

VIRGINIA AGRICULTURAL EXTENSION SERVICE

POULTRY PLAN OF WORK
(Name of Project)

for

Calendar Year 1959

| Major phases of project or subdivisions of project covered | Name of Worker* | Percentage of time devoted to entire project by each worker | | | | |
|--|--------------------------------------|---|------------|--------------|------------|------------|
| | | Howes | Bragg | Burtner | Ringrose | Wesley |
| Administration & Industrial Relations | Howes | 27-1/3 | | | | |
| Agent Training | Howes, Ringrose, Bragg & Wesley | 3 | 4 | | 2 | 2 |
| Servicemen's Schools | Howes, Bragg & Ringrose | 3 | 3 | | 3 | |
| Commercial Egg Program | Bragg | | 65 | | | |
| Broiler Program | Ringrose | | | | 69 | |
| Turkey Program | Bragg & Ringrose | | 12 | | 15 | |
| 4-H Youth Activities | Burtner & Wesley | | | 50** | | 83 |
| Miscellaneous | Bragg, Ringrose, Burtner & Wesley | | 16 | 50** | 10 | 15 |
| | TOTAL | 33-1/3 | 100 | 100** | 100 | 100 |

Date submitted: 1 January . 1959.

Signed: C. Howes
Project Leader

Date approved: 3 January . 1959.

Signed: C. Howes
Head of Department

Date approved: 1/28/59 . 1959.

Signed: W. H. Dunnington
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Date approved: MAR 31 1959 . 1959.

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* If phases of project are divided between two or more workers, indicate assignment to each.

** Following return from his leave of absence, October 1.

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II. ANALYSIS OF THE POULTRY SITUATION

The poultry industry in Virginia is very important to the total agricultural picture. The gross farm income from poultry products in 1957 was about \$87,000,000 and it is estimated that this will increase in 1958 to approximately \$93,000,000. The amount of poultry products produced in Virginia has not been increasing as rapidly as in many other areas although Virginia was a pioneer in commercial poultry production.

There have been tremendous and significant changes in the National industry through the application of technological developments, big-business methods and production-line techniques. As a result, poultry production is constantly being concentrated in large flocks with small margins of profit per bird unit handled; great emphasis must be placed upon efficiency of operation. Virginia has been falling behind in production and in efficiency because of continued operation with out-moded practices. Our poultrymen have perhaps been less ready to recognize the changing needs and to accept the technological advances and requirements imposed by a dynamic and changing industry.

The need for dissemination of up-to-date information to the poultrymen of the State is imperative if this important segment of Virginia's agriculture is to survive. Increased cooperation among all parts of the industry is essential if maximum benefits are to be attained. The Extension Service must adequately and efficiently perform its educational function in helping bring about a solution of the problems to be faced.

Commercial Egg Program (D. D. Bragg)

According to preliminary figures obtained from the State Department of Agriculture and our Agricultural Economics Department, the average number of layers in Virginia decreased from 4,594,000 in 1957 to 4,320,000 in 1958; but due to an increase in sale price per dozen, the yearly gross income from eggs increased from \$29,821,000 in 1957 to an estimated \$31,000,000 in 1958. Egg production increased from 184 to 190 eggs per layer from 1957 to 1958, but it still remains about one dozen behind the national average. There was a significant increase in the average size of flocks in the State during 1958, but a relatively large number of people operating small poultry enterprises went out of business. It appears that this trend towards larger and fewer flocks will continue. During the past year, a big improvement was made in the quality of eggs reaching our wholesale markets. About 65% of the eggs going through Federal-State egg grading stations graded A or better according to U. S. Quality Standards in 1957; but in 1958, over 73% of such eggs graded A or better.

Virginia still remains a deficit egg producing state; and this coming year will see continued attempts by our producers to supply a larger proportion of the eggs consumed within the State. However, producers will face keen competition from eggs coming in from other areas; and more improvement than ever in efficiency of production and marketing will be needed. Continued efforts will, therefore, be made to encourage larger flocks and better production and marketing practices.

More emphasis will probably be put on egg quality control starting at the farm level with periodic visits from feed companies or marketing outlet servicemen being made to an increasingly large number of producers. An increased use of egg production or marketing contracts between producers and feed organizations can be expected, and an increase in the number of specialized pullet growing enterprises is likely to occur. Big changes at more of our egg grading stations will also no doubt be made to lower costs and increase efficiency.

Due to an increase in the number of layers in the country and increased competition from other producing areas, egg prices in the State will probably average somewhat lower in 1959 than in 1958. However, by the end of 1959, egg prices may exceed comparable prices in 1958 if there is a moderate to heavy cutback in the number of chickens raised for flock replacements this spring. Due largely to efforts of Extension poultry specialists, the Virginia State Poultry Federation and the Virginia Egg Council, there has been an increased interest in egg production in the State and it appears that a continued expansion and improvement in the industry will occur this coming year.

