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VIRGINIA

DAIRY SPECIALIST

1928 ANNUAL REPORT

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Dairy Va.

REPORT
OF THE
DAIRY EXTENSION OFFICE

PROJECT EIGHT

V.P.I AGRICULTURAL EXTENSION SERVICE

BLACKSBURG, VIRGINIA

December 1, 1927- to - November 30, 1928

COOPERATIVE EXTENSION WORK
IN
AGRICULTURE AND HOME ECONOMICS
STATE OF VIRGINIA

VIRGINIA AGRICULTURAL AND MECHANICAL
COLLEGE AND POLYTECHNIC INSTITUTE
AND UNITED STATES DEPARTMENT OF
AGRICULTURE, COOPERATING

Blacksburg, Va.,
Dec. 15, 1928.

EXTENSION SERVICE

Mr. John R. Hutcheson, Director,
Extension Service,
Blacksburg, Va.

Dear Mr. Hutcheson:-

I respectfully submit to you the attached
report of the activities of the Dairy Extension Office,
project eight, V. P. I. Extension Service for the year
December 1, 1927 to November 30, 1928.

Yours very respectfully,

Frank A. Buchanan
F. A. Buchanan,
Dairy Husbandman.

FAB/M

REPORT OF EXTENSION WORK IN DAIRYING

PROJECT 8

December 1, 1927 --- November 22, 1928

Outline

Introduction:

- A - Making a more Profitable Dairy Industry in Virginia- - - - -
- B - Personnel for Dairy Extension Work - - - - -
- C - Assignment of Projects - - - - -

Section A DAIRY PRODUCTION

Project One -- Dairy Herd Improvement Associations.--

- 1. Organization and Supervision.
- 2. Publicity
- 3. Summary of Results

Project Two -- Better Dairy Sires

Project Three -- General Dairy Development

- 1. Dairy Development in Southwest Virginia.
- 2. Dairy Breed Extension
 - (a) State Associations
 - (b) County Herds
- 3. Boys and Girls Dairy Calf Club Work.
- 4. Virginia State Dairymen's Association.
- 5. Agricultural Fairs.
- 6. Exhibit -- "Dairying in Dixieland".
- 7. Assistance for General Dairy Development.

Section B DAIRY MANUFACTURING

Project One -- "Quality Cream Improvement".

Project Two -- Efficient Creamery Operation and Butter Standardisation.

Section C SUMMARY

1. Maps--showing distribution of field work.
2. Field Summary.
3. Office Summary.

REPORT OF
EXTENSION WORK IN DAIRYING
PROJECT EIGHT

V.P.I. EXTENSION SERVICE

December 1, 1927 -- November 30, 1928

Introduction:

From a study of the "Dairy Situation in Virginia" made by members of the Dairy Department during 1928, certain outstanding conditions were found to exist that have a large influence on the efficiency and profits of the dairy industry.

The chief problems existing in Virginia which influence the efficiency of the dairy industry may be grouped as follows:

1. Crops -- The extent and efficiency of forage, grain and pasture crop production determines to a large extent the possibilities of profitable dairy farming.
2. Cattle-- Efficiency of the individual cow as a milk producer is one of the most important problems to determine the profits from dairy farming.
3. Dairy Manufactures and Markets -- The distribution and extent of dairy markets determines the expansion of the industry and the stability of the existing industry.

The dairy extension program in Virginia has for the past several years been planned so as to meet the greatest needs of the industry towards increasing efficiency of production and manufacturing. No attempt has been made to introduce new plants or markets for dairy products, since there already exists an over-production of fluid milk and in most sections of the State there are sufficient available markets for milk and cream to be converted into manufactured products.

The dairy extension office has cooperated as much as possible with the Agronomy department in their program for increasing the forage, grain and pasture crops of the State. It is believed that these two departments should plan to work in closer cooperation and develop joint programs of work.

Projects planned for the purpose of increasing the efficiency of the individual cow have always been of the greatest importance in our dairy extension program and much has been accomplished in solving this problem by means of the cooperative Dairy Herd Improvement Associations and Better Dairy Sires Projects.

To assist in developing greater efficiency and a higher quality product in the dairy plants of the state, quality cream projects have been introduced and a service in Butter Standardization has been developed. The project known as the State Dairy Council has been discontinued due to the lack of funds and sufficient cooperation on the part of the industry. There is still a great need for developing an increase consumption of dairy products.

B. Personnel for Dairy Extension Work.

The following staff of workers were employed during the period of this report:

Prof. C. W. Holdaway, Subject-Matter
Head of the Dairy Department.

Frank A. Buchanan, Dairy Husbandman of the V.P.I.
Extension Service.
(One-half time for Extension field work and
one-half time for College teaching.

Geo. H. Carey, Jr. Assistant Dairy Husbandman
In charge of the Dairy Herd Improvement Associations.

C. W. Pegram, Dairy Manufacturing Specialist.

W. D. Saunders, (part-time) Cheese Specialist.

C. Assignment of Projects.

Section A -- Dairy Production

Plans and field work assigned to:
F. A. Buchanan, Dairy Husbandman
Geo. H. Carey, Jr., Asst. Dairy Husbandman.

Projects included:

1. Virginia Dairy Herd Improvement Associations.
2. Better Dairy Sires Campaign.
3. General Dairy Development.

Section B -- Dairy Manufacturing

Plans and field work assigned to:

C. W. Pogram, Specialist in Dairy Manufacturing.

Projects included:

1. Quality Cream Improvement.
 2. Efficient Creamery Operation and Butter Standardisation.
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SECTION A
DAIRY PRODUCTION

Project One

Virginia Dairy Herd Improvement Associations.

1. Organization.
2. Supervision.
3. Publicity.
4. Summary of Results.

Project Two

Better Dairy Sires.

Project Three

General Dairy Development

1. Dairy Development in Southwest Virginia.
2. Dairy Improvement Campaigns.
3. Dairy Breed Extension
 - a. State Associations.
 - b. County Herds.
4. Boys and girls Dairy Calf Club.
5. Virginia State Dairymen's Association.
6. Agricultural Fairs.
7. Educational Exhibits.
 - a. "Dairying in Dixieland".

PROJECT ONE

VIRGINIA DAIRY HERD IMPROVEMENT ASSOCIATIONS

1. Organization and Supervision.

Geo. J. Carey, Jr. our efficient assistant Dairy Husbandman continued to actively direct and supervise the 20 or more Dairy Herd Improvement Associations. The chief problem always confronting the State supervisor of this work is to secure and keep employed real competent testers for these Associations.

The average turnover in the employment of testers for the active Associations in 1928 was as follows:

No. active Associations-----	Dec. 1, 1927-----	21
No. testers employed-----	Dec. 1, 1927-----	18
No. testers required for active Associations		18
No. different testers employed for all Associations -----		30
Percentage of turn-over-----		70%

LOCATION AND ENROLLMENT OF ASSOCIATIONS

<u>Name of Association</u>	<u>Location</u>	<u>No Herds</u>	<u>Total No Cows</u>
Albemarle	Albemarle County	22	497
Augusta-Reckbridge	Augusta-Reckbridge Co.	24	503
Botetourt	Botetourt County	24	421
Chesterfield	Chesterfield, James City Prince George, Amelia	24	818
Culpeper	Culpeper County	12	603
Fairfax No. 1	Fairfax County	24	653
Fairfax No. 2	Fairfax County	28	906
Fauquier	Fauquier County	9	290
Henrico	Henrico & Hanover Co.	22	1079
Loudoun Valley No.1	Loudoun County	22	708
Loudoun Valley No.2	Loudoun County	23	567
Loudoun Valley No.3	Loudoun County	21	731
Mercer Tazewell	Mercer Co. W. Va. Tazewell Co. Va.	23	560
Orange	Orange County	19	537
Prince William	Prince William Co.	27	727
Pittsylvania	Pittsylvania, Campbell Halifax co's.	19	523

<u>Name of Associations</u>	<u>Location</u>	<u>No Herds</u>	<u>Total No Cows</u>
Rappahannock Valley	Stafford, Carolina		
	King George,	20	544
	Spottsylvania		
Roanoke	Roanoke, Bedford		
	Campbell, Amherst Co.,	29	961
Roekingham	Roekingham	16	176
Pulaski-Montgomery	Pulaski-Montgomery Co.	24	400
		<u>432</u>	<u>12,304</u>

NEW ASSOCIATIONS

During the period of this report there were two new associations organized, two were discontinued and two were consolidated into one for the sake of efficiency.

