

PLEASE RETURN TO
AGR'L EXTENSION DIVISION
WEST VIRGINIA UNIVERSITY
MORGANTOWN, WEST VA.

Circular 9

June, 1915

W P15607
1931

Extension Department
College of Agriculture, West Virginia University

C. R. TITLOW, Director
MORGANTOWN

**THE COUNTY AGENT IN
WEST VIRGINIA**



A County Agent at Work.

BY
NAT T. FRAME,
State Agent

FARMERS' CO-OPERATIVE DEMONSTRATION WORK
IN CO-OPERATION WITH
UNITED STATES DEPARTMENT OF AGRICULTURE

Directory of County Agricultural Societies With Agents, 1915

- KANAWHA COUNTY—AGENT, T. Y. MCGOVAN.
FARM BUREAU, Charleston—R. A. Marshall, President; R. H. Wiley, Secretary; S. P. Puffer, Treasurer.
- WOOD COUNTY—AGENT,
- AGRICULTURAL IMPROVEMENT ASSOCIATION, Parkersburg—C. W. Robinson, President; S. F. Romine, Secretary; C. A. Pahl, Treasurer.
- OHIO COUNTY—AGENT, HORACE ATWOOD.
- BROOKE COUNTY—AGENT, WEBSTER H. SILL.
PAN HANDLE AGRICULTURAL CLUB, Wheeling—Col. E. W. Oglebay, President; C. H. Royce, Secretary; Jos. F. Spidell, Treasurer.
- TYLER COUNTY—AGENT,
- AGRICULTURAL ASSOCIATION, Middlebourne—J. R. Wells, President; Fred B. Garman, Secretary and Treasurer.
- FAYETTE COUNTY—AGENT, DEE CRANE.
FARM BUREAU, Oak Hill—H. E. Jones, President; A. L. Fleshman, Secretary; R. E. Amick, Treasurer.
- MARION COUNTY—AGENT, H. L. SMITH.
FARM BUREAU, Fairmont—Lee Swisher, President; Jno. F. Phillips, Secretary; C. W. Evans, Treasurer.
- RANDOLPH COUNTY—AGENT, J. V. SHIPMAN.
FARMERS' ASSOCIATION, Elkins—W. J. Strader, President; Wilson Caplinger, Secretary; D. E. Coberly, Treasurer.
- PRESTON COUNTY—AGENT, JNO. Y. McDONALD.
FARM BUREAU, Kingwood—B. T. Gibson, President; J. A. Dodge, Secretary; Willis Fortney, Treasurer.
- MERCER COUNTY—AGENT, W. R. WORTHINGTON.
AGRICULTURAL SOCIETY, Bluefield—J. D. Caldwell, President; Secretary; W. J. Elliott, Treasurer.
- CABELL COUNTY—AGENT, J. F. WETHINGTON.
AGRICULTURAL IMPROVEMENT ASSOCIATION, Huntington—Jno. W. Ensign, President; T. A. Palmer, Secretary; C. P. Snow, Treasurer.
- MINGO COUNTY—AGENT, I. B. CHESTNUT.
AGRICULTURAL SOCIETY, Williamson—H. W. Lawson, President; J. A. Farrell, Secretary; Wells Goodykoontz, Treasurer.
- CLAY COUNTY—AGENT, D. R. DODD.
HIGH SCHOOL BOARD, Clay—J. F. Wilson, President; S. W. Bryant, Secretary.
- NICHOLAS COUNTY—AGENT, WILL D. CLICK.
HIGH SCHOOL BOARD, Summersville—Harrison Groves, President; W. G. Brown, Secretary.

- MARSHALL COUNTY—AGENT, G. C. MUSGROVE.
AGRICULTURAL SOCIETY, Moundsville—W. C. Ferguson, President; A. De Witt Pierce, Secretary; B. M. Spurr, Treasurer.
- RALEIGH COUNTY—AGENT, FRANK M. FOOTE.
FARM BUREAU, Beckley—C. L. Beckner, President; A. Z. Lilly, Secretary; T. E. Bibb, Treasurer.
- PLEASANTS COUNTY—AGENT, C. C. ANDERSON.
FARM BUREAU, St. Mary's—T. J. Taylor, President; W. E. Carson, Secretary; W. C. Dotson, Treasurer.
- JACKSON COUNTY—AGENT, S. A. CODY.
FARM BUREAU, Ripley—D. F. Hyre, President; E. L. Cross, Secretary; Warren Miller, Treasurer.
- RITCHIE COUNTY—AGENT, L. A. RICHARDSON.
COUNTY FARM BUREAU, Harrisville—A. C. Huff, President; J. E. Cunningham, Secretary; Newton Law, Treasurer.
- POCAHONTAS COUNTY—AGENT, BURT JOHNSON.
AGRICULTURAL IMPROVEMENT ASSOCIATION, Marlinton—Uriah Hevener, President; F. W. Ruckman, Secretary; B. B. Williams, Treasurer.
- WAYNE COUNTY—AGENT, ELVIN D. MATHENY.
FARMERS' COOPERATIVE ASSOCIATION, Wayne—Rufus Lester, President; W. W. McCummiss, Secretary; L. B. Furgerson, Treasurer.
- BRAXTON COUNTY—AGENT, L. F. ENGLE.
FARM BUREAU, Sutton—R. N. Rollyson, President; Earl Morrison, Secretary; A. L. Morrison, Treasurer.
- WETZEL COUNTY—AGENT, T. C. MURRAY.
FARM BUREAU, New Martinsville—J. A. Pyles, President; A. E. Coffield, Secretary; Walter Francis, Treasurer.
- BERKELEY COUNTY—AGENT,
- FARM BUREAU, Martinsburg—Jas. H. Fulk, President; Jno. W. Stewart, Secretary; Edgar L. Henshaw, Treasurer.
- HARRISON COUNTY—AGENT, W. D. ZINN.
FARM BUREAU, Clarksburg—F. B. Davisson, President; G. W. Dudderar, Secretary; Howard Gore, Treasurer.
- MASON COUNTY, AGENT,
- Pt. PLEASANT—P. H. Steenbergen, President; Rob't. P. Bell, Secretary; Jno. J. Dower, Treasurer.
- GREENBRIER COUNTY—AGENT, J. N. LIPSCOMB.
Lewisburg—Frank Tuckwiller, President; Thos. F. Mann, Secretary; E. W. Sydenstricker, Treasurer.

