Service, upon his return from recent visits to Pitt and Wilkes counties.

In Pitt county, Case said he found that J. V. Taylor of near Bethel recently sold a young Hereford steer to a local butcher for better than 8 cents per pound on the hoof, and that Mr. Taylor has seven or eight head of steers he plans to carry over and fatten for the market next year.

"Mr. Taylor is entering the beef cattle business in a conservative way," Case stated. "He has a small herd of grade white-faced cattle and a few purebred females with a registered bull which came from Anson county. Mr. Taylor built a fine cattle barn last year. He is keeping all of his heifer calves to build up his herd."

The extension specialist also visited W. A. Allen of Farmville while in Pitt county. This farmer moved to Eastern Carolinas from Middle Tennessee, and says he thinks that North Carolina offers great possibilities for the development of a livestock industry. He bought a pure-bred Hereford bull recently, which he added to his herd of 65 heifers and steers, the foundation for which were purchased on the Kansas City market early in 1938.

J. H. Johnson of Wilkesboro, a former sheriff of Wilkes county, has a small herd of purebred Herefords, headed by a bull he purchased a year ago from R. R. Giltner of Eminence, Ky. Mr. Johnson is helping to develop the beef cattle industry in Wilkes by selling young bulls to neighbors, Case reported.

LAMB SHIPMENTS PLANNED IN N. C.

Planned This Spring From Tarboro, Plymouth, Shaw- boro And New Bern

RALEIGH, Jan. 29.—Cooperative lamb shipments are planned in May and June from Tarboro, Plymouth, Shawboro and New Bern, it was announced today by L. I. Case, animal husbandman of the State college Extension service.

A meeting was recently held at New Bern to discuss the matter of grading lambs and selling them cooperatively by grades. Among those who attended were John Scott and Albert Venters, leading sheep growers of Onslow county, and county farm agents from Craven, Jones, Onslow and Pamlico counties. Carteret county also will be included in the shipments.

Case said the group decided to try to get off at least one deck of lambs this spring. The time of the shipment will depend upon the way the lambs develop, but in all probability it will be made in May or June, perhaps shipments will be made in both months.

Improved production methods were discussed at the conference, and as a result the extension animal husbandman has prepared brief instructions for care, feeding and management of lambs, together with internal parasite control. These suggestions are available through county farm agents or upon request directly to Case at State college.

In the preface to his suggestions, Case says: "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.

"Of first importance in feeding lambs is milk and plenty of it. See that the ewes are fed for milk production. 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."

FARM QUESTIONS

Answered By State Agricultural Extension Service

QUESTION: Is sheep raising profitable in North Carolina?

ANSWER: Yes. Research work by scientists of the North Carolina Experiment Station indicate that a small farm flock of sheep will pay excellent returns throughout most of North Carolina. Pure-bred Hampshire rams used on native ewes produce an excellent cross bred lamb of high quality and with good weight of body and wool. Sheep keep weeds under control, produce mutton for home use and supply an income from wool and lambs.

QUESTION: Is grass silage a practical feed in this State?

ANSWER: Apparently so because many good farmers have now turned to this method of providing succulent feed for their cattle during summer. It is rather hard to cure for hay the cereal and legume crops planted in the fall and harvested in the spring. Many times it rains continuously when the hay should be cut and the crop thus matures to the point where it is nothing much but stems and woody tissue. If the crop is cut and rained upon, curing is difficult and a low quality, moldy hay is the result. On the other hand, this material can be cut and stored and the cattle are assured of an excellent feed. There is no waste.

QUESTION: What results, if any, are coming from this Conservation program of the Agricultural Adjustment Administration?

ANSWER: The program seems to be bearing fruit. At least over six million farmers in the United States seem to think so because that many persons are carrying out improved practices on about 50 million acres of farm land. These farmers are adjusting their practices to include increased acreages of grasses and legumes, applications of limestone and phosphate to make good pasture and meadow crops, planting forest trees, constructing ponds and reservoirs and protecting the soil from erosion by wind and water. They are terracing, contour farming, strip cropping and filling gullies. All of this must result in a better soil for those who come after us.

VALUE OF SHEEP IS TREMENDOUS

Another Reason Given by State College Specialist For Raising Sheep

Raleigh, July 4.—(AP)—W. W. Varden is going back into the sheep business as soon as he can locate some good ewes.

This Alleghany County man, whose farm is located near Laurel Springs, told L. I. Case, extension animal husbandman at State College, that his pastures have been going down ever since he disposed of his sheep about three years ago.