Broiler Program (A. T. Ringrose)

Broilers contributed about \$41,000,000 gross income toward the agricultural economy of Virginia in 1958. Broiler production in Virginia in recent years has been as follows:

| <u>Year</u> | <u>Millions Produced</u> |
|-------------|--------------------------|
| 1954 | 59,000,000 |
| 1955 | 55,000,000 |
| 1956 | 62,000,000 |
| 1957 | 61,000,000 |
| 1958 | 64,000,000 (estimated) |

The rank of counties based on 1954 Agricultural Census, while indicative, may not be wholly in agreement with present production. However,

a review shows that there are 20 counties which had dollar sales of broilers from \$180,000 to \$7,536,000. These 20 counties constitute the major areas in which broilers are grown in Virginia.

| <u>Rank</u> | <u>County</u> | <u>Rank</u> | <u>County</u> |
|-------------|---------------|-------------|---------------|
| 1 | Rockingham | 11 | Cumberland |
| 2 | Accomack | 12 | Frederick |
| 3 | Augusta | 13 | Rockbridge |
| 4 | Shenandoah | 14 | Franklin |
| 5 | Page | 15 | Chesterfield |
| 6 | Hanover | 16 | Albemarle |
| 7 | Buckingham | 17 | Bedford |
| 8 | Henrico | 18 | Highland |
| 9 | Warren | 19 | Orange |
| 10 | Botetourt | 20 | Washington |
| | 76% of all | | 90% of all |

The major emphasis of 1958 work was devoted to finding solutions to existing problems in major broiler producing counties selected upon the basis of current status of broiler production. Many of these problems exist because broiler producing units are too small to be efficient, the average unit being about 3,000 broilers.

V.P.I.'s recommendation is that a 10,000 broiler unit is the minimum size for the use of 1/4 to 1/2 the labor of one man. If full time is devoted, 30,000 broilers per flock should be cared for by one man. Under present day broiler contracting, the contractor pays the grower under an efficiency contract. The contractor also must provide a serviceman who supervises the growing operation, specifies the management recommendations and protects the investment. The necessary travel for supervision plus frequent feed deliveries to small farm units increased the cost of production.

The situation now has become even more critical so that a small 3,000 bird flock can no longer be serviced under present contract operations. It is believed the small grower will be squeezed out unless there are ways whereby he can increase his productive unit to 10,000 broilers to become more efficient for himself and contractor. In some cases, the broiler contractors are building their own larger size production units.

It is felt that programs undertaken in certain major broiler areas have produced definite results in the improvement of efficient broiler production and have produced a definite trend in modernization and expansion toward more economical units.

It is also definite that broiler production work in some of the main broiler producing counties has not as yet received adequate attention, notable among these are Accomack, Augusta, Shenandoah, Page, Hanover and Henrico Counties. So far as Augusta, Shenandoah and Page are concerned, they are adjacent to Rockingham County, so many of their producers are served by Rockingham broiler contractors and, therefore, are affected by the Rockingham program (see 1958 Annual Report). This, however, did not reach the majority of broiler producers; therefore, it is necessary to undertake programs in these counties during the coming year. Contacts have been made with the agents in these counties and some review of the situation and planning has been accomplished; however, the necessary impetus to get work started has not been attained.

Initial conferences with the agents of Henrico, Hanover and Chesterfield Counties were held late this year and it is anticipated that work in this broiler producing area will get underway along the same general plan as applied so successfully in Rockingham County.

Accomack County, our number two county in broiler production located on the Delmarva Peninsula, is closely associated with the Extension Services of Delaware and Maryland and generally joins and attend shore-wide meetings for broiler production held there. The specialist has made contact with the agent, reviewed and evaluated the situation in his county. In general, certain broiler producers and contractors are at a disadvantage by being so far from marketing facilities. Broiler contractors have indicated that the market price is generally influenced by the broiler prices of the shore auction market but they are discounted at least 1/2¢ to 1¢ because of the long haul to the nearest processing plants in Maryland. They believe that there is sufficient production now to support a processing plant in their area. They are willing to undertake steps to determine this. The necessary impetus on the part of the agent is needed.

Changing the County Agents Attitude

Because of the nature of the development of broiler production in recent years through financing by major feed companies and/or others, the field servicemen of these organizations now state the management programs and practices used by broiler growers under contract with the company. The county agent, therefore, has been omitted from this picture and has not been able to recommend practices or encourage better management among growers (reported in detail - 1958 Plan and Annual Report). He had lost confidence and had not been able to keep

abreast of new developments. (Many agents felt they weren't needed because the servicemen performed their function.)

Broiler Contracting

Production problems that confront broiler producers involve economic choices. The short life cycle and the technical limitations in broiler production impose special conditions. Since 92% of all broiler production in Virginia is financed by some contracting agency other than the producer, many of the economic decisions are not necessarily made by broiler growers but are made by the financier. The major decision that a broiler grower makes on the farm is the decision with whom will he contract. The strains of chicks, the feed, the medication and vaccination program and the time of selling are determined generally by the contractor. These facts have made for the development of a strong broiler industry in Virginia and are true of all other major broiler producing areas in the United States.

Now that the broiler contract payment is dependent upon the market price of broilers, the broiler producer must be so advised to enable them to determine their new position (explained in detail - 1958 Plan).

Nationally, broiler production is likely to expand further in 1959 though more slowly than the 15% rate of increase in 1958. The decisions of volume broiler production are made by a small group of contractors or integrators. In their drive to cut unit costs, they find that increased volume which spreads overhead charges is one of the most promising adjustments. The result is a constantly burgeoning broiler production.

Virginia probably has shown at least a 4% increase in broilers this past year but if the industry is to survive in this highly competitive field, this rate must be maintained or accelerated slightly at least to a 6% increase in 1959.

Processors in the Valley of Virginia fear they are in danger of losing their markets because of insufficient supplies of broilers. Under normal operation they are capable of handling 1,600,000 broilers weekly. Chick replacements indicate that by the week of January 18th, 1959 the supply of broilers will be down to 900,000 - 700,000 short of needs. About the same picture prevails throughout the other broiler producing areas of Virginia. How long processors can hold on operating at half capacity is conjecture but this cannot continue indefinitely. Thus, increased production is a must. It can be accomplished by increasing the size of units and continued improved efficiencies all along the way.

Additional improved efficiencies can be attained in 1959 through better financing, management, nutrition, breeding stock and disease prevention and treatment.