NAT T. FRAME, STATE AGENT.

B. B. EZELL, DISTRICT AGENT.

H. S. VANDERVORT, DISTRICT AGENT.

COUNTY AGENTS SALARY ACT.

AN ACT to revive, amend, and re-enact section twenty-eight of chapter thirty-nine of the Code of West Virginia, permitting county courts to aid county agricultural organizations in the employment of county agricultural agents.

(Passed February 3, 1915. In effect from passage.)

Be it enacted by the Legislature of West Virginia: That section twenty-eight of chapter thirty-nine of the Code of West Virginia be revised, amended and re-enacted so as to read as follows:

Section 28. Whenever a county agricultural organization with not less than fifty members, files with the county court of the county a memorandum of understanding with the Agricultural Extension Department of the College of Agriculture, West Virginia University, guaranteeing the payment by said county organization of the field and office expenses of a county agent or agents to the end of the next succeeding fiscal year, then the county court of such county is hereby authorized to, and it may levy and appropriate from the general fund an amount not to exceed one and one-half cents on the one hundred dollars' assessed valuation. The money so appropriated shall be used for the payment of part of the salary of person or persons to encourage demonstrations of improved methods on the farm and in the home, and to give free advice and practical instruction in agriculture and home economics in such county, in cooperation with and under the supervision of the said Agricultural Extension Department. Such person or persons as employed shall be appointed by the Agricultural Extension Department and approved by the directors of the county agricultural organization and the county court. All the moneys so appropriated shall be expended upon orders of the county court as other county funds are expended, and a duplicate of all salary vouchers shall be filed with the said Agricultural Extension Department in such form as will comply with the provisions of the Act of Congress approved May 8, 1914, known as the "Smith-Lever Act;" but no part of any money so appropriated shall be used to compensate any representative of the West Virginia University or any other person except the persons who may be employed under this act. It shall be the duty of the Agricultural Extension Department to cooperate with each county court and county agricultural organization raising or appropriating money under this act. Any county court may cooperate with the county court of one or more adjoining counties in carrying out the purposes of this act.

The County Agent in West Virginia

GROWTH OF THE COUNTY AGENT MOVEMENT IN THE STATE.

About ten years ago, Dr. Seaman A. Knapp began in the South his work of getting farmers to demonstrate on their own farms the profitableness of the methods recommended in the bulletins of the agricultural experiment stations and the

U. S. Department of Agriculture. The county was soon accepted as the proper unit for this work and the field men came to be known as county agents. This Farmers' Cooperative Demonstration Work, under the guidance of Dr. Knapp, spread rapidly throughout the southern states. In the northern and western states, also, the county came to be recognized as the unit in the demonstration work, and county agents were employed in many states in cooperation with the Office of Farm Management of the U. S. Department of Agriculture.

The first five county agents in West Virginia were appointed as a part of the work in the northern states. In the summer of 1912 funds were secured by the Charleston Chamber of Commerce, to supplement the funds provided by the U. S. Department of Agriculture, and a county agent was employed. Wood County soon followed under the leadership of the Parkersburg Board of Commerce, and a few months later the northern panhandle counties—Ohio and Brooke—also employed agents, through the activity of the Panhandle Agricultural Club. In Tyler County, an agent was employed to give part time to the demonstration work and part time to teaching in the County High School, the high school board cooperating in the payment of his salary.

The work of these county agents was developed as one branch of the Agricultural Extension Department, representing not only the College of Agriculture, West Virginia University, but also the Office of Farm Management, U. S. Dept. of Agriculture. By mutual agreement on July 1st, 1913, the work was transferred to the office of Farmers' Cooperative

Demonstration Work and the Extension Department became the representative of the Farmers' Cooperative Demonstration Work in West Virginia. Through this transfer part of the federal funds appropriated by congress for the Farmers' Cooperative Demonstration Work became available for West Virginia and in the first six months of 1914, nine additional agents were placed, the local funds in each county being raised by contributions in the county.

On July 1st, 1914, still more funds became available for this work by an increased allotment from the office of Farmers' Cooperative Demonstration Work of the U. S. Dept. of Agriculture and through the passage by congress of the Smith-Lever Act in June 1914. This act appropriated to each state for expenditure through the agricultural extension department sums dependent upon the rural population of the state. These funds made it possible to increase the number of agents to twenty-eight.

How County Agents are Secured.

The providing of local finances by contributions only, was deemed so unsatisfactory by the people in the various counties that the state legislature was urged to pass a law authorizing the county courts to cooperate in providing local funds. Without a dissenting vote Chapter 39, Section 28 of the West Virginia Code was re-enacted by the legislature in February 1915 so as to make this possible (see p. 4).

At the present time, therefore, the first step looking toward the employment of a county agent in any county is the organization of an agricultural society with not less than fifty members. The second step is an agreement between this society and the Extension Department, wherein the society agrees to pay the local traveling expenses of the agent and the Extension Department agrees to provide part of his salary. The third step is the acceptance by the county court of the petition of the society. Such action by the court is recorded on a contract between the society and the Extension Department.

The funds from which the county society pays the local travel and office expenses are secured through membership fees (generally \$1.00 or more per year), and through contributions from business and professional men and from others especially interested in the work. The agent submits to the society each month an itemized expense account. To indi-



A Few Representative County Agents.

cate that the expenditure has been made in the performance of proper demonstration work the accounts are first sent to the supervising agent for approval, final acceptance of the various items, however, being entirely with the directors of the society.

The sources from which the Extension Department receives funds for the organization and general administration of this form of work, including the part salary of the county agents, are: (a) U. S. Dept. of Agriculture funds appropriated by congress for Farmers' Cooperative Demonstration Work; (b) Smith-Lever funds of the College of Agriculture, West Virginia University, received annually from the federal government, amount based on the rural population of the state and dependent on state and local funds being raised to meet the provisions of the Smith-Lever act; (c) Appropriations by the State Legislature of West Virginia for agricultural, horticultural, and home economics extension work.

The funds are used for several forms of agricultural and home economics extension work, but enough money has been apportioned from these funds to the work of the county agents for the fiscal year beginning July 1st, 1915, to provide one-half salary (not to exceed \$800 in any one county) for agents in twenty-eight counties.