For months now, Varden has noticed that where his neighbors have been grazing sheep on their pasture land, there has been a noticeable lack of weeds. However, on his own farm the weeds have completely infested his pastures.

Such a situation might be all right if his cattle relished the weeds. But it seems the kinds of weeds now springing up the cattle won't touch. Case said it has long been recog-

nized that sheep will eat a multitude of weeds that no other farm animals will eat. However, the average farmer is likely to overlook this fact unless it is called to his attention.

R. E. Black, Alleghany County farm agent, told Case it is easy to tell on which farms sheep are kept observing the pastures. At this time of the year, there is a yellow-blossomed weed quite prevalent in cattle pastures, but which is conspicuous by its absence in pastures where sheep are grazed.

"This elimination of undesirable weeds is but another reason why North Carolina farmers should add sheep to their list of farm animals," Case said. "Besides furnish lambs and mutton, they also provide an additional income through their wool."

LIVESTOCK GAINS SCORED IN STATE

Poor Cotton Prices, Tobacco
Problems Turn Farmers
To Fine Field

By GENE KNIGHT

Assistant Extension Editor, N. C.
State College

RALEIGH, Sept. 24 — (AP) — Whether it likes it or not, North Carolina is becoming a livestock-minded state. L. I. Case, extension specialist in beef cattle and sheep at N. C. State college, said today.

Disastrous cotton prices coupled with poor yields in many years, and now price trouble with tobacco have turned the faces of many farmers toward livestock as an answer to their problem.

In fact, Case said, last year marked the greatest progress in animal husbandry in 10 years. Especially was this true with beef cattle, as old owners increased their herds, and many first-timers entered the business.

Sinking cash crop prices helped put more livestock on North Carolina's farms, but the agricultural conservation program also did its share. By encouraging growers to plant more feed crops, the program was directly responsible for the addition of more animals to consume the surplus feed brought about.

Then, too, Case said, cattle prices were high in comparison with most crops. Naturally the farmer would be expected to turn toward that field where he could earn the greatest amount of cash income.

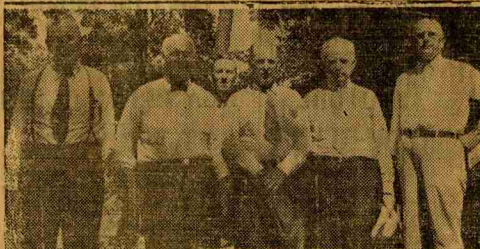
At the same time more beef cattle and other livestock are being introduced in North Carolina, improved methods of handling and feeding them have been advocated by the State College Extension service and its agents.

Especially has much work and stress been placed on pasture improvement, silo building, and winter cover crops programs. Then another strong point has been the teaching of controlled breeding for improving the stock.

Specialist Case and others connected with the extension service have pointed out repeatedly that the production of beef cattle is not confined to the western counties. Coastal North Carolina also offers advantages in a mild climate and plenty of inexpensive grazing. More and better herds are being raised in the eastern counties each year.

To stimulate interest, stock shows are held in both eastern and western North Carolina each year. The eastern show is held in Rocky Mount and the western show in Asheville. These events bring together some of the finest blooded animals in the state.

Livestock Association Officers



Six of the officers of the recently formed North Carolina Hereford Cattle Breeders' Association are shown above. They are left to right: W. E. Shiner, of Vicks, Watson, treasurer; Cameron Morrison of Charlotte, Mecklenburg county, member of the executive committee; and

BEEF CATTLE

The recent organization of the Hereford Cattle Association in Anson county, comprising growers from all over the state, is a notable event for this section. Senator Morrison, who was on hand for the organization, spoke of the natural adaptation of this section to the production of beef cattle. There are the natural conditions as enumerated by Mr. Morrison, soil, moisture and a long growing season, perfectly adapted to the production of feed crops of every kind. In addition to this we now have marketing facilities not heretofore available. Under these cattle may be sold in local markets for as high prices as local conditions warrant and always as high as the Chicago market. All the favorable conditions which apply to beef cattle also apply to dairy cattle and hogs.

The Charlotte Chamber of Commerce has a department devoted to the promotion of live stock growing. No activity of the chamber could be made more valuable than this. Beef cattle and fat hogs can now be sold as easily as cotton, while dairy and poultry products never lack a market. Milk condenseries are now clamoring to get into this section and just as soon as the supply of milk warrants it, at least one big company with huge national markets is ready to erect a condensery.