Broiler prices are expected to be below the 20¢ average of January to June, 1958 in the corresponding period of 1959. Later in the year, sustained prices averaging much over 20¢ per pound are very unlikely, except possibly during a short summer period, since high levels quickly stimulate expanded output. Also consumers would react adversely to a sudden rise in the price of broilers.

Costs of producing broilers have been materially lowered since 1954 (see 1958 Plan) through the breeding of better birds and development of better nutrition, research in the latter having proved that a better balance between protein and energy resulted in more rapid gains on less feed.

Since then, contract payments to broiler producers have been based on feed efficiency. Contracting expanded rapidly in many states but not so rapidly in Virginia.

Review of settlement sheets of broiler contractors the past year have shown that costs no longer are being lowered as rapidly as earlier. Some areas have claimed productions cost under 16¢ per pound. If this be true, Virginia must also lower production costs to stay competitive.

Market supplies of broilers have been continuously heavy nationally except when demand increased during late spring and summer, reflecting the highest yearly market prices. The cumulative effect of an approximate 15% annual increase in broiler production was felt throughout the nation when market prices dropped earlier in the fall (September) and give indication of remaining low well into 1959. This has caused broiler contractors to lose heavily in recent months.

The step taken by Virginia contractors in relating contract payments to market prices is a forward step. It will be a greater benefit if this practice spreads to other states.

The Situation Summed Up

The situation summed up in this way. The processing plants are calling for more broilers that they might operate their plants in a more efficient manner to satisfy and hold their markets. The broiler contractors are anxious to contract for broiler growing with suitable

growers with economically sized units of 10,000 broilers or larger. They also recognize, as do the processors and hatcherymen, that the general management practiced and the equipment used in broiler growing is frequently inadequate and improperly used. All this offers challenging problems to the specialist. They can be met.

Turkey Program (D. D. Bragg and A. T. Ringross)

Virginia was the third largest turkey producing state in the United States in 1957 with a gross turkey income of \$19,123,000; however, the number of turkeys produced in the State in 1958 decreased about 4% to approximately 6,404,000. Market prices this past year have been slightly more favorable and producers have received more reasonable returns.

Turkey breeder hen owners in fifteen of the most important states expect to hold about 7% more heavy breed hens and 36% more light breed hens than at the beginning of the 1958 season. Virginia turkey breeder hen owners indicate intentions of keeping about 25% more heavy white breeder hens, 35% fewer Bronze and other heavy breeder hens, and 30% more light breeder hens than at the beginning of the 1958 season.

Virginia is increasing in number of white turkeys and in small (Beltsville) turkeys. The turkey outlook, therefore, is potentially dangerous unless early intentions are substantially tempered; then turkey production and turkey prices will be about the same this coming year as 1958.

With the advent of new methods of selling of stuffed and less than whole turkeys per capita consumption may increase in 1959. However, turkey prices in the State will probably average little, if any, above last year and continued efforts to improve production and marketing efficiency will be needed. With continued narrow margin of profit for turkey producers, more supervision is likely to be given to flocks grown under contract with some shifting toward confinement rearing to replace range rearing and greater use made of labor saving devices and equipment. Production costs must be further reduced in keeping pace with lower retail prices.

4-H Youth Activities (R. L. Wesley and R. H. Burtner)

The participation in 4-H poultry work continued to decline slightly in 1958. However, the rate of decline has slowed down even more than in 1957. 1,996 4-H members enrolled in 4-H poultry work and 62% completed their projects. A total of 188,609 birds were involved. It is en-

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couraging to see that there is an upswing in the size of projects. The quality of project work being done in poultry is superior to that of any previous year and it is believed the demonstrations carried by 4-H members are having a greater influence on their communities.

There is continued broadening of the overall 4-H program. Because of this fact, it is necessary to hold multiple county judging, demonstrations and meetings. In 1958 training opportunities for boys and girls in subject matter was well above par to the standards of the previous year. A very large number of projects were scored in the field dealing with our Junior Breiler Growers Contest and the Sears Pullet Chain and special projects. A large number of training meetings were given in poultry judging, egg grading and demonstrations. The total of these meetings was 55, with 643 Club members receiving training.

The 4-H Awards Program is of excellent quality. Thirteen 4-H Poultry members received out-of-state trips in 1958 and sixteen 4-H Poultry members received a free trip to the State Poultry Federation Convention. Virginia is the only state that sends two teams per year to interstate poultry judging competition. Total cash awards for poultry contests and achievement programs now exceeds \$6,000 per year.

III. MAJOR PROBLEMS

General

1. To inform all concerned with the economical situation which Virginia occupies in the National Poultry Industry.
2. To determine means by which Virginia can improve its position in the National Poultry Industry.
3. To effect a better coordinated effort by all industry segments to bring about an effective modernization of the Virginia Poultry Industry.
4. To increase interest and activity of the county agents in poultry affairs, providing them with needed information, and instilling within them confidence in their ability and a realization of the poultryman's need of their help.

5. To provide up-to-date instruction for commercial servicemen's groups, in order that recommended practices may come into common State-wide usage.
6. To bring about more uniformity of state and regional recommendations on basic management practices where practical.

Commercial Egg Program

1. To get producers to enlarge their enterprise so as to have more economically sized flocks.
2. Get producers to use better production and marketing practices and thereby lower egg production costs.
3. To bring about more efficient assembly processing and packaging of eggs within the State.
4. The acquainting of more people with egg quality standards.
5. To determine and interpret to egg producers what can be expected from an egg laying enterprise and what should be equitable returns under various contractual arrangements.