The Agent is the Extension Representative of the State University.

By agreement between West Virginia University and the U. S. Department of Agriculture the county agent is the representative in the field, of both the College of Agriculture and the U. S. Department of Agriculture. The work of the county agents is supervised by the State Agent who, together with his assistants the District Agents, are members of the extension staff. Specialists from the College and Station assist the county agents in the field. Conferences are regularly held at the College where the agents come directly into contact with the resident members of the college faculty and station staff and representatives of the U. S. Department of Agriculture. Through excerpts from the weekly reports of the agents, the men on the campus and those in the field are kept closely in touch. So far as possible the work on the campus is organized from the view point of rendering assistance to the men in the field. In so far as he represents the College of Agriculture, the county agent is an instructor from the College located in the county.

The Agents Allowed Franking Privilege.

As an appointee of the U. S. Dept. of Agriculture the county agent is allowed to use the penalty envelope of the Department without payment of postage for the **official business of the government only**. The business of the local organization is not government business and cannot be mailed in penalty envelopes.

How County Agents are Selected and Appointed.

In order to be prepared to conform to the state law as to recommending agents for counties ready for the work, the state agent maintains a list of available men who have been approved by the Director of Agricultural Extension and the Dean of the College of Agriculture.

So far as possible men are selected who have the following qualifications:

1. Training—Credits in a recognized agricultural college equivalent to a four year college course.
2. Experience—Actual experience equivalent to five years of farm operations.
3. Personality—Knowledge of how to approach and organize various classes of people, a spirit of real service, and experience as a community leader.
4. Knowledge and experience on Cooperative Methods in Business and Rural Organizations.
5. Familiarity with the literature of farm management, and experience in gathering information thereon.
6. Ability to prepare newspaper articles for country readers.
7. Experience as a public speaker and in organizing public meetings, also practice in handling of stereopticon and other equipment and in securing and placing of agricultural exhibits.
8. It is not the practice to consider any man for county agent in his own county.

From this eligible list the man is selected who seems best fitted for the county in question. This man then appears before the directors of the county society and the members of the county court. If locally acceptable, the request for appointment is then forwarded to the office of Farmers' Co-operative Demonstration Work, U. S. Department of Agriculture for approval. If acceptable to that office the appointment is jointly made by the U. S. Department of Agriculture and the College of Agriculture, West Virginia University.

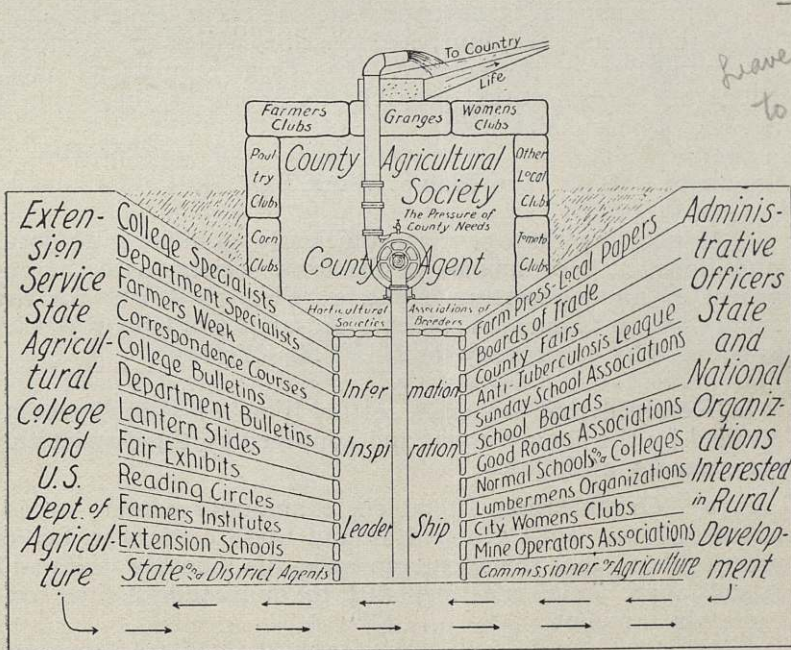
The County Agricultural Society.

It has become increasingly evident that the permanent success of the work of the county agent will be dependent upon the support given him by the county agricultural society. It is for this reason that the organization of such a society has been made prerequisite to securing the cooperation of the County Court. Presidents of district and community clubs become county vice presidents, the president, secretary and treasurer being elected for the whole county. These officers constitute the executive council or board of directors, and meet regularly to counsel with the agent, hear his reports, approve his accounts, and in general to act as the local advisory board concerning his work.

Through its various committees the society assists the agent in making use of all the agencies possible for the development of better farming in its community, for developing leadership among its members and in bringing them information and inspiration. The Horticultural Committee assists in arranging for field meetings to which horticultural specialists of the extension service are invited by the county agent. The Live Stock Committee assists in silo building demonstrations and other activities. Reading circles composed of groups of members are organized to take up correspondence courses. Delegates are sent to the Farmers' Week at the College of Agriculture. The county society also aids, under the leadership of the county agent, in supporting and organizing Agricultural Extension Schools and Farmers' Institutes.

Not only do the committees of the society work with various branches of the Agricultural Extension Service, but also with other organizations interested in rural development. The aim of the county society is not to compete with existing organizations or to duplicate their work, but to aid them in more effectively reaching the farming people. Thus, its Committee on Education cooperates with the County School

Superintendent and the district superintendents in organizing boys' and girls' clubs. The Home Economics Committee cooperates with women's clubs and the woman agent in charge of the girls' canning clubs of home demonstration work. The Committee on Rural Sanitation cooperated with the public health authorities in campaigns for fly eradication, etc. The Good Roads Committee presents the county roads movement from the farmer's viewpoint and works with the



Illustrating the Relation of the County Agent to the County Society.

road officials to introduce split-log drags and get them properly used, and likewise other committees cooperate with similar agencies.

The relation of the County Society and the County Agricultural Agent to each other and to their community has been shown by a chart (see illustration) which the writer has frequently used in presenting this matter to interested organizations. The County Agent may be likened to a high speed centrifugal pump, driven by the pressure of country needs and pumping a constant stream of living water of information, inspiration, and leadership to irrigate the dry places in

country life. Such a pump (the agent) must be suitably housed for its proper support and protection and the County Society may be likened to this pump house, being builded up with the support of the various local organizations such as Granges, Horticultural Societies, Breeders' Associations, Corn Clubs, Farmers' Clubs and other community organizations.

