

Durham-Wayne Association in September and was succeeded by W. R. Burnette.

The following is a statistical report on this association for the first testing year which closed December 31, 1929.

HERD OWNER	COW	POUNDS	POUNDS	VALUE OF	TOTAL FEED	VALUE OF PRODUCT	
	: YEARS:	MILK	: FAT	: PRODUCT:	COST	: ABOVE FEED COST :	
J. H. Aldridge	:10.92:	6144	: 296	: \$ 285.00:	\$ 127.00	: \$ 155.00	:
Caswell Training School	:46.67:	9103	: 303	: 527.00:	185.00	: 342.00	:
L. R. Cutler	:11.33:	4175	: 187	: 168.00:	69.00	: 99.00	:
A. Gordon	:32.25:	5250	: 255	: 204.00:	80.00	: 124.00	:
W. D. Grimes	:18.50:	3119	: 132	: 127.00:	65.00	: 62.00	:
Kennedy Home	:19.67:	5877	: 210	: 340.00:	97.00	: 243.00	:
Russell McKinley	:40.08:	5149	: 219	: 243.00:	104.00	: 139.00	:
L. O. Moseley	:22.17:	3624	: 166	: 235.00:	81.00	: 154.00	:
J. H. Newborn	:34.42:	4129	: 192	: 190.00:	127.00	: 63.00	:
W. B. Rodman	:20.33:	5259	: 237	: 158.00:	78.00	: 80.00	:
Charles Smallwood	: 8.00:	5268	: 228	: 243.00:	145.00	: 98.00	:
Don E. Taylor	:20.42:	3120	: 148	: 260.00:	105.00	: 155.00	:
Jacob West	:13.00:	6568	: 305	: 314.00:	155.00	: 159.00	:
Carl Windley	:29.17:	6405	: 268	: 431.00:	154.00	: 277.00	:
J. E. Winslow	:59.17:	4560	: 187	: 160.00:	76.00	: 84.00	:
Wooten Brothers	:14.17:	5372	: 242	: 385.00:	121.00	: 264.00	:

Gaston-Mecklenburg-Cabarrus

The first testing year in this association was completed in June 1930. The tester G. R. Lackey, who is well liked by the members, will continue another year. At the close of the testing year a few members dropped the work, but new members were secured to take their place. The following is a report on this association for the past year:

HERD OWNER	COW	POUNDS	POUNDS	VALUE OF	TOTAL COST	VALUE OF PRODUCT	
	: YEARS:	MILK	: FAT	: PRODUCT:	FEED	: ABOVE FEED COST :	
Lewis Asburg	:32.92:	4126	: 198	: \$ 197.00	: \$ 89.00	: \$ 108.00	:
A. A. Cloninger	:28.75:	5993	: 301	: 439.00	: 118.00	: 321.00	:
J. C. Eller	:16.42:	5839	: 299	: 460.00	: 119.00	: 341.00	:
R. G. Edmiston	:19.58:	7337	: 376	: 255.00	: 125.00	: 130.00	:
R. M. Falls	:19.00:	3964	: 171	: 285.00	: 100.00	: 185.00	:
E. T. Garred	:32.50:	5299	: 260	: 389.00	: 138.00	: 251.00	:
Jenkins Brothers	:16.00:	4605	: 214	: 299.00	: 78.00	: 221.00	:
H. B. Hunter	:27.08:	5154	: 252	: 239.00	: 94.00	: 143.00	:
Jackson Training School	:44.50:	8096	: 290	: 466.00	: 109.00	: 357.00	:
Watson Morris	:13.00:	5820	: 310	: 421.00	: 130.00	: 291.00	:
Mecklenburg County Home	:39.00:	4992	: 243	: 327.00	: 110.00	: 217.00	:
O. L. Ryne	:14.08:	5383	: 261	: 378.00	: 90.00	: 288.00	:
Torrence & Pearson	:22.25:	5723	: 272	: 478.00	: 93.00	: 385.00	:

Buncombe-Henderson Association

This Association has been operating several years, but has been unfortunate in loosing several good testers in the midst of a testing year. This has made it necessary to break in a number of new testers some of which have not been satisfactory to the members. During the past year Messrs. J. W. Harrell, N. B. Nicholson and J. F. Cline have acted as testers in this association. Cline, the present tester, began work in June and is very satisfactory to the members. A statistical report of the past year's work in this association follows:

HERD OWNER	: COW	: POUNDS	: POUNDS	: VALUE OF	: TOTAL COST	: VALUE OF PRODUCT	:
Elida Home	:21.50	8290	: 361	: \$402.00	\$168.00	: \$234.00	:
L. L. Merchant	:29.08	5836	: 270	: 205.00	85.00	: 120.00	:
Ship-poor-will Dairy	:35.50	5354	: 246	: 279.00	110.00	: 169.00	:
N.C. School for the Deaf	:28.00	8651	: 287	: 257.00	164.00	: 93.00	:
Floyd E. Osborne	:23.75	6698	: 289	: 234.00	87.00	: 147.00	:
Osborne Farms	:39.75	6118	: 285	: 277.00	147.00	: 130.00	:
State Hospital	:54.00	5659	: 179	: 173.00	127.00	: 46.00	:
Far-A-Way Farm	:12.17	5490	: 252	: 119.00	89.00	: 30.00	:
State Test Farm	:17.67	7081	: 341	: 174.00	109.00	: 65.00	:

Piedmont Association

This association has operated continuously since it was organized on June 1, 1924. Mr. T. C. Andrews the present tester is now on his second year's work. The following is a statistical report on the herds in this association for the past year, which closed in June.

HERD OWNER	: Cow	: POUNDS	: POUNDS	: VALUE OF	: TOTAL COST	: VALUE OF PRODUCT	:
A. & T. College	: 8.67	4960	: 265	: \$256.00	\$114.00	: \$142.00	:
Garson Andrew	:19.75	5277	: 247	: 219.00	91.00	: 128.00	:
E. C. Byrd	:21.08	5289	: 249	: 220.00	101.00	: 119.00	:
Esekey Dairy Farm	:17.42	5241	: 242	: 240.00	122.00	: 118.00	:
C. C. Hinshaw	: 9.83	6843	: 319	: 286.00	95.00	: 191.00	:
Huff Brothers	:17.75	8000	: 346	: 304.00	141.00	: 163.00	:
Lindale Dairy Farm	:39.17	7238	: 275	: 257.00	128.00	: 129.00	:
D. W. Lindley & Son	:34.42	8602	: 308	: 403.00	191.00	: 212.00	:
N. C. C. W. Dairy	:57.50	6477	: 233	: 376.00	157.00	: 219.00	:
Piedmont Dairy	:81.83	7186	: 259	: 306.00	130.00	: 176.00	:
Piney Grove Dairy	:16.42	5404	: 232	: 243.00	109.00	: 134.00	:
Shady Oak Farm	:30.42	6283	: 274	: 250.00	107.00	: 143.00	:

Piedmont Association continued

HERD OWNER	: COW	: POUNDS	: POUNDS	: VALUE OF	: TOTAL COST	: VALUE OF PRODUCT	:
	: YEAR	: MILK	: FAT	: PRODUCT	: FEED	:	:
Mrs. J. F. Stephen	: 24.92	: 7270	: 270	: \$328.00	: \$144.00	: \$184.00	:
Textile Dairy	: 107.58	: 8076	: 297	: 336.00	: 170.00	: 166.00	:
S. E. Thacker	: 23.75	: 6526	: 264	: 234.00	: 114.00	: 120.00	:

Guilford Association

This association closed its fourth year of continuous operation on June 1. Mr. O. B. Isreal, who has done the testing in this association since it was organized resigned December 1 and was succeeded by Kenneth Mann, an experienced tester, from Waukeshaw, Wisconsin. Much credit can be given to county agent J. I. Wagoner for the success of both the Guilford and Piedmont associations, the members of which are largely located in Guilford county.

A statistical report on the Guilford Association for the past year follows:

HERD OWNER	: COW	: POUNDS	: POUNDS	: VALUE OF	: TOTAL COST	: VALUE OF PRODUCT	:
	: YEAR	: MILK	: FAT	: PRODUCT	: FEED	: ABOVE FEED COST	:
S. S. Clark	: 14.92	: 5599	: 227	: \$186.00	: \$ 90.00	: \$ 96.00	:
F. G. Coltrane	: 20.25	: 5436	: 250	: 214.00	: 119.00	: 95.00	:
J. W. Cummings	: 14.50	: 7428	: 371	: 325.00	: 108.00	: 217.00	:
W. T. Davenport	: 17.42	: 5894	: 299	: 248.00	: 119.00	: 129.00	:
J. D. Groome	: 17.75	: 4769	: 226	: 187.00	: 98 .00	: 89.00	:
N. C. Knight	: 15.42	: 7302	: 343	: 286.00	: 105.00	: 181.00	:
Knight Brothers	: 36.33	: 6826	: 267	: 379.00	: 130.00	: 249.00	:
G. T. Lambeth	: 16.92	: 5694	: 230	: 229.00	: 88.00	: 141.00	:
Samarand Manor	: 24.08	: 8221	: 325	: 566.00	: 193.00	: 375.00	:
Tom Pemberton	: 47.08	: 6426	: 229	: 269.00	: 132.00	: 137.00	:
Pinehurst Farm	: 74.83	: 8298	: 343	: 766.00	: 166.00	: 600.00	:
Sedgefield Inc.	: 67.67	: 5336	: 252	: 229.00	: 123.00	: 106.00	:
W. A. Short	: 24.08	: 5560	: 209	: 173.00	: 89.00	: 84.00	:
Sunny Hill Dairy	: 67.58	: 7880	: 318	: 355.00	: 126.00	: 229.00	:
T. P. Kimrey	: 24.33	: 5709	: 246	: 211.00	: 139.00	: 72.00	:

Alamance-Chatham Association

In order to reduce the cost of Herd Improvement Association work I decided to try out in Alamance and Chatham counties the bi-monthly association plan. This type of association is approved by the U. S. Bureau of Dairying, and in it the expense of testing is only one-half of that in the regular type

association. Mr. Kimrey assisted by the county agents of these counties signed up the members and the testing was started January 1, by H. M. Singletary, a graduate of State College. On August 1, he resigned to become assistant county agent in Alamance County and was succeeded by E. G. Snipes.

The herds of several members of this Association were small ranging in size from 8 - 12 cows. It was hoped that the expense of testing in this form of association would not be excessive for herds of this size, however, most of the owners of such herds dropped out of the association soon after the work was started and at the close of the testing year, December 31, only about one-half of the original members were still testing. It would appear from this experience that a more practical plan of testing must be devised for small herds. I expect to give this plan of testing a further trial, but fear that it will be difficult to keep up interest among the members with the tester visiting them once in sixty days, although the cost is only one-half of that of a regular association. The annual statistical report for this association was not completed in time to get it in this report.

Forsyth-Davie-Davidson Association

This association has been operating continuously since it was organized in June 1925. Mr. A. M. Council is now serving his third year as tester. He does right much official testing, therefore has only ten herds on cow testing work. A statistical report on this association for the past year follows:

HERD OWNER	: COW		: POUNDS		: VALUE OF PRODUCT	: TOTAL COST	: VALUE OF PRO-	
	: YEARS	: MILK	: FAT	: DUCT OVER FEED				
	:	:	:	:	:	: FEED	: DUCT OVER FEED	:
	:	:	:	:	:	: COST	:	:
Children's Home	: 39.58	: 6082	: 297	:	: \$ 243.00	: \$157.00	: \$ 86.00	:
Vance E. Conrad	: 9.33	: 6737	: 334	:	: 472.00	: 125.00	: 347.00	:
R. M. Cox	: 58.92	: 5468	: 249	:	: 356.00	: 118.00	: 238.00	:
N. L. Conyers	: 15.50	: 5130	: 254	:	: 189.00	: 87.00	: 102.00	:
Mills Home	: 50.33	: 8524	: 298	:	: 298.00	: 146.00	: 152.00	:
Reynolds-Lybrook	: 70.58	: 6585	: 294	:	: 231.00	: 113.00	: 118.00	:
Sanford-Cartner	: 38.42	: 5102	: 249	:	: 180.00	: 108.00	: 72.00	:
H. A. Sanford	: 26.75	: 4888	: 241	:	: 171.00	: 92.00	: 79.00	:
J. H. Sparks	: 19.25	: 6704	: 322	:	: 234.00	: 111.00	: 123.00	:
H. G. Thacker	: 17.58	: 8147	: 340	:	: 375.00	: 102.00	: 273.00	:

Wake-Durham-Wayne Association

This association completed its fourth consecutive year's work in March. Although the number of herds was three short of last year the year's work was very satisfactory. On September 1, J. H. Pope, the tester, resigned to take advanced work at State College and was succeeded by J. L. Moore.

A statistical report on this association for the past year follows:

Herd Owner	YEARS	COV	POUNDS MILK	POUNDS FAT	VALUE OF PRODUCT	FEED COST	VALUE OF PRODUCT ABOVE FEED COST
L. Y. Balleentine	71.58	4677	230	\$419.00	\$117.00	\$302.00	:
City Dairy	35.75	6675	271	497.00	158.00	339.00	:
Geo. Watts Hill	45.92	6888	344	345.00	124.00	221.00	:
Kildaire Farm	14.25	6703	336	288.00	125.00	163.00	:
H. F. Latta	16.83	5499	293	363.00	114.00	249.00	:
R. K. Merritt	28.00	5030	218	419.00	116.00	303.00	:
Dr. William Moore	6.75	5727	301	420.00	177.00	243.00	:
N. C. State School for the Blind	20.08	6116	288	516.00	172.00	344.00	:
M. E. Parker	57.58	5370	211	483.00	127.00	356.00	:
Dr. Clarence Poe	21.58	5976	308	233.00	136.00	97.00	:
A. L. Sasser	22.00	6133	272	456.00	160.00	296.00	:
W. C. Spence	38.33	4919	300	394.00	138.00	256.00	:
State Hospital	91.25	6304	226	442.00	175.00	267.00	:
H. B. Williams	46.17	4809	225	390.00	126.00	264.00	:
B. F. Adams	25.75	5276	222	436.00	147.00	289.00	:

The average annual production for the cows in association work last year was 6185 pounds of milk and 260.9 pounds of butterfat. The average feed cost was \$126.36. The average value of the milk was \$324.84. The average feed cost per 100 pounds of milk was \$2.04, and the average feed cost per pound of butterfat was 48.4 cents.

There are around 11,000 farmers in this State producing cream for buttermaking whose herds average around three cows. These cows, on the average, receive poor care and feed which results in low unprofitable production. To aid in correcting this condition herd records are essential, however, it

is not practical to secure such records through regular cow testing associations since the expense would be excessive. Modified testing was designed to meet their condition and when properly supervised by the county agent it has proven to be very satisfactory.

The following are records completed in this form of testing during the past year:

YEARLY SUMMARY MODIFIED COW TESTING RECORDS ON HERD OWNED BY E. J. ZIMMERMAN

WELCOME, N. C.
May 1, 1929-May 1, 1930

NAME OF COW	MONTHS	POUNDS	POUNDS	VALUE OF PRODUCT	FEED COST	INCOME OVER COST
	ON TEST	MILK	FAT			OF FEED
Buttercup	9	6559	287	\$349.18	\$ 70.22	\$278.96
Pride	9	6494	271	338.98	68.36	270.62
Spot	10	5951	280	328.93	81.49	247.44
King	9	4288	170	217.41	59.74	157.67
Princess	9	4297	168	216.49	59.74	156.75
Percy	9	5802	272	320.07	73.42	246.65
Nell	2	1155	45	57.75	17.69	40.06

YEARLY SUMMARY MODIFIED COW TESTING RECORD ON COW OWNED BY MRS. L. J. WARD
Lexington, N. C.

October 1, 1929 - October 1, 1930

NAME OF COW	MONTHS	POUNDS	POUNDS	VALUE OF PRODUCT	FEED COST	INCOME OVER COST
	ON TEST	MILK	FAT			OF FEED
Minx ^B cauty	10	9660	431	\$427.61	\$ 131.10	\$296.71

YEARLY SUMMARY MODIFIED COW TESTING RECORDS ON COWS OWNED BY J. F. WARD, GID.

October 1929 - October 1930

NAME OF COW	MONTHS	POUNDS	POUNDS	VALUE OF PRODUCT	FEED COST	INCOME OVER COST
	ON TEST	MILK	FAT			OF FEED
Mary Virginia	10	9225	443	\$194.86	\$ 80.26	\$114.60
Alice Peach						
Blossom	4	3703	172	73.95	21.97	51.98

A practical demonstration of the value of cow testing records is very forcibly brought out in a comparison of the records made by State owned herds.