Broiler Program

1. To determine and interpret to all the equitable returns under contract broiler financing.
2. To determine the economies of efficiently sized broiler production units.
3. To emphasize the importance of sound management practices and to evaluate management practices prescribed by servicemen to broiler producers.
4. To improve disease control programs so as to reduce mortality in broilers.
5. To evaluate breeding stock, improved feeds, and better housing to reduce cost of production of broilers.
6. To improve handling and movement of broilers from farm to processing plant.

7. To determine efficiencies of assembly, processing, packaging and marketing of broilers.

Turkey Program

1. To obtain better finish on turkeys marketed at eighteen to twenty-two weeks of age.
2. To increase fertility and hatchability of turkey hatching eggs.
3. To reduce losses due to diseases.

4-H Youth Activities

1. To stimulate interest among workers carrying county poultry club programs.
2. To increase the amount of basic information available to Junior Club members.
3. To aid agents in securing more and better poultry leaders.
4. To conduct a Junior Program that is adapted to present poultry trends; that is, to attempt to adjust the size of Junior flocks to be economically profitable units.
5. To hold training schools or sessions at least once in every county that has a poultry judging, egg grading or demonstration team.

IV. WORK TO BE DONE AND METHODS OF PROCEDURE

The work to be done and methods of procedure will be discussed under each phase of activity within the project, as indicated on Page 1 of the report, and will be presented by the specialist responsible.

Administration and Industrial Relations (G. E. Howe)

The rapidly changing conditions in the poultry industry have necessitated a carefully coordinated and cooperative approach by all sections of the industry if Virginia's poultry industry is to survive and prosper. In many sections of the nation, the industry is operating under a complete vertical integration, with the pro-

duction of hatching eggs, baby chicks, broilers, and processing operations (as well as feed manufacture in many instances) being controlled by one management. Virginia traditionally has a poultry industry built upon individual ownership and management of each type of operation. Faced with the efficient low-cost production made possible by the integrated operations, Virginia's poultrymen must find new ways of improving their own efficiency. This can be accomplished through a coordinated, cooperative approach on their operations.

Work will be carried on in an attempt to improve this cooperation by the various people involved. Close association will be achieved through participation on poultry committees studying problems characteristic of the Virginia industry, and through cooperative efforts with the Virginia State Department of Agriculture, the Virginia State Poultry Federation, the Virginia Egg Council and the Virginia Turkey Association. The Extension Service will be represented on the Board of Directors of the three latter groups, as well as on functional industry committees. These would include committees on broiler production, egg production, industry expansion, industry relations and youth activities.

A coordinating committee composed of a representative from the Virginia State Poultry Federation, the Virginia Department of Agriculture and the Extension Service has been formed. This committee functions in keeping all concerned informed of the general activities of each, formulates plans for cooperative efforts by all and frequently evaluates progress being made by the Virginia industry.

This project area will function in an advisory capacity with industry wherever needed. It will function in developing and coordinating consumer education relative to the nutritive and economic values of poultry products. Work will be done in planning for various educational meetings such as the Annual Institute of Rural Affairs and Annual County Agents Conference, and in an advisory capacity in the development of programs for general industry meetings including the Annual Convention of the Virginia State Poultry Federation and the Virginia Feed and Nutrition Conference. Cooperation will be given the Virginia State Department of Agriculture in the planning and execution of the Poultry Flock Inspectors School.

Through this phase of the project all poultry work at V.P.I. will be coordinated. Bi-weekly staff meetings will keep the Extension, Research and Resident Instruction staffs informed of the

activities of all. The Extension specialists will thus be kept aware of most recent research, ideas for needed research will be provided the research workers, and the teaching group will be continually kept current in poultry affairs. Within this phase of activity, all poultry Extension activities will be coordinated and directed for the best accomplishment of Extension responsibilities. Plans of work will be prepared and an attempt will be made to establish a state of equilibrium between maximum cooperative endeavor and maximum results.

Agent Training (Entire Staff)

The basic unit of Extension operation is the county agent, who in most cases has little formal training in the highly specialized poultry field. He has frequently had difficulty in keeping fully informed of the changing requirements and has felt inadequate to cope with the complexities of the situation. The responsibility of the Extension specialist to provide information needed by these agents to re-establish their confidence, as well as to supply them with the up-to-date recommendations they require in the discharge of their responsibilities, is clear.

To meet this need the entire Poultry Extension Staff will participate in planning and conducting 7 regional day-long schools for county agents over the State. These schools will be planned in conjunction with the district agents involved and will be adapted to best meet the specific needs of each area. Emphasis will be placed upon better housing and management practices for layers, broilers and turkeys, recent research data on disease prevention and control, improved methods for controlling quality of the product, improved marketing procedures and means of developing a sound youth program in poultry.

Servicemen's Schools (Entire Staff)

With the advent of contract farming in the poultry industry, a new type of individual has come into the picture. This man is the serviceman who representing the feed company or contractor maintains constant contact with the producer or contractee grower. His responsibility is to constantly know the condition of any flock with which he is associated, to make recommendations relative to the management practices of these producers, and, in the case of contract, to protect the contractor's investment.

Because of the very limited supply of adequately-trained poultry personnel available, these servicemen generally have only

limited formal background and learn poultry practices largely through accumulating experience on the job. This procedure can be costly and result in a dissemination of information not entirely in accord with best management practices. The need for authentic information being made available to these servicemen is strongly felt and is a pressing problem.

It is planned that at least two regional schools for servicemen will be held, one in the Shenandoah Valley and one in Eastern Virginia. It is possible a third will be held in the Blackburg-Roanoke area. These schools will be of two-day duration and subjects discussed will be those problems with which the servicemen has frequent contact. It is anticipated that necessarily speakers from other states may be invited to participate with the Extension specialists in these schools.