The new associations were as follows:

Pittsylvania County D. H. I. A.

No. of members

No. of cows

Counties served -- Pittsylvania, Campbell, Charlotte and Halifax

Agents Cooperating -- H. L. Moore, Co. agt., Pittsylvania Co.
Jim Stone, Asst. Co. Agt. Pittsylvania Co.
Dr. W. G. Chrisman, Milk inspector,
City of Danville.

Pulaski-Montgomery Counties D. H. I. A.

AS a definite project for the development of efficient dairying in Southwest Va., the dairy herd improvement association to serve Pulaski and Montgomery Counties was organized during the fall of 1928. The tester was employed to begin work December 1, 1928.

No. of members 24

No. of cows 675

Counties served -- Pulaski and Montgomery.

Agents cooperating -- E. C. Grigsby, Co. agt., Pulaski Co.
J. D. Wyster, County Agent, Montgomery County.

Due to the lack of interest of members or for other reasons the following associations discontinued testing during 1928.

Mercer-Tazewell Association

A joint Association for the dairymen around Bluefield W. Va. serving Mercer County W. Va. and Tazewell County Virginia.

Southside D. H. I. A. Association

Lack of interest of members and the large territory necessary for the travel of the tester caused this Association to discontinue.

Associations Consolidated

Because of small membership and to make for more efficiency the following Associations were consolidated:

James City Association with the Chesterfield Association

Northern Valley Association with the Rockingham County Assn

Publicity

A monthly summary of Dairy Herd Improvement Association work in Virginia was run in the Extension Division News. In addition to this a special mailing list of approximately 800 dairy farmers, County Agents and agricultural workers in the State were sent each month, a more complete report, made up as a 3 or 4 page mimeographed news letter. Sample copy of this news letter is attached herewith.

A combined printed report for the three associations in Loudoun County was prepared and 1000 copies were mailed to leading dairy farmers throughout the State.

Summary of Results of the D. H. I. Associations in Virginia

AVERAGE PRODUCTION SUMMARY IN VIRGINIA D. H. I. A.

November 1927 -- October 1928

<u>Association</u>	<u>Av. No. Cows</u>	<u>Av. Milk Prod.</u>	<u>Av. B.F. Prod.</u>
Roekingham	161	7567	347.4
Orange	444	7407	341.7
Henrico	1070	8284	337.7
Fairfax No.1	589	8420	333.7
Augusta-Rockbridge	482	6532	321.1
Chesterfield	639	8059	312.4
Loudoun No.2	540	7145	311.8
Loudoun No.1	691	6650	307.1
Albemarle	479	6860	295.6
Botetourt	387	7313	290.2
Prince William	695	7726	289.8
Loudoun 3.	700	6589	287.9
Fairfax No.2	806	7156	282.8
Fauquier	185	6313	270.8
Happahannock Valley	495	5837	264.8
Roanoke	704	6977	263.1
Culpeper	530	6986	258.6
Pittsylvania	469	6560	258.6
Mercer-Tazewell	460	5102	222.2
Pulaski-Montgomery	No results, testing starts December 1st.		

HIGH COW

The high cow in the State for 1928 is a grade Holstein and Guernsey cow named "Esther" owned by R. L. Harrison and Sons of Herndon, Virginia.

Esther is nine years old and has made several very high records in her life. Her 1928 record is as follows: January and February she was dry, Freshened March 5th and in ten months produced 14,021 pounds of milk testing 4.9%, containing 699.4 pounds of butterfat valued at \$592.69. She ate 5415 pounds of silage, 1805 pounds of legume hay, 3828 pounds of grain. Her Roughage cost \$46.05, grain \$105.37 a total of \$173.28 leaving her income over feed cost at \$419.41.

This is not the only high producing cow in the Harrison and Son's herd, Esther's three stable mates produced in 1928 as follows:

<u>Cow</u>	<u>Milk</u>	<u>Fat</u>
Dove	10,374 lbs	679.2 lbs.
May 2	14,072 "	672.9 lbs.
May	15,222 "	632.7 "

It might be well to state here that Mr. Harrison's whole herd of 30 cows produced an average of 9330 pounds of milk containing 407.9 pounds of fat for the year.



HIGH HERD AVERAGE FOR EACH MONTH

November 1927 - October 1928

<u>Month</u>	<u>Association</u>	<u>Owner</u>	<u>No</u> <u>Cows</u>	<u>Breed</u>	<u>Milk</u>	<u>Fat</u>
Nov.	Rockingham	I. D. Myers	9	Reg. Hols.	1195	46.5
Dec.	Rockingham	J. S. & Paul Roller	10	Reg. Jer.	703	45.7
Jan.	Rockingham	J. S. & Paul Roller	9	Reg. Jer.	653	40.3
Feb.	Henrico	Suck Bros.	42	Reg. & G. Hol	1045	40.0
March	Rockingham	I. D. Myers	10	Reg. Hol.	1267	50.0
April	Henrico	Sterling Simpson	39	Gr. & PB H.	1237	48.9
May	Henrico	Sterling Simpson	39	Gr. & PB Hol	1378	50.7
June	Rockingham	I. D. Myers	8	Reg. Hols.	1557	47.5
July	Albemarle	Cedar Gate Farm	10	Reg. Jer.	984	48.7
Aug.	Botetourt	F. S. Lips	15	Gr. Hol & G.	1012	46.3
Sept.	Rockingham	I. D. Myers	8	Reg. Hols.	1305	44.7
Oct.	Albemarle	J. S. Morris	14	Gr. Hols.	1369	48.0

HIGH COW RECORD FOR EACH MONTH

November 1927 - October 1928

<u>Month</u>	<u>Association</u>	<u>Owner</u>	<u>Breed</u>	<u>Lbs.</u> <u>Milk</u>	<u>Lbs.</u> <u>Fat</u>
Nov.	Fairfax No. 1	R. L. Harrison & Son	G. Guer.	1360	91.1
Dec.	Henrico	Geo. B. White	Reg. Hol	2196	121.0
Jan.	Henrico	Geo. B. White	Reg. Hol	1845	99.6
Feb.	Loudoun No. 3	L. C. Lowry	Gr. Guer.	1989	106.2
Mar.	Chesterfield	H. S. Seward	Reg. Hol	3071	122.8
April	Fairfax No. 1	B. Middleton & Son	Gr. Hol.	2022	107.1
May	Mercer-Tazewell	C. R. Calfee	Gr. Jer.	945	103.9
June	Henrico	G. O. Townsend	Gr. Hol.	2013	100.7
July	Loudoun No. 1	Overbrook Farm No. 1	Gr. Hol.	1717	82.5
Aug.	Prince William	Clover Hill Farm	P.B. Jer.	1154	75.0
Sept.	Fairfax No. 2	R.R. Parr	Gr. Hols	2251	105.8
Oct.	Fairfax No. 1	R. L. Harrison & Son	Gr. Hol.	2238	114.2