SHEEP WILL GET GROWERS PROFIT

Prospect Bright for Good Season for Growers as Wool Price Soars

College Station, Raleigh, June 7.—Prospects are bright for a profitable season for sheep growers, reports L. I. Case, animal husbandman of the State College Extension Service. The Boston Wool Market has strengthened two cents per pound within the past two weeks, and two wool pools conducted by county agents in Western North Carolina recently brought producers 31 cents per pound, which is about 12 cents above the average of sales in the State last year.

Lamb prices at the cooperative sales conducted by Extension Service agents last week at Tarboro and Shawboro also were well above the average of last year. At the Shawboro sale, the most recent of the two, 144 lambs were sold, mostly from Pasquotank county, with a few from Currituck.

A double-deck truck of the Shawboro lambs were shipped to Philadelphia where they brought the following prices: Choice, \$12.50; good, \$12; medium, \$11.20; and plain lambs, \$9, all per hundredweight. The average for all lambs shipped cooperatively from the State last year was \$7.50 cwt.

Extension Specialist Case said that the most recent quotations from the Boston Wool Market are 30 to 31 cents on 3-8 and 1-4 blood wool, the grades most common in North Carolina. He reported that the Virginia Wool Pool a few days ago sold for 31.52 cents per pound, and that the Tennessee pool brought about the same figure.

A North Carolina manufacturer is offering 30 cents for small lots of clear 3-8 and 1-4 blood, 28 cents for light burry, and 25 cents for heavy burry wool. The same company will allow 35 cents for wool in lieu of cash in the making of blankets. It takes 11 pounds of wool for the making of a pair of blankets, and \$5 for the making.

SHEEP PRODUCTION IMPROVED IN N. C.

Grading And Sooperating Selling Of Lambs Influences Methods

RALEIGH, July 23.—(P)—Grading and cooperative selling of lambs are having a marked influence on better sheep production methods in western North Carolina, L. I. Case, extension animal husbandman at State college, said today.

In practically all of the mountain counties where sheep raising is on a well-established basis, farmers are planning to increase the size of their flocks, largely because of the good prices received at the cooperative pools arranged by county farm agents.

Case said at three recent shipments from Ashe, Alleghany, and Watauga counties, farmers sold 1,191 lambs. Additional ewe lambs were graded and sold to growers to be added to their present flocks or for the establishment of new flocks.

As an example of the interest being shown in better methods of raising sheep, Case pointed out Henry Taylor of Valle Crucis. At this year's sale, Taylor sold 14 lambs, seven of which graded choice and the other seven good. Last year, this same farmer sold 34 lambs, but only one of the entire lot graded choice.

Case quoted Taylor as saying that after the 1933 sale he intended to improve his methods or go out of the sheep business. So he culled his ewes, improved his pastures, purchased a better ram, and watched closely for stomach worms. His remarkable success at this year's sale indicated clearly the superiority of improved methods.

Another example of the advantages of grading was furnished by Neal Blair of Boone. In a recent shipment, this farmer had more choice lambs than in any shipment since the cooperative marketing was started. He attributes much of his success to his practice of feeding a grain mixture to his lambs.

Beef Cattle Becoming Major State Enterprise

1,500 Head Shipped Into N.C. Last Year and Calls For Stock For Breeding Con- tinue Heavy.

Farmers of North Carolina are making greater progress in the animal husbandry field than at any time during the past decade, L. I. Case, beef cattle and sheep specialist of the state agricultural extension service, reports.

This was especially true in respect to beef cattle last year, and the interest is mounting during these early months of 1939, Case said. "Calls for breeding stock were so numerous and strong in 1938 that our normally surplus areas were unable to supply the demand, with the result that approximately 1,500 head of females were shipped into the state to build beef cattle herds. These came from Texas, Kansas, Nebraska and other western states," he said.

Varied Reasons

Case attributed the increasing interest in livestock to several factors, chief of which were: (1) The soil conservation program increasing the supply of available feed; (2) the maturity of the cotton farmers' feel that the boll weevil and declining market outlets are sounding the doom of the crop; and (3) cattle prices have been high in comparison with most other farm commodities.

The specialist said progress is not only being made in boosting the number of steers on North Carolina farms, but also in improving the quality of animals. He thought that 4-H baby beef club work, show yard competition for 4-H club members and adults, and increased knowledge of United States standard grades are all playing an important part in quality improvement.