Cooperative Purchasing.

All commercial transactions such as cooperative purchasing of fertilizers, seed, lime, etc., must be carried on by officers or committees of the society. The fiscal regulations under which the agent works, prohibit his acting as the business agent of any organization.

Plan of Work.

As soon as the agent is sufficiently familiar with local conditions, he recommends to the local society, with the approval of his supervising agent, a "Plan of Work" for the county—or a "County Project." A sample "Plan of Work" as adopted by one county for 1915 is as follows:

"Resolved that we endorse the "Plan of Work" recommended by the county agent and approved by the district and state agents, as follows:

(a) **Organization.** That six community centers be selected and the work grouped around these centers so far as practicable so that the agent can make his monthly visits and attend monthly club meetings with the minimum of time consumed in traveling.

(b) **Demonstration.** That demonstrators be pledged to carry out the following—a demonstrator being a farmer who undertakes to carry out a definite piece of work with the advice and help of the agent, as a demonstration to the community.

1. **Soil Improvements.** Four wet fields to be tile drained; 500 acres acid soil to be corrected; manure to be properly saved on twenty-five new farms; the total use of acid phosphate to be increased by 100%; winter cover crops to be grown on 1000 additional acres.
2. **Field Crops.** Corn, 25 demonstrations; potatoes, 15; alfalfa, 15; orchards, 6; soy beans, 20; rape, 10.

3. **Live Stock.** Silos, 100; pledged to use only pure bred sires, 25; remodeled poultry houses, 25.

(c) **Boys' Club Work.** That the educational committee cooperate with the school authorities in broadening the scope and lengthening the term of the rural schools by organized club activities; that district school boards be encouraged to employ their district supervisors for the full calendar year and allow a proper proportion of their time to be given to work as district club agents of the Extension Department; and that the county agent through cooperation with club agents, the county superintendents, teachers, and local club leaders give about one-fourth of his time to boys' club work. //

(d) **Home Economics Committee.** That the home economics committee be authorized to establish its own membership fee and have control of the funds so secured; ~~that this committee be encouraged in carrying out its campaign for "running water in 100 more country homes in 1915;"~~ and that endorsement be given to the petition of the committee whenever they shall ask the county court to pay part of the salary of a county woman leader to have charge of the girls' canning club work and such other forms of work in home economics as may be authorized by the Extension Department of the College of Agriculture."

Supervision of the Work.

The county agent makes each week a detailed report of his work in triplicate. One copy is filed with the local organization and two forwarded to the supervising agent. Of these, one goes to the U. S. Department of Agriculture and the other, after passing through the hands of the other agents as a "Round Robin" is filed with the State Agent at the Extension Department. These reports are graded by the supervising agents and the record of each county agent is kept by the state agent.

The county agent is regularly visited by his supervising agent, who often brings much needed encouragement and gives help on knotty problems. Details regarding office and field methods are gone over, and strong and weak points of the local organization are discussed.

ACTIVITIES OF AGENTS IN 1914.

The demonstration force in West Virginia has worked under several handicaps this year. Comparatively few people have really understood the history of the work, its methods or its aims. The county agents have been mostly new, and have not had as much assistance from supervisory agents as might have been desired. Dependence on voluntary subscriptions for local aid has made uncertain the tenure of the work; especially so because of the financial stringency. Lack of authoritative information about farm practices to be put forward as standards has, perhaps, necessitated an undue amount of study to ascertain best local practices.

5 Counties have had agents during.....	12 months
4 Counties have had agents during.....	10 months
4 Counties have had agents from.....	8 to 9½ months
6 Counties have had agents during.....	6 months
4 Counties have had agents less than.....	4 months
<hr/>	
23 Counties have had agents an average of.....	7 to 8 months

Statistics Regarding Activities in 1914.

Total miles traveled by agents (much on horseback).....	65,641
Total farm visits.....	8,735
Total meetings held.....	1,143
Total attendance at meetings.....	62,432
Total newspaper articles prepared.....	459
Total letters sent out.....	27,709

1914 Results in Soil Improvement Demonstrations Supervised by County Agents.

(Approximate Figures.)

Drainage, 539 acres tiled; Lime, 10,986 acres treated with lime (rate 1000 lbs.); Phosphorus, 9,408 acres treated with acid phosphate (rate 320 lbs.); Manure, 4,284 tons saved by extra care; Legumes, 2,205 acres to be turned under; Other cover crops, 6,163 acres to be turned under.

1914 Results with Field Crop Demonstrations Supervised by County Agents.

Corn, 987 acres at average of 51 bu., county average 25 bu.; Potatoes, 198 acres at average of 81 bu., county average 45 bu.; Intensive Crops, (approx.) 110 acres given special attention; Orchard Crops, 53,100 trees given attention; Alfalfa, 697 acres harvested, averaging over 2½ tons; 1,070 acres alfalfa seeded; Cowpeas and Soy Beans, 761 acres harvested for hay or seed.

1914 Results with Live Stock Demonstrations Supervised by County Agents.

Silos, 302 filled for first time; Pastures, 915 acres treated; Pure Bred Sires, 80 introduced; Dairy Cows, 171 under test by scales and Babcock tester; Cattle and Cows, 4,604 fed proper protein feeds in place of more expensive grains; Poultry, 187 poultry houses remodeled; Hogs, 264 grazed for first time on rape and other forage; Of 1,404 well hogs treated with serum, saved 96%; Of 946 sick hogs treated with serum, saved 73%.

Miscellaneous Work Supervised by County Agents.

Running water placed in 14 farm homes; acetylene lights placed in 15 farm homes; new barns built on 21 farms; petitions for R. F. D., 4; rural telephone companies organized, 1, all looking toward better living conditions in the country.

Some Estimates in Terms of Money.