SUMMARY OF RESULTS BY YEARS

IN

VIRGINIA DAIRY HERD IMPROVEMENT ASSOCIATIONS

	(1923)	(1924)	(1925)	(1926)	(1927)	(1928)
Number of associations - - - - -	14	15	18	18	21	20
Number of old associations reorganized - - - - -	4	12	12	17	17	17
Number of new associations organized - - - - -	2	3	4	1	4	2
Number members in all associations	267	281	346	353	408	432
Number cows in all associations	6276	7366	9010	9563	11468	12204
Average yearly milk production - - - - -		6749	6362	6865	6920.6	7104.2
Average yearly butterfat production - - - - -		279.2	263.2	284.3	289.3	294.5
Average test per cent butterfat		4.136%	4.136%	4.14%	4.17%	4.145%
Average number cows producing over 40 lbs. B.F. each month - -	455	592	696	936	1132	1281
Average number cows producing over 50 lbs. B.F. each month - -	113	162	183	277	332	411
Average number dry cows each month - - - - -			1127	1160	1257	1365
Number (unprofitable) cows sold during year - - - - -	726	1044	1566	1432	1208	1706
Number purebred bulls purchased during year - - - - -	44	56	70	65	65	77
Number purebred cows purchased during year - - - - -	81	205	206	161	101	68

HIGH HERD

The High Herd for the year was owned by I. D. Myers and his son Victor Myers, R.F.D. Harrisonburg, Va.

This herd is located in Rockingham County, and has a good blue grass pasture on which the cows are run during the year. Mr. Myers is a good farmer and produces excellent legume hay both soy beans and alfalfa.

Mr. Myers has always been careful in the selection of his herd sire. One of his best sires was a Holstein bull from the Virginia Polytechnic Institute. He believes in cooperating by being a member of the Valley of Virginia Milk Producers Association to whom he sells his whole milk. In addition to being able to make a good production with his herd Victor Myers, each year takes out a small herd of show cattle over the Virginia Fair circuit. He wins consistently at these Fairs and this provides an excellent means of advertisement for his herd. Victor Myers is also an outstanding Club member having won a scholar ship to the State College by showing his calf at the State Fair, has also been a member of the Virginia team in the National judging contest and also served as a member in the live stock team at the International Live Stock show.

The record of the herd in 1928 was as follows:

<u>No Cows</u>	<u>Av. Milk Production</u>	<u>Av. Butterfat Production</u>
9	1,388	492.5

PROJECT TWO

BETTER DAIRY SIRES

The State Better Sires Campaign .

In cooperation with the Animal Husbandry Extension Department a cooperative project known as the "State Better Sires Campaign" has been planned. It was intended that this project would serve as a special incentive to County Agents for making the replacement of "scrub sires" one of their major projects in the Counties.

During 1928 there were 27 County Agents enrolled for this project.

Sufficient funds were donated by the several National and State breed Associations, and the Virginia State Bankers Association so that the following prizes were offered to the Agents and Counties entering the contest for the year.

First prize to the County - - - - \$60.00
(for use of the County Advisory Board in promoting agricultural extension work).

Second prize to the County - - - - \$40.00

Third prize to the County - - - - \$30.00

First prize to County Agent - - - -
Expenses paid to either the National Dairy Show or the International Livestock Exposition.

RESULTS

A total of 55 replacements of scrub bulls with purebred dairy bulls were reported in by the agents cooperating in this project.

The winning County Agent was S. S. Hylton of Bedford County, who was selected to go to the National Dairy Exposition at Memphis, Tenn.

County Better Sires Campaign

Intensive County Campaign for the introduction of better dairy sires were held in the following Counties:

Bedford - - - - - E. B. Hylton-County Agent
Louisa - - - - - Dungan McKinsey- County Agent
Culpeper - - - - - J. G. Eller-- County Agent

The general plan of these campaigns were to hold a series of farm and community meetings for four days in the week, with a definite objective for each series of meetings toward some practical means of locating, selection and purchase of dairy bulls. The objective for each campaign varied with local conditions and the demand for the purchase of purebred sires.

The plans and results of the Bedford County Campaign are outlined as typical of the intensive County wide better sires campaign.

Preparation and Plans:

At least two months previous to the dates set for the intensive campaign, a conference was held between the Dairy Community of the County Agricultural Advisory Council, the County Agent and the Dairy Specialist. At this conference dates were set for the campaign, the committees selected for the various activities of the campaign and the workers selected.

The committees to be selected were as follows:

Publicity -
Speakers Schedule -
Transportation and Exhibits -

The County Agent usually serves as director of the campaign.

Procedure

For each district of the County two farm day meetings are arranged for, each of them on the farm of an interested farmer who will agree to send out notices of the meeting and arouse local interest among his neighbors. At night a community meeting

is held at which moving pictures are shown as an additional attraction.

If the County is large and sufficient speakers can be secured two teams of workers can be used with meetings arranged in different sections of the County for the same day each team. This was done in Bedford County.

Articles in the newspapers previous to the campaign and circulars announce the schedule of the meetings. A copy of the circular is shown herewith.

DAIRY IMPROVEMENT MEETINGS

From Aug. 14th to 17th

"Bigger Checks From Better Cows"

**There will be a Dairy Meeting in Your Community
on dates listed below.**

TUESDAY, AUGUST 14th

FARM MEETINGS
10:00 A. M. R. Garrett Trice
2:00 P. M. T. J. James

COMMUNITY MEETING.
8:00 P. M. Buckner High School.

WEDNESDAY, AUGUST 15th

FARM MEETINGS
10:00 A. M. J. H. Quisenberry
2:00 P. M. E. A. Goodwin, Jr.

COMMUNITY MEETING.
8:00 P. M. Apple Grove High
School.

THURSDAY, AUGUST 16th

FARM MEETINGS
10:00 A. M. W. S. Goodwin
2:00 P. M. M. B. Quisenberry.

COMMUNITY MEETING.
8:00 P. M. Mineral High School

FRIDAY, AUGUST 17th

FARM MEETINGS
10:00 A. M. F. P. Smith.
1:30 P. M. M. L. Hypes.
4:00 P. M. P. E. Daniel

COMMUNITY MEETING.
8:00 P. M. Louisa High School.

ATTEND NEAREST FARM MEETING
Free Movies at Each Night Meeting
Comedy And Feature

At each meeting the speakers presented by lecture and charts subject matter material to teach the value of better cows and the use of purebred dairy sires. At the conclusion of the meeting announcement is made of the definite plan for following up the work, and the farmers are asked to give information as to their intentions for buying a purebred dairy sire. The Bedford County Campaign was held on July 9th to 13th, 1928, and July 23rd was set as the time for a County Dairy Bull Sale.

Summary of Results in the Bedford Campaign.

No. Farm meetings held - - - - -	18
No. Community meetings held - - - - -	10
Attendance at Farm Meetings - - - - -	177
Attendance at Community meetings - - - - -	460
Total attendance - - - - -	637
No. Workers - - - - -	5
No. Farmers cooperating - - - - -	18
No. Prospects for Purchasing purebred Dairy Bulls - - - - -	45
No. Purebred Dairy Bulls sold at sale - - - - -	14
No. Purebred Dairy Bulls sold as result of campaign - - - - -	25

SUMMARY OF RESULTS FROM COUNTY CAMPAIGNS

	Bedford July 9-13	Louisa Aug. 14-17	Culpeper Oct. 30-Nov. 2	Total
Dates of Campaign	July 9-13	Aug. 14-17	Oct. 30-Nov. 2	
County Agent - - -	S. S. Hylton	D. McKinsey	J. C. Eller	3
No. Circulars distributed--	1750	750	500	3000
No. Farm meetings held - - -	18	9	8	35
No. Community meetings held-	10	1	3	14
Attendance at farm meetings-	177	86	57	320
Attendance at Community " -	460	60	154	674
Total attendance - - - - -	637	146	211	994
No. Farmers cooperating - -	18	9	8	35
No. specialist - - - - -	5	1	2	8
No. Prospects secured for purebred Dairy Bulls - - - -	45 (18)	13	28	85