"Deterioration of the quality of our beef cattle in this state went on for many years," Case asserted. "The main reason, we believe, for this was the high percentage of mediocre bulls in service which resulted in many low grade steers and heifers being produced. This lowering of quality was

seriously handicapping the market of our feeder steers in southwestern and northern Virginia. For these reasons, the replacement of common bulls with better type animals was one of our main lines of extension work in 1938, and will continue to be in 1939."

New Pastures

Termining pastures the foundation of economical livestock production, the extension specialist reported he had reports of 1,786 new pastures being established in 1938 in 63 counties, and that 4,477 farmers in 75 counties followed extension recommendations for improved fertilization of pastures.

"The use of silage in the winter feeding of beef cattle is becoming increasingly popular," he continued.

"No doubt the introduction of the trench silo has had much to do with this popularity. Corn is the main crop used for silage, although cane is used to some extent, and experimental work is being done in the use of grasses and legumes with black strap molasses added to correct acidity.

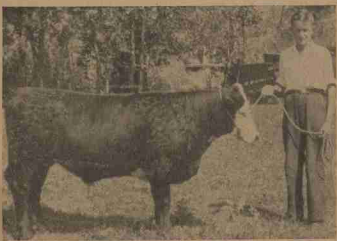
"During the year 224 silos were built on farms in 51 of North Carolina's 100 counties. These were built on all types of livestock farms and show a definite trend toward diversification of agriculture in the state."

Young Progressive Haywood County Cattle Raisers



JACK ROGERS, son of Mr. and Mrs. John F. Rogers, is a member of the Crabtree 4-H Club, with his Hereford calf, "Dave," which has gained 480 pounds in 108 days or an average of 29 pounds per day. Dave will be 8 months old October 22.

(Story on page 11)



DAVID SMART, son of Mr. and Mrs. Ellis Smart, who is a member of the Crabtree 4-H Club with his Aberdeen-Angus-Hereford calf, "Jack," which has gained 412 pounds in 108 days or an average gain of 25 pounds per day. Jack will be 8 months old October 5.

MY BABY BEEF

"Jack," the name of my Hereford-Aberdeen Angus baby beef calf, was born February 5, 1938. "Jack" is a good calf, and since he was first weighed on March 25 until September 11 he gained 412 pounds at an approximate cost of \$39.00.

Milk has been his principal diet.

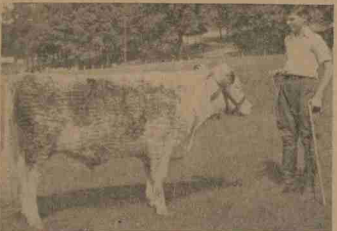
since he was put on feed with corn and a little cottonseed meal and sweet feed added. The people in our community have taken a great deal of interest in "Jack" and are always inquiring as to how much he has gained per month.

DAVID SMART



BOYD MESSER, son of Mr. and Mrs. L. Z. Messer, who is a member of the Pine Creek 4-H Club with his Hereford calf, "Dick," which has gained 521 pounds in 224 days or an average of 23 pounds per day. Dick is 10 months old.

(Story on page 11)



RICHARD BRADLEY, son of Mr. and Mrs. W. A. Bradley, is a member of the Waynesville 4-H Club with his Hereford-Shorthorn calf, "Haywood," which has gained 487 pounds in 224 days or an average gain of 23 pounds per day. Haywood is 12 months old.

MY BABY BEEF

On January 15, 1939, I started my baby beef project, a Shorthorn-Hereford beef calf from the herd of Mr. John M. Queen, Sr. "Haywood," which I named my calf, weighed 516 pounds at the time; since then he has gained 457 pounds.

To date I have fed him in mixed feed, which has amounted to a cost of \$38.20, and \$17.00 in milk, making a total cost of \$55.20.

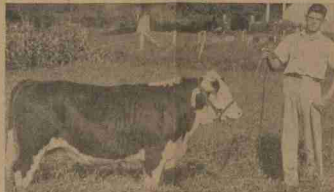
On August 8, 1939, I showed him at Bethel in the 4-H Club Baby Beef Show, and won 2nd prize in the Medium Class and 1st prize for showmanship.

Friends in this community have shown a great interest in the growth of "Haywood," and over a period of a few months over 100 people have come to see him.

RICHARD BRADLEY



WAY ABEL, son of Mr. and Mrs. Grover J. Abel, is a member of the Canton 4-H Club with his Hereford calf, "Colonel," which has gained 549 pounds in 224 days or an average gain of 25 pounds per day. Model is 10 months old.