Another school for servicemen will be conducted one evening each week for seven weeks, beginning January 17, 1959, in Rockingham County. This school is designed to give detailed instruction on the bird, its structure and function, in order that the serviceman may have a better appreciation of the bird with which he works. This meeting will be participated in by the Poultry Research Staff at V.P.I. as well as the Extension specialists. Approximately one hour each evening will be devoted to lecture and demonstration presentation followed by an hour of questions, answers and orientation of the theory presented to the practical recommendations. This school has been brought about following a direct request from a group of 45 servicemen and will be open to all persons interested in attending.

Commercial Egg Program (D. D. HAZEN)

The following activities will be carried on in connection with this project to help solve the egg production and marketing problems mentioned earlier in this report.

1. Poultry Schools and Talks to Producer Groups

It is anticipated that talks on egg production and/or marketing practices will be given at 18 or more poultry schools and at 5 or more other meetings. In most instances, assistants will also be given with the planning of the programs and the obtaining of speakers for these producer schools. (People from the Animal Pathology, Agricultural Economics, or Agricultural Engineering Departments at the College and/or representatives from the State

Department of Agriculture will participate with Extension poultry specialists on many of the school programs.) The majority of the poultry schools will involve two or more counties but the additional meetings at which talks are given will most likely involve producers from only one county.

Poultry housing and equipment, pullet management, disease prevention, improved production and marketing techniques, outbreak information and financing of the enterprise are some of the egg production topics to be discussed at these schools and meetings.

2. Poultry Modernization Program (Work with the Industry)

Extension poultry specialists will continue to work with the State Poultry Federation, the State Department of Agriculture to carry on the poultry modernization program referred to as EEP by the State Poultry Federation) which was started in the State last year. The State has been divided into ten geographical districts with D. D. Bragg responsible for organization; work in five of them and A. T. Ringrose responsible for organizational work in the other five. D. D. Bragg has already organized or assisted with the organization of steering committees and sub-committees composed of county Extension workers, servicemen and producers in the Chatham, Farmville, Suffolk and Tidewater areas. A steering committee and sub-committees will be organized in the Guilford area within the next sixty days to complete the organizational work in the five areas for which this specialist is assigned this responsibility.

Following this initial organization of area committees, meetings will be held to acquaint bankers and servicemen with what can be expected from a poultry enterprise (this has already been done in three of the areas) and this will be followed by meetings or schools for producers to encourage expansion, more economically sized units, and the use of better production and marketing practices. After steering committees and sub-committees have been set up and are functioning in all five areas, this specialist will work through the egg production and/or marketing sub-committees anywhere they are organized in the State and Dr. A. T. Ringrose will work through broiler committees anywhere they are organized in the State to help further this program.

As a member of the Board of Directors of the Virginia Egg Council, this specialist will also continue to advise and assist

with the production and marketing improvement and consumer promotional activities carried on by this group.

In addition to this, some assistance will also be given with industry-sponsored meetings. This assistance will include appearance on the program and the furnishing of visual aids or printed matter for use in connection with the activity.

3. Program Planning Activities with Agents and/or County Committees

There were 25 to 30 active county poultry committees in the State in 1958. These committees meet with the county Extension personnel and help to represent the "grass root" thinking when working out the year's program of work. These help to the Extension agent's efforts into the most effective channels, make local producers feel more a part of the program and bring about more and better work on key projects. This poultry specialist will, therefore, meet with these committees whenever possible to give outlook information, discuss the general poultry situation and make suggestions concerning projects being considered. Several planning conferences will also be held with the county workers to help them evaluate the situation and set up a worthwhile poultry program for their county, and assistance may be given in helping organize new county poultry committees in one or two counties where it appears that they are needed. In addition to this, considerable assistance will also be given with the planning of activities carried on by the Virginia Egg Council and possibly other segments of the poultry industry.

4. Farm and Home Visits and Record Analysis

A total of 24 or 25 commercial egg producers will be selected from 4 or 5 different areas in the State in cooperation with the county agents to keep accurate records and turn into this office monthly reports on the costs and returns from their enterprises. These records will include the cost of buildings and equipment, the value of the pullets, the amount of feed consumed and in some instances the grades of the eggs marketed. Depreciation can, therefore, be figured to get more accurate costs and other information such as the amount of feed required per dozen of eggs can also be obtained when the reports are analyzed. The information derived from these records should provide some current realistic data under commercial conditions as to the cost of going into the business, the cost of producing

a dozen eggs, the amount of feed necessary to produce a dozen eggs, the return on investments, etc. The poultry specialist and/or the county agent will visit and advise with these flock owners at least once or twice during the year to discuss their records and give advice on their production and/or marketing practices.

On requests from county Extension workers, special visits will also be made to certain commercial egg producing enterprises to give information concerning various poultry problems. In addition to this, an effort will be made to contact the managers of certain of the larger Federal-State egg grading plants to find out what producers in the State may need help in bringing up their egg quality. As many visits as possible will be made with the county Extension workers to these enterprises to help correct mistakes.

5. Demonstrations, Tours and Field Days

Poultry tours and/or field days will be conducted in at least four areas of the State and demonstrations pertaining to the care and handling of eggs will be carried on here at the College and in the field.

These tours and field days will be for the purpose of pointing out to producers improved housing and better poultry production or marketing techniques. One tour will probably be conducted in Gloucester County in the late summer and one in Culpeper possibly in June. Both of which will likely end with a picnic or poultry barbecue at which management practices and late research will be discussed. It is anticipated that two other tours will also be conducted in Southside Virginia. One possibly will be held in Brunswick County and the other in the Norfolk area.