	<u>Bedford</u>	<u>Louisa</u>	<u>Culpeper</u>	<u>Total</u>
No. Purebred bulls placed as a result of the Campaign - - -25		2	2	29

CREAMERY AND PLANT OPERATORS

O. L. Darter, Kraft Cheese Company, Bristol, Virginia
J. O. Hoge, District Supervisor, Rural Retreat, Va.
W. P. Sumner, Wytheville Creamery, Wytheville, Virginia
L. L. Hunt, Field Agent, Pet Milk Co. St. Louis, Mo.
L. E. Norman, Field Agent, Pet Milk Co., Abingdon, Va.
W. R. Weaver, Clover Creamery, Radford, Virginia
A. C. Hansen, Field Representative, Fairmont Creameries, Inc.
Columbus, Ohio
Manager Southern Dairies, Cambria, Virginia

FARM LEADERS

D. K. Lucas, Christiansburg, Virginia
Dr. W. G. Delp, Rural Retreat, Virginia
Jno. Vaughan, Spring Valley, Va.
F. B. Kegley, Wytheville, Virginia
C. G. Crockett, Wytheville, Virginia
R. A. Eller, Chilhowie Hdw. Co., Chilhowie, Virginia
R. P. Whitman, Pulaski, Virginia
Col. M. E. Harmon, Pulaski, Virginia

EXTENSION WORKERS

Jno. R. Hutcheson, Blacksburg, Virginia
C. W. Holdaway, V.P.L. Dairy Dept., Blacksburg, Va.
W. P. Moore, Blacksburg, Va.
B. A. Warriner, Blacksburg, Virginia
C. W. Pogram, Blacksburg, Virginia
F. A. Buchanan, Blacksburg, Virginia
W. O. Martin, County Agent, New Castle, Va.
H. P. Marshall, County Agent, Bland, Virginia
E. C. Grigsby, County Agent, Pulaski, Virginia
T. R. Starnes, County Agent, Pearsburg, Virginia
P. E. Bird, County Agent, Marion, Va.
D. T. Painter, County Agent, Independence, Virginia
E. H. Sanders, County Agent, Max Meadows, Virginia
S. L. Cole, County Agent, Floyd, Virginia
J. D. Wyster, County Agent, Christiansburg, Virginia

PROJECT THREE

GENERAL DAIRY DEVELOPMENT

1. DAIRY DEVELOPMENT IN SOUTHWEST VA.

During the summer and fall of 1927 several large dairy manufacturing companies sent representatives to several sections of the State for the purpose of investigating the possibilities of establishing a successful manufacturing enterprise for their product. Some of the Companies sending representatives were: The Pet Milk Co. of St. Louis, Mo., The Carnation Milk Products Company of Oconomowoc, Wis., The Kraft Cheese Company of Chicago, Ill. After various investigations in other parts of the state, chief interest finally rested upon the excellent possibilities for the development of dairying in Southwest Virginia. In the fall of 1927 the Kraft Cheese Company decided to locate a plant at Bristol, Va., with a branch plant at Pulaski, Va.. At about the same time The Pet Milk Company decided to locate a large milk condensary at Abingdon, Va., with cooling stations at Chilhowie and Rural Retreat.

County Agent S. B. Fenne, was appointed to work in Washington County beginning in June 1928. The Pet Milk Company employed a fieldman to begin work in the territory around Abingdon in July 1928.

In order that a uniform and practical plan for the development of dairying in Southwest Virginia could be adopted a conference of Agricultural Leaders from Southwest Virginia was called at Pulaski, Va. on June 6, 1928.

To this conference were invited the following representative group of Agricultural Leaders:

DEVELOPMENT AGENTS

W. B. Gillespie, Secretary, Chamber of Commerce, Abingdon, Virginia
T. Gilbert Wood, Agricultural Agent, E. & W. Railway, Roanoke, Virginia
H. K. Bowen, Secretary, Southwest Virginia, Inc. Wytheville, Virginia
A. I. Hayes, Secretary, Bristol Chamber of Commerce, Bristol, Virginia
E. W. Calfee, Mayor, Pulaski
J. Nick Jones, Agricultural Agent, Bristol Chamber of Commerce

REPORT OF CONFERENCE OF AGRICULTURAL LEADERS
Held at Pulaski, Virginia, June 6, 1923
TO DISCUSS PLANS FOR THE DEVELOPMENT OF DAIRYING IN SOUTHWEST VIRGINIA

Introduction:

The continued interest of farmers and agricultural leaders in Southwest Virginia in the possibilities of developing that section for dairy farming is due largely to these three factors:

1. The unexcelled blue grass pastures of the section.
2. The excellent possibilities for growing grain and forage crops on land already in a good state of cultivation.
3. The fact that the manufacturers of dairy products are turning to the best agricultural sections of the south for the establishment of plants that will provide market outlets for dairy products.

The local business interests, chambers of commerce, and other agencies are interested in developing dairy farming in this section since there is a need for finding new sources of revenue for farmers and it has been demonstrated that dairy farming under efficient conditions of production is profitable.

The opportunities of producing crops efficiently, having excellent and cheap pastures and with the introduction of sure markets for dairy products, lends much encouragement for the development of dairying in this section.

The Problems:

Because of this interest in developing dairying, the agricultural leaders assembled at this conference concluded that the three fundamental problems to be solved are as follows:

1. To bring before the farmers in the territory the essential principles of the following subjects:
 - a. The quality of dairy cows needed for efficient production.
 - b. To give information regarding the proper feeding of dairy cows for efficient production.
 - c. Methods of producing high quality milk and cream.
2. To increase the number of dairy cows milked.
3. To improve the type of the cows milked by developing high grade dairy type.

Plan of Work:

In order that these problems may be solved with the greatest efficiency, the following plan is to be recommended for each county and community in the section with the understanding that each community will vary these plans to meet the immediate needs of their community:

First -- Organize local agencies into groups and committees to give assistance as follows:

1. Arrange for meeting places.
2. Assistance in the purchase and distribution of dairy cows.
3. Publicity for local dairy development activities.

A definite program had been planned to present practical suggestions for the information of those attending. A committee was appointed to draft recommendations which would be distributed to agricultural leaders throughout the section. The report of this committee follows:

-2-

Second -- It is recommended that as soon as possible a series of meetings be planned at which time competent speakers will address farmers on the following subjects:

1. The kind of dairy cows that pay.
2. Crops for the dairy farm.
3. A plan for purchasing dairy cows. (It is suggested that the county committee make a definite well organized plan for cow purchasing.)
4. A plan for developing future dairy herds. (The use of purebred dairy sires.)

Third -- Following this series of meetings, the county committee can then promote one or both of the following projects:

- a. - The cooperative purchasing of dairy cows.
- b. - A purebred dairy sire campaign.

Suggested Methods:

A Suggested Plan for Dairy Cow Purchasing

1. That a central or county committee of not more than five members to be known as the cow purchasing committee be appointed.
2. Contracts be provided which will provide negotiable notes to provide collateral at the banks for making the original purchase.
3. To deliver the cows by placing them up for selection. Every one desiring the cow at the price named will write his name on a piece of paper; then from those names one will be drawn who will become the purchaser of the cow.

(See suggested purchasing contract.)

A Suggested Plan for a Purebred Dairy Bull Campaign

1. A survey is to be made to determine the location of farmers now owning grade or "scrub" bulls and also those who are interested in using a purebred dairy bull.
2. By means of farm meetings or personal canvassing, definite orders to be taken for the purchase of purebred bulls.
3. Distribution of purebred dairy bulls by one of the following methods:
 - a. Individual orders.
 - b. Bull sales.
 - c. Organizing community bull clubs.

(See U. S. Department of Agriculture Circular No. 6
"Purebred Dairy Sire Introduction".)