The records follow:

HERD IMPROVEMENT RECORDS ON STATE OWNED HERDS

YEARS:	TOTAL MILK:	AV. MILK:	AV. FAT	AV. COST:	AV. COST:	TWELVE FEED:	FEED	FEED	
	PRODUCTION:	PRODUCTION:	PRODUCTION:	ROUGHAGE:	GRAIN :	COST PER	COST	COST	
:	:	:	:	:	:	COV	PER 100	PER	
:	:	:	:	:	:	:	LBS MILK:	POUND	
:	:	:	:	:	:	:	:	FAT	
1-	52.67:	285,742 :	5425 :	256 :	\$50.00 :	\$ 64.00:	\$114.00	:\$2.10	:.44
2-	21.00:	162,546 :	7740 :	301 :	79.00 :	73.00:	151.00	: 1.95	:.50
3-	89.08:	518,039 :	5815 :	215 :	71.00 :	100.00:	171.00	: 2.94	:.79
4-	21.83:	186,199 :	8529 :	307 :	86.00 :	81.00:	167.00	: 1.96	:.54
5-	18.00:	140,784 :	7821 :	376 :	58.00 :	64.00:	122.00	: 1.57	:.32
6-	60.33:	379,541 :	6291 :	216 :	99.00 :	83.00:	182.00	: 2.92	:.84
7-	6.00:	33,242 :	5540 :	276 :	55.00 :	83.00:	138.00	: 2.49	:.50

- 1- N. C. Sanatorium
- 2 - Samaraand Manor
- 3- State Hospital, Raleigh
- 4- N. C. Blind School, Raleigh
- 5- Swannanoa Test Farm
- 6- N. C. C. W. Dairy, Greensboro
- 7- A. & T. College, Greensboro

It will be noticed that the cost of producing 100 pounds of milk ranges from \$1.57 in the Swannanoa Test Farm herd to \$2.94 in the State Hospital herd, or a difference of \$1.37 in favor of the better herd. If all the cows in these herds had produced as efficiently as those in the Test Farm herd, a savings of \$23,373 in feed could have been made. The State Hospital and Blind School herds are located on adjoining farms, however, the latter produced milk at a feed cost of .96 cents less per hundred pounds than the former. If the State Hospital herd had produced as efficiently as the Blind School herd, a saving of \$5,076 would have been made in feed.

HERD RECORDS SHOW HIGH PRODUCING HERDS MOST PROFITABLE

In a tabulation of 2,326 yearly association records, which were completed this year, it was shown that the average profit per cow was \$54.08 greater on those herds which produced an average of 300 or more pounds of fat than on an another group of herds which had an average production of less than 250 pounds of fat per cow.

The average production per cow in the group of high producing herds, of which there were 18, was 7,797 pounds of milk and 323 pounds of fat. The average cost of feed on these cows was \$145.64 per cow. These 18 herds were composed of 464 cows. The average production per cow in the low producing herds, of which there were 31, was 5,197 pounds of milk and 219.5 pounds of fat. The average feed cost for these cows was \$108.72. This group of herds was composed of 857 cows. It cost \$36.92 more per year per cow to feed the high producing group, but in return for this additional feed \$91 worth of milk was secured.

The only cost considered in these calculations was the feed cost. If the other expenses necessary in producing and delivering milk to a wholesale market were added to the feed cost and this sum subtracted from \$181.89, the average wholesale value of the milk per cow in the low producing group, it is not likely that there would be any net profit. It is the opinion of the writer that most of these cows produced an an actual loss to their owners. All should be sold to the butcher if their production could not be increased by good feeding.

A monthly report on each association is issued through the Dairy Extension News, which goes to each association member. This publication, by creating a friendly rivalry among the members, in making good records, has been a great aid in carrying on the Association work.

With the assistance of my secretary I have done all the office work in connection with the cow testing work. This has made it possible for Messrs. Farnham and Kinrey to spend their time in the field.

HONOR ROLL WINNERS

Each year the National Dairy Association gives an Honor Roll Certificate to the owner of each herd whose cows, in Herd Improvement work, produce an average of 300 or more pounds of fat in one year. The following is a list of the North Carolina Dairymen winning this honor.

NAME OF OWNER	ADDRESS OF OWNER	COW YEARS	AV. B'FAT PRODUCTION	YEAR
Vance E. Conrad	Rt. 2, Winston-Salem	9.33	334	3rd
J. H. Sparks	Mocksville	19.25	322	2nd
H. G. Thacker	Rt. 7, Winston-Salem	17.58	340	1st
J. W. Cummings	Gaillard College	14.50	371	2nd
N. C. Knight	Gaillard College	15.42	343	3rd
Samarcaud Manor	Samarcaud	24.08	325	2nd
Pinehurst Farm	Pinehurst	74.83	343	5th
Sunny Hill Dairy	Gaillard College	67.58	318	2nd
Caswell Training School	Kinston	46.67	303	1st
Jacob West	Kinston	13.00	305	1st
Elida Home	Rt. 4, Asheville	21.50	361	1st
Mountain Branch	Experiment Station Swannanoa	17.67	341	5th
A. A. Cloninger	Dallas	28.75	301	1st
R. S. Edmiston	Mt. Ulla	19.58	370	1st
Watson Morris	Rt. 4, Matthews	13.00	310	1st
C. C. Hinshaw	Ramseur	9.83	319	1st
Huff Brothers	Gaillard College	17.75	346	2nd
D. W. Lindley & Sons	Gaillard College	34.42	308	4th
Geo. Watts Hill	Durham	45.92	344	2nd
Kildaire Farms	Gary	14.25	336	3rd
Dr. William Moore	R. F. D. Raleigh	6.75	301	1st
Dr. Clarence Pee	R. F. D. Raleigh	21.58	308	1st

PLACING PUREBRED DAIRY BULLS

This is one of our major projects. During the past year much time has been given to it by the dairy extension specialist, and county agents who have been ably assisted by the following men: V. W. Lewis, Agricultural Agent A. C. L. Railroad, H. C. Bates, Field Representative of the American Guernsey

Cattle Club, Ward C. Snarr, Field Representative of the American Jersey Cattle Club, Tap Bennett, Field Representative of the Cotton Seed Crusher's Association and the secretaries of the local breed associations.

As a result of the work of these men 338 dairy bulls were placed with farmers in this State during the past year. Of this number 205 were Jerseys, 124 Guernseys 8 Holsteins and 1 Ayrshires. The methods used in placing these bulls have been personal calls on individuals and auction sales.

The first step in holding an auction sale is to determine, through the county agent, if a successful sale can be held in his county, after this funds to take care of the local expense of the sale are raised through banks or civic organizations. In the past this expense has averaged around \$7.50 per bull. This money not only aids in making the sale a financial success, but it also causes the contributors to take a personal interest in the sale and give it advertising that it otherwise would not receive. Funds for the expense of sales held at Mt. Olive, Washington, Tarboro, Warsaw and Fayetteville were secured by V. W. Lewis, assisted by the local county agents. After the location is decided upon and funds raised for sales expense the bulls are then selected by a dairy extension specialist so that the breeders can have time to get them in condition for the sale. From one to two months is needed to condition a bull for a sale.

About two weeks before the date of the sale I have been sending out circular letters containing information about the bulls to be sold, together with U. S. Leaflet No. 16, entitled "Purebred Dairy Sires" to a list of prospective buyers, which was secured from the county agent. During the entire week of the sale one of the dairy extension specialist assists the county agent in ad-

vertising the sale by personal visits, by articles through the local press, and by talks before civic organizations. The sale is usually held on Friday and is auctioned by the field representative of the breed sold. The Secretary of the State breed association acts as secretary of the sale and is responsible for all financial transactions and the registration and transfer of animals sold.

BULL SALES HELD DURING 1930

<u>LOCATION</u>	<u>DATE</u>	<u>NO. BULLS</u>	<u>NO. FEMALES</u>	<u>BREED</u>
Albemarle	April 26	10	0	Jersey
Shelby	July 9	7	0	Jersey
Mt. Olive	August 16	8	4	Jersey
Klondike Farm	September 6	11	0	Guernsey
Washington	October 3	8	0	Jersey
Warsaw	October 31	10	10	Guernsey
Tarboro	November 22	7	1	Guernsey
Total		61	15	

In addition to the bulls placed through these sales 277 were placed by dairy specialist and county agents through personal solicitation.

In addition to the promotion bull sales Messrs. Farnham, Kinroy and I have assisted in holding the annual consignment sales put on by the N. C. Jersey and Guernsey Breed Associations. The Guernsey sale, composed of 32 cows and heifers and three bulls was held at Winston-Salem May 9. The Jersey sale composed of 49 cows and heifers and 5 bulls was held at Statesville November 6.

On May 5, a Guernsey calf club sale was held at Klondike Farm composed of 30 heifers which Mr. Farnham selected in Wisconsin. I presented the matter of holding such a sale before the annual spring meeting of the N. C. Guernsey Breeders Association held at Greensboro on March 31. Following the meeting Mr. Thurmond Chatham, President of the Association, agreed to finance the movement

without charge and Mr. Farnham was sent to Wisconsin to select the heifers since they could not be secured from local breeders. The heifers were purchased around Jefferson, Wisconsin and shipped to Klondike Farm, Elkin, where they were kept for about one week before the sale, May 5.

While Farnham was in Wisconsin I circularized the Piedmont county agents twice, calling their attention to the fact that this sale offered a great opportunity for their club children to secure good Guernsey heifers at actual cost and urged that they bring as many interested children and their parents to the sale as possible.

The sale was indeed a unique affair. It was attended by about 350 persons, a large number of which were prospective Guernsey Calf Club members. The 30 heifers, which ranged in age from 4 to 8 months were sold for a total of \$5340, or an average of \$178.00. This sale differed from the usual cattle sale in that it was a non-profit sale. All money received for the heifers above actual cost was refunded to the purchasers, which amounted to 25%. The bidding was participated in by a large number of persons than there was heifers in the sale, and in spite of the hot weather, was active until the last heifer was sold. Because of the big demand for these heifers there was not enough heifers to go around so some prospective club members had to return home without a calf.

Out of the 30 sold, 27 were purchased by club members. The big success of this sale was largely due to the good cooperation received from the county agents. Not one cent was spent on the sale in commercial advertising. It was auctioned by H. C. Bates, Field Representative of the American Guernsey Cattle Club.

Mr. George Watts Hill, a Guernsey breeder of Durham, has promised a similar sale at his farm in the spring of 1931. Because of the scarcity and high price of Guernsey heifers in this State it has been almost impossible to

secure them for calf club work.

CALF CLUB WORK

At the county agents conference in January I called a group of them together, the majority of whom were from the Piedmont and Mountain counties, and discussed plans by which heifers for calf club work might be shipped into the State in car lots. It was the opinion of the agents present that 150 heifers could be placed with calf club members in the counties represented by them if they could be secured at a fair price. It was the plan to ship heifers in car lots to central points and distribute by trucks from these places. On returning home the county agents were to see that their club members arranged for the money to pay for their calves. Two cars were brought in, one of 30 Guernseys was shipped to Elkin and another of 19 Jerseys to Monroe. It was planned to ship a third car of Jersey heifers to Charlotte where they were to be sold at auction, however, by this time the depression had become so acute that it was decided to postpone further work of this kind until financial conditions improved. Although no more car load shipments were brought in many county agents secured calves for their club members from local breeders and through local sales.

According to L. R. Harrill, State Club leader there were, during the past year, 1014 calf club members located in 56 counties. 79 percent of these completed the year's work, which was an increase of 29 percent over last year.

The dairy extension specialist have assisted the county agents in instructing their members in feeding and caring for their calves, also in fitting them for the show ring.

At the State Fair the calf club exhibit consisted of 41 Jerseys and 23 Guernseys.

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DAIRY SCHOOLS

During the county agents annual conference I completed the dairy school schedule which consisted of 49 schools that were held in 30 counties. In most cases these schools lasted throughout the day. They were advertised through the county agent by circular letters sent out from this office and through the local press. I was fortunate in securing the assistance of Dr. G. D. Grinnells and Dr. William Moore, who appeared on the programs of these schools and discussed the subjects relating to the health of dairy cattle. The following subjects were usually discussed at each school:

Economical Grain Mixtures for the N. C. Dairyman

Feeding for the Greatest Profit

Raising the Dairy Calf

Contagious Abortion and its Control

Prevention of Common Dairy Cattle Diseases

Below is a list of the schools and the attendance.

<u>COUNTY</u>	<u>NUMBER MEETINGS</u>	<u>ATTENDANCE</u>
Chatham	2	70
Robeson	4	175
Randolph	2	100
Guilford	2	150
Alamance	2	100
Orange	2	80
Anson	2	50
Union	2	160
Rowan	2	85
Forsyth	2	50
Davie	2	60
Davidson	1	12
Wayne	2	75
Sampson	2	50
Mecklenburg	1	48
Cabarrus	1	125
Stanly	2	60
Gaston	1	48
Cleveland	1	118

Dairy Schools Continued:

<u>COUNTY</u>	<u>NUMBER OF MEETINGS</u>	<u>ATTENDANCE</u>
Rutherford	1	38
McDowell	1	22
Caldwell	1	33
Yadkin	2	44
Surry	2	90
Ashe	1	80
Alleghany	1	85
Buncombe	1	20
Henderson	1	30
Madison	1	24
Total	47	3082

FED AND MANAGEMENT OF THE DAIRY BULL

During the year the Dairy Extension Specialists have made an effort to see all the owners of dairy bulls recently placed for the purpose of advising with them concerning how they should be fed and managed.

A copy of Farmers Bulletin No. 1412, entitled "Care and Management of Dairy Bulls" has been sent to each man with whom a bull has been placed.

It is a general practice in this State for dairy bulls to be slaughtered as soon as they show a slight vicious disposition, which is before their daughters have had time to demonstrate their value as milk producers. Such a practice is often responsible for the slaughter of valuable bulls before their real value is known. In order to remedy this condition we are making an effort to get the owner of each bull to provide a safety bull pen. In such pens the bull can be handled with safety and at the same time get sufficient exercise to keep him in a strong vigorous condition.

During the past year dairy extension specialists have given assistance to the following parties who have built safety bull pens:

Jarvis Harris, Fayetteville, J. M. Davis, Vass, W. B. Rodman, Washington, W. C. Harvey, Greenville, Mr. Jeffries, Goldsboro, Stanly County Home, Albemarle and Cleveland County Home, Shelby.

DAIRY FARM MANAGEMENT

This project has now been running two years. It has been supervised by Messrs. Kimrey, Blair and Kirby in cooperation with the county agents, on farms owned by Chas. Hunt, W. T. Davenport and Chas. Huff of Guilford County, Thomasville Orphanage at Lexington, The Jackson Training School at Concord and the Caswell Training School at Kinston. These parties are following a cropping system, worked out by the above men, which should provide ample feed for the number of livestock now kept on these farms.

At the request of the management of Sedgefield Dairy, located at Greensboro, I made a study of the 1929 financial statement of this concern in April. The statement showed a rather heavy operating loss. After going over the statement carefully together with their cow testing records, I recommended the slaughter of 16 cows, all of which had an average production for the past two years of less than 5000 pounds of milk. Many of these cows were shy breeders. I found the overhead expense on the 65 milking cows, in the herd, to be \$510 per cow. An average production of approximately 7300 pounds would be necessary to take care of this overhead. The labor bill represented approximately one-third of the total expense. I suggested that either this be reduced or the volume of milk now being handled be increased. The average milk production in 1929 was only 5217 pounds per cow. This low production which, was largely responsible for the loss made during the year, was partly due to difficult breeding.

CREAMERY WORK

The production of creamery butter during 1930 was approximately 2,137,660, a slight decrease from the production of 1929. The reduction was largely due to a severe drought in the cream producing section of the State, which greatly reduced pasturage during the summer and also hay crops for winter feeding.

During the past year butter was made in 20 plants from cream delivered by 11,165 farmers. Approximately \$578,300 was paid to these farmers for butterfat. During the year Mr. Clevenger has assisted 24 creameries and milk distributing plants with their manufacturing and distributing problems. The following is a list of the creameries, together with their production and patrons for 1930.

<u>CREAMERIES</u>	<u>POUNDS BUTTER</u>	<u>PATRONS</u>
Moorestville Cooperative Creamery	304,500	1,200
Shelby Creamery	182,000	1,000
Moorestboro Creamery	151,000	900
Catawba Creamery	200,000	1,500
Galdwell Creamery	126,000	800
Davidson County Creamery	70,000	800
Rowan County Creamery	230,000	1,000
Greensboro Creamery	100,000	400
High Point Creamery	20,000	100
Southern Dairies	100,000	400
North State Creamery	150,000	800
Biltmore Creamery	150,000	800
Nantahala Creamery	200,000	1,000
Mountain View Creamery	35,000	100
Randolph Creamery	70,000	200
Rockingham Creamery	5,000	50
Farmers Creamery Inc.	30,000	50
Carolina Creamery	10,000	50
Pine State Creamery	4,000	12
Tarboro Creamery	160	3
Total	<u>2,137,660</u>	<u>11,165</u>

CHEESE DEVELOPMENT WORK

During the past year the five factories which operated a part or all of the year manufactured 409,500 pounds of cheese. The production of cheese, like butter, was reduced by the severe drought that covered the entire cheese producing section of the State. The prices paid for milk was also much lower than that paid last year.

Each factory has been assisted by members of this office in both production and manufacturing problems during the past year.