6. Subject Matter Preparation and Distribution

In an effort to help further the commercial egg program, two or more articles dealing with egg production or marketing will be prepared each time for the monthly issue of the Department newsletter, POULTRY PELLETS; and an effort will be made to put out two new leaflets this year, one of which will be on the growing of pullets. Mimeographs on outlook information, cannibalism or other such topics will also be prepared; and 10 to 12 news articles written for publication in magazines

and newspapers. In addition to this, visual aids will be prepared for use on progress cards and other visual aids will be prepared for use at producer schools and agents training get-togethers; and 12 to 14 radio tapes which will be broadcast over 30 or more stations will be made.

Miscellaneous (D. B. Bragg)

1. Communications Schools

Some time will be spent preparing for and assisting with teaching a communications school in the Southeastern District, January 19-22.

2. 4-H Club Work

Assistance will be given with the field scoring of projects and the scoring of the dressed carcasses in connection with the Junior Broiler Growers Contest and some help will be given with the carrying on of District and State judging and demonstration contests. In addition, this specialist will also no doubt participate in the Poultry Career Day held for high school students at V.P.I. sometime during the summer.

3. Fairs

Poultry and eggs will be judged at five to ten of the larger fairs in the State, including the Atlantic Rural Exposition. At the Atlantic Rural Exposition, assistance will also be given with the setting up of the live exhibits, possibly educational exhibits, as well as with the judging of the poultry.

4. College Committees

As in previous years, some time will be devoted to work with college committees such as the committee on the development of V.P.I.'s role in Virginia agriculture and those appointed to assist with the Extension agents' conference and the Institute of Rural Affairs.

5. Other Educational Meetings

The writer, as well as other members of the Department, will no doubt be called on to assist again with the Poultry Inspectors School carried on by the State Division of Markets, and he will

attend the Nutritional Conference, the Southern Agricultural Workers Meeting at Memphis, and possibly the Poultry Science Association Meeting or some other educational meeting outside the State. This specialist may also participate in one or more meetings of the special NEFFCO Study Committee.

Broiler Program (A. T. Ringrose)

Twenty counties produce 90% of all broilers grown in Virginia. Therefore, Extension work in broiler production will generally be confined to these counties with major emphasis on the top ten counties in which 76% of all broilers are produced. In many of these counties certain plans and programs are well underway and have yielded important results (see 1958 Annual Report). These will be continued and improved.

In other counties, mentioned under discussion of the situation, additional programs will be undertaken this year to follow up ground-work already laid in those counties.

Since broiler production requires adequate marketing facilities within fifty miles or less of the production center, it is imperative that efforts be centered on more efficient broiler production in the 20-county producing areas concerned which are already adequately supplied with marketing facilities. An example of lack of a processing plant was reported in the 1958 Report; e.g., Norfolk area.

This does not mean that other counties desiring broiler production assistance will be neglected. On the contrary, inquiries by agents of certain fringe counties have been honored and their position and needs carefully outlined to them. Washington County is an example. A small broiler area is operating there and was served by a small processing plant now discontinued in the face of U. S. mandatory inspection, effective January 1, 1959. The area, therefore, is now over 100 miles from marketing facilities. Efforts to aid this area will be undertaken.

The change that came about late in 1958 in which the method of contract payments to growers are hooked to the market price of broilers will affect all broiler producers. Who is going to determine and advise the broiler grower regarding his equitable share on contract financing? He is going to need adequate information to determine his new position in this respect. If he has no source of counsel or advice, he has little or no bargaining power.

A major endeavor then during the year will be to give the county agent greater confidence in subject matter on broiler production to

increase his interest and ability and to point out to him ways in which he can serve the interests of broiler growers and the contractors. This will be done in the following ways:

- a. Frequent personal contacts with agents and with key growers and contractors.
- b. Supply agent with ample written material based on sound principles and research data for their use and/or dissemination.
- c. Encourage development and use of county broiler committees and key leaders among growers and contractors.
- d. Develop servicemen's "round table" sessions with agents and specialists leading the program.
- e. Arrange through the agent to obtain specific information from selected contractors (at least 5) on growth and mortality rates, feed efficiencies and strain of chicks regularly each month or bi-monthly for immediate analysis by agent and poultry specialist, analysis to be returned to contractor with suitable suggestions. Summaries of these to be publicized when permitted and used by agent as a basis for establishing county goals for other producers.

An evaluation of major nutritional research conducted at academic and commercial institutions pertaining to feed formulation should be made for the feed manufacturers. Their decisions concerning adaptation of research data and choice of products for incorporation in feed formulation determines the quality of their feed and thus the efficiency of broiler production.

Research information and data from broiler tests will be evaluated and interpreted to hatcherymen to enable them to make sound decisions. The use of improved breeding stock for broiler chicks has a great bearing upon improved efficiency in broilers grown.

A study of causes of downgrading of broilers during movement from farm to processing plant will be made to review and determine the practices now used in Virginia processing plants. The amount of downgrading occurring will be determined. Then established recommendations for reduction of rough handling and better loading facilities will be made to reduce such downgrading. This can save the processor nearly 1/4¢ per pound on poultry processed and result in savings to industry.

Turkey Program (D. D. Bragg and A. T. Ringrose)

An effort will be made to hold a turkey school enlisting the cooperation of the State Turkey Association and an effort will be made to conduct turkey tours in two major turkey producing areas. The purpose of the school will be to help disseminate up-to-date turkey information to growers and servicemen, and the tours will be for the purpose of pointing out successful ways of housing and managing breeders and market turkeys. Field demonstrations will also be conducted to help show handling practices which should be followed in the care of turkey hatching eggs and to compare advantages of confinement and range rearing. An effort will also be made to carry through field trials on breeding techniques and better production methods. Visits will be made to the farms of the large turkey producers to advise them on housing and improved production or management practices. It is anticipated that a leaflet on turkey production will be prepared and distributed to growers this year through the county Extension workers. In addition to this, an attempt will be made to obtain records from a few commercial producers on the costs of producing both large and small type turkeys to market age; and turkey information will be included as part of the training for county Extension workers and feed servicemen which is discussed elsewhere in this Plan of Work.