These suggested plans for development are the results of a conference of agricultural leaders and business men called by Jno. R. Hutchison, Director of the V. P. I. Extension Service, and held in the Courthouse at Pulaski, June 6, 1928.

Further assistance in developing plans for individual communities can be obtained by making requests to the local county agent or the Agricultural Extension Service, V. P. I., Flacksburg, Va.

**LOCAL DAIRY DEVELOPMENT CAMPAIGN IN
SOUTHWEST VIRGINIA**

At the beginning of 1928 a number of the counties of Southwest Virginia had set up local organizations for the promotion and development of dairying, and during the summer of 1928, a number of County campaigns for the development of dairying were held throughout this section of Virginia.

The organization for dairy development in the several counties was found to be as follows:

County	Local Leaders	Agents	Series of Meetings
Pulaski	E. W. Calfee Mayor, Town of Pulaski, Va. H. H. Roberts	E. C. Grigsby County Agent E. H. Sanders Dist. Co. Agt., Pulaski, Va.	August 27-30
Washington	W. H. Neff-Pres. Chamber of Commerce Abingdon, Va. S. C. Clifton S. F. Hart	S. B. Fenne County Agent L. E. Norman Field Agent Pet Milk Co. Abingdon, Va.	July 16th to 21st and Continuous meeting since these dates
Russell	J. H. A. Smith Elk Garden Stafford Fletcher Temple Hill	R. E. Connelly Agri. High School Inst- ructor Lebanon, Va.	Aug. 22nd to 25th

County	Local Leaders	Agents	Series of Meetings
Smythe	J. A. Eller Chilhowie J. E. McSpadden Leves Mill C. B. Bonham Chilhowie	P. E. Bird County Agent L. E. Norman Pet Milk Co.	Sept. 11-14 inclusive
Wythe and Adjoining Counties	Dr. J. D. Delp Rural Retreat G. C. Heff Rural Retreat R. E. Crowgey Wytheville John Vaughan Spring Valley	D. T. Painter County Agent Grayson Co. J. C. Hoge District Sup- ervisor Vocat- ional Agricul- ture J. L. Reynolds Agri. Instructor J. C. Moore Agri. Instructor	Oct. 8th - 12th inclusive

The above outline of the organization for the several Counties in the Southwest, gives only a fair idea as to the number of interested leaders. For example in Washington County the Chamber of Commerce of Abingdon appointed three working committees to actively carry on the program of dairy development. The committees were as follows:

1. Educational Committee - - W. H. Clifton, Chairman
2. Cow Buying Committee - - S. F. Hart, "
3. Boys Club Program Com. - - J. D. Latteur, "

The president of the Chamber of Commerce, Mr. Heff and the Secretary W. B. Gillispie, directed the general program of development through the work of their committees.

Similar organizations were planned in most of the Counties where these new market-outlets for milk have been established. Probably the best service rendered by the V.P.I. Dairy Department was the training of local leaders in subject-matter so that the program of dairy development would be along scientific as well as practical lines, by the work of the leaders. An example of the work of local leaders in Washington County, which followed the Dairy Campaign is shown by the following letter from the president of the Chamber of Commerce.

Abingdon, Va.
Sept. 1, 1928

Dear Sir:-

Every day you come in contact with a number of farmers and have the opportunity to discuss their problems with them. You are able to exert a considerable influence with them and you wish, of course, to advise for their best interest.

The greatest opportunity that has ever come to the farmers of this section is now offered by the establishing of a reliable and permanent market for whole milk at Abingdon by the Pet Milk Company. We wish to ask you to help us in interesting our farmers in producing milk. The increased monthly income which will result for the farmers will help them, will help you and will make this section more prosperous as a whole. Prosperity has followed dairying everywhere.

You will need information about dairying in order to be able to discuss it with the farmers. We are sending you some printed matter containing reliable and valuable information along that line. Please read it carefully, keep it for reference and use it every time you get a chance to talk to a man who should be interested in producing milk.

Other sections have become rich by dairying. By reason of our natural advantages of climate and soil, we can produce milk more economically than most sections now engaged in this business.

Join with us in encouraging the development of this country along dairy lines and you will be performing a great service for our farmers in whose prosperity you will share.

Thanking you for your cooperation, we remain

Yours very truly,

ABINGDON CHAMBER OF COMMERCE

W. H. NEFF, Pres.

With the above letter there was sent a six page circular containing definite subject matter information answering common yet practical questions on the subject of dairying.

As the president of the Abingdon Chamber of Commerce has said: "You men from the College have done a most valuable piece of work in training us fellows who must be the local leaders. We cannot expect the College to keep enough field men in our County to do all dairy educational work needed. We must do much of it ourselves."

STATISTICAL RESULTS OF DAIRY DEVELOPMENT IN
SOUTHWEST VIRGINIA

	Pulaski	Washington	Russell	Smyth	Adjoining	Total
No. Counties Asst.						7
No. County Agents Asst.	1	1	0	1	2	5
No. Local Leaders	20	58	45	38	57	198
No. Meetings	5	25	18	13	11	72
Attendance	120	1500	472	453	336	2881
No. Dairy Specialist from College	1	4	2	3	2	12
Other Organisations	1	4	2	2	2	11
Total	2	8	4	5	4	23
No. Dairy Cow sales Approximate No.	1	4	0	0	0	5
Cattle sold	250	1000	0	0	0	1250

For the future development of dairying in Southwest Virginia it is hoped that a special field man may be employed who will spend a large part of his time in the territory.

2. Dairy Breed Extension

a. State Associations

The three State dairy breed associations which have been more or less active during the period of this report are as follows:

The Virginia Jersey Cattle Club

Senator Carter Glass, President, Lynchburg, Va.

Mrs. A. G. Ingham, Secy-Treas., Wellville, Va.

The Virginia Guernsey Cattle Club

Mr. C. T. Rice, President, Oakton, Va.

Mr. D. M. Chichester, Secy-Treas., Falmouth, Va.

The Virginia Holstein Breeder's Club

Mr. F. S. Walker, President, Orange, Va.

Mr. C. H. Crabill, Secy-Treas., Drewry's Bluff, Va.

ACTIVITIES

There has been very little activity on the part of the dairy breed Associations except for the holding of an annual meeting for each of the Associations. These meetings were held at Charlottesville, Va. at the time of the Virginia State Dairymen's Convention. One entire afternoon was given to the programs for the breed Associations. The Annual meeting was well attended and considerable interest aroused in the various breed problems.

Each of the State Breed Associations contributed to the Dairy Calf Club prizes and the County Herd awards offered by the Virginia State Fair Association.

COUNTY HERDS EXHIBITED

There were eight County herds of dairy cattle exhibited at the 1928 Virginia State Fair. Most of these herds were selected by members of this department. These were as follows:

1. Orange County Jersey Herd.
2. Spotsylvania County Jersey Herd.
3. Henrico County Holstein Herd No.1.
4. Henrico County Holstein Herd No.2.
5. Rockingham County Holstein Herd .
6. Nottoway County Guernsey Herd.
7. Henrico County Guernsey Herd.
8. Albemarle County Guernsey Herd.

The following County Herds made a circuit of Virginia Fairs and showed at the most important County and district Fairs:

Orange County-- Jersey Herd
Rockingham County--Holstein Herd
Nottoway County--Guernsey Herd
Albemarle County--Guernsey Herd

The first prize winners in County Herds at the Virginia State Fair was:

1st. Jersey Herd----- Orange County
2nd. Holstein Herd----- Rockingham County
3rd. Guernsey Herd----- Nottoway County

3. BOYS' AND GIRLS' DAIRY CALF CLUB WORK

Members of the Dairy Extension Staff assisted with the activities of the Boys' and Girls' 4-H Club work as follows:

a. Instruction by means of lectures and demonstrations at Short Courses:

Petersburg Short Course
Fredericksburg Short Course
Rockbridge Short Course
State Short Course

b. Training of Dairy Club Judging Team.