In order to convey even an approximate idea of what the above work means to the state, let us assume, that the drained land is worth \$25.00 net per acre more than before drainage; that the net value of the application of 1000 lbs. of lime per acre is \$1.42, as indicated by Ohio results; that the net value of \$2.50 worth 16% acid phosphate is 100% or \$2.50 as indicated by Ohio results; that properly saved manure is worth \$1.25 more per ton than that not protected; that the manurial value of one acre of legumes is equal to 8 tons of manure or \$20.00 (less cost to grow, \$10.50) making net \$9.50; that the manurial value of one acre of rye or non legume cover crop has same value less \$2.75 for nitrogen or net \$6.75; that 50 bu. corn per acre can be grown for 30c per bu. (average for West Virginia boys' club members, 1914) and is worth 70c; that 80 bu. potatoes can be grown for 50c and worth 80c; that one acre truck under agent's supervision will net \$20.00 extra; that a pruned, sprayed, and properly treated apple tree is worth \$1.00 more than one not so treated; that 2½ tons alfalfa is worth \$10.00 net more than 1½ tons timothy; that 2 tons cowpea hay is worth \$10.00 net more than ¾ tons of grass hay; that value of stover is doubled and value of corn increased 10% by making into silage; that the proper balancing of feeds reduces cost of wintering by \$5.00 per head; that pork can be raised at 3c less per pound by proper grazing

than if fed corn and grain; that the average hog or pig treated against cholera is worth \$5.00.

On the basis of the values assumed above, the results of the demonstration work in West Virginia in 1914 means the following in dollars:

From Soil Improvement.—By drainage, \$13,475; by use of lime, \$15,600; by use of phosphorus, \$23,520; by saving manure, \$5,355; by legume cover crop, \$20,947; by other cover crops, \$41,600; total, \$120,497.

From Crops.—Corn, \$9,870; potatoes, \$2,138; other garden crops, \$2,200; orchards, \$53,100; alfalfa, \$6,990; cowpeas and soy beans, \$7,610; total, \$81,888.

From Live Stock.—Through use of silage, \$22,952; through use of cheaper protein, \$23,020; through grazing hogs, \$1,188; through inoculating hogs, \$8,664; total, \$55,824.

From Cooperative Buying.—Direct saving to farmers' clubs by cooperative purchases of fertilizers, seeds, etc., \$12,727.

Grand total, \$270,936.

How Soon Ought Results to Show.

From the very nature of things rural improvements are of more or less slow growth. Much of the first season will be required to get the machinery installed and in good running order. Patience is one of the much-to-be-courted virtues of the county society during the first year. By the end of the second year, however, results ought to begin to speak for themselves. That this has been true in West Virginia is shown by the following annual reports for 1914 from the counties in West Virginia that have had agents working on full time for two years:

Agents Annual Reports from Counties Where Demonstration Work Has Been Car- ried on for Two Years

KANAWHA COUNTY FARM BUREAU.



Officers of the Kanawha County Farm Bureau.

Membership. Number of members January 1, 1915, 173; membership fee, \$1.00; income in 1914 from local contributions other than memberships, \$1,671.

Community Clubs. Seven local farmers' clubs located in as many districts of the county have a total membership of eighty-four.

Public Meetings. During the year 1914, 117 general meetings were held with a total attendance of 9,915 persons. Six field meetings were held on demonstration farms with a total attendance of 120 farmers. During the year, the agent visited 36 schools and talked to 976 parents, children and teachers at these meetings.

Boys' and Girls' Clubs. Two hundred and fifty-seven boys and girls of the county were enrolled as corn, potato and tomato club members. The average yield for potato club



*T. Y. McGovran, County Agent

members was 138 bushels per acre; for the corn club members, $81\frac{1}{4}$ bushels per acre. During the year, 39 local club meetings were held at school houses. At some of the meetings, demonstrations in spraying and field selection of seed corn were held. At the end of the season a general county fair was held and the farm bureau offered 57 prizes amounting to \$158.00 to boys and girls doing club work in the county. Prizes were also offered for the best high jump, broad jump, standing broad jump and also for the best 100 yard dash. Each local club selected the best member to represent the club in the athletic contest at the county fair.

Fairs. Two district fairs and a general county fair were held. \$627.00 was offered in prizes. The district fairs were held in advance of the county fair and prizes were offered to the districts making the best display at the county fair. Several districts took special pride in their district exhibits at the county fair.

Cooperative Buying. During the month of February, 1914, a meeting was held at the county court house for the purpose of making up an order for seed, spray solution, spraying outfits, etc. The order amounted to \$1,237.00 and at least 20% to 30% was saved by this combination order placed through local dealers.

Demonstrations Supervised by County Agent.

Field Crops. It is estimated that in Kanawha County, 2000 acres of corn land have been worked according to demonstration methods this year.

Seven demonstrators who started alfalfa last year secured an average yield per acre this year of $4\frac{1}{8}$ tons. Two

*Succeeded B. B. EZELL who became district agent July 1st, 1914.

demonstrators have sown their seed for next year's crop. Eight men are now preparing their land to be sown to alfalfa during the month of August, 1915.

Six farmers in various sections of the county have sown crimson clover this year with very good prospects for a success.

Four farmers who were interested in wheat growing were selected as demonstrators. The land was properly prepared and home-mixed fertilizers were used. As a result an average yield of 18 bushels per acre was secured. Other farmers in the same neighborhood did not get a yield of more than 10 to 12 bushels per acre.

Vetch has been sown on quite a number of farms but only three farmers were given instructions and considered as demonstrators. Seventy-five farmers have this year sown rye to be turned down as a soil improver.

Summer Legumes. Nine farmers were secured to demonstrate the possibilities of growing cowpeas and at least 200 acres have been sown or planted for seed this past year. Before demonstration work started in Kanawha County, not more than 10 acres were being grown in the entire county.

Farms. Seven farms in the county have been worked according to plans as outlined by the county agent and in every case good results have followed. A systematic crop rotation has been started on these farms and a general written plan for soil improvement has been submitted to each farmer and is being put into practice on their respective farms.

Lime. Farmers generally throughout the county are becoming aware of the fact that the soil needs lime, and as a result 120,000 pounds of lime were sold in the county last year by one dealer in the city of Charleston, where two years ago scarcely any lime was used in the county.

Fertilizers. As a direct result of demonstration work in the county the Farmers' Hardware Company of Charleston, sold last spring, as follows: 272,500 pounds of commercial fertilizer; 117,800 pounds of 16% acid phosphate; 23,000 pounds of sulphate of potash; 49,600 pounds of bone meal; 14,000 pounds of nitrate of soda; 8,000 pounds of kainit; 1,850 gallons of lime-sulphur solution, and 75 spraying outfits.