4-H Youth Activities (R. L. Wesley and R. H. Burtner)

The following activities will be carried on in connection with the Junior Program to help promote youth activities throughout the State.

1. Junior Broiler Growers Contest

During 1958 there were entries from fourteen counties; in 1959 it is planned to include sixteen counties in this contest. As opposed to 140 entries in 1958, it is hoped to have 150 entries in 1959. This is considered the strongest phase of the Junior Program. Sometime during 1959 each of the entries in this contest will be visited at which time the contestants will be scored on their management practices, feeding program and housing facilities. Mimeographed material regarding space requirements, feeding and management practices, and recommended housing facilities will be sent out to each participant. The state will be divided into four areas: Madison-Orange-Cresne, Roanoke, Richmond and Valley. 10 birds from each entry of 100 birds each will be dressed and

scored for carcass quality. Area winners will be chosen and placed in competition with each other for State honors. Prizes will be awarded the winning contestants.

2. Judging and Demonstration Activities

Contests such as poultry judging, egg grading and demonstrations help very much to motivate boys and girls to learn new practices. Therefore, as much time as required, and as many meetings as necessary, will be utilized to train boys and girls in these contests. It is hoped that three to five counties will work together in these training sessions so that the specialists' time will be used to best advantage. For this reason, not more than one meeting per county is anticipated, though through area meetings, instruction may be given to Club members from a county more than one time. In these meetings, an attempt will be made to teach the basic poultry subjects of culling, breeding, selection, breed identification, egg quality, and live and dressed market quality. During meetings on demonstration, instructions will be given on preparation and presentation. Demonstrations are one of the most effective tools to teach factual information. During 1958, 55 meetings were held which gave training to 643 boys and girls. During 1959, it is hoped an equal number of meetings will be held involving 700 youths.

3. Poultry Career Day

The second V.P.I. Poultry Career Day will be held this year. Efforts will be made to have sixty students here for this event, which would more than double the 1958 participation. In order to produce enough qualified men to fill the available jobs in industry, research, teaching, etc., this V.P.I. Poultry Career Day is planned to motivate interested students into coming to V.P.I. and majoring in poultry. Departmental and guest speakers will be secured to present factual information to prospective students. Opportunities available in the field of poultry will be outlined. Eligibility for scholarships to qualified students will be discussed. During 1959, an increase is hoped for in the number of freshmen entering college at V.P.I. and majoring in poultry husbandry.

4. Sears Pullet Project

The Sears-Roebuck Foundation will sponsor a maximum of eleven Sears Pullet Chain Projects in Virginia. In 1958 only

ten were completed. One project was cancelled at a date so late that it could not be replaced. In 1959 all eleven of these projects will be placed in eleven counties. Material will be sent to each contestant regarding all of the things he will be expected to do in connection with the project. Funds supplied by the Foundation will be used to purchase birds to be placed with Club members as a brooding and rearing project. Accurate records will be kept during the entire growing period. At the end of the project, ten birds from each flock will be sold at auction to reimburse the Foundation. The remaining birds from these projects will be shown at fair throughout the State and will be exhibited at the Atlantic Rural Exposition in September. Sometime during the year, a poultry school will be held in each county in conjunction with these State projects.

5. Poultry Achievement Award Program

4. Federation Scholarships

These specialists will work quite closely with agents to encourage them to have their better poultry boys and girls enter achievement record books for State competition by April 1st. A letter relative to this subject will be sent out to each county agent. At least 50 achievement books should be turned in to adequately award all trips that are available to 4-H members without buying to select some of the better poultry judges, demonstrators, or egg grading team members. Assistance will be given to the Club Department in the selection of the Federation scholarships recipients and a specialist will supervise these winners at the Federation Convention in Richmond in October.

b. Fact Finding Conference

Assistance will be given the Club Department in selecting the two fact finding Conference delegates. These two youths will be selected on a competitive basis involving record books which show outstanding achievement in the field of poultry. They will be trained to give a demonstration at Fact Finding, and a specialist will accompany them on this trip.

c. National Poultry Achievement Award

The National Poultry Achievement Awards are the highest

honors obtainable to 4-H Club members for exceptional Club work. All national awards are given on a competitive basis by a special committee who evaluates achievement record books. Individual assistance will be given to Club members to assure that applications for the National Poultry Achievement Awards are received on time.

d. Turkey Scholarships

Each year the National Turkey Federation provides two \$500 scholarships. Applications are in the form of Achievement Record Books compiled from turkey projects. All applicants are awarded an expense-paid trip to the Annual Turkey Federation Convention. A specialist will accompany the Club member to this Convention. Help will be given to a qualified Club member in preparing a worthy achievement record book on his turkey projects to present to the Foundation. This member will apply for the National Turkey Federation Scholarship and will attend the National Turkey Federation Convention.

6. 4-H Short Course

Almost 1,000 Club members are invited to come to the V.P.I. campus for a week in June to participate in the 4-H Short Course. During this week, the State judging contests are held. Also a variety of activities are available to boys and girls. They may choose schools on a number of agricultural subjects. Plans for the 4-H Short Course will include fourteen hours of poultry instruction. Qualified speakers will be secured to present factual information useful to Club members in their poultry projects.