A State Dairy Judging Contest was held at the Virginia State Fair, from which were selected a team of three club members who were trained and sent to the National 4-H Club Judging Contest at the National Dairy Exposition, held at Memphis, Tenn.

Fourteen Club members from seven different Counties competed in the State Dairy Judging Contest. The three members trained for the National Contest were:

John Mistr,----- Henrico County
J. W. Coffman,----- Rockingham County
J. N. Jackson,----- Augusta County

The results of the Virginia team in the National Contest were as follows:

The Virginia team ranked--

Sixth place in judging -----all breeds.
Fourteenth place in " -----Ayrshire Cattle.
Fourth place in judging-----Guernsey Cattle.
Third place in judging-----Holstein Cattle.
Eleventh place in judging-----Jersey Cattle.

There was a total enrollment of 311 dairy calf club projects in the State for 1928.

4. VIRGINIA STATE DAIRYMEN'S ASSOCIATION

The Twenty-first Annual Convention and Dairy Show of the Association was held at Charlottesville, Virginia on January 19-20, 1928. The principal features of the Convention and Show were:

- (1) Two day Program of addresses from important dairy leaders. (See program copy on following page).
- (2) The Dairy Banquet, attended by over 300 representative dairymen and dairy leaders. Dean H. L. Russell of the College of Agriculture, University of Wisconsin was the principal speaker. The Dairy Herd Honor Roll diplomas were awarded to 105 members of the Virginia Dairy Herd Improvement Association.
- (3) Exhibits, Educational and Commercial.

Educational exhibits were prepared relating to feeding and breeding problems.

Twelve commercial exhibits had exhibits of dairy equipment and supplies.

- (4) Attendance: The attendance and interest in the program was the best had for several years. There was an average attendance of over 400 dairymen at the several sessions of the Convention.

5. Agricultural Fairs

a. Judging at County Agricultural Fairs.

Request for members of the Dairy Extension Staff to judge dairy cattle or dairy products during 1928 were filled as shown in the following table:

<u>Name of Fair</u>	<u>County Agent</u>	<u>Staff Member</u>		
		Buchanan-	Carey--	Pegram
Marshall Fair (Fauquier Co.)	No Agent			Cattle
Albemarle Co. Fair (Charlottesville, Va.)	T. O. Scott			Cattle
Augusta Co. Fair (Staunton, Va.)	J. C. Coiner	Cattle		
Shenandoah Co. Fair (Woodstock, Va.)	G. C. Dickerson	Cattle		
Loudoun Co. Fair (Percellville, Va.)	J. R. Lintner	Cattle		
Fairfax Co. Fair (Fairfax, Va.)	H. B. Derr	(T. T. Curtis substituted)		
Roanoke Fair (Roanoke, Va.)				Cattle
Fredericksburg Fair (Spotsylvania, Va.)	W. L. Browning			Cattle
Nokesville Fair (Pr. William Co.)	W. R. Linthicum			
Petersburg Fair (Southside District)	T. T. Curtis			Cattle
	K. H. Ellis	Cattle		
	J. B. Cole			
	W. H. Daughtrey			
	Rixey Jones			
Tri-County Fair (Suffolk, Va.)	E. P. Gillette			Cattle
Varina Fair (Henrico County)	L. M. Falker, Jr.			Cattle
Essex County Fair (Tappahannock, Va.)	D. H. Crosby			Cattle
Keller Fair (Accomac Co.)	W. O. Strong	Cattle		
Orange Co. Fair (Orange, Va.)	E. V. Breeden			Cattle
Culpeper Co. Fair (Culpeper, Va.)	J. C. Eller			Cattle
Rockbridge Co. Fair (Lexington, Va.)	H. G. Lewis			Cattle
Totals- No Counties 17 assisted.	Agents 19	6	10	1

General Program

(Continued)

FRIDAY MORNING, JANUARY 20, 1928

at the Armory



9:00—Assemble—Music

9:15—Business Session of the Association
Report of the Secretary-Treasurer
Election of Directors

9:30—4. *Quality Cream Production*
Some Results of Cream Grading in Virginia
C. L. STAHL, Dairy Food Division, Richmond, Va.

10:00—5. *Building Future Dairy Herds in Virginia*
J. H. McCLAIN, Bureau of Dairying, U. S. D. A.,
Washington, D. C.

11:00—"Improving the Dairy Herd"
C. T. CONKLIN, Secretary, Ayrshire Breeders' As-
sociation, Brandon, Vt.

12:00 Noon—Lunch

Do not go home now—

The best is yet to come—

See Next Page

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One of the observations made from experience in judging dairy cattle at the various County Fairs is the need for the judging of the cattle to be made more of a demonstration than is possible at most of the Fairs. County Agents and Fair officials can improve this condition in the following ways.

- First- Provide ample room on level ground and rope off or set off by a rail within which ring the cattle may be led out and judged.
- Second- Announce in the program and through other mediums of advertising the exact time for the judging of the several classes of cattle.
- Third- Give more importance to the winners in the newspapers and other announcements.

The specialist who will need to do his part by giving reasons for the placing and answering questions from the ringside so as to make this work of more educational value.

6. Educational Exhibits "Dairying in Dixieland"

Since the National Dairy Exposition was again held at Memphis, Tenn. in 1928, the dairy specialist of the Southern States were asked to cooperate in an educational exhibit known as "Dairying in Dixieland".

The same general committee that served in 1927 was asked to take charge of the project in 1928. This committee is as follows:

- C. A. Hutton, Dairy Specialist----- Chairman
Tennessee Extension Service
Knoxville, Tenn.
- F. A. Buchanan, Dairy Husbandman-----Secretary
V.P.I. Extension Service
- A. C. Baer, Prof. of Dairying
Oklahoma Agricultural College.
- L. A. Higgins, Dairy Specialist
A. & M College, Mississippi.
- T. W. Ridgeway, -----Manager
Mistletoe Creameries
Dallas, Texas.

The first committee was held at Birmingham, Ala. on March 21, 1928. At this time preliminary plans were made as to the general theme of the exhibit and the plans for State exhibits.

A second meeting of the committee was held at Washington, D. C. on May 10th at which time final plans were drafted for the exhibit.

Description of Exhibit

The general committee had charge of planning and constructing a "Central Exhibit" around which individual States were asked to erect State Exhibits.

In view of the fact that no funds were available for the erection of a State exhibit from Virginia, the secretary of the exhibit committee gave his efforts to the plans and construction of the "Central Exhibit".

The general theme of this exhibit was "The Dairy Cow as a Feed Market". The background presented a map of the Southern States and by means of a "Horn of Plenty" it was shown that the South had ample possibilities for the production of forage crops. On one side of this central background a model dairy barn with a dairy cow, contrasted with the other side of the exhibit on which was a model freight car. Running on the trolly by means of endless belts and moved by an electric motor were small models of trucks with feed bags and hay bales. These trucks moved from the center in opposite directions towards the dairy barn on one end and the freight car on the other.

The lesson taught was set forth in a center chart entitled "Two Ways of Marketing your Feed Crops", one to the "Open Markets" the other to "The Dairy Cow". Above the dairy cow a smaller chart stated in exact prices what a good cow would pay for feed crops, and also what a poor cow would pay. Above the freight car a chart showed what prices would be paid on the "open markets".

This Central exhibit received considerable favorable comment and by having an attendant with the exhibit many practical questions were answered for the several thousand farmers who stopped at the exhibit.

It was found difficult to interest the States in having individual exhibits. The result being that only four state exhibits were shown. These were, Alabama, Arkansas, Tennessee and Oklahoma.