The following is a list of the cheese factories, together with their

production and patrons for 1930:

<u>CHEESE FACTORIES</u>	<u>POUNDS CHEESE</u>	<u>PATRONS</u>
Kraft- Phenix	360,000	930
Brushy Fork	35,000	40
Cove Creek	8,000	15
Beaver Dam	6,000	10
Jewel Branch	500	5
Total	<u>409,500</u>	<u>1000</u>

MISCELLANEOUS ACTIVITIES

Annual Meeting of North Carolina Dairymens' Association

In March I called on the secretaries of the Chamber of Commerce of Greensboro, Winston-Salem, Statesville, Salisbury and Charlotte for the purpose of securing a suitable location to hold the first annual meeting of the North Carolina Dairymens' Association. Each city offered to furnish a place for the association to meet in and to take care of the local expense of the meeting. This information was presented to the directors of the association and they decided on Greensboro, largely because of its geographical location.

The meeting was held in the Piedmont Fair grounds, September 12. It was called to order by Dr. Poe at 10:30 am and the following program was carried out.

Address of Welcome - Charles W. Gold, Jr.

Response - R. H. Ruffner,

Prof. of Animal Husbandry and Dairying

N. C. State College

President's Address - "The Future of Dairying in North

Carolina" by Dr. Clarence Poe, Editor of the Progressive Farmer.

"Facts About the Dairy Industry" - O. E. Reed, Chief

Bureau of Dairying, Washington, D. C.

Judging Demonstration - H. H. Kildes, Professor of Animal Husbandry - Ames, Iowa.

Basket Dinner

Wit and Humor for Farm Folks - Dr. D. W. Daniel

Clemson College, S. C.

Address - Hon. O. Max Gardner.

The audience, which was estimated at 2000 persons, gave very close attention to the entire program. A loud speaker was used which made it possible

GREENSBORO, N. C., SATURDAY MORNING, SEPTEMBER 13, 1930.

DAILY AND SUNDAY \$4.00 PER YEAR BY MAIL... PRICE: DAILY—FIVE CENTS SUNDAY—TEN CENTS

Proof n Gant's discovered HEAR FROM MR. GANT IN RICHMOND; HE IS TO BE BACK TODAY

CHECK MADE OUT IN DEAD MAN'S NAME IS PAID

STATE OF NORTH CAROLINA AUDITOR'S DEPARTMENT RALEIGH, JUNE 15, 1930. SOLDIER-CLASS A... \$182.50... ONE HUNDRED EIGHTY-TWO AND 50/100

CLARIFICATION SOUGHT Governor Gardner to Give Serious Consideration to Matter, He Indicates.

UNLESS INSTANTLY CANCELLED BEFORE ABE... STRICTLY COMPLETED WITH STATE TREASURER WILL NOT PAY WARRANT... Burtie Dailam STATE AUDITOR

a photostatic picture of a cancelled pension check now in the records of the state treasury, shows that the pension Siler, who died in 1929, was paid at the North Carolina Bank and Trust company at Raleigh on August 10, 1930.

Wheeler's Repudiation Of Dry Statute Renews Discussion At Capital

Montana Democratic Senator Says Amendment Has Failed and Favors Giving States Supervision of Prohibition. He Also Predicts That His Party Will Name Wet For President Next Year—McBride Talks.

WOODCOCK REQUESTS RAISE OF \$2,200,000 IN PROHIBITION FUND

NIXONS ENTER PLEA OF GUILTY IN TRIAL

Levy Nixon Sentenced to 10-15 Years, Kermit to 7-12. Plead Manslaughter.

WACHOVIA COMPANY TO HANDLE ESTATE

Deafened Candidate Will Ask Recount in Michigan

HOLLOWELL WAS SLAIN

Edmonton, Sept. 12.—(AP)—Levy Nixon, 26-year-old Rockyhook youth, and his cousin, Kermit Nixon, 18, pleaded guilty to manslaughter in superior court here today, bringing their trial for murder of John Hollowell, deputy game warden, to an end.

Administration of Tucker Estate Is Taken From Carey K. Durfey.

Temperatures and Rainfall. Washington, Sept. 12.—(AP)—Temperature and rainfall for the 24 hours ending 8 p. m. in the principal cotton growing areas and elsewhere.

20 Communists Executed By Chinese Authorities

Hankow, China, Sept. 12.—(AP)—Twenty communists, including two women school teachers, were executed by the Hankow military today in its attempt to throttle the spread of red propaganda throughout this district.

Nye Agents Remain In State Investigating Last Primary; Say Irregularities Existed

Washington, Sept. 12.—(AP)—Senator Nye, of North Dakota, chairman of the senatorial campaign investigations committee, spent the first day in some weeks at his office and talked with newspaper men and friends about the inquiry being conducted by his committee in a number of states, including North Carolina.

GARDNER MAKES PLEA FOR MORE LIVESTOCK, DIVERSIFIED FARMING

Will Help Free State From "Economic Slavery." IS HEARD BY DAIRYMEN Dr. D. W. Daniel, Dr. Clarence Poe and O. E. Reed Are Other Speakers. PRIZE-WINNERS NAMED H. H. Kildee, of Iowa State College, Conducts Demonstration in Judging—Association Elects Officers.

WOODCOCK REQUESTS RAISE OF \$2,200,000 IN PROHIBITION FUND

THE WEATHER

Table with columns: State, Max, Min, Prec. Includes entries for Ala., Ark., Cal., etc.

GOVERNOR GARDNER AND PRIZE WINNER AT CONVENTION

GARDNER MAKES PLEA FOR MORE LIVESTOCK, DIVERSIFIED FARMING

(Continued From Page One)

back into the soil in an effort to replace fertility. One thousand dollars worth of 50 cents per pound removes \$101 worth of fertility from the land. The seed from 50 bales of cotton remove \$868 worth.

Another desirable result that would follow supplementing cash crop farming with the live-at-home idea and livestock production the governor declared to be "an improvement of the present unsatisfactory and unequal distribution of the employment of labor on the farms throughout the year. Dairy and livestock farming would give some employment to farm labor 285 days in the year, and would at the same time provide some cash return 12 months in the year."

A third result would be a reduction in the present large acreage of idle or unused land on every farm. "Finally," the governor stated, "if we can make North Carolina be dairy minded, we can look forward to checking in a reasonable time the golden stream that flows annually from cheap cotton and cheap tobacco grown in this state to foreign markets for canned milk, creamery butter, and Wisconsin cheese."

The morning's session of the association was featured by addresses by Dr. Clarence Fox, of Raleigh, president of the association and editor of "The Progressive Farmer," and O. E. Reed, chief of the bureau of dairying of the United States department of agriculture, and a judging demonstration by H. H. Kildee, of the department of animal husbandry in Iowa State college.

The association was welcomed to Greensboro by Charles W. Gold, Jr., chairman of the agricultural committee of the Greensboro chamber of commerce. Prof. R. H. Ruffner, of the State college faculty, responded.

Dr. Fox stressed the importance of modern breeding methods and greater knowledge of the proper care of the animals as prerequisites for the success of dairying in North Carolina. The editor referred to agriculture as a two-armed industry—crop production being one arm and livestock production the other. In North Carolina, however, it can hardly be called a two-armed industry, rather a one-and-a-half armed affair, as the editor pointed out, since the live stock branch was being only half developed. He urged the dairymen to devote more time and thought to the production of livestock and livestock products, chief of which is the dairy output.

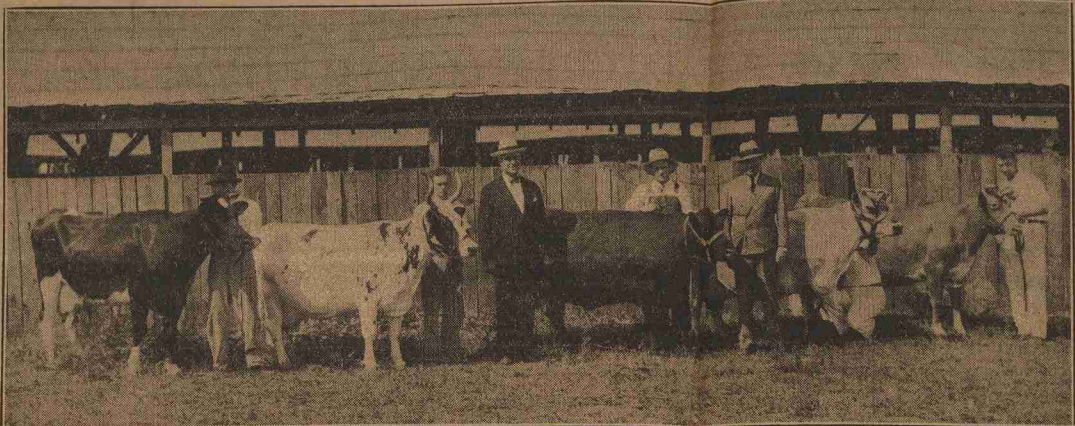
Asserting that the dairy industry was the largest in the United States, Mr. Reed pointed out that \$3,000,000,000 was received by the farmers of the nation for dairy products last year.

"Dairymen of North Carolina and the United States will find their way to prosperity by good breeding and good feeding," he said, "by keeping production and cost-of-production records on the cows, by selling to the low producers, by producing as home all the feed that can economically be produced there, by regarding pasture as important as any other crop, by good marketing, and by giving strict attention to the quality of the product."

The Prize-Winners. Cows judged best by Prof. Kildee in his demonstration of fitting showing and judging dairy cattle were owned by Thurmond Chatham, Winston-Salem, in the Guernsey group; by Leonard Tufts, of Pinehurst, in the Ayrshire group; in the Jersey group, by Mrs. Jessie Stevens, of Greensboro, in the Holstein group; and by the Reynolds-Lybrook farm, Winston-Salem, in the Red Poll exhibit.

Although no exact figures were available late yesterday afternoon, around 75 dairymen had joined the association, according to an estimate given by the acting secretary.

Negro Member Dies. Burlington, Sept. 12.—Bule A. Walker, highly respected negro man of this city, a worn veteran and a man of influence in his race, died last night at his home on the Glencoe road. He had been ill several months. For many years Walker conducted a transfer business here and was respected alike by white and negro citizens. He had been in Charlotte the past few days for observation by physicians of the veterans' bureau, who were planning to send him to a hospital for treatment. The funeral service will be conducted Sunday afternoon at 2 o'clock.



Dairymen from many sections of the state were in Greensboro yesterday for the annual convention of the North Carolina Dairymen's association, at the Central Fair Grounds. Pictured above is Governor O. Max Gardner and the prize winning cows. On the governor's left, in double-breasted attire, is Thurmond Chatham, of Winston-Salem, newly elected president of the association. Breeds of cows in the picture, and names of owners, left to right, are Holstein, Mrs. Jessie Stevens, of Greensboro; Ayrshire, Leonard Tufts, of Pinehurst; Red Poll, Reynolds-Lybrook farm, Winston-Salem; Jersey, Reynolds farm, Winston-Salem; and Guernsey, Thurmond Chatham, of Winston-Salem. The cows won first prize, being adjudged the best in their group, each group consisting of four cows.

Text of Gardner's Address At Convention of Dairymen

Gov. O. Max Gardner's address at the convention here yesterday of the North Carolina Dairymen's association follows in full: "This audience, Mr. Chairman, is an inspiration. You dairy farmers, here in Greensboro from every section of North Carolina, from beyond Asheville to beyond New Bern, instill into me more hope and optimism than any audience I have faced in weeks. I am glad to be here. I am glad to talk to you. I am glad to know that such an audience as this can be brought together in this state to discuss dairy farming in North Carolina. I feel hopeful, I feel buoyant, I feel cheery in this company."

Yesterday I met with a vast audience of 2,600 Eastern Carolina tobacco farmers, assembled in mass meeting in Raleigh to take common counsel for fighting off the present confiscatory and bankrupting prices which their product—the biggest agricultural crop in North Carolina—is selling for.

Knotty Problem. They were good men, earnest men, determined men. But they had a problem, the successful solution of which will require every resource of planning, planning—cooperating and fighting possessed by the leadership of this state. I say, then, that your problem, your point of view, your way of thought, from that of any group that I have addressed recently and that you warm my heart and stimulate my fancy with the idea that here is the ultimate way out for agricultural industry of North Carolina. Dairy farming, together with the accompanying projects of livestock farming in general, and live-at-home farming, embracing substantially full production of all the feed and foodstuffs consumed by the farmers and ultimately by the entire population of North Carolina, really offers more hope to the present brood-breast cotton and tobacco farmers than their tenants than it actually offers to you yourselves, perhaps.

The farmers of this county are the source of this country's greatness, the foundation of its boasted enterprises, and with their raw material the support of our much vaunted public revenue. Yet the farmers of North Carolina, and, in a large measure, of the rest of the nation, are in the worst economic plight today that I have known in my lifetime. I believe that no one realizes more fully than I the grave import of the issues in the great economic struggle which this basic industry is passing through. This condition touches the life and well-being of every industry, every business, every profession and every calling in this state. But it seems to me that it applies with the gravest effect to the cash crop farmers of this state.

Total Crop Income. At the present prevailing prices of tobacco and cotton, the cash income of the farmers of North Carolina

for these two crops will amount to \$40,000,000 less this year than was received from cotton and tobacco in 1929. In 1929, the cash income from these crops was \$82,000,000 less than in 1927. The effect of cutting off \$80,000,000 from the productive gross income of the two big agricultural crops of North Carolina in three years means something—means something big—to every citizen. In this state. A decrease of \$40,000,000 in the gross income of the most prosperous businesses and the most prosperous individuals in this state represents a staggering blow, not only to them but to all the rest of us, but the damaging effect of a \$40,000,000 loss in the cash income of the farmers of North Carolina is a devastating blow that takes its toll not only from the land owner and the tenant but from the state itself.

This year, at the prevailing prices, it is estimated that the cotton crop will lack \$24,000,000 of bringing as much as in 1929, and that the tobacco crop will lack more than \$15,000,000 of bringing as much as the crop last year. Each of these commodities is selling for less than before the war, and no authority in the government hesitates to say that both cotton and tobacco are selling at a low cost of production. The world knows that at their present prices cotton and tobacco are selling below the cost of production. Every thoughtful citizen knows the present prices for cotton and tobacco inevitably lead to ruin.

Learn By Experience. The cause for the present distressing and unprofitable price for cotton and tobacco I shall not develop at length. You are one group of farmers in North Carolina who have learned in a practical way that regular and consistent over-production of these two crops means starvation prices for the producers. I have never advised North Carolina farmers to give up the growing of cotton and tobacco. At present, I do not believe that that would be wise. But I have urged all over North Carolina that we make these two cash crops not our one and only source of income but that we supplement them and supplement them substantially with an increase in food and feed stuffs raised in milk and butter produced, and in live stock farming. Before we can hope for a substantial return of agricultural prosperity in North Carolina, North Carolina farmers must learn first that North Carolina is a marginal cotton producing state and, second, that tobacco production must conform itself to the laws of supply and demand.

Then, and this is more important than these two lessons, North Carolina farmers must learn, I think, what the 15 wealthiest agricultural states in this nation have learned: namely, that roughly for every million dollars worth of crops produced there should be another million dollars worth of animal products produced.

In 1929 the value of the livestock production of North Carolina was about 22 per cent of the value of the crop production. Live stock products represented little more than one-fifth of crop production in North Carolina two years ago. The total value of the crops grown was \$326,000,000, the total value of live stock products \$73,000,000. In the 15 wealthiest agricultural states the same year the value of live stock products was 81 per cent of the value of the crops grown. The significant lesson in this for us is that the average farm wealth per rural dweller, that is, the average farm wealth of the country people in these 15 wealthiest states, was \$4,218. The farm wealth per rural dweller in North Carolina, whose live stock products amounted to only 22 per cent of its crops, was \$684. The average wealth of each rural dweller of the 15 states in which farming actually consists in livestock farming and crop farming is, roughly, six times as large as the farm wealth per rural dweller in North Carolina. North Carolina ranked eighth in the total value of crops produced, but it ranked 41st among the 48 states in the value of farm wealth per rural dweller.

Of course, other factors than live stock farming contribute to this condition, but live stock farming and all that goes with it is one of the most important factors, if not the controlling factor. In other words, the North Carolina farmers must be convinced that they cannot compete against the world in the unlimited

production of cotton and tobacco. It is impossible. They must learn that we have more future in mixing in with these two crops by every farmer in every section a reasonable amount of food and feed stuffs, milk and butter and cheese, hogs and beef and all the rest of the live stock program.

An important result which comes out of the present unbalanced agriculture in North Carolina and which has a disastrous effect on our ability to continue cash crop farmers is the steady and increasing depletion of the fertility of the soil itself by the continued re-planting of these cash crops. The fertilizer bill of the North Carolina farmers in 1930 was the rise of \$29,000,000. The cotton and tobacco crops had a gross total value of \$165,000,000, but it was necessary to put \$40,000,000 of this back into the soil in an effort to replace fertility taken out of the soil by these two crops.

One thousand dollars worth of the 12½ cent tobacco removes \$101 worth of plant food or soil fertility from the land. The seed from fifty bales of cotton remove \$868 worth of fertility from the land.

One thousand dollars worth of 50 cents per pound of butter removes \$101 worth of fertility from the soil.