WAY ABEL, son of Mr. and Mrs. Grover J. Abel, is a member of the Canton 4-H Club with his Hereford calf, "Colonel," which has gained 549 pounds in 224 days or an average gain of 24 pounds per day. Colonel is 11 1/2 months old.

MY BABY BEEF

When I came from the State Fair last fall with a greater determination to have a winner, I went to the barn to look at two calves which I had. One of these calves was a full brother to "Fairfax," which I showed at the State Fair last year. I named my calves "Colonel" and "Model."

"Colonel" was born on Sept. 15, "Model" was born on Dec. 15. I fed the calves good all winter, and in January I got them on rail feed and they have had all they could eat from that time on. The ration of these calves has been corn, cottonseed meal, sweet feed, and bulk.

This is the 4th year I have had

4-H Club baby heaves in the show, and I think they have created quite a bit of interest for a better type of beef cattle for my community, for most people like to see good cattle. Approximately 200 people have come to see my calves.

"Colonel" has cost me \$52.00 in feed and milk and has made a gain of 569 pounds since I have had him on feed.

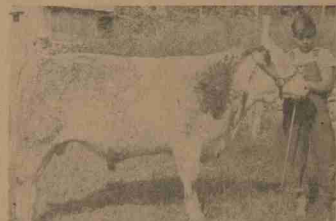
"Model," which is smaller than "Colonel," has cost me \$41.00 in feed and milk and has made a gain of 569 pounds since he has been on feed.

"Colonel" and "Model" have been very interesting to work with, and I think they think a lot of me.

WAY ABEL



VERDON SINGLETON, son of Mr. and Mrs. Welch Singleton, who is a member of the Bethel 4-H Club, with his Aberdeen-Angus calf, "Joe Louis," which has gained 457 pounds in 224 days or an average gain of 24 pounds per day. Joe Louis is 17 months old. (Story on page 11).



LOYD BUCHANAN, son of Mr. and Mrs. Charlie Buchanan, is an individual 4-H Club member with his Hereford-Shorthorn calf, "Moody," which has gained 412 pounds in 224 days or an average of 24 pounds per day. Moody is 11 1/2 months old.

MY BABY BEEF

My calf, a Shorthorn-Hereford cross, was two months old when purchased from Mr. Charlie Moody, of Jonathan Creek.

In December, 1938, the calf,

which I named "Moody," was put on a fresh Hereford cow, whose calf had been sold. In the beginning "Moody" consumed a gallon of milk two times a day. After a

(Continued on page 11)



CALVIN FRANCIS, son of Mr. and Mrs. Claude Francis, is a member of the Waynesville 4-H Club with his Hereford-Shorthorn calf, "Bill," which has gained 532 pounds since he was put on feed. Bill is 12 months old.

MY BABY BEEF

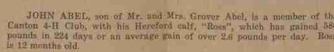
On November 5, 1938, I decided to join the 4-H Club, so I purchased a beef calf which I thought was good enough to take as a project and enter in the Fat Stock Show. However, I have succeeded in getting him to gain 532 pounds since I started with him. He is doing

well now and I am feeding him plenty of water. His ration now is dry corn from the field chopped up with cottonseed meal spread over it, and hay. The cost of raising "Bill" is \$36.12.

I have found out through experience that not as much gain can be put on a baby beef when he runs in the pasture as when he is kept in the stall.

A great deal of interest has been shown in this calf by my neighbors, and over 50 people have come to look at "Bill."

CALVIN FRANCIS



JOHN ABEL, son of Mr. and Mrs. Grover Abel, is a member of the Canton 4-H Club with his Hereford calf, "Rose," which has gained 586 pounds in 224 days or an average gain of over 26 pounds per day. Rose is 12 months old.



JOHN ABEL, son of Mr. and Mrs. Grover Abel, is a member of the Canton 4-H Club with his Hereford calf, "Rose," which has gained 586 pounds in 224 days or an average gain of over 26 pounds per day. Rose is 11 1/2 months old.

MY BABY BEEF

As a 4-H Club project I have two Hereford baby heaves whose names are "Rose" and "Bob."

"Rose" is a little older than "Bob." Both calves have been given all that they would eat since they were put on feed in January, 1939. Since that time, "Rose" has gained 566 pounds, and "Bob" has gained 508 pounds. It cost \$54.00 in feed and milk to put this amount of gain on "Rose," and \$46.00 for "Bob."