ASSISTANCE FOR THE GENERAL DAIRY DEVELOPMENT PROGRAM

Due to the many urgent requests made by the department for assistance in the development of dairying the help of a number of special workers in the field was required. These workers and the assistance given is as follows:

Worker	Nature of Project	No. Meetings	Approx. attendance
Prof. C. W. Holdaway, Head of Dairy Dept.	General development meetings in Southwest, Va.	13	750
	Better Sires Campaign Rockingham County	3	75
	Special Meetings Marion-Pulaski-Salem	5	450
C. W. Pagan Dairy Manufacturing Specialist	General development in Southwest, Va.	25	825
	Better Sires project	26	375
	Other Production Meetings	5	60
F. A. Driver Dairy and Food Division	General development in Southwest.	20	950
H. M. Clarke Field Agent Holstein-Friesian Assn. of Am.	Dairy Development in Washington County	6	350

Worker	Nature of Project	No. Meetings	Approx. Attendance
R. W. Kno, Field Agent Amer. Jer. Cattle Club	Dairy development Washington County	6	325
	Better Sires Bedford County	14	260
	Better Sires Rockingham Co.	13	225

SECTION B

DAIRY MANUFACTURING

PROJECT 1. QUALITY CREAM IMPROVEMENT.

PROJECT 2. EFFICIENT CREAMERY OPERATION AND BUTTER
STANDARDIZATION.

Section--B Dairy Manufacturing

Introduction:

The work in this field of Dairy Extension was done by C. W. Pogram, Dairy Manufacturing Specialist. During the year 1926-1927 most of the specialists time was spent in grading, while much progress was made, this work, it seemed that this project had reached it's limits as to future growth under the system in practice.

In January 1928 effort was made to establish the Federal State grading plan but due to differences between creamerymen and lack of cooperation between the Dairy and Food Division and the Division of Markets this plan was turned down.

In view of above facts and as this work is more or less regulatory it was decided to withdraw from the grading field, and to devote this time in doing educational work with cream producers. This work was approved by the creamerymen in their annual Convention in Charlottesville, January 16, 1928.

Complete report of this work is given under Project 1.

As many demands were made on the Dairy Department for assistance in the production field, and as there was a shortage of workers, the Manufacturing Specialist spent part time in this field, report of same is included under Section A.

PROJECT ONE

QUALITY CREAM IMPROVEMENT

1. Quality Cream Campaigns.

Seven Quality Cream Campaigns were held in thirteen Counties. These were held in cooperation with local Creameries and County Agents. Thirty-one meetings were held, and sixty-one reels of dairy motion pictures were shown. Farm visits were made, and producers were offered suggestions as to better methods in the production and storage of cream.

Several Creamery managers in which these campaigns were held, have stated that the quality and quantity of their cream supply has improved.

A statistical report showing results of these campaigns follows:

Table 1.

Quality Green Campaign

County	Meetings	Attendance	Method used	Creamery Cooperating	County Agent
Prince Edward	4	150	Night meeting Farm visits in day	Farmville Creamery	E. F. Striplin
Augusta	1	50	Cream con- test.	Richmond Dairy Staunton Creamery	J. C. Coiner
Westmoreland	2	190	Night meetings Farm visits	Farmers Creamery Fredericksburg	S. J. Dawson
Stafford	1	150	Night meetings	Fredericksburg Creamery	W. L. Browning
Fauquier	1	100	Night meetings	Fredericksburg Creamery	No. agent
Caroline	1	190	Night meetings	Fredericksburg Creamery	No. agent
King George	1	225	Night meetings	Fredericksburg Creamery	H. A. Edge
Spottsylvania	2	175	Night meetings	Fredericksburg Creamery	W. R. Linthicum
Tappahannock	1	200	Night meetings	Fredericksburg Creamery	D. H. Crosby
Loudoun	1	11	Day meeting	Mountain View Creamery, Purcellville	J. R. Listner
Rockbridge	9	265	Night meetings with farm visits	McCrums' Creamery Lexington, Va.	M. G. Lewis

County	Meetings	Attendance	Method used	Creamery cooperating	County Agent
Calpeper	9	188	Day and night meetings	Monticello Dairy Calpeper creamery U. S. Creamery	J. C. Eller
Allegheny	3	210	Night and Farm visits	Peerless Creamery	S. B. Surber
Albemarle			25 Farm visits and installation of cooling tanks	Monticello Dairy	T. O. Scott

2. Publicity Matter Distributed.

The distribution of circular matter extensive throughout the year, has been found to be of value in calling the attention of the cream producers to the importance of caring for cream on the farm. 48,000 small "Cream Comments" were distributed in cooperation with a number of Creameries. 800 large "Cream Comments" posters were mailed to the Creameries and receiving Plants of the State, these were posted in conspicuous places in plant receiving rooms and offices. 500 blueprints showing the barrel method of cooling and storing cream were distributed to farmers and to creamerymen.

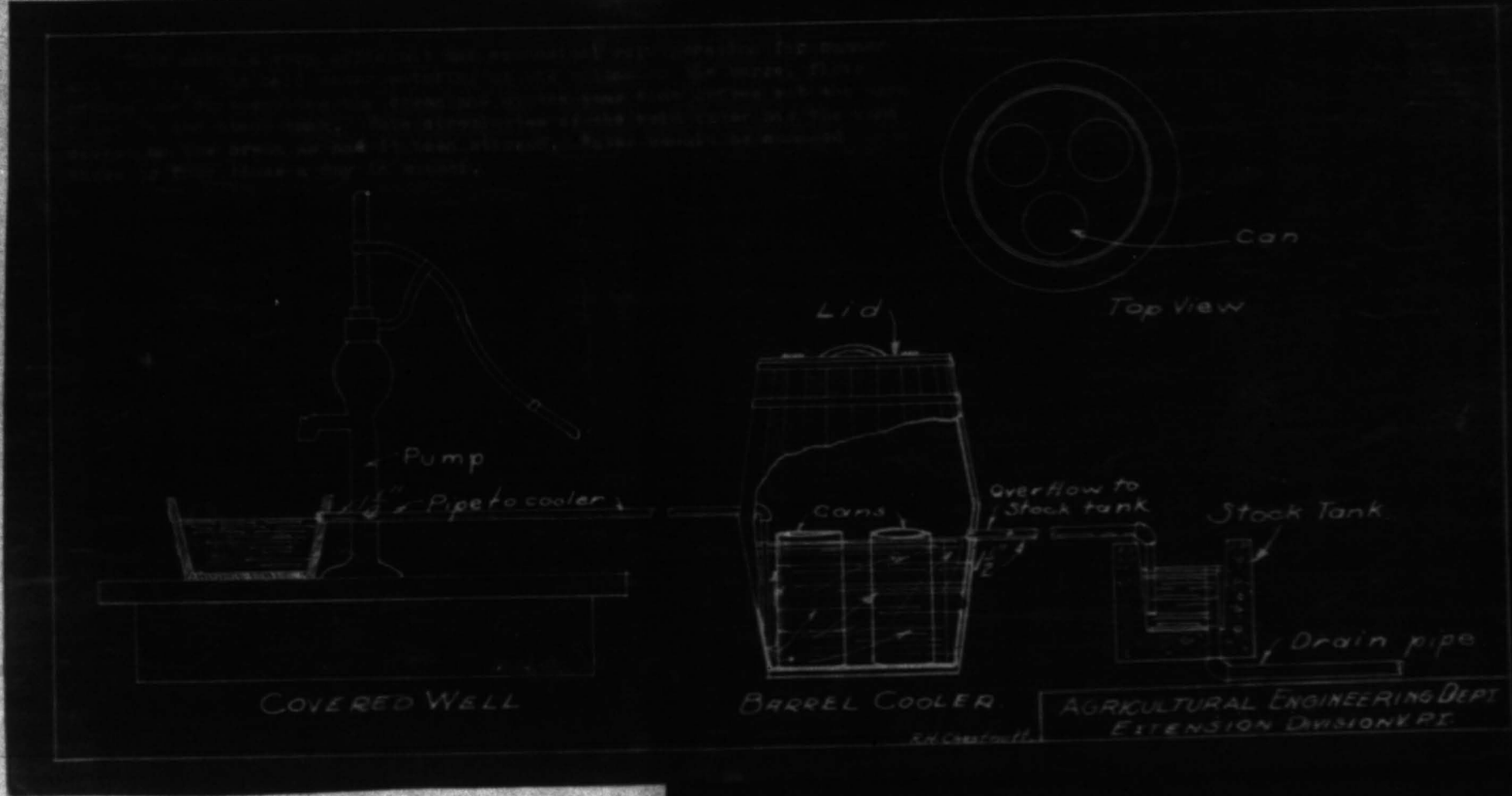
Below is exhibited sample copies of circular matter distributed.