Before demonstration work started in Kanawha County, no raw materials for home mixing of fertilizers were used. Scarcely any lime was being used and only two spraying outfits were sold during the year 1911.

Orchards. During the year twenty-six orchards have been supervised, sprayed, pruned and properly cared for according to demonstration methods. At least 100 orchards have been inspected and suggestions given for proper care of same. 25,000 fruit trees have been inspected.

Potatoes. The potato crop in Kanawha County this year was almost a complete failure, but in every case the 41 farmers growing potatoes according to demonstration methods, secured a yield far better than the neighbors'. The average yield was 71 bushels per acre, while the yield on farms where demonstration methods were not used, was not over 35 to 40 bushels per acre. Eleven of the potato demonstrators have sown cover crops after the potatoes were harvested. Eighteen sprayed their potato crop twice, and in every case the results showed up very readily in their yield. The highest yield from any one demonstration was 92 bushels per acre.

Truck. During the year the construction and use of hot beds and cold frames has been encouraged and as a result, at least 20 to 25 hot beds and cold frames have been prepared and put into use.

Lawns. Six city lawns are being used to demonstrate the value of proper preparation, use of lime, phosphate and barnyard manure on grass.

Pure Bred Live Stock. During the year the following pure bred sires have been purchased and brought into the county: Holstein, 1; Guernsey, 1; Jersey, 1; and Hereford, 2. Ten pure bred Holstein females have been purchased and are now being used for dairy and breeding purposes in Kanawha County.

Dairying. During the year seven dairymen have kept records of 167 cows. In some cases it was found that the "pet cow" was a boarder and not paying for her feed. Two milking machines have been installed and are now being used in dairies.

Beef Cattle. Fourteen farmers are now feeding and caring for their stock according to improved methods. Some are feeding silage and cotton-seed meal, others are feeding shredded corn fodder, cowpea hay and clover hay.

Hogs. Six farmers are feeding, grazing and caring for thirty-five hogs according to demonstration methods. Two of them started a twelve acre hog grazing demonstration this season and results are very gratifying.

Barnyard Manure. As a general rule, when the demonstration work was started in Kanawha County two years ago, farmers throughout the county did not appreciate the value of barnyard manure. As a result of the county agent's agitation, many farmers are now properly storing their manure or hauling same direct to the field. In every case, during the winter visits to farmers, an effort has been made to point out, ask or inspect the methods of caring for the manure, and many pictures have been prepared showing good and bad methods in caring for this valuable by-product.

Silos. Six silos have been erected this year, due to demonstration work, and a great deal of interest has been developed through meetings and "silo raising days."

On the 14th day of August, 1914, a silo raising was held on the farm of H. A. Shirkey near Sissonville, W. Va., and at least fifty farmers attended. Most of these brought a saw, hammer and hatchet with them and assisted with the actual construction of the silo. Much interest and enthusiasm has developed in this neighborhood and definite results are expected next season.

Drainage. At least 300 acres of wet lands along the Kanawha, Elk, Pocahontas and Coal Rivers have been drained during the last year. Six farmers are now demonstrating the benefits to be derived from the use of farm tile drainage.

Water in Homes. Two farmers have been assisted with plans and actual work in placing water in their homes and outbuildings. There is a great opportunity for this work in the county, as many farmers have a spring or other source of water somewhere above the level of their homes, and in cases of this kind it is only a matter of piping the water into the home and barn.

WOOD COUNTY AGRICULTURAL IMPROVEMENT ASSOCIATION.



Officers of the Wood County Agricultural Improvement Association.

Membership. Number of members January 1, 1915, 250; membership fee, .50; income from local contributions other than membership fees, about \$700.

Organization Activities. Three Granges were organized in the county this year. At least two of these Granges are due to the influence of the demonstration work.

Cooperative Buying. The members purchased 86 tons of fertilizer through the Association and were able to save about \$500.00. 110 tons of cotton seed meal, oil meal, and mixed feed have been purchased by the members at a saving of about \$600.

Boys' and Girls' Clubs. 65 boys and girls were in the corn and potato clubs this year. The average yield for the boys in the acre corn contest was 60 bushels. The boys in the potato contest produced an average of 65 bushels per acre.

Demonstrations Supervised by County Agent.

Field Crops. Seventeen demonstrations with corn were conducted being a total of 140 acres. The average yield, according to the statement of these demonstrators was 47 bushels, shelled corn. And also according to their statement, the average yield on land not cared for under demonstration methods, was 23 bushels. Practically all of the corn land has been sown to wheat or rye. More than half of the corn demonstrators erected silos this year and placed the crop of corn from the demonstration plots in the silo. The estimated total acreage of corn harvested for silage was 800 acres.



*H. S. Vandervort, County Agent.

Fifteen demonstration plots of alfalfa, ranging in size from one acre to eight acres were put in and are showing up well at this time.

More than 200 acres of crimson clover were sown on the farms of demonstrators and cooperators. Through the influence of these cooperators, I think 100 acres additional have been sown. Two years ago I could find but two small plats of crimson clover in the county.

Summer Legumes. About 45 acres of soy beans were grown this year, which is twice as many as have ever been grown before.

Through the influence of the demonstration work, Moelendick brothers have purchased an up-to-date cowpea and soy bean thresher. These men are now threshing cowpeas and soy beans for the farmers and thus saving the community many hundreds of dollars which heretofore have gone out of the county for seed.

Many farmers were found last year fertilizing cowpeas and other legumes with a fertilizer containing two per cent nitrogen. This year we have been able to stop this practice by showing them that nitrogen put on the legumes is a waste.

*Appointment as District Agent effective July 1, 1915.

Rotations. Six rotations were started this year and included from twenty to sixty acres in each rotation.

Lime and Fertilizers. About 250 acres have been limed this year. Five farmers are practicing home mixing of fertilizers.

Orchards. 52 orchards were gone over and inspected during the year. Fourteen of these orchards were listed as demonstrations and contained about 5,500 trees. Seven orchards were closely supervised as to spraying, pruning, cultivation and thinning during the year. An educational campaign was carried on last winter to show the people the damage that cedar trees are doing to the apple orchards of the county. As a result of this campaign nearly 50 per cent of the cedars injuring orchards have been cut down. This was not brought about by force but simply by showing the people the damage that cedars were doing.

