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A. Extension Organization and Program Planning

Countywide organizations cooperating with Extension Service and special interest groups sponsored by the Extension Service have been involved in County Extension program planning since 1947. Effective programs have been planned, objectives selected and goals attained through group planning. Thus, increased meaning and value are given the work by the public.

Guidance to the program has been given by specialists by furnishing statistical and background material and in coordinating State and Area programs involving producers and participants in other counties.

Major lines of work included in program planning for the year were: Planning, in Service Training of Agents, Crops, Livestock production, dairy and Marketing and Distribution, Poultry, Forestry, Wildlife, Planning and Management of Farm Businesses, Farm Buildings and Equipment, Landscaping, Ponds and Irrigation, and Community Development constituted the major activities. Year-H club work received major emphasis of a full time assistant agent, with special assistance from the agent on livestock projects and overall planning.

B. In Service Training of Agents

T. E. Taber, III, Assistant County Agent, was selected from the West Central Extension Service District to attend a special three weeks Short Course at the Northeast Regional Extension Summer School at Cornell University at Ithaca, N. Y.

Mr. Taber attended a course in Animal Nutrition, including problems of livestock feeding connected with modern developments in manufacturing and raising livestock feed rations under Dr. R. G. Warner, Professor of Animal Nutrition at Cornell. Also, had a course in Leadership Development.

William J. Richmond accompanied Harold Walker, Farm Management Specialist, to other counties to visit farm management demonstration property to attending a Farm Management School for assistant agents assigned to Farm and Home Management Pilot Counties. Problems were assigned during this school to work out farm management recommendations on two farms in the county, leading to actual assistance to those operators in collecting enterprises and assistance in their management.

These problems were worked out for H. B. Whitlock of Elletts Creek Community and Carl Webb of Mr. Taber Community.

This training will prove of great value in assisting other individuals in collecting the proper enterprises that will tend to

eliminate disappointing mistakes and result in more profit and satisfaction from farming.

The agents attended the second District Communications School in Roanoke, January 26-28, at which recommended writing practices were taught, and the Virginia Bankers' Association meeting at Natural Bridge, March 6-9, at which the outlook and general economic situation were discussed by outstanding authorities, giving the agents valuable information on which to base programs and recommendations.

C. Crop Production

Major emphasis in crops has been on hay and other forage and pasture since the topography and types of soil are best suited to these crops and they are practically all fed to livestock. Except for very minor acreages of tobacco, tomatoes for canning and early vegetables, practically no row or cultivated crops are grown for sale directly. Therefore, to teach efficiency of crop production for livestock feeding was the main objective of the Agronomy Committee plans. Long time goals have been to increase the inadequate 16 pounds of hay equivalent per animal unit to the more adequate figure of 24 pounds per day.

Following the Agronomy Planning meeting, a combination meeting sponsored by the Agronomy Committee was held with the cooperation of the Dairy and Livestock Committees for all livestock and dairy farmers in which Agricultural Engineering, Dairy and Agronomy Specialists gave a program devoted to balancing machinery to crop and forage needs for the optimum number of animal units.

As a follow up, a special effort was made through all communication media to get county farmers to attend a joint program of animal and dairy husbandry, agronomy, agricultural engineering and agricultural economics departments at the College during the Institute of Rural Affairs at which machines for materials handling, harvesting, storing and feeding were demonstrated. Approximately 25 farmers saw this demonstration during or after the Institute.

Special emphasis was given the Agronomy program by emphasizing through news articles, ten suggestions for increasing the feed supply published by the Extension Agronomy Department, partly as a drought measure, but including good agronomic practices as follows: (1) Making silage of corn, (2) Seeding winter pastures, (3) seeding small grain in lespedeza or alfalfa stands, (4) Fertilizing small grain fields, (5) Topdressing pastures in July and August, (6) Topdressing grass meadow with nitrogen, (7) Topdressing alfalfa, (8) Grazing alfalfa, (9) Concerning a portion of pasture after topdressing with Nitrogen for late fall and early spring grazing, and (10) Seeding Sudan or Pearl Millet for supplemental grazing, silage or hay.

Alfalfa production was especially emphasized for all dairymen to help bring up the forage available to livestock as well as to combat the tendency to quit growing this crop due to alfalfa weevil damage and the added cost and danger involved in the