Cream Comments for April



The better the butter the thicker its spread and the more the consumer uses.
 Good butter can only be made from Good Cream.
 Don't try to "Fool" the Consumer. It can't be done. Produce and sell Good Cream.

V. P. I. Dairy Extension Service, Blacksburg, Va.
 Va. Ag. and Mech. Col. and Polytechnic Inst.,
 and the U. S. Dept. of Agriculture, cooperating.
 Extension Division, Jno. R. Hutcheson, Director
 Distributed in furtherance of the Acts of
 Congress, May 8 and June 30, 1914



5. State Quality Cream Contest.

The Dairy Manufacturing Specialist was Superintendent of the State Quality Cream Contest, held in Charlottesville, January 18, 1928. There were 300 contestants this year as compared with 155 in 1927. Scores and criticisms along with suggestions for improvement were mailed all contestants in order that they would know their particular faults and how to overcome them.

State wide interest was taken in this contest, and is a good medium for "selling" the idea of quality cream to the dairy farmers.

The Dairy Manufacturing Specialist will have charge of the 1929 contest, and every effort is being made to make this more successful than the past one.

PROJECT TWO

EFFICIENT CREAMERY OPERATION AND
BUTTER STANDARDIZATION

This project was begun in October last year, and butter samples from representative Creameries showed the average score and analysis to be as follows:

Score - - - -	89.0
Fat Content - -	83.3
Moisture - - -	13.5
Salt - - - - -	2.1
Curd - - - - -	.8

During the year a total of 175 analyses were made consisting of 156 samples of butter, 11 samples of condensed milk and 8 samples of whole milk powder. Constructive criticisms were made along with each report of analyses. This work was also followed up in the field, and operations were shown by practical demonstrations how to make a more uniform product. Eleven plants, (eight in butter control, and three in condensed and milk powder) took advantage of this work this year and it is hoped that more will cooperate the coming year.

A summary of all butter samples received from plants cooperating in this project is shown below:

	1928	Improvement over 1927	Standardized Product
Score	89.3	.3%	90.92
Fat content	82.2	1.0%	80.7
Moisture	14.5	1.0%	15.8
Salt	2.5		2.5
Curd	9		1.0

This shows that a gain was made of one percent in moisture thus decreasing the fat content the same amount. An improvement of 3.3 three percent was made in score. While this report is encouraging, there is room for much improvement in comparison with the above standard which shows that the score could be improved one to three points, and that the fat content could be lowered one to two percent.

Virginia plants are making around 6,000,000 pounds of butter annually and a big saving can be made to the dairy industry if the plants will cooperate in making a better and more uniform product.

Efforts will be made to get more plants to use this service next year.

DAIRY SHORT COURSE

The Dairy Manufacturing Specialist spent the month of February assisting the Dairy Department with the Winter Short Course. Thirty-two students were given instructions in milk testing, butter making and ice cream manufacturing. As most students were out of Virginia plants it gave opportunity for contact for future work with them.

A great need of the plants is better trained men and the Short Course are of great assistance in filling this need.

Practically all the plants in the State were visited and offered assistance. Below is listed plants that were visited and assisted:

December 1, 1927 ---- November 30, 1928

<u>Plants</u>	<u>Address</u>	<u>Visits</u>
Monticello Dairy	Culpeper	2
Goldsborough's	Culpeper	1
Shenandoah Valley		
Milk Producers Assn.	Strasburg	2
Southern Dairies	Christiansburg	3
Clover Creamery	Radford	3
Holdemans Creamery	Winchester	1
Service Creamery	Lynchburg	3
Wytheville Creamery	Wytheville	3
Spring Grove Creamery	Spring Grove	4
Ellerslie Dairy	Petersburg	2
Petersburg Dairy	Petersburg	2
Clover Creamery	Roanoke	2
Garst Bros. Dairy	Roanoke	4
Farmers Creamery	Fredericksburg	3
Banner Cola Creamery	Christiansburg	2
Kraft Cheese Co.	Bristol	2
Chesapeake Dairy Co.	Mathews C.H.	1
Portsmouth Dairy Co.	Portsmouth	1
Kraft Cheese Co.	Falaski	2
Salem Creamery	Salem	2
Farmers & Merchants Dairy	Harrisonburg	3
Imperial Ice Cream Co.	Harrisonburg	2
Valley of Virginia Milk Producers Assn.	Harrisonburg	3
Bridgewater Creamery	Bridgewater	2
Valley Creamery	Penn Laird	2
Valley Creamery	Weyers Cave	2
Monticello Dairy	Charlottesville	3
Elliott Ice Service Co.	Charlottesville	2
Orange Creamery	Orange	3
Culpeper Creamery	Culpeper	2
McCrae's Creamery	Lexington	3
Southern Dairies	Woodstock	1
Staunton Creamery	Staunton	2
Richmond Dairy	Staunton	2
Fauquier Creamery	Marshall	2
Farmville Creamery	Farmville	2
Blue Ridge Creamery	Luray	1
Warwick Farmers Dairy	Newport News	1
Starbuck Ice Cream Co.	Orange	1

OFFICE SUMMARY

	<u>F. A. Buchanan</u>	<u>G. H. Carey, Jr.</u>	<u>C. W. Ingram</u>	<u>Totals</u>
1. Number of days in office	59	90	118	267
2. Number days in field	117	217	173	507
3. Number Extension Committee meetings attendance	39	17	8	64
	398	83	45	526
4. Number letters written	1562	1285	560	3407
5. Number different circular letters written	9	2	6	17
6. Number circular letters sent	1200	34	1050	2284
7. Number bulletins mailed	1500	3181	53,645	58,326
8. Number days annual leave	10	7	18	35
9. Number days sick leave	0	1	4	5

FIELD SUMMARY

1.	<u>F. A. Buchanan G.H. Carey, Jr. C.W. Program</u>			<u>Total</u>
	<u>(ONE-HALF TIME)</u>			
1. Number miles traveled:				
Railroad or bus.	16,682	28,088	8,945	53,715
Auto	1,365	2,140	5,785	9,290
2. Number of visits to Counties	53	145	83	281
3. Number of different Counties visited	28	51	38	117
4. Number of meetings or conferences with:				
(a) County Agents	51	145	54	250
(b) Home dem. agents	0	1	1	2
(c) District agents	2	0	0	2
(d) U.S. Dairy Bureau Workers	5	0	0	5
(e) Agri. College workers	12	8	0	20
(f) Creamery managers	4	0	38	42
(g) Cow testers	8	123	0	131
(h) Agricultural workers	9			9
(i) Creameries assisted			15	15
No. visited			82	82
No. different creameries			38	38
5. Number farm visits	78	244	100	422
6. Number meetings of farmers	53	51	85	194
7. Number speeches made	58	72	85	215
8. Number people addressed	3020	6722	4567	14,309
9. Number fairs judged	6	14	4	24