Truck and Small Fruits. Fourteen acres of early cabbage were fertilized and cultivated according to methods recommended by the county agent. The average receipts per acre were \$75 net.

Six acres of staked tomatoes were fertilized and cultivated according to the directions of the county agent. All of these show a decided improvement over the plats not fertilized and not properly cultivated.

Thirty acres of potatoes on ten farms were handled according to the demonstration methods. The average yield on these plats as reported by the demonstrators was 62 bushels, and on land where demonstration methods were not used, the average yield was 33 bushels.

Three acres of strawberries were sprayed according to demonstration methods. All of the demonstrators and cooperators with truck and small fruits, sowed cover crops of crimson clover or rye.

Livestock. One pure bred Percheron sire was brought into the county this year, 40 pure bred dairy cattle and 16 beef cattle.

The county agent worked with 22 dairy demonstrators during the year. 100 cows were tested for butter fat. Records of 44 cows were kept to determine their profitableness.

It is safe to say that over 1500 dairy cows are being fed according to demonstration methods. During the months of August, September and October meetings were held to discuss the feeding problems and a schedule of dairy rations was made up and furnished to all the leading dairy men of the county. Many farmers who keep one or a small number of cows also follow these rations.

Stable Manure. Seven farmers have been directly influenced to take better care of their stable manure. Indirectly due to the demonstration work, nearly one-third of the farmers who come in contact with the county agent are taking better care of their manure. Most of the manure is placed directly on the field as it is made. The complaint when the demonstration work first started here was that the farmers could not get on the land where they wished to put the manure during a large part of the winter season. Since these people are now sowing cover crops they can get on the land most any time.

Drainage. Seven drain systems were surveyed and put in this year, which drain a total of 85 acres, requiring about 18,000 feet of drain tile.

Silos. Forty-six silos were erected in this county this year. More than three-fourths of this number were due directly to the demonstration work. Five ensilage cutters were purchased cooperatively by persons erecting silos this year. County agent Vangervort says:

"I spent considerable time with these people who erected silos. Tried to be present when they were filled to see that it was done properly and that the corn was in proper shape. A great deal of the corn was very dry when it went into the silos this year and it was necessary to wet it down so as to make it pack. I warned all of the silo purchasers of this fact shortly before silo filling time. I visited nearly twenty-five of these silos since the owners have begun to feed from them and find the feed in good shape. Have not heard a single complaint in regard to the silage put up this year. Practically all of the persons feeding silage are using cotton seed meal with it. This was brought about entirely through the demonstration work because cotton seed meal was not kept on hand by the local millers in this section until this year."

PAN HANDLE AGRICULTURAL CLUB.



Officers of the Pan Handle Agricultural Club.

Membership. Annual membership fee, \$10.00; 1914 income from membership fees, \$1,185.00; 1914 income from other local contributions, \$2,650.00.

Local Clubs. Twelve agricultural and educational clubs have been organized, with 356 members. These include cooperative purchasing clubs, farmers' reading circles, boys' and girls' clubs, social clubs, etc.

Cooperative Buying. Cooperative buying has been managed for 241 farmers who are members of the four local cooperative clubs. On fifteen cars of fertilizer \$2,624 was saved, and on nursery stock, seed, feed, etc., enough more to make a total saving of \$5,485.

Demonstrations Supervised by County Agents.

As the demonstration work in Ohio and Brooke Counties has been carried on jointly by the two agents it has seemed wise to issue a joint report covering this activity. Although there has been no sharp differentiation, yet Mr. Sill has had full charge of the fruit and trucking interests while Mr. Atwood has given attention to the development of the livestock in this territory. Field crops have been attended to jointly, Mr. Atwood giving considerable attention to soil fertility and Mr. Sill to the proper selection of varieties. Mr. Sill has also had oversight of the cooperative buying.

Field Crops: Corn and Alfalfa. The total number of acres of corn on the demonstration farms amounted to 150. The average yield per acre was 50 bushels. This low yield

was due to unfavorable weather conditions, but the yield was about 20 bushels per acre greater than the average of this section. Twelve hundred acres of corn were harvested for silage.



Horace Atwood, County Agent.

About ten acres were hogged down. Shallow cultivation was practiced on 90% of the farms in this territory and in general, approved practices are employed in producing corn. We are not attempting to increase the acreage in corn in this territory except for silage purposes and seed production. An effort has been made to stimulate the production of good seed corn by distributing the best selected field seed to the acre corn club boys under the agreement that they were to save seed for sale to farmers in the neighborhood.

Alfalfa. We have 53 alfalfa demonstrators. The total number of acres grown under demonstration methods was 690. The average yield of alfalfa hay per acre was 2½ tons. Seven hundred and eighteen acres of alfalfa have been sown according to demonstration methods. As this is a natural live stock section and on account of the hilly nature of our territory it is undesirable to plow very much, we are paying particular attention to the introduction of alfalfa. We feel that alfalfa is going to be a great boon to the agricultural interests in this territory. Alfalfa usually yields about four tons of hay per acre but due to the dry weather the crop was short this year.



W. H. Sill, County Agent.

Small Grains: Wheat and Oats.

We are not attempting to promote the growing of small grains in this territory. It is true that considerable wheat and oats are raised but most of the oats are not raised

at a profit and but little of the wheat. As stated earlier in this report we are trying to restrict the number of acres under plow. About 2000 acres of wheat and oats were fertilized last year with acid phosphate according to the advice and instructions of the demonstration agents. The use of this fertilizer increased the yield of oats about ten bushels per acre and the yield of wheat about seven bushels. This has resulted in an increase of about 10,000 bushels of oats and 7,000 bushels of wheat. Before the demonstration work was established in this territory practically no acid phosphate was employed.

Rye and Crimson Clover. About 3000 acres of corn stubble were seeded to rye this past fall as a result of the demonstration activity. Most of this rye will be plowed under next spring. Two years ago practically no rye was used in this section as cover crop. About 150 acres were seeded to crimson clover. In this section this crop apparently is more uncertain than rye as a cover crop and we are going somewhat slow in advocating its use. Practically the entire acreage of rye and crimson clover will be turned under for soil improvement.

Red Clover. Heretofore a considerable acreage has been seeded to timothy alone and we are attempting to have all farmers in this territory use red clover with their timothy. Last spring about 200 acres were seeded to clover as a result of demonstration activity. We are advising the use of lime and stable manure for the purpose of getting a good stand of clover.