A desirable result that would undoubtedly follow the supplementing of cash crop farming with the live-at-home idea and dairy and livestock production would be an improvement in the present unsatisfactory and unequal distribution of the employment of labor on the farms throughout the year. Dairy farming would give some employment to farm labor 285 days in the year, and would at the same time provide some cash return 12 months in the year. The program of this association, as I understand it, is to develop small scale dairying in every section of this state. It is estimated that an average farm family can without unusual burden care for from five to eight cows without any additional employment or labor.

Would it not be a grand thing if the farm families in North Carolina could look forward every week this winter to an income from five good cows? Another desirable result which would come from your program would be a reduction in the present large acreage of idle or unused land on every farm. It is estimated that 38 per cent of the acreage of North Carolina farms is either cultivated or in pasture at present, and that 64 per cent is in woodland or is idle. If we can bring more land into good pasture by increasing the number of our milk cows, we will automatically cut down both the acreage idle and also the acreage planted in cotton and tobacco. And I submit that we can change some of these acres into pasture areas that will automatically yield from \$35 to \$40 a year gross income, we have made a splendid exchange.

Finally, if we can make North Carolina dairy minded, we can look forward to checking in a reasonable time the stream of gold that flows annually from cheap cotton and cheap tobacco grown in this state to foreign markets for canned milk, creamery butter, and Wisconsin cheese. These are three foods which we should encourage our people to consume a larger quantity of. Yet if we were to educate North Carolinians to the point where they consume the average amount of each of these foods now consumed throughout the nation, we would require annually 100 million gallons more milk, 22 million pounds more butter, and 12½ million pounds more cheese than is today produced in North Carolina.

Increase your tobacco crop or your cotton crop, and you have no market for it. Increase your milk cow crop and you have a profitable, and what will become an increasing market, in your own state. Where do you think the emphasis ought to be put in North Carolina agriculture? Do you vote for crop agriculture or livestock agriculture for your state?

Golf Club Sued By Caddy For Injuries He Received

Daily News Bureau and Telegraph Office. Elks Temple, Office No. 3, Salisbury St., Raleigh, Sept. 12.—The industrial commission, which administers the workmen's act, is set to decide shortly whether a golf club is liable for injuries to a caddy sustained by him while he was at work on the links. Connie Smith, Jr., through his father, has applied for compensation for injuries sustained in a mix-up with a lawn mower. The case comes up from Fayetteville. The golf club denies its liability on the ground that the boy was not an employee of the club. It is not certain whether the remedy lies with suit against the company or against the golfer who caused the injury.

always look for the red-and-green package when you buy corn flakes. Then you are sure of Kellogg's. The flakes with the "wonder" flavor, packed in the waxite inner seal wrapper that keeps them

new-fresh

new-fresh

CORN FLAKES

* Serve with milk or cream. Extra delicious with fruits or honey

for every one present to hear each speaker distinctly. After the meeting I heard several dairymen remark that, "This was the best dairy meeting ever held in North Carolina".

The association is indebted to the Greensboro Chamber of Commerce which cooperated in staging the meeting by arranging for the meeting place and bearing the expenses of it to the amount of \$340, also the following breeders, who furnished cows for the judging demonstrations: Holsteins, Mrs. J. F. Stephens, Tom Pemberton, Sunny Hill Dairy and Lindale Dairy; Jerseys, Reynolda and Biltmore Farms; Guernseys, Klondike Farm, H. F. Shore, Quail Roost Farm and Sanford-Carter; Ayrshires, Pinehurst Farm; Red Polls, Reynolda-Lybrook Farm. Each breed was represented by four cows. During the day 85 members, including one life member, were secured.

The following officers for the ensuing year were elected:

President - Thurmond Chatham, Winston-Salem
1st. V. President - Stanly Combs, Wilson
2nd. V. President - R. L. Shuford, Newton
3rd. V. President - D. J. Lybrook, Advance
Secretary-Treasurer - J. A. Arrey,
State College Station, Raleigh.

The directors include the above, together with Tom Pemberton of Greensboro and Leonard Tufts of Pinehurst.

STATE FAIR

The exhibit of dairy cattle at the State Fair this year was decidedly the best and largest shown here since I have been superintendent of this department. Mr. Hugh G. Van Pelt, who did the judging and who also judged the South Eastern Fair at Atlanta just before coming to Raleigh, stated, "That the exhibit of dairy cattle here was one of the best that he had seen in the south". It was composed of 54 Jerseys, 62 Guernseys, 54 Holsteins, 15 Ayrshires and 29 Red Polls in the open classes. In addition to

the entries in the open classes there were 23 Guernsey and 41 Jersey Galf Club entries making a total of 278 head. This was an increase of 47% over last year. Of the 29 exhibitors showing dairy cattle only six were from without the State.

CHEESE FILM STRIP

I wrote the scenario for a film strip showing the cheese development in Ashe and Watauga counties. The photographs for this strip were made by Mr. G. W. Ackerman, U. S. Department of Agriculture, assisted by F. H. Jeter and F. R. Farnham of the N. C. Extension Service.

STATE FARMERS CONVENTION

Acting as chairman for the dairy group I worked out the following program for this meeting, which was held in Polk Hall.

Tuesday - July 29

8	- 9:30	-- Profitable Cream Production	---	F. R. Farnham
				N. C. State College
		-- Eradication and Control of	---	C. D. Grinnells
		Abortion in Cattle		N. C. Exp. Station
9:30	- 11:00	-- Profitable Cream Production	---	F. R. Farnham
				N. C. State College
		Eradication and Control of		
		Abortion in Cattle	---	C. D. Grinnells
				N. C. Exp. Station

Wednesday- July 30

8:00	- 9:30	-- How to Keep An Account with	---	F. H. Rodgers
		Dairy Cows		N. C. State College
		Making Advanced Registry	---	J. P. Morris, Herdsman
		Records		Pedigreed Seed Farm
				Hartsville, S. C.
9:30	- 11:00	-- How to Keep an Account with	---	F. H. Rodgers
		Dairy Cows		N. C. State College
		Making Advanced Registry	---	J. P. Morris
		Records		Hartsville, S. C.
2:00	- 4:00	-- Ice Cream and Its Place in	---	W. L. Clevenger
		the Human Diet		N. C. State College

Thursday - July 31

8:00	- 9:30	-- Raising the Dairy Calf	---	A. C. Kimrey
				N. C. State College
		-- What is a Good Dairy Sire Worth?	---	R. H. Ruffner
				N. C. State College
9:30	- 11:00	-- Raising the Dairy Calf	---	A. C. Kimrey
		-- What is a Good Dairy Sire Worth?	---	R. H. Ruffner

PUBLICITY

During the past year I have discussed the following subjects through the Dairy Extension News, which is published monthly:

1. Looking Forward and Backward.
2. Facts About the Butter Market and How North Carolina Dairymen Should Face This Situation.
3. Value of the Dairy Herd Improvement Association.
4. Butter Substitutes.
5. Now Is the Time to Plan for Dairy Feeds to be Used Next Winter.
6. Summer Hay Crops for Dairy Cattle.
7. Give Cows Extra Attention During Hot Weather.
8. Large Cows of the Breed Best.
9. Replace Corn in Dairy Feeds with Wheat and Barley.
10. Get Dairy Cattle Ready for the Fair This Fall.
11. Don't Sacrifice Good Cows.
12. Emergency Crops for Drough Stricken Area.
13. North Carolina Dairymen Will Hold Annual Meeting at Greensboro, Sept. 12
14. North Carolina Dairymen's Association Meeting Big Success.
15. Exhibit Dairy Cattle This Fall.
16. History Repeats Itself.
17. Kindness and Regularity Pay.
18. Keep the Cows Comfortable During Winter Months.
19. New Rule For Feeding Grain to Cows.
20. Remodeling Dairy Barns.

In addition to the above, I have from time to time furnished the State press with timely dairy articles.

I revised and enlarged Extension Circular 177 entitled "Raising Dairy Calves to Breeding Age".

STATISTICAL SUMMARY DAIRY EXTENSION ACTIVITIES

Counties worked in	70
Meetings held	222
Total attendance	39141
Miles traveled by auto and rail	57355
Farms visited	2193
Visits to county agents	363
Office consultations	564
Letters written	3718
Number circular letters	7000
Number of cows on which Herd Improvement Records were kept.	3163
Number purebred bulls placed	338

ANNUAL REPORT

of

F. R. Farnham
Extension Dairyman

December 1, 1929

December 1, 1930

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INTRODUCTION

The following annual report presents the actual results and accomplishments of Dairy Extension work from December 1, 1929 to November 30, 1930, in the counties comprising the northwestern and northeastern districts.

One of the most outstanding occurrences featuring this year was the sudden and drastic price decline in the market for dairy products. This condition created new economical problems connected with the Dairy Extension work.

Just as an example and to show how pronounced the deflation was may be indicated by the following average prices governing the principle dairy products as compared to the preceding year. These prices refer only to the districts known as Piedmont and Mountain section of the State. According to statistical records I have secured, the average price of butterfat was 44¢ per pound, fluid milk \$3.90 per cwt., milk for cheese manufacture \$2.34 in 1929, in 1930 the average prices had declined to 31¢ butterfat, \$3.10 per cwt for fluid milk and \$1.70 for milk used in cheese manufacture. In the same period our dairy farmers suffered a direct loss of at least 30% on the value of dairy animals, both purebred and grades.

Coupled with this severe reduction in prices and values of dairy cattle was the added factor of one of the worst droughts in the mountain and portion of the Piedmont sections that our farmers have experienced since the creation of the U. S. Weather Bureau. Pastures and hay crops were in many instances practically extinguished by the deficiency of rainfall. Notwithstanding, and in the face of all these adverse conditions I decided if there were ever a time to aggressively assist county agents in working with their farmers in order to demonstrate the best dairy practices and principles of handling the situation it was at this time.

PROGRAM OF WORK

At the annual county agents meeting held at Raleigh I presented to the agents in the southeastern and north western districts our program of dairy work for the following year. This program embodied the eight major projects of activities as follows:

Project No. 8

GALF CLUBS

- (a) Assisting county agents in securing and placing calves with club members.
- (b) With agent visiting club members and giving instructions in proper feed and management.
- (c) Assisting agent in teaching club members in proper fitting and conditioning calf for showing.
- (d) Assisting agent and club members with calf exhibits at Fairs.

Project No. 9

(1) DAIRY FARM MANAGEMENT

- (a) stressing importance of average farm including as permanent part of farm operation the keeping of from four to six good cows.
- (b) management and care of the dairy unit.
- (c) Assisting agent in solving marketing of product from dairy unit.
- (d) Advising on correct roughages and grains for dairy cows.

(2) PLACING OF PUREBRED DAIRY BULLS

- (a) Bull sales
- (b) Building model demonstration bull pens.

(3) FEED AND MANAGEMENT OF PUREBRED DAIRY SIRES

- (a) Developing proven sires.

(4) CHEESE FACTORY DEVELOPMENT WORK

- (a) Increasing production
- (b) Locating new factories.

(5) HERD IMPROVEMENT ASSOCIATIONS

(6) DAIRY FEED SCHOOLS

This program of work was presented direct to the farmers in county wide dairy meetings in which I was ably assisted by Dr. William Moore, State Veterinarian, who stressed the health and sanitation as affecting dairy cows and calves. It was in this form of dairy meetings that considerable emphasis was directed to the importance and necessity of practically every farmer having a maternity pen that would assist materially in preventing contagious abortion. With these county wide dairy meetings effectively presenting the program of dairy work and then the careful follow up methods of working with farmers and groups of farmers I feel that I have been able to secure a larger percentage of my program of work actually accomplished than any previous year I have been in the field.

However, it must be kept in mind that due to the aforesaid business depression and severe drought, it, of course, has been impossible to do much in interesting outside companies to construct dairy manufacturing plants in the State. This fact has necessarily retarded the part of this report I would have liked to have presented as I had completed a milk survey around the Waynesville section and the results of this survey was presented to the Kraft Phenix Cheese Corporation of Chicago. Their chief, C. M. Bore had agreed to locate and construct a large cheese plant at Waynesville, but due to business conditions this project has been postponed for the time being with the assurance that when they do expand again in the construction of new plants, Waynesville will be the first location for this expansion

therefore, I do feel that the time spent with these milk surveys has not all together been lost.

NORTHWESTERN DISTRICT GUERNSEY CALF CLUB SALE

In organizing calf clubs in the past it has been difficult to show a substantial growth in those counties where farmers were interested in Guerneys, due to the high prices and shortage of purebred Guernsey females that were available for a calf club member.

This matter was discussed at the annual Guernsey Breeders meeting held at Sedgefield, at this meeting I proposed the plan of going to Wisconsin for the purpose of attempting to locate and purchase a car load of 30 purebred Guerneys for calf club projects. Favorable action was taken on this subject and Thurmond Chatham, President of the North Carolina Guernsey Breeders Association, agreed to do the preliminary financing, which involved over \$3000, with the understanding that the heifers were to be placed in an auction sale and sold to the highest bidder and all money received over actual cost, plus expenses, was to be returned to the purchasers. The expense of purchasing and shipping including my own travel and subsistence, while out of the State, was paid by Mr. Chatham.

On April 12th, I left for Wisconsin driving through in my car and after making a thorough investigation of the entire State of Wisconsin, covering over 3000 miles, I finally found the quality of heifers I wanted in the vicinity of Jefferson, Wisconsin. I purchased 30 Guernsey heifers all purebred and shipped these animals to Elkin, N. C., where they were unloaded and kept at the Klondike Farms until May 5th when they were all sold at auction, practically all going to calf club boys and girls. The average cost delivered at Elkin was \$118.00, the average price received at the sale was \$178.00, approximately 25% of the sale price was returned to the purchasers.

I consider this calf project one of the outstanding features of my extension work during the past year, in that it made possible the placing of 30 purebred Guernsey heifers with boys and girls who probably otherwise could not have secured a heifer if it had not been the successful completion of this project.

ORGANIZATION OF UNION COUNTY CALF CLUB AND DELIVERY OF CALVES TO MEMBERS

In preceding years there has been considerable dairy work accomplished in Union County, but up to February 1930, there had never been organized a dairy calf club in this county. Realizing this situation I held a conference with county agent T. J. W. Broome and outlined plans to start formation of the dairy calf club project.

In explaining to club members and and Farmers the merits of calf club work orders were secured for 18 head of purebred Jersey heifers. With Mr. Broome I went to Lewisburg, Tennessee, during the week of February 8th 1930, and purchased 18 head at an average price of \$108.00. These were shipped to Monroe and delivered to club members.

Calf club members in this county were perhaps more closely kept in contact with than the average. With County Agent Broome we visited every member three separate times to teach the proper feeding methods, and on the last visit we carried a set of machine clippers and assisted the club member in the proper fitting and conditioning for county fair exhibits. As a direct result of this work 15 calves were exhibited at the local fair this year and constituted the best line of stock on exhibit.

IREDELL COUNTY DAIRY CALF CLUB

Worked with county agent Robinson in assisting his club members to secure calves for projects. Also gave demonstrations in fitting and conditioning of calves for exhibit purposes. As a fitting climax to the calf club work in Iredell County a dairy calf club show was held at which I judged the exhibit,

twenty-seven animals were entered, making this county calf club exhibit the largest of any county in the Western part of the State. Assisted in purchasing six calves for club members.

STANLY COUNTY DAIRY CALF CLUB

Assisted the county agent in Stanly county with calf club work in visiting 11 members and advising and instructing in proper methods of feeding and fitting for exhibit purposes. Assisted in purchasing five calves for club members. This is the second year of dairy calf club work in this county and while the members did not show at fairs, much progress has been accomplished in getting purebreds distributed in many sections of Stanly county.

MECKLENBURG DAIRY CALF CLUB

Was able during the past year to get a substantial start in an active calf club in Mecklenburg county. Purchased one purebred Jersey for D. F. Alexander from near Nashville, Tennessee and assisted county agent in selecting seven calves grown in the county. These were all placed with club members.

A calf club exhibit was shown at the Piedmont Dairy Show held at Salisbury.

SURRY COUNTY DAIRY CALF CLUB

With the placing of sixteen heifers with club members in Surry county the junior dairy work has made a splendid beginning in this county.

Due to the encouragement and assistance of the Klondike Guernsey Farm, Surry county is rapidly becoming a leading county for Guernsey cattle. Eleven of the thirty Guernsey heifers brought from Wisconsin were sold to dairy calf club members.

STOKES COUNTY DAIRY CALF CLUB

Assisted county agent in organizing dairy calf club work in Stokes county and at the Guernsey calf sale, also State Guernsey sale, seven head

were selected and purchased for club members.

During September visits to each club member was made, in order to teach proper and efficient methods of feeding and fitting for show purposes.

YADKIN COUNTY DAIRY CALF CLUB

During the year assistance was given the county agent in locating and purchasing eight calves for club members. These were part Jerseys and part Guerneys and were secured from nearby breeders. In connection with the placing of calves considerable attention was given each club member in proper feeding of grains and roughages.