7. New Commercial Junior Broiler Growers Contest

The Commercial Junior Broiler Growers Contest was designed to attract older boys and girls who have facilities for large poultry flocks. Each participant must grow at least two 1,000 bird flocks to qualify. Final scores will be computed from management practices, housing facilities, feed conversion, live weight, and dressing percentage. The top three winners in this contest will attend the Poultry Federation Convention to be held in Richmond in October. It is felt that this contest will develop into the strongest phase of all the Junior work. It gives older boys and girls a chance to become familiar with contract poultry farming and to realize the results of good poultry management.

Miscellaneous (R. L. Wesley and R. H. Burtner)

These activities will consist of fairs, conferences, program planning activities, committee work, help with farm and home development, etc. Participation in all miscellaneous poultry activities will be discussed elsewhere in this report.

V. RESULTS EXPECTED AND METHODS OF MEASURING

The execution of the activity phases of the poultry Extension project should bring greater poultry knowledge to county agents, servicemen and growers, and generally create increased interest in poultry throughout the State. There should result an increased interest and activity in poultry production by the county agents, who should have gained greater confidence in their knowledge of the field. As a result, increased activity on the county level should be observed.

The industry operations within Virginia should be better coordinated, with larger production flocks and generally increased efficiency of performance throughout the State. In this fashion, the Virginia poultry situation should be in a better position to compete with the high degree of integration developed in other productive areas. Close working relations between all segments of the industry and the Extension Service should be maintained and increased industry support of the Extension program is expected.

The servicemen, lacking in formalized poultry training, should have a greater knowledge of the subject with which they work; and with this understanding, should more effectively promulgate improved management practices by the producer. Important savings should result from better environmental conditions lowering losses from disease and costs of production.

The program should result in greater efficiency in layer, broiler and turkey operations. There should be an increase in size and number of flocks, a reduction in mortality, an increase in average production rate (eggs and meat).

In the Youth Program, it is expected there will be no further decrease in poultry enrollment in the Junior Work. An increase in size and quality in 4-H project work is anticipated. All assistance will be given to try to increase the number of Junior and adult poultry leaders. Concentrated effort will be made to improve efficiency

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in production and marketing with special emphasis being placed on marketing. In the brooding and rearing projects, improvement in the quality of the meat and egg type birds is expected. It is hoped that the number of poultry majers at V.F.I. will increase.

It is difficult to develop accurate means of measuring results of a program such as this. However, it is believed that the following factors would be fairly accurate in bringing about an evaluation of the program.

- a. Numbers of county and area meetings held by county agents, with attendance records, as a measure of county agent interest and attitude.
- b. Number of meetings jointly participated in by industry and Extension.
- c. Degree of cooperation of activities by the industry segments, making the Virginia industry more capable of surviving in a competitive era.
- d. Changes in size and numbers of poultry flocks providing for more economical production.
- e. Increase in average egg production and improvements in efficiency of broiler production, with cost figures.
- f. Increase in quality of poultry products moving through Federal-State grading and inspection.
- g. Numbers of participants in the Youth Program, entering and completing work projects, together with an evaluation of the quality of work accomplished.
- h. Degree of successful participation of Virginia Youth in regional contests.

VI. PROJECTED PROGRAM NEEDS

If Virginia is to survive as a major poultry production area, in the face of existing competitive forces, many improvements in operation must be accomplished. Because of the presently functioning organization, vertical integration seems not to be the most desirable development for Virginia's future; however, some system must be adopted to achieve efficiency of production comparable with

that obtained through vertical integration. It is believed these advantages can be obtained through a "coordinated specialization" program throughout the State. Under this system, ownership of each phase of operation would be retained by the individual involved, but through complete coordination of activities maximum efficiency could be attained. It is believed much progress in this direction will be made throughout the coming years.

Improvements must be made in management practices. County agents, feed servicemen and others who advise or supervise flock owners will have to know, and be able to pass on, efficient, practical practices which will cut costs of production and improve quality. Average egg production will have to reach or exceed the national average, currently about 12 eggs above the Virginia average. A steady supply of high quality products in volume must reach markets already in existence and those to be developed. Broiler production must be expanded into larger more economical units with more labor saving equipment being utilized. Better breeding stocks, better feeds and improved methods of disease prevention and control will be developed as we stay competitive.

Better quality must be reached in all products. The consumer is becoming increasingly quality minded and through the medium of the mass purchasing power of chain store organizations, her wishes are becoming demands. Considerable emphasis will have to be placed upon better handling and storage methods in the future.

General consumption of poultry products will have to be encouraged. Efforts will be made to more effectively acquaint consumers with the high nutritional value of eggs, broilers and turkeys.

A better system for reporting market prices on poultry is needed, as well as better marketing procedures. Increased use of auction sales may be a means of improving the reliability of market quotations but this would be difficult to attain. In contrast to the auction method of selling broilers, the consignment of the flocks, when day-old chicks are started, to a processing plant when grown is now being used to some extent. Market prices received for a consigned flock usually carry a small premium, but the difficulties of determining market prices are inherent in this method also.

When broiler growers were paid under contract arrangement based solely on production efficiency, the selling price was of no concern to the grower. Now (since November 1, 1938) payment to

Virginia broiler growers is more dependent upon the market prices; therefore, methods of determining this market prices have become again a matter of concern to the grower.

Increased emphasis will also be placed upon improving the Youth Activities Program. Youth projects will be made more interesting and more realistic in view of the changing industry patterns. Good early training and experience helps prepare poultry-minded youth for a future with the industry, as well as to become better citizens. The need for young trained men to enter the poultry industry is acute and measures will be taken to increase interest among youth in the excellent opportunities available in the field. The number of majors in Poultry Science at the college level will need to be increased to help meet this pressing need.

These developments will tax the energies of the Poultry Extension Service severely and offer an excellent opportunity to render valuable service. Close cooperation between Extension, Research and the Poultry Industry will need to continue and to improve, if the best possible job is to be done.