"Rose" was born on Sept. 20, 1938. "Bob" was born on Sept. 20, 1938. The ration they are fed consists

of corn, cottonseed meal, a small portion of sweet feed and milk.

"Rose" won the Grand Championship at the Baby Beef Show at the Bethel school, and "Bob" was the Reserve Champion.

I think my baby beef calves have helped to improve the beef cattle in our community and county. This is my 6th year in baby beef work as a 4-H Club project, and I think I have the best calves I have ever raised; however, the judges of the show will tell me more about it.

JOHN ABEL



KENT RETNER, son of Mr. and Mrs. W. D. Retner, is an individual 4-H Club member with his Aberdeen-Angus calf, "Smoky," which has gained 454 pounds in 195 days or an average gain of 2.7 pounds per day. Smoky will be 4 months old October 20.

MY BABY BEEF

On March 25, 1938, I purchased from Mr. Weaver Calhoun of Pigeon an Aberdeen-Angus calf which I named "Smoky." "Smoky" at that time weighed 133 pounds.

The principal part of "Smoky's" ration has been the milk that he would drink. A young calf will grow faster with milk as a food

than any other ration. "Smoky" has gained 454 pounds from March 25 until September 11, 1938, at an approximate cost of \$39.00.

Many people seem to be interested in the growth of "Smoky" and how he will come out in the Fat Cattle Show to be held in Asheville and at the State Fair.

KENT RETNER

Case Offers Advice

MANY NEW HERDS OF BEEF ANIMALS ARE ESTABLISHED

Inexperienced Livestock Men Greatly Increase Throughout State

Hundreds of new herds of beef cattle have been established on North Carolina farms within the past few months, with literally thousands of heifers and bulls being imported for breeding purposes, and steers brought in for winter fattening on the surplus grain and hay made during the recent favorable season. Scores of farmers are entering the livestock business without previous experience in raising beef cattle.

L. I. Case, extension animal husbandman of State college, reports that his office and the offices of county farm agents of the extension service, have been swamped with requests for information on the feeding and management of a beef herd. He offers the following general suggestions, with special emphasis on winter feeding and care of calves:

"The first year, and especially the first winter, is a critical period in the calf's life. If it is to be fattened for the market at an early age, it should, where practical, be started on grain when two or three months old and never be allowed to lose its calf fat. On the other hand, in the case of the heifer calf that is to be kept for breeding purposes, or steer calves to be carried over, one is more interested in proper growth than degree of fatness.

"An average beef calf dropped in February or March should weigh about 400 pounds at weaning time (at about eight months of age). He should be wintered in such a way that he will gain from 60 to 75 pounds."

Suggested Winter Rations

Case suggested one of the following four daily wintering rations for 400-pound calves: (1) 12 pounds of corn silage, five pounds of legume hay, and corn stover at will; (2) five pounds of legume hay, five pounds of corn stover, one and one-half pounds of corn or cob meal, and one-half pound of cottonseed meal; (3) 12 pounds of corn silage, four pounds of mixed hay, and one pound of cottonseed meal; and (4) 10 pounds of mixed hay, two pounds of corn or

On Winter Feeding Cattle

Controlled Breeding Of Cattle Important

Controlled breeding of beef cattle is important in the production of an economical, well-developed herd, says L. I. Case, beef cattle specialist of the State College Extension Service.

On the well managed farm, beef cows are generally bred in the late spring or early summer in order that they may calve at the proper time. In Eastern North Carolina, under average conditions, the bull is allowed to run with the cow herd during May, June and July, and the calves arrive in February, March and April the following year.

During the remainder of the year the bull is kept in a small, strongly-fenced pasture, or lot, either by

himself or with a bred cow for company. This same procedure, with perhaps some variations to suit local conditions, is followed in Piedmont and Western North Carolina.

There are several advantages in having the calves come at the same time of the year. Dry cows can be wintered more easily and cheaply than cows nursing calves. Winter and early spring cows usually grow off faster and make better animals than calves dropped in the summer or fall. Calves dropped at the same time, close together in the spring of the year, can all be weaned at the same time. Their uniform ages makes it possible to pasture, house and feed them together.

Steers of about the same weight and age also can be marketed easier, since buyers will make offers for lots when they don't have to guess at the age of the individual steers.

Of course, if a small herd is kept and beef is slaughtered for

home use the year round, it would be more practical to have the calves dropped at different times. However, controlled breeding will aid commercial production.