RESULTS OF CALF CLUB ACTIVITIES

Number of Calves Placed During 1930

COUNTY	CALVES PLACED WITH CLUB MEMBERS
Union	18
Surry	16
Stokes	7
Iredell	6
Stanly	5
Mecklenburg	8
Cabarrus	3
Ashe	6
Yadkin	8
Buncombe	3
Caldwell	8
Jackson	2
McDowell	2
Jackson	2
Alexander	2
Cleveland	4
Macon	3
Burke	4
Total (18)	103

The total of 103 dairy heifers placed with calf club boys and girls shows more rapid growth than any preceding year in this territory and constitutes one of the valuable achievements in dairy extension.

COMPLETION OF MODEL DAIRY DEMONSTRATION FARM AT CHARLOTTE

The project started in November 1929 of converting a run-down cotton farm into a commercial dairy farm and was completed and equipped during the past year. This project known as Arrowood Dairy Farms, comprises over 400 acres located on the York road eight miles from Charlotte, and now consists of barns, milk houses and feed rooms constructed exactly according to the advice and instruction of the Dairy Field Office. This dairy farm will be used for dairy meetings and demonstrations to demonstrate proper growing of roughages, dairy management and practices.

In January and March I went to Louisburg, Tennessee, Athens, Georgia and Danville, Kentucky and purchased 48 head of purebred Jerseys for this farm. With cows purchased locally and out of the State, a total of 66 milk-^{and}ing cows, about thirty heifers, making a total of 106 head, was placed on this farm.

In spite of the unfavorable crop year and difficulty of growing roughage this dairy has shown a good profit and today is known as the "Model Dairy of the Carolinas".

PURE BRED PROJECT

Due to the fact that the Piedmont and Mountain counties have been engaged in dairying more or less for the past fifteen years and a great many purebred sires have been placed during that time, it is not possible to conduct near the number of bull sales in this territory as in Eastern North Carolina where in some counties dairying is just starting.

My work along this line has been to place the very best sires out of tested dams where possible, therefore while the number placed during the

past year is possibly not as high as in previous years, the quality exceeds on an average those placed in any preceding year.

CLEVELAND COUNTY BULL SALE

Realizing that Cleveland county dairy farmers already were using a fair type of production sires, whatever work accomplished along this line would necessarily be the placing of purebred sires out of high testing dams. A meeting was called and it was decided to attempt to do some advanced sire work by placing bulls out of dams with records not less than 500 pounds of fat.

After considerable investigating these bulls were located at the Many Springs Farms near Philadelphia, Pa., nearly all of these animals were the sons of one sire the Imported Dreaming Sultan.

Seven of these bulls were shipped to Shelby and on July ^{9th} were distributed to farmers in Cleveland county at an average price of \$219.00 per head. This was the highest average of any bull sale during the year.

STANLY COUNTY BULL SALE

One of the factors to gradually eliminate the scrub bull from Stanly county where this project is now nearing completion was the holding of a purebred bull sale. In arranging for this sale I planned to secure a number of bulls closely related in order that a system of line breeding might be followed in this county. With this idea in mind I went to Granada Farms, Granite Falls, N. C., and selected eight young bulls, all raised on this one farm. Due to my annual vacation I was not able to be present when the bulls were sold at Albemarle.

With the bringing into this county of these bulls and with the past work in eliminating scrub bulls this county now has less than 20 scrub bulls of breeding age and in my plan of work I expect, during the coming year, to add this county to those in the State that are scrub free.

SURRY COUNTY BULL SALE

Realizing the adverse conditions due to drought I decided to conduct a purebred Guernsey bull sale in cooperation with Klondike Farms at Elkin, N. C.

The decision to hold this sale was actuated by the necessity of placing many purebred bulls in nearby territory adjacent to Elkin to breed the large number of purebred Guernsey heifers that were distributed in this section. With various county agents, visits were made to many owners of registered Guernsey heifers and after considerable work had been done on this project a sale of eleven head of bulls was held at Klondike farms on September 6th. This sale was an outstanding success in every way and an average price of \$100 was received, making this the second highest average price of any bull sale during the year.

SELECTING PUREBRED GUERNEY BULLS FOR FAYETTEVILLE SALE

With T. D. Brown of Salisbury, I visited Guernsey breeders in Rowan and nearby counties and inspected young bulls offered for sale. After making thorough investigation five bulls were selected for trucking to Fayetteville, N. C., where they were sold at public auction for an average of approximately \$47.00.

PLACING AYRSHIRE BULLS AND FEMALES IN ASHE COUNTY

In cooperation with C. D. Crinnells, I worked out an arrangement whereby three Ayrshire bulls and fourteen females were placed in Ashe county on the farms of Dr. J. C. Gambille and H. A. McMillian. This Ayrshire project is for the purpose of determining how well adapted this breed will prove in territory where farmers are selling milk to the Kraft Phenix Cheese Company at West Jefferson.

This is the first importation of Ayrshires of this number to Ashe county and will be of considerable importance in demonstrating the ability of

these cattle to return a profit from grazing over steep and rugged mountain pastures.

In connection with this project I interested Mr. R. Hardin who owns a farm bordering each side of the highway near West Jefferson to cooperate with C. D. Grinnells in a pasture fertilization project. As pasture is the leading crop in this county from the standpoint of acreage, I feel that this demonstration should be of the utmost value.

FIRST UNIT OF KRAFT PHENIX CHEESE PLANT COMPLETED

AT WEST JEFFERSON

Friday morning, January 3rd, 1930, witnessed the first spadeful of earth removed in the actual construction of the Kraft Cheese Plant at West Jefferson.

After fifteen years of persistent work in developing the cheese industry the completion of this cheese plant gives North Carolina one of the most modern cheese factories in the South. In spite of the most severe drought ever experienced in Ashe county and in addition to the drastic cut in milk prices from around 55¢ per pound butterfat to around 39¢ this plant did not receive less than 10,000 pounds of milk per day, which is remarkable considering the adverse conditions existing during this period. As an example to show how drastic the reduction in volume of milk was due to drying of pastures on May 20th the day's milk receipts was 21,000 pounds, in three weeks from that day, receipts of milk at the plant decreased to 12,000 pounds.

In the past ten months the figures show that cheese patrons have received approximately \$62,000 from sale of milk to the plant. On this basis approximately \$74,000 will be distributed to farmers in Ashe and adjoining counties during the year 1930, compared to \$102,000 in 1929.

One of the outstanding developments in connection with the operating of this plant was the fact that due to the high quality of milk this

plant was selected from sixteen other plants in the South to manufacture Swiss block cheese. The manufacture of this type of cheese has been going on for two months and the quality is very satisfactory.

BILTMORE CREAMERY

In a conference with the manager of Biltmore Creamery at Asheville last spring I was able to arrange an agreement to provide a market for sour and sweet cream. Cream routes were organized in the Sandy Mush section of Buncombe county, in Yancey, Mitchell and Avery counties with the result that the volume of butterfat produced and marketed at Asheville was more than trebled over any previous year.

This plant in face of the adverse conditions of drought and depression received 92, 552 pounds of butter fat during the first ten months of the year, and will receive around 120,000 pounds for the year 1930. Approximately \$33,000 was returned to farmers in this section as a direct result of my work in securing the market and organizing cream routes.

DEVELOPMENT OF PROVEN SIRES AND CONSTRUCTION OF

COMMUNITY BULL PENS

One of the most essential factors in developing profitable dairy farming in North Carolina is the use of proper sires. In the past, many mistakes were made in the expansion and development of public opinion as to proper management of this problem. Too many instances are on record where farmers have disposed of valuable bulls before these animals were proven. In order to overcome this weakness in our dairy management project I have advocated the construction of model bull inclosures in order to eliminate danger from keeping aged bulls.

Demonstration model bull inclosures have been constructed in Stanly, Cleveland, Yadkin, Buncombe, Caldwell and Surry counties. Both Stanly and Cleveland counties' model pens were constructed by the county at the county

Poor Farms. The average cost of these pens were around \$175.00 each.

In Cleveland county each purchaser of the seven bulls placed in that county agreed to construct a model pen. Bills of material have been furnished four farmers for this type of work. I expect during the coming year to get a large number of model pens constructed in many counties in the Piedmont and Mountain sections.

DAIRY BARN RE-ARRANGEMENT PROJECT

Continually encountering very unhandy, poorly constructed and inefficient farm barns where the average cow is kept during cold weather I decided to develop a program of dairy barn re-arranging demonstrations. The purpose was to demonstrate best plans and methods of re-arranging the average barns without the expenditure of but very little funds into a comfortable and convenient barn.

In cooperation with Agricultural Engineer Holman a small model of stiff type milking stanchion with manger platform and gutter was constructed. In addition blue prints of this model were perfected. At the annual Farm Agents Meeting this project was presented to the agents with a large number of request being received for assistance.

A dairy barn re-arrangement demonstration has been completed in Buncombe county, also Stanly county on the farms of Clifford Hatly and Alfred Owen. When it is realized that there are approximately 200,000 barns in the State where a few farm cows are kept in barns that never were constructed for this purpose it can be visioned the magnitude and necessity for this work.

SILO RESULTS IN BUNCOMBE COUNTY

The direct results of continually explaining and discussing the advantages of using silos where ten or more dairy cattle are kept is very apparent in Buncombe county. This county now has constructed during the past

year over 22 silos that now make a total of over 200 in the county, or more than the combined number in all counties on the Blue Ridge mountains. Several conferences was attended with the county agent and instruction given as to procedure in locating and construction.

ANNUAL DAIRY SCHOOLS

In preparing for our usual dairy schools it was decided to devote nearly all the time to the teaching of fundamentals of feeds and feeding, giving particular stress on teaching methods of balancing grains for the ration, also how to determine the protein content of various combinations. These meetings were well advertised and was known as county wide dairy feed meetings.

In addition to the discussion of feeds and feeding I was ably assisted by Dr. Wm. Moore who discussed diseases affecting dairy cattle. This method, especially the subject of contagious abortion control measures proved extremely interesting and valuable to farmers attending these schools.

Dairy schools of this type were conducted in the following counties:

<u>COUNTY</u>	<u>ATTENDANCE</u>
Mecklenburg	42
Cabarrus	125
Stanly	60
Gaston	48
Cleveland	118
Rutherford	38
McDowell	22
Caldwell	32
Yadkin	44
Surry	90
Buncombe	20
Ashe	190
Henderson	30
Alleghany	36
<u>Madison</u>	<u>24</u>
Total	919

In addition to the discussions on dairy subjects the dairy program of advancement for the State was outlined and discussed.

SURRY COUNTY 4 - H CLUB ENCAMPMENT

I assisted county agent V. C. Taylor in organizing and conducting an encampment held just over the State line near Sparta.

Along with the other routine duties necessary in the average club encampment I gave lectures pertaining to dairying, using calf club examples to illustrate what has and is now being accomplished.

STATE FAIR

Assisted with the dairy cattle exhibit at the State Fair, received all entries, allotted stall space and bedding. Made arrangements for judging, organized showing of cattle in the ring. Due to lack of room was considerably handicapped in keeping the various breeds separated, including the calf club entries.

Received the largest number of entries of dairy cattle since the Fair has been in operation. Exhibitors expressed themselves well pleased with treatment accorded them considering the cramped quarters we had to work with.

JUDGING DAIRY CATTLE

Judged dairy cattle classes at the livestock show held in Catawba county at Startown and in Jackson county at Sylva. Also judged calf club show at Statesville composed of Iredell County Calf Club members.

CALF FITTING DEMONSTRATIONS

Gave calf fitting instructions and demonstrations in the following counties:

Caldwell	Surry
Stanly	Yadkin
Jackson	Ashe
Iredell	Burke
Mecklenburg	McDowell
Union	

HERD IMPROVEMENT ASSOCIATIONS

During the year it was found necessary to re-organize somewhat the two associations operating in the Piedmont and Mountain counties. However, this was accomplished successfully and each association, the Buncombe-Henderson and Gaston-Mecklenburg are now operating practically full time.

The largest growth in the work from the standpoint of new members starting testing has taken place in Union County where six herds are now enrolled.

The present status of these two herd improvement associations, I believe, are now in the best condition since their organization.

MEETINGS ATTENDED

Date	County	Object of Meeting	No. of Meetings	attendance
February 1	Union	Calf Club Organization	3	92
19	Mecklenburg	Dairy School	1	48
20	Cabarrus	Dairy School	1	125
21	Stanly	Dairy School	2	60
25	Gaston	Dairy School	1	48
26	Cleveland	Dairy School	1	118
27	Rutherford	Dairy School	1	38
28	McDowell	Dairy School	1	22
March 4	Caldwell	Dairy School	1	33
5	Yadkin	Dairy School	2	44
6	Surry	Dairy School	2	90
7	Ashes & Alleghany	Dairy School	2	165
11	Buncombe	Dairy School	1	20
12	Henderson	Dairy School	1	30
13	Madison	Dairy School	1	24
21	Iredell	Jersey Breeders	1	15
31	Guilford	Annual Guernsey Breeders	1	200
April 1	Surry	Cherusey Breeders	1	150
5	Surry	Calf Club Guernsey sale	1	300
May 22	Gaston	Cow Testing Members	1	15
June 18	Cleveland	Pure Bred Sires	1	10
June 25	Cleveland	Pure Bred Sires	1	15
28	Mecklenburg	Herd Improvement Asso.	1	10
July 9	Cleveland	Distributing sires	1	150
July 23	Alleghany	Club Encampment	3	37
August 30	Wake	Dairy lecture	1	33
7	Cherokee	Dairy Production	1	12
8	Clay	Dairy Production	1	38
23	Buncombe	Test Farm Meeting	1	500
28	Jackson	Annual Dairy Day	1	300
29	Mason	Annual Dairy Day	1	100

meetings continued

Date	County	Object of Meeting	No. of Meetings	Attendance
September 4	Stokes	Production	4	72
5	Stokes	Milk Production	4	43
6	Surry	Bull sale	1	125
12	Guilford	Organization State Dairy Association	1	2000
16	Polk	Dairy Management	2	32
17	Polk	Dairy Management	2	19
18	Polk	Dairy Management	2	73
19	Iredell	Calf Club	1	16
23	Stanly	Cald Club	1	74
25	Stanly	Purebred Sire Project	1	50
30	Haywood	Dairy Farming	1	350
October 1	Jackson	Judging	1	200
2	Catawba	Judging	1	75
3	Iredell	Judging	1	150
21	Union	Calf Club	1	40
November 8	Iredell	Jersey Banquet	1	30
15	Haywood	Club Achievement	1	300
20	Ashe	Civitan Dairy Talk	1	40
22	Ashe	Annual Dairy Day	1	350
Total meetings			67	6886

MILK SURVEYS FOR PROPOSED CHEESE FACTORY LOCATION

During the first part of 1930, before the depression became so apparent, I spent sometime securing the necessary data requested by the Kraft-Phenix Cheese Company in order to consider new locations. A very comprehensive milk survey was completed showing number of cows and roads within a radius of thirty miles of Waynesville and also of Burnsville. This information was delivered to C. M. Gere in Charge of production for the Kraft Company, who presented this information before the board of directors at Chicago. The Waynesville location was accepted, also Burnsville for the starting of two more cheese plants, however, about this time the prices of dairy products declined so abruptly that consideration for the establishment of new plants was for the time postponed with the statement from the Kraft Cheese Company that when business conditions returned to normal the above locations would be the first places they would consider.

TRAVEL OUTSIDE OF THE STATE

In purchasing purebred cattle it was necessary to make several trips outside of the State. When this was found necessary my expenses was paid by the people I was purchasing cattle for, or in case of calf club purchases the expense was pro-rated on each animal.

AMOUNT OF MONEY SPENT OUTSIDE OF THE STATE

<u>STATE</u>	<u>CATTLE PURCHASED</u>	<u>AMOUNT OF MONEY</u>
Wisconsin	30 Guernsey Calves	\$3550.00
Tennessee	21 club heifers and cows	2685.00
Tennessee	20 cows - Arrowood Dairy	4640.00
Kentucky	19 cows - Arrowood Dairy	4250.00
Georgia	3 cows - Arrowood Dairy	765.00
		<u>\$15,880.00</u>

In the purchase of these purebred club calves and dairy cows, I spent over \$15,000, which was intrusted in my care. To date I have not received one complaint of any animal I purchased not being satisfactory, with but one exception, one Wisconsin club heifer that died two days after delivery to club boy.

INCREASING NUMBER OF DAIRYMEN FEEDING THE N. C. 4-3-2-1

DAIRY RATION

By persistently advocating to dairy farmers the feeding of the N. C. 4-3-2-1- ration that was formulated by J. A. Arey the time has now arrived when I can report that as far as I can determine more dairymen are now feeding this ration than any other one ration on the market.

The Gastonia Dairymen's Feed Buying Association has increased from a membership of 32 to over 60 who now purchase feeds cooperatively. During the past year the majority of fluid milk producers supplying Charlotte have adopted this mixture.

At many meetings of the Asheville dairymen this formula has been recommended with the final result that this past season over 40 producers in Buncombe and Henderson counties are now feeding this ration.

It would be difficult to estimate how much money dairy farmers have saved using this mixture but it is safe to report that they averaged around \$8 to \$12 per ton.