Summer Legumes: Cowpeas and Soy Beans. We have three cowpea and 34 soy bean demonstrations, with 21 acres of cowpeas and 200 acres of soybeans. All cowpeas and 150 acres of soy beans were harvested for hay. The average yield of hay per acre for both cowpeas and soy beans was about $1\frac{1}{2}$ tons. About 10 bushels of soy beans were secured per acre, on 50 acres so harvested. Neither cowpeas nor soy beans were grown in this territory before demonstration influence reached it. Medium Green soy beans were raised almost exclusively. This variety shatters badly thus explaining the low yield of seed. If all of the beans could have been saved probably the yield would have been about 18 bushels per acre.

Pastures. About 400 acres of pasture have been improved in this territory due to demonstration work. This improve-

ment has been brought about by the application of lime and acid phosphate and by keeping the stock off the pastures until after the grass has made a considerable growth in the spring. We feel that this latter factor is of prime importance in making our pastures more productive.

Farms. Ten farms containing 2045 acres are worked entirely under the supervision of the demonstration agents.

Rotation. The old established rotation in this section was corn, oats, wheat and timothy with possibly the addition of a small amount of clover seed when the land was put in grass. This rotation is bad because the corn stubble is left bare throughout the winter thus subjecting it to washing and leaching and not enough leguminous crops were grown to keep up the nitrogen content and the humus of the soil. In this rotation we are striving to have all of the corn stubble seeded to rye as cover crop to be plowed under in the spring and followed with soy beans. This crop is harvested for hay and followed with wheat and then is seeded to timothy and clover. The soy bean crop leaves the land in splendid condition for the wheat and there is a better chance for a satisfactory stand of clover than when oats precede the wheat crop. About 250 acres have been changed over into this rotation as a result of the demonstration activity.

Lime. During the past year 1936 tons of lime were either ground or purchased in car lots for use in this territory due to demonstration work.

Fertilizers. About 20 farmers mixed their own fertilizers this year due to the demonstration work. Most of the home mixing was done by the truck growers. For grain crops and for use in general farming most of our farmers are now using acid phosphate, as little potash seems to be needed in this section, and what sodium nitrate is employed is usually applied by itself.

Orchards. 11,200 trees were inspected, pruned and sprayed during the year. 375 farmers attending pruning demonstrations. As a result of this work 200 Pacific Coast pattern pruning saws were sold by one dealer in Wheeling. Five apple packing demonstrations were held, attended by 150. Both box and barrel packs were made. During the week of November 25th, the first annual apple show was held in Wheeling in which 14 exhibitors displayed about 200 plates of apples and several barrels and boxes. The demon-

stration orchard men were assisted in selling their products. Purchasers were brought to the district to see the fruit. Several sales resulted from this work, a carload being shipped to one buyer who visited our territory. As our orchards are small the marketing problem is largely a local one.

Truck and Small Fruit. The acreage of crops under demonstration was: asparagus, $1\frac{3}{4}$ acres; beans, 1 acre; cabbage, 15 acres; cantaloup, 1 acre; lettuce, $\frac{1}{2}$ acre; beets, $\frac{1}{2}$ acre; potatoes, 2 acres, and tomatoes 15 acres. The average yield per acre was: potatoes, 80 bu.; cabbage, 5 tons; tomatoes, 600 bushels. Average value per acre of each crop was: asparagus \$446.00; potatoes, \$80.00; cabbage, \$250.00; tomatoes, \$500.00. Number of acres of each kind of truck and small fruit grown in the county due to demonstration work: tomatoes, 20 acres; strawberries, 10 acres; asparagus, 2 acres; grapes, 5 acres; potatoes, 10 acres. Five new hot beds were started due to demonstration work. Trucking is profitable in this section and is conducted mostly by German gardeners who practice very intensive methods.

Gardens and Lawns. Five home gardens and ten lawns have been improved.

Pure Blood Live Stock Purchased. Three Guernsey bulls and four Ayrshire bulls, and one stallion have been purchased this year due to the demonstration work. Twelve head of pure-bred Guernsey cows were imported during this year and five head of pure bred Guernsey cattle were bought from an adjoining state. There are now 12 herds having all or part pure-bred Guernsey cows. There are six herds in which there are several pure-bred Jersey cows. There is also one herd of Ayrshire cows.

Dairying. About 107 cows have been tested for butterfat. Seventy-seven cows have practically a complete record for the year as to fat production and the cost of feed. Some 277 cows and young stock are fed according to demonstration methods due to demonstration influence.

Cow Testing. This work was begun January 1st, 1914, with seven herds and has been continued without interruption to date. Eight hundred and seventy-five fat determinations have been made, the monthly milk records have been totaled in this office and the calculations made to show the total fat production for each animal in the test.

At the present time there are eleven herds under test, consisting of 107 cows and on the first of January, 1915, several other herds will enter this work.

At the beginning of the work the samples of milk were taken and tested by a man who went from herd to herd, but at the present time the dirymen take their own samples and send them to a central location where they are tested by the county agents. Also the monthly milk record sheets are sent in to our office and totaled and the total amounts of fat produced by each animal calculated and the results summarized from time to time.

It is believed that under our conditions this way of carrying on this work is more satisfactory than to have the testing done at the different dairies.

Beef Cattle. Not many cattle are fattened in this territory; as a beginning three carloads have been purchased and are being fattened on silage and cottonseed meal.

Poultry: Chickens. Eight thousand chickens were grown and cared for according to demonstration methods. The total number of eggs produced by the poultry grown in this territory due to the influence of demonstration work was about 96,000 dozen. Practically all the eggs produced in this section are consumed locally; hence it is not necessary to produce non-fertile eggs in order to market eggs of high quality.

Manure. Forty farmers were influenced to take better care of their manure, due to demonstration activity. Two farmers provided covered barn yards. Ten farmers reinforced the manure with phosphorus. Most of these farmers have been advised to spread the manure on the land as soon as it is produced whenever this is practicable.

Silos. The total number of silos in this territory due to the demonstration work was 71. In Ohio and Brooke Counties there are now 250 silos.

Drainage. One demonstrator has tile drained ten acres.

Barns, Houses and Other Buildings. Six poultry houses, and three barns have been erected and ten buildings have been painted or whitewashed.