COUNTIES WORKED IN

Ashe	Alleghany
Catawba	Avery
Mitchell	Yancy
Buncombe	Stokes
Alamance	Macon
Surry	Yadkin
Graham	Clay
Cherokee	Swain
Jackson	Henderson
Transylvania	Polk
Rutherford	Gaston
Mecklenburg	Catawba
Iredell	Alexander
Haywood	Stanly
Rowan	Union

STATISTICAL RESULTS ACCOMPLISHED AS LISTED UNDER

PROGRAM OF WORK

PROJECT NO. 2 - Calf Clubs

Number of counties that calves were placed with club members -----	18
Number of calves placed with club members -----	103
Number of counties in which calf fitting demonstration and instruction were given -----	18
Number of calves imported from Wisconsin -----	30
Number of calves imported from Tennessee -----	19
Number of calves imported from Kentucky -----	5
Number of calf club exhibits attended -----	4
Number of calf club shows judged -----	2
Approximate cost to club members of calves placed -----	\$11,235
Average cost per calf -----	\$ 107.

PROJECT NO. 9 - Dairy Farm Management

Completion of Arrowood Dairy Farms, Charlotte, N. C. constitutes most complete demonstration of one example of Dairy Farm Management project, including demonstration of proper crop rotation.

Number of Farms where advice has been given relating to dairy management ----- 76

PROJECT NO. 2 - Placing of Purebred Dairy Bulls

Number of bull sales held ----- 3
Number of bulls sold through sales ----- 26
Location of bull sales - Klondike Farms, Albemarle and Shelby
Number of purebred sires placed in cooperation with county agents to individual farms ----- 45
Number of purebred Guernsey bulls placed ----- 18
Number of purebred Jersey bulls placed ----- 21
Number of purebred Ayrshire bulls placed ----- 3
Number of purebred Holstein bulls placed ----- 3
Total number of purebred sires placed ----- 71
Average price paid for bulls in sales ----- \$129.00

PROJECT NO. 3 - Feed and Management of Purebred Dairy Sires

Number of visits to inspect and advise on care and feed of purebred sires ----- 76
Number of model bull pens actually constructed ----- 3
Number of farms visited where advice was given on construction of pens ----- 34
Number of bulls now old enough to be proven due to instructions on this subject ----- 7
Average cost of bull pens constructed for community by Stanly and Cleveland county Poor Farms ----- \$175.00

PROJECT NO. 1 - Herd Improvement Associations

Number of Herd Improvement Associations now operating in mountain and piedmont sections -----	2
Number of cows on test -----	760
Number of cows culled and discarded -----	14

PROJECT NO. 6 - Cheese Factory Development Work

Number of cheese plants constructed in State during year - Kraft-Phoenix Cheese Co. at West Jefferson -----	1
Amount of money paid patrons for milk sold to cheese factories -----	\$88,000
Number of milk surveys made to locate new plants ----	3
Number of farmers now selling milk to cheese factories -1280	
Number of factories operating in State -----	4

PROJECT NO. 7 - Dairy Feed Schools

Number of counties in which feed schools conducted --	15
Number of persons attending these schools -----	909
Approximate number of farmers who accepted the recommendations N. C. 4-3-2-1 - feed ration as a direct result of these schools and now are feeding the mixture-	870

PROJECT NO. 4 - CREAMERY WORK

Number of cream routes organized -----	3
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Located in Buncombe, Henderson, Mitchell

Only creamery to show gain in total pounds butterfat was Biltmore with over 120,000 compared with less than 40,000 in 1929.

STATISTICAL REPORT NOVEMBER 30, 1929 to NOVEMBER 30, 1930.

Total miles traveled by rail	926
Total miles traveled by auto	21,936
Total letters written	790
Total News articles written	27
Total number of meetings held	72
Total attendance	7,185
Total visits to county agents	184
Total visits to others	1,364
Total office consultations	64
Total number of cream routes organized	3
Total number of purebred Guernsey bulls placed	18
Total number of purebred Jersey bulls placed	21
Total number of purebred Holstein bulls placed	3
Total number of purebred Ayrshire bulls placed	3
Total number of purebred bulls placed	71
Total number of 4-H Calf Club heifers placed	103
Number of Jersey cattle imported into State	56
Number of Guernsey cattle imported into State	30
Total number of cattle imported into State	86

ANNUAL REPORT

of

A. G. Kimroy
Extension Dairyman

December 1, 1929

December 1, 1930

This year a great amount of time has been devoted to placing pure-bred dairy bulls in the State, especially in the counties that are large producers of cotton and tobacco. In these counties there are small numbers of cows as compared with some of the other counties in the State.

The method used has been mostly auction sales, these have been held in cooperation with the various breed associations, the Livestock Development Service, the local banks and business men, who have in most cases paid the expense of the sale. These agencies have all cooperated with the county agent and dairy specialist to make these sales possible. In all cases at least a week has been devoted to a sale. The sale has usually been held the latter part of the week, the first part of the week being used by the county agent and myself holding meetings and calling on individual farmers urging them to attend the sale and purchase one for their community. In some cases groups of farmers have been arranged so that one bull could be purchased by the group. In all cases the local papers have been induced to carry advertisements of the sale at a very low rate, and they have always given space for news articles relating to the sale and dairy development.

In practically all counties the various men's clubs have shown considerable interest and have asked that talks be made at their weekly meetings. In a few cases these clubs have bought a bull to be loaned to a community for a stated period of time and then removed to another community.

The National Breed Association representative has been present at nearly all sales and has served as auctioneer. The railroad representative has assisted in advertising the sale and working among the farmers on sale day urging them to buy a bull.

These sales have all been successful and the price paid for the bulls

has been fair and in keeping with their apparent worth. We have experienced no trouble in getting breeders to consign bulls. The prevailing price has however, been lower this year than last, due very largely, to the present low prices being received by farmers for agricultural crops.

STANLY COUNTY BULL SALE

On April 26th a sale was held at Albemarle in Stanly County composed of 10 Jersey bulls and two purebred females. The expense of this sale was paid by the banks and business men of the town. The county agent, Mr. O. H. Phillips, secured some good publicity through the local papers and they also carried advertising at reduced rates. During the week of the sale, the county agent and I spent five days holding meetings in communities and calling on such individuals as we thought would be interested in attending the sale and purchasing a bull. During the week I also talked to the civic clubs in the county and considerable interest was shown by them in the development of the dairy industry in their county.

This sale was a success and all the animals were sold at an average price of \$92.00 per head.

WAYNE COUNTY SALE

At Mount Olive, in Wayne County, on August 16th, a Jersey bull sale was held in cooperation with the N. C. Jersey Breeders Association, the Atlantic Coast Line Railroad and the local banks. The Extension forces did all the preliminary work, arranged the advertising and assisted in conducting the sale. This sale followed a season in which the truck farmers of this section received very low prices for their crops, this low price was reflected in the price received for the bulls in this sale. They were all placed in the local territory and in the hands of good farmers who will take care of them. The average price received was around \$45.00 per head. There were sold eight bulls and four heifers. Five of the eight bulls were out of R. of M. dams,

and the other three were out of good cows. This was possibly the best lot of bulls that has yet been sold in our small sales in the Eastern part of the State. The consignors were not satisfied with the price they sold for, but looked upon it as a breed promotional sale, feeling that the quality of bulls sold would speak well for the Jersey breed as their daughters come into milk. The attendance at the sale was good, and interest was good, but scarcity of ready cash kept the animals from bringing their worth. This was the second sale of this sort held in this county, two years ago the same agencies held a similar sale at Goldsboro. Through these two sales 20 registered bulls have been placed, in the county. There have been others placed privately by the county agent.

BEAUFORT COUNTY SALE

On October 4th, a Jersey bull sale was at Washington in Beaufort County. These bulls were consigned by members of the N. C. Jersey Breeders' Association, having been selected in the main by a representative of the Dairy Extension Office. Mr. V. W. Lewis of the Atlantic Coast Line Railway, arranged with the local banks to defray the expense of the sale and otherwise assisted with the sale.

This was the second such sale held in this county, one having been held about two years previous. This county is now fairly well supplied with good bulls, taking into consideration the small cow population of the county. The market for dairy products furnished by the local ice cream company at Washington and the newly constructed creamery at Wilson has served as a stimulus to dairying in this county.

WARSAW BULL AND HEIFER SALE

At Warsaw in Duplin County on October 31st, there was sold 10 registered Guernsey bulls and 10 registered Guernsey heifers. These animals were consigned by Judge John Candler of Atlanta, Ga. I spent all of two weeks and part of a third working up interest in this sale in Duplin and adjoining coun-

ties. In this sale we had the support of the Atlantic Coast Line Railroad, Lewis, who arranged for the expenses of the sale to be paid by local banks, also assisted on sale day. Mr. H. C. Bates, Southern Representative of the American Guernsey Cattle Club, also assisted, acting as auctioneer. Mr. Tap Bennett, Extension Representative of the Southern Cotton Seed Crushers' Association assisted in conducting the sale. The cooperation of these various agencies has made possible the placing of so many bulls in Eastern North Carolina Through consignment sales. The State breed associations have also been of great help, by assuming the business management of the sales.

This was the first purebred bull sale ever held in this county, and there are very few purebred bulls of any breed in this county. There was good attendance at the sale, but the interest was poor due partly to low prices being received for farm crops this year, and partly to the fact that the farmers of this section have not yet learned that livestock should compose a part of their farm operations. The majority of the animals sold in this sale went into good hands and I feel sure will be reasonably well cared for and will be the means of starting a much needed dairy industry in this section.

STATE JERSEY SALE AT STATESVILLE

November 6th.

I spent several days previous to this sale trying to interest farmers in the cotton producing section in attending this sale and purchasing a portion of the cattle offered. Approximately half of all the animals sold in this sale went to the Eastern half of the State. This was made possible due to the rapid change of opinion of Eastern farmers as to the place for dairy cattle on their farms. A few years ago there was an antagonistic attitude, but the coming of the boll weevil and low prices for cotton and tobacco together with hard work on the part of county agents and other extension men in this section, the attitude has entirely changed and now almost every farmer sees the need for some

dairy cattle on his farm, but is very ignorant as to their care and methods of marketing their product.

TARBORO BULL SALE

At Tarboro in Edgecomb county, on November 22nd, we sold seven registered Guernsey bulls and one heifer. This sale was worked up by the county agent, Mr. W. H. Taylor and myself. We spent, all together, the better part of two weeks visiting farms and holding meetings trying to get farmers to the sale. There are very few cows in this county and practically no farmers especially interested in dairying. This makes it much more difficult to place purebred bulls than it is where there is some dairying being done. In this sale we had the full cooperation of the business interests in Tarboro as well as the various breed organizations and the railroad livestock development service. These bulls were placed with good farmers and I believe will be as well cared for as those placed in any other sale we have held and possibly better. The bulls sold were well bred and were fairly good individuals. In these sales we have endeavored to place such bulls as would likely sire good producing daughters.

SUMMARY OF BULL SALES

This work has constituted one of my main projects for this year and is the most important piece of dairy development work that is being done in the cash crop producing section of the State.

It requires a considerable amount of hard work to put these sales over. It involves much personal solicitation and is more or less unpleasant because it is not a popular piece of work, almost every angle to it is an uphill push against disinterest, and yet it must be done if dairying is even to become a factor in this section.

In these sales there have been in the Eastern half of the State 47 bulls and 32 females placed. These have gone into fifteen different counties.

DAIRY SCHOOLS

Beginning about the 20th of January and running to the middle of March I spent my time holding one and two-day dairy schools in the various Piedmont counties where dairying is already a vital part of the farm business.

ROBESON COUNTY DAIRY SCHOOLS

In Robeson county dairying has not developed beyond the stage of supplying the local towns with fluid milk. There is, however, right much interest on the part of farmers in keeping a few cows as a side line and for a year or two there has been a few people shipping cream to creameries. It was in behalf of these and others who were interested that county agent O. O. Dukes, arranged for four meetings at various places in the counties. In these schools I discussed pasture and feed crops and methods of handling and marketing cream. The attendance was good and I believe within the next few years quite a number of farmers in this county will be milking a few cows as an adjunct to their cotton and tobacco farming.

I also talked on dairying at the weekly meeting of the Red Springs Rotary Club.

RANDOLPH COUNTY DAIRY SCHOOL

This county has had a rather remarkable growth in dairying during the past eight to ten years, due largely to the fact that it is a grain growing county of small farmers, who up until ten years ago had a considerable timber supply and used it as a cash income to supplement their grain farming. This timber supply is almost exhausted and the people are turning to dairying to produce a supplementary income. Fortunately, the county has a county agent Mr. E. S. Millsaps, Jr., who is vitally interested in this work and has used the services of the Extension dairyman as he had opportunity.

The dairy school was held in the county court house and all the dairymen of the county were invited to attend. The attendance was good. I was assisted

in this school by Dr. C. D. Grinnells.

OTHER WORK IN RANDOLPH

In March I spent some time in this county visiting cream patrons of the Randolph County Creamery, together with county agent Millsaps. We also visited many of his calf club members, and instructed them as to feed and care of their calves looking to growing them out properly and having them in good shape for the fall shows.

During this time, in cooperation with the International Harvester Company, a short course for farmers was held at Asheboro. I spoke at one of the sessions on "The place for the Dairy Cow on Piedmont Carolina Farms".

GUILFORD COUNTY DAIRY SCHOOL AND OTHER WORK IN THE COUNTY

In February, in cooperation with Dr. Wm. Moore, Dr. C. D. Grinnells, S. J. Kirby and J. I. Wagoner, county agent, we conducted a very successful dairy school in Guilford county. This was one of the best attended meetings of this kind I have ever held in the county, almost every dairyman in the county was present and remained through the day. They expressed themselves as thinking this the best program of its kind they had ever had.

HERD IMPROVEMENT ASSOCIATION WORK IN GUILFORD

There are two well organized cow testing associations in the county. During the year I have called on many of the members, assisting them to properly interpret their records and to encourage them to keep the work up. I have conferred with J. I. Wagoner, the county agent, during the year relative to the testers in these associations and other problems concerning the work. One of these associations has been very fortunate in having for several years an excellent man, O. B. Isreal, to do the testing, however, he has recently resigned and a new man has been secured to take his place, who seems to be getting off to a good beginning. The other one of these associations has been forced, by various causes, to change testers several times during its history and this has made it

somewhat difficult to maintain a proper morale in this group, but through the able assistance of J. I. Wagoner, the county agent, this association is now in very good shape.

Almost every dairyman of any note in the county is a member of one or the other of these associations and has been for several years.

In this county I assisted in arranging for and holding the annual meeting of the State Dairymen's Association. This was an excellent meeting and a very instructive program had been arranged by the Secretary, J. A. Aroy. It was said by many that this was the best all around dairy meeting ever held in the State. The attendance was around 2000, largely dairymen and those directly interested in the dairy business.

In Guilford county I am carrying on, in cooperation with E. C. Blair, Extension Agronomist, three feed producing projects with dairy farmers. This project has been going now two years. A system of crop rotation is being followed that will produce all the feed required to feed the dairy cows and other livestock on the farm. Mr. Ches. Hunt, one of the cooperators, says that this is doing more to help him make satisfactory returns from his farm than any other thing he has ever attempted. These farms are all visited from time to time by both Mr. Blair and myself, together with the county agent, who is very much interested in this line of effort.

The County Agent and myself work out the amount of feed required to feed the dairy cattle and other livestock on the farm and based on this Mr. Blair arranges a crop rotation that is calculated to produce the required amount of feed.

WORK IN WILSON COUNTY

During the year I have had several conferences with Mr. Adams the county agent relative to dairy work in the county. We secured two dairymen in the county as members of the East Carolina Cow Testing Association. I also at-

tended and spoke at the official opening of the Carolina Creamery at Wilson.
This is a creamery-dairy a retail milk business making butter and producing
skimmilk.

COUNTIES WORKED IN

Alamance - Randolph - Orange

Chatham - Durham - Person

Anson - Union - Cumberland

Robeson - Lee - Wake

New Hanover - Columbus - Pender

Duplin - Onslow - Jones

Craven - Beaufort - Pitt

Edgecombe - Wilson - Halifax

Wayne - Sampson - Johnston

Moore - Guilford - Forsyth

Davie - Davidson - Rowan

Iredell - Stanly - Rockingham

Lenoir - Montgomery - Nash

ALAMANCE DAIRY SCHOOL

In Alamance in cooperation with Dr. William C. Moore, State Veterinarian, and W. Kerr Scott, County Agent, we held a very successful dairy school at Graham, it was attended by both milk and cream sellers. These men seemed more interested in pasture work than any other part of the program. This county has had considerable dairy development during the past few years, due largely to the fact that most of the farms are small and the owners live on them and grow a variety of crops, including small grains and hays. They are beginning to use the dairy cow to market these crops for them. The creamery at Burlington has furnished them a market for cream for butter-making purposes. Many of the larger dairymen in this county are selling milk to the milk plants in Raleigh, Durham and Greensboro.

OTHER WORK IN ALAMANCE

During the year I have worked with the North State Creamery at Burlington at various times. This work was with the farmers and cream haulers. The creamery has had considerable trouble in getting their cream haulers to properly sample the cream at the farm. The result of this has been to cause the creamery to pay for more butterfat than they actually received. I spent sometime going over the cream routes with the haulers in an effort to correct this difficulty. In most cases where we put forth special effort along this line improvement was made. We found that just talking to the cream hauler did very little good. It was necessary to get out and cover the route with the hauler.

During the year I have advised with four dairy farmers in Alamance relative to repairing their barns or building new ones. There is a tendency on the part of the dairymen in this county to build more comfortable and convenient barns as they have the money to do it with. In many cases they have the

desire for better buildings, but do not have the necessary capital.

I assisted in putting on a county sale of Jersey cattle at Mebane during the year. Thirty head of Jerseys were sold, all consigned by small farmer breeders within the county. So far as I am aware this was the first county consignment sale held in this State. The night before the sale I spoke at a banquet put on by the county breeders association in the new dairy barn of W. Kerr Scott. This was a rather unique setting for a banquet, it was well attended--about 150 being present.

In Alamance there are a number of dairymen doing bi-monthly cow testing. I have spent several days during the year visiting these and getting them into the association.

WORK IN ORANGE COUNTY

In February I held a one-day dairy school at Hillsboro in cooperation with county agent Matheson and Dr. William C. Moore, State Veterinarian. This school was well attended by dairymen of the county, the majority of whom sell their product in Durham in the form of wholesale milk and sweet cream.

During the year I secured several herds in the county for the Alamance-Orange-Chatham Cow Testing Association.

I also assisted Mr. Matheson, the county agent, in his calf club work, helping him to locate and select calves for his boys, most of these were purchased in Alamance County.

In April I called on the steward of the State University dining hall, which is located in this county, and tried to encourage him to use butter instead of oleomargarine. He showed some interest and I recently heard that he has changed from oleomargarine to butter.

DAIRY SCHOOL AND OTHER WORK IN CHATHAM COUNTY

A great many farmers in Chatham are keeping cows, selling milk in Durham, and Greensboro and cream to the various creameries. I held a dairy school at Pittsboro in this county and was assisted by J. H. McCain of the

Bureau of Dairying, Dr. William C. Moore and S. J. Kirby of the Agronomy Department. This school was attended by nearly all dairymen in the county.

I have also assisted Mr. Shiver, the county agent, during the year with his calf club work, visiting the members and offering advice as to the growing and handling of their calves, have also assisted in placing a few of the bull calves dropped by cows owned by some of the older club members in this county.

During this year a Herd Improvement Association has been started in this county in cooperation with the counties of Alamance and Orange. This work is being done on a bi-monthly basis and in some respects is proving successful, but in others not so much so. It was hoped that this would so cheapen the work that the dairymen would keep up the work better than where the testing is done each month, but this seems not to have proven true. We have had as large a percent to discontinue this bi-monthly testing as we have in the monthly associations. I believe a part of this is due to the infrequent contact made by the bi-monthly tester and possibly some has been due to general economic conditions and part to the fact that we were forced to change testers before the first year's work had been completed.

In addition to the above work I held a number of general farmer meetings in Chatham during the year, in which the advantages of dairying for the county was stressed. The average farm income in this county is low and it is very noticeable that those farmers who do keep cows have an enlarged income that is beginning to reflect itself in better homes, farm buildings, and better kept farms. The above observation was given to me some months ago by J. B. Blair, who is Sheriff of Chatham County.

WORK IN PERSON COUNTY

Each year it is the custom of County Agent H. K. Sanders, to hold a series of picnic farmer meetings in the leading communities of Person County. This year I was invited to attend and speak at these meetings. They were well

attended, there being 500 farm people present at some of them. These meetings were held through one week.

ANSON COUNTY

In Anson County during this year I have done considerable work in connection with County Agent J. W. Cameron. A great part of this work has been in connection with placing pure bred cattle in the county and work with the farmers in this county, who are selling cream. There are two cream stations in the county and most of the cream is sold through these stations.

The County Agent and myself induced a number of farmers from this county to attend the state Jersey cattle sale held at Statesville in November, and they purchased 17 head of purebred Jersey cattle, mostly heifers. This will be used as foundation stock for purebred herds.

I have assisted three dairymen in the county during the year to rearrange and improve their barns. These men are Ben Jones, J. W. Cameron, and D. Shepherd.

I have assisted Mr. Cameron, the county agent, in placing three purebred bulls in the county during the year. Last year a bull sale was held in the county and served as quite a stimulus to developing dairy interest.

UNION COUNTY

In February I held a dairy school at the courthouse in Monroe. There were about 75 dairymen present and they manifested considerable interest. I was assisted by T. J. W. Broome, J. H. McClain, S. J. Kirby and Dr. W. C. Moore, an all day meeting was held.

CUMBERLAND COUNTY

During the year I assisted County Agent N. B. Stephens with a number of dairy projects. This county has been hard hit by boll weevil and this is forcing many of the farmers to turn to other means of producing a farm income. It is much easier to interest them in dairy work than ever before.

In November we put on a Guernsey bull sale at Fayetteville in cooperation with the North Carolina Guernsey Breeders Association. The bulls were all sold to farmers in Cumberland County and for the most part went into good hands, and I feel sure will eventually do much to improve the quality of dairy cattle in the county.

I have visited, during the year, every dairyman in this county and have assisted three of them in building new and modern dairy barns.

I have spoken at a number of general farmer meetings in this county during this year, including the county farmers club.

In the early fall I held a conference with a number of farmers at the county agent's office relative to their purchasing dairy cattle from the drought section of Virginia and other states, as a result quite a few cattle were brought into the county. Twenty head were purchased by one man.

ROBINSON COUNTY

In this county I have worked quite a bit with County Agent O. O. Dukes. I was invited to speak at their county wide "live at home" banquet held at Lumberton in the early spring. There were about 150 farmers and business men present. During this same week I spoke to the Rotary club at Red Springs to which meeting a number of farmers had been invited.

In this county I also held two days of dairy meetings or schools at various places in the county. In mid-summer I attended and spoke at a county wide meeting of 4-H Club members. This was a very worth while day and showed that some good club work is being done in this county.

During my various visits to this county, I have called upon all the larger dairymen in the county and have rendered them such assistance as it was possible for me to do. In August I spoke to a large meeting of farmers at Red Springs. This meeting having been called by the county agent and the live stock development service of the A. C. L. Railroad.

There were about 1000 people present at this meeting.

LEE COUNTY

In this county I spoke at a large meeting of farmers at Sanford called by the county agent and the Live Stock Development Service of the A. C. L. Railroad, looking toward the development of dairying in this county.

WORK IN WAKE

In the Zebulon section of Wake County in cooperation with J. G. Anderson, county agent, I did some work relative to the farmers of this section selling milk to the Carolina Creamery at Wilson. There was considerable interest shown but not many cows are available in this section for commercial use after the family supply is taken care of.

I have had a number of conferences during the year with various dairymen in Wake concerning their problems, where they could secure bulls, feeding methods, feed formulas, etc.

NEW HANOVER COUNTY

This year I have done very little work in New Hanover. I spent one day trying to interest some dairymen in attending a bull sale at Warsaw and purchasing. I also spent a day trying to interest a few men in doing herd improvement work. During past years I have done quite a bit of work in this county through the schools, urging the use of more milk, but have done none of this in this county this year. Ten years ago there was less than 500 gallons of milk consumed in Wilmington per day. Now there is 2500 gallons being consumed per day with the same population they had ten years ago.

WORK IN COLUMBUS COUNTY

In Columbus I have worked this year with J. P. Quinerly, the county agent, trying to place in the county some more purebred bulls and females, as a result several have been placed during the year.

I also attended and spoke to a large meeting of farmers at Whiteville and Chadbourne. These meetings were called by the Live Stock Development Service of the A. C. L. Railroad and the county agent. There were approximately 1000 people at each meeting.

PENDER COUNTY

During this year I spent only one day in Pender, this was spent urging dairymen to attend a bull sale at Warsaw and help keep all the animals in that section.

WORK IN DUPLIN COUNTY

Up until this year I have done very little work in this county, but this year I spent the greater part of two weeks assisting Mr. McLendon in the placing of purebred Guernsey bulls also a few Jerseys. An auction sale was put on at Warsaw made up of ten bulls and ten purebred heifers. This county is well adapted to the keeping of dairy cattle.

WORK IN ONSLOW COUNTY

In Onslow County I attended and spoke at a county wide meeting of farmers called by the county agent in the interest of the development of the livestock industry, particularly dairying.

I also worked with the county agent part of a week placing purebred bulls. The farmers worked with, attended one or the other of our bull sales and purchased bulls and two purebred heifers.

JONES COUNTY

Jones County is a county that was once a cotton growing county, but the boll weevil has made this very unprofitable and the farmers are gradually turning to livestock. During this year I have done work in this county on two occasions I spoke at a county wide meeting of farmers called by the county agent J. T. Monroe. The object of this meeting was to bring before them the possibility of farm dairying and offer suggestions as to markets, this being one of the greatest handicaps. This meeting was well

any local market. We hope to interest some of the large milk companies during the coming year, possibly a cheese company, as these people are anxious to sell whole milk even at a low price in preference to selling cream. At present most of them are selling milk or cream in Wilson, due to the distance this is not very satisfactory.

PITT COUNTY

In Pitt I attended and spoke at two large meetings of farmers called by the livestock development agent of the A. C. L. railroad and the county agent. These meetings were attended by about 3000 people and were called to arouse interest in more livestock, particularly dairy cattle.

On another occasion I assisted the county agent, Mr. Arnold, in trying to interest three dairymen in doing Dairy Herd Improvement Association work.

WORK IN EDGECOMBE COUNTY

In November in cooperation with the North Carolina Breeders Association and Mr. Taylor, the county agent, we held a very successful bull sale at Tarboro. We find this the most satisfactory way to place purebred bulls in a county. This county has very few good bulls in it. Edgecombe is and has been a large grower of cash crops, but is beginning to see that livestock must be added if adequate farm income is to be produced.

This year the Municipal Milk Plant at Tarboro has added a churn and the county agent and I have visited among the farmers and urged them to begin selling cream. They are now churning about 1500 pounds of butter per month. This is not much, but it is a beginning and I believe the next few years will show a material development along this line in Edgecombe county.

SAMPSON COUNTY

I held a dairy school at Clinton in March, in cooperation with Dr. A. H. Kerr. There being no county agent in this county, my work here has naturally been hindered. I have assisted three men in the county during the year in securing purebred bulls, and have also advised with a few of the farmers relative to shipping cream. This became necessary due to the closing of the Benson Creamery. This creamery was built largely through the influence of promoters and although the Extension Service did all it could to make it go after it was once established, its efforts were not successful. Failure was due to an insufficient supply of cream.

WORK IN WAYNE COUNTY

In Wayne I have assisted with the dairy work on a number of occasions during the year. A dairy school was held during the winter and it was well attended by the dairymen and other farmers of the county. This has been covered in another part of this report.

I have during the year together with the county agent called on nearly all the dairymen in the county, who are supplying fresh milk to the towns of the county, particularly Goldsboro and Mt. Olive. We also called on quite a number of other farmers in the county inducing them to attend bull sales held at Mt. Olive and Warsaw. All the bulls sold at Mt. Olive were placed in this county, except one and it was placed just over the line in Sampson county.

I spoke at two large meetings of farmers in this county in August. These meetings were called by the County Agent and the Live-stock Development Service of the A. C. L. Railroad and were attended by nearly 6000 people.

WAYNE COUNTY (Continued)

The work with the dairymen in this county has been along the line of better and cheaper feed mixtures and to encourage the product-

ion of more and better roughages. They produce and feed far too small an amount of good roughage. Their barn and milk house equipment in most cases is good, but their quality of cow is rather poor. They are comparatively new in the dairy business and have made the very common mistake of purchasing many low producing cows. Nearly all the dairying in this county has developed during the past ten or fifteen years. Previous to this time there was a very poor and insufficient fluid milk supply for the towns of the county, and practically all the county's development in dairying has been to supply the towns with a liberal and safe milk supply.

HALIFAX COUNTY

The work done in this county this year has been promotional. In August there were held two large meetings of farmers, called by the County Agent and the Livestock Development Service of the A. C. L. Railroad. I spoke at both of these meetings. They were called to arouse interest in dairying as a side line to their present cash crop farming. One meeting was held at Weldon and was attended by around 1000 people. The other was held at Scotland Neck and was attended by about 700 people.

In October a county wide meeting of all those engaged in livestock farming was called to meet at the farm of Mr. Temple, near Scotland Neck. This meeting was attended by about 75 farmers.

WILSON COUNTY

In Wilson county this year there has been established a rather large milk plant. This plant pasteurizes and distributes fluid milk, makes butter and powdered skim milk.

I attended and spoke at their opening in May of this year, and have done work with the various county agents in this and surrounding counties, looking to the supplying of this plant with milk and cream. This work has been to encourage the placing of cows in some instances, but largely the plac-

ing of purebred bulls.

MONTGOMERY AND ROCKINGHAM COUNTIES

In Montgomery County together with the county agent, I called on Mr. Grady, who is carrying out a crop rotation plan, calculated to produce the necessary feed for his cows and other livestock. This is in cooperation with Mr. E. C. Blair of the Agronomy Department. This is one of several such projects being carried on by Mr. Blair, the County Agent, and myself. These projects are proving profitable to the farmers who carry out the suggestions faithfully.

I also made suggestions as to barn and milk house improvement on this farm.

In Rockingham I attended and spoke at a county farmers meeting called by the county agent in the interest of more livestock and pasture. I also visited two dairies in the county and offered suggestions as to barn improvement at one and milk-house improvement at the other.

WORK IN LENOIR COUNTY

In Lenoir we have as good a piece of sound dairy development as can be found in the State. This began about 7 years ago when the county agent and myself, began to work with a few farmers and encourage them to produce and sell cream to a local ice cream manufacturer, Mr. Harvey Hines, who has been a marked factor in this development. He has always paid a price in keeping with the prevailing price on other markets.

There are now some 25 farmers who sell to this market, some of them milking as many as 20 cows. The herd of one of these men, Jacob West, was on the National Honor Roll this year, having averaged 305 lbs of butterfat per cow for the year. This is a good showing for a man who according to his own statement was bankrupt, as a result of cotton and tobacco growing, six years ago. Previous to this time Mr. West had not even kept a family cow.

I visited nearly all these producers at least once each year and

County Agent. These meetings were attended by 1500 farmers and considerable interest was shown in the development of the dairy industry in the County.

WORK IN FORSYTHE AND DAVIE COUNTIES

Part of the work I have assisted with in these counties was covered under the head on dairy schools. In addition to this I have assisted in maintaining the Herd Improvement Association in these two counties. I spent one day in Davie County inspecting bulls to be placed in the bull sale held at Tarboro.

BARN AND MILK HOUSE IMPROVEMENT

In almost every County in which I have worked I have made suggestions to dairymen as to barn and milk house improvement. In instances where new building was to be done, I have turned it over to A. T. Holman, Extension Farm Engineer. In some cases he has followed up with a trip to the farm in others plans were furnished by mail. In cases where repairs could be made for more convenience I have always offered such suggestions as seemed wise and practical. There is a great need among the smaller dairymen of the State for more convenient places to milk and handle their cows. The great reason why more has not been done along this line is that the farmers lack ready cash.

SUMMARY FOR CASH CROP COUNTIES

In the so called cash crop counties the struggle from a dairy standpoint for fifteen years has been to build up a family supply of milk and sufficient in addition to meet the demand for fluid milk in the towns in these counties. The towns in these counties have a fair supply of milk now, where as, ten years ago they had a sadly inadequate supply.

Probably the greatest thing that has been accomplished in these counties during the past ten or fifteen years has been the change of sentiment toward dairying from one of open antagonism to one of favorableness. There is scarcely a person of note in any of these counties, but that sees the need for more farm dairying and advocates it freely. This change, I believe, to be largely

due to the work of the Extension forces.

The next step of importance in this section is to establish safe and satisfactory facilities for marketing cream and other dairy products. It is far more difficult to establish markets in this section than is true in other parts of the State, due to the scattered producers, and to the fact that the people are not familiar with the conditions that must exist before creameries and other dairy manufacturing plants can be made to succeed. For these reasons most plants that have been started in these cotton and tobacco growing counties have failed, and their failure always means a retarding of development.

It is probably true that development of farm dairying in these counties will remain almost at a standstill until some substantial markets can be established in the territory. I have during this and other years urged the farmers in cotton and tobacco counties to produce and ship cream to the organized creameries in the Piedmont and Western section of the State. This means the transportation of the cream 100 to 300 miles in many cases, and this is not conducive to development.

STATISTICAL SUMMARY

Trips into counties -----	32
Meetings held -----	112
Attendance at meetings -----	27027
Miles traveled -----	13299
Farm visits -----	253
Days spent in field -----	168
Days spent in office -----	137
Holidays taken -----	5
Days vacation -----	3

ANNUAL REPORT
OF
DAIRY MANUFACTURING WORK
IN
NORTH CAROLINA

December 1929 to December 1930

W. L. Clevenger

Dairy Manufacturing Specialist

The creamery butter production for 1930 is approximately 2,137,660 pounds, a slight decrease over 1929. The average price received for butter and paid for butterfat at plants was 34 cents. Commodity price on various staple products has decreased compared with 1929 from 10 to 100%. Butter has shared in this too, on the basis of about 25% decrease. The number of farms served by these twenty creameries were about 11,165. The value of the butterfat purchased \$578,300.00

The production of American cheese was 409,500 pounds. The milk supply coming from 1000 farms. This cheese was made in five factories in the State. The value of the cheese made at the factory was \$81,900.00 of which the producers received \$65,520.00. The value of the cheese at the factory has averaged twenty cents a pound, the milk at the farmers door netted \$1.60 average per hundred.

The ice cream industry produced 2,500,000 gallons of ice cream. During the year the ice cream has been raised to a 12% fat standard by most of the ice cream companies, even though the State regulation has required only 10% fat. It used approximately 650,000 gallons of sweet whole milk and 1,126,400 pounds of fat, largely in the form of sweet cream. The value of the milk, at 30 cents a gallon, was \$195,000.00 and butterfat at 45 cents, was \$506,880.00. The value represents about 25% of the wholesale selling price of the ice cream by the ice cream plants. There are at least 40 plants making ice cream in the State exclusive of drug stores and confectionary shops.

There are 26 plants pasteurizing and distributing milk in the State, some sell raw milk also. They handle and sell, as milk, cream and buttermilk 10,000,000 gallons of milk yearly from

2000 farms. At 30 cents a gallon f.o.b. plants, it amounts to \$3,000,000.00. There are at least 1000 retailers of raw milk which deliver to the urban trade 30,000,000 gallons of milk yearly. Its value at 50 cents a gallon is \$15,000,000.00. This does not include the family cow supply. The urban population is about 1,000,000 in the State and this year a per capita consumption of 40 gallons yearly, while for the United States, it is 57 gallons.

CREAMERIES

NORTH STATE CREAMERY BURLINGTON, N. C.

This creamery was taken over by the Pet Milk Company, as of October 1, 1930. It still makes butter and handles pasteurized milk and cream. Milk had been selling for 20 cents a quart up to this time when the price was reduced to 15 cents a quart to the consumer and milk purchased from the producers to 6 cents a point on butterfat basis per hundred weight. This plant is striving to increase production in both milk and butter.

I have spent some time with the management of this plant especially before the Pet Milk Company took it over and during the time equity adjustments were being made as to the true financial condition of the plant.

RANDOLPH CREAMERY ASHEBORO, N. C.

This year's creamery butter production has been about the same as for 1929. New equipment has been added in the way of a viscolizer and covler for making ice cream mixes to be sold to local druggest, who have their own freezer and make their own ice cream. This has made a market for local milk produced. The creamery is still operating at a loss. I have spent sometime with them in working out their local problems and auditing their records.

FARMER'S CREAMERY INC. LOUISBURG, N. C.

This creamery ceased operating September 1930. The bank that financed it at the beginning closed, which made it hard for the Creamery Directors to get it refinanced. Discord then arose among them and the original manager resigned. This with decline in the selling price of butter, which automatically affected the price paid for butterfat, caused a decline in the amount of business so that the overhead expense gradually forced them to close and go into bankruptcy. The equipment was sold in December at an auction sale, and finally purchased by a local dairyman. Plans are on foot now, to refinance and start operation in the near future. We have given assistance.

DAVIDSON COUNTY CREAMERY LEXINGTON, N. C.

This plant is still making butter and pasteurizing and distributing market milk. It has paid too much for milk received in proportion to the selling price of the milk, which has entailed a loss to the business. It handles nearly 150 gallons of milk daily and made 70,000 pounds of butter during the year.

It is a well built and equipped plant but somewhat poorly managed. There is a move on to try to get more of the local dairymen retailing milk to join them and thus help swell the volume to where with better management all would fare better and also have a better milk distribution in Lexington. A good man was secured to start the company off in the milk project but he was disposed of, thinking the plant could operate efficiently, but it has not proven so as yet. We have spent sometime with this company.

ROWAN CREAMERY SALISBURY, N. C.

This creamery made 230,000 pounds of butter during the year. It has increased its milk business up to 150 to 175 gallons daily.

It is handling lactic cultured milk, cottage cheese, and chocolate milk also. The plant is well managed and seeks our advise and counsel from time to time.

MOORESVILLE COOPERATIVE CREAMERY MOORESVILLE, N. C.

This is still the largest creamery and makes the most butter of any plant in the State. It made 304,500 pounds of butter during the year. It is well managed and in good financial condition. It is strictly operated by local or home folks, and pays as much for fat as any plant in the State. It is well equipped and a credit to the State as a creamery. They have made mistakes but seek our counsel and advise often. They pay 6% dividends on the original capital stock invested, \$6,825.00. It has considerable accruds which come out of the business for working capital and additions in both buildings and equipment.

CALDWELL COUNTY CREAMERY LENOIR, N. C.

This plant had a decrease in butter made over 1929. It made only 126,000 pounds of butter. It was located in a section of the State that was more or less dry during the past year. It has paid good prices for butterfat and sold butter at a higher price than most of the creameries, until late this fall. Conditions are changing so that markets are closely watched and it requires vigilance to keep competetors from taking trade away, due to under bidding in prices. The manager, a local boy, has been more or less discouraged and I have not been able to counsel with him as much as needed. The bank the creamery has been doing business with closed during the fall. This caused a little unrest among the producers. The creamery is still financially sound and no doubt will continue to operate successfully.

CATAWBA CREAMERY HICKORY, N. C.

This creamery still carries on creamery buttermaking, ice cream and milk business, and handles eggs poultry, meat and general produce. It caters to cream stations and still operates some cream routes. It is a creamery that never ask for much assistance. Occasionally we are called on to analyze a sample of butter. It has never catered to encouraging quality cream and depends on plant methods wholly to get a good finished butter.

SHELBY CREAMERY SHELBY, N. C.

This creamery made 182,000 pounds of butter in 1930. It has always encouraged high quality of cream among its producers but does not always get a good quality of cream. It has always put out a good grade of butter. Recently it has gone to using a good starter in making butter which has shown some improvement. I had previously suggested this was a means of helping to improve the butter. The creamery is in good financial condition and has strived to keep operating expenses down to a minimum. It has always fully cooperated with the State Extension workers.

MOORESBORO CREAMERY MOORESBORO, N. C.

This creamery made 151,000 pounds of butter in 1930. It has had a good year in production and incurred no financial losses even though a depressive year, in addition to a bank failure in which the company had considerable money. It moved into a nice new brick building during the year, and is now well equipped for a creamery. The plant is well managed and cooperates fine, calling on us for advice and counsel quite often. It is located in a big cotton producing county which also has another creamery only ten miles away. The creamery takes advantage of the monthly

scoring and analysing project sending four samples of butter to Raleigh repeatedly.

NANTAHALA CREAMERY FRANKLIN, N. C.

This creamery has been badly effected by the very dry season in the mountain section of the State. Its butter production was 200,000 pounds. It has practically hauled all the cream received at the Hayesville creamery plant over to Franklin to churn. It has handled a large quantity of poultry and feed during the year, which has materially reduced its overhead. Bank failures in this section have been a handicap but the creamery is getting along nicely. I have spent sometime aiding in their problems.

MOUNTAIN VIEW CREAMERY BRASSTOWN, N. C.

This is a small mountain creamery with a very small production. It makes a good quality of butter. During the year they changed buttermakers, a locally trained young man from Berea College, Ky., is now employed. However, the former buttermaker a Dane, trained in Denmark spent sometime with the young man. The creamery will be small for a long time but probably operate successful. It is linked with a local community center organization, but operating independently. I have spent but very little time at this plant.

TARBORO MUNICIPAL MILK PLANT TARBORO, N. C.

The plant began making butter in November. It built a new plant for both milk handling and butter making. We assisted in the purchase of the equipment and building plans and then aided in the first demonstration of butter making. It was done with the idea of building up a better dairy development program locally. The Pasteurizing milk plant has been operating for the past ten years successfully.

CHEESE WORK

BRUSHY FORK CHEESE FACTORY VILAS, N. C.

This factory did not make as much cheese as in 1929. The cheese market became somewhat depressed during the summer and some of the milk received was sold as cream to a creamery and to Kraft Pheonix Cheese Factory at West Jefferson. It is still operating and will continue to do so until the local manager tires of the responsibility or the Kraft Cheese Company becomes too keen for the local milk supply. It made 35,000 pounds of cheese during the year.

GOVE CREEK CHEESE FACTORY SUGAR GROVE, N. C.

This factory began making cheese during the late spring after ceasing to operate for 14 months. The milk going to Kraft Pheonix Cheese Factory and Brushy Fork during this time. It is problematic how much longer it will operate. However, the original stock is now held by only five men locally interested. It may continue to operate and do well. It made about 8,000 pounds of cheese during the season.

Beaver Dam Cheese Factory Sweetwater, N. C.

This factory did not make but 6,000 pounds of cheese during the year. It had a very low production till late summer. The cheese market was rather discouraging to the manager. They made cheese only once a week during spring and late summer and fall. Which means only poor quality cheese can be made.

JEWEL BRANCH CHEESE FACTORY JEWEL BRANCH, N. C.

Mr. Aulson, who operates this factory, made cheese only during a portion of May and sold the cream for buttermaking during the rest of the year. This factory may or may not open up during the coming year.

KRAFT PHOENIX CHEESE COMPANY WEST JEFFERSON, N. C.

This plant is now operating in a nice new brick building, well equipped and with the capacity for making 60,000 pounds of milk into cheese daily. It cost between \$ 30,000.00 and \$ 35,000.00 for building and equipment. Because of the very dry season in the mountains and low price for cheese, the milk production has dropped considerably from that of 1929. The plant paid around \$74,000.00 for milk purchased, delivered. It cost from 25 to 30 cents per hundred weight for hauling.

CAROLINA CREAMERY WILSON, N. C.

This plant started operation in the Spring of 1930. It is equipped to pasteurize and distribute market milk, manufacture butter and dried milk. It has a nice well built, brick building and is reasonably well equipped. It has not made the progress the management expected. Before it will really succeed it will need to be reorganized and operated on a different basis. It has had too much unnecessary investment and overhead to operate successfully. We have assisted and advised but it was not always headed.

PINE STATE CREAMERY RALEIGH, N. C.

This plant is doing a good business of ice cream, milk, egg storage, and in December began the making of creamery butter. We have assisted and advised often, relative to local problems. It is one of the successful plants in the State.

MOORESVILLE ICE CREAM COMPANY MOORESVILLE, N. C.

✓ This is a locally managed and owned ice cream plant. It buys all its milk products from local producers. It does a nice little business and to date has operated fairly successfully. It has called for assistance which we have given, helping them to

solve their local problems.

SPOON DAIRY BURLINGTON, N. C.

This is a locally owned and operated, small pasteurizing and raw milk dairy, creamery and ice cream plant. We were called to assist in their problems and especially when they started making ice cream in the spring. We helped train their help in the art of making ice cream.

MELVILLE DAIRY HAW RIVER, N. C.

This is a local pasteurizing and raw milk dairy, distributing milk in Graham and Burlington. Considerable assistance has been rendered in advising them in the handling of their local problems.

HOGAN DAIRY CHAPEL HILL, N. C.

This dairy called on us for a milk house plan and discussed their local and future problems in trying to equip to retail milk at a later date, in Chapel Hill.

QUAIL ROOST DAIRY ROUSEMONT, N. C.

We aided in solving the cause of off flavored milk from the herd, that was causing trouble in the Durham trade.

SMITH DAIRY DURHAM, N. C.

We advised relative to arranging and equipping a dairy milk house for receiving and pasteurizing milk to be sold in the Durham market.

SEDFIELD DAIRY GREENSBORO, N. C.

Assisted in the making of cultured buttermilk and chocolate milk and advised relative to local dairy problems. Attended a banquet at Sedgfield given by the Greensboro Chamber of Commerce in honor of the Foremost Dairy Development Project.

RODMAN DAIRY WASHINGTON, N.C.

Advised Mr. Rodman relative to dairy refrigeration for his dairy.

NIVENS DAIRY CHARLOTTE, N. C.

Assisted in making milk house plans and suggesting necessary equipment for the dairy as well as location for building.

MORRISON DAIRY STATESVILLE, N. C.

Advised with Morrison Brothers relative to plans, cost and necessary equipment to start a milk pasteurizing plant in Statesville.

BYRDS DAIRY ASHBORO, N. C.

Advised with Mr. Byrd and son about enlarging their milk house and the needed equipment if they bottled and retail milk.

EVANS DAIRY FAYETTEVILLE, N. C.

Advised with Mr. Evans and local Board of Health about dairy milk house plans and equipment and discouraged trying to run a milk plant in town from his dairy. He was building a new barn and milk house on a farm near Fayetteville.

YATES DAIRY RALEIGH, N. C.

Advised relative to working over his downtown milk and ice cream distribution plant so as to meet the local board of health requirements.

DAIRYMEN'S MEETING GOLDSBORO, N. C.

Discussed the cost and feasibility, with the local dairymen, of pooling their retail milk supply through a central pasteurizing plant.

LEAKVILLE DAIRY LEAKVILLE SPRAY, N. C.

Advised with local manager about their local problems.

They were handling pasteurized market milk, ice cream and making some butter. It is owned by a few local dairymen.

BEALMONT DAIRY LINWOOD, N. C.

We assisted in planing and installing refrigeration box and machine for the dairy.

BROOKSIDE DAIRY HENDERSON, N. C.

Assisted and demonstrated the making of whole and skim lactic culture milk.

STATE MILK INSPECTORS MEETING WINSTON-SALEM, N. C.

I read a paper on dairy refrigeration and attended the day session. It was a very good meeting.

MENDENHALL DAIRY HIGH POINT, N. C.

Advised with Mendenhall Brothers about local dairy problems and discussed ice cream mix to a manager of a Home Made Ice Cream Parlor who bought cream from the dairy.

WISE, N. C.

Mr. Arey and myself advised with people interested in a cold storage plant at Wise. We probably aided the local people from getting into an unprofitable business and loosing some money.

ROCKY MOUNT, N. C.

I was in conference with Secretary Austin of the local Chamber of Commerce, Messrs. Gay and Smith about starting a local pasteurizing plant.

JERSEY MEETING SWANNOA, N. C.

Attended meeting and advised relative to milk house plans for the station.

TARBORO, N. C.

Attended meeting of City Councilmen to discuss advisability of equipping the local milk plant for making butter.

Marion, N. C.

Discussed local dairy barn and milk house plans with Mr. Jamison, Dairyman.

Wilmington, N. C.

Had conference with County Agent Powell and Mr. White, manager of White's Ice Cream Plant, about market for local dairy-men in Bladen County. Visited three dairymen while in the County.

Greensboro Dairymen Greensboro, N. C.

Attended meeting to discuss the feasibility of organizing and starting a retail milk business in Greensboro. With Messrs. Lindley, Gummings and Knight, I visited milk plants at Roanoke, Va., Harrisonburg, Va., Cumberland, Md., and Fredericksburg, Va. to better aid them in making plans and advising others more intelligently. I was asked to get up blueprints for a tentative plant.

New Bern, N. C.

In conference with Messrs. Pember and Patten relative to starting a milk pasteurizing plant in New Bern. I did not encourage it.

State Fair Raleigh, N. C.

I was in charge of the Dairy Products Exhibit. There were ten entries of creamery butter, thirteen entries of farm butter, and five entries of cottage cheese. The largest number of entries ever exhibited in butter and cottage cheese at the Fair;

Farmers Convention Raleigh, N. C.

I gave an ice cream demonstration before the men and women on how to make ice cream in the home.

<u>Creameries</u>	<u>Pounds Butter</u>	<u>Patrons</u>
Mooreville Cooperative Creamery	304,500	1,200
Shelby Creamery	182,000	1,000
Mooreboro Creamery	151,000	900
Catawba Creamery	200,000	1,500
Caldwell Creamery	126,000	800
Davidson County Creamery	70,000	800
Rowan County Creamery	230,000	1,000
Greensboro Creamery	100,000	400
High Point Creamery	20,000	100
Southern Dairies	100,000	400
North State Creamery	150,000	800
Biltmore Creamery	150,000	800
Natahala Creamery	200,000	1,000
Mountain View Creamery	35,000	100
Randolph Creamery	70,000	200
Rockingham Creamery	5,000	50
Farmers Creamery Inc.	30,000	50
Carolina Creamery	10,000	50
Fine State Creamery	4,000	12
Tarboro Creamery	160	3
Total	2,137,660	11,165
<u>Cheese Factory</u>	<u>Pounds Cheese</u>	<u>Patrons</u>
Kraft Phoenix	360,000	930
Brushy Fork	35,000	40
Cove Creek	8,000	15
Beaver Dam	6,000	10
Jewel Branch	500	5
Total	409,500	1,000

STATISTICAL SUMMARY

Visits to County Agents.....	23
Visits to Others.....	376
Meetings Attended.....	13
Attendance.....	579
Letters Written.....	214
Miles Traveled (auto).....	15,787
Days Spent in the Field.....	173
Days Analysing Butter.....	15
Samples of Butter Analyzed.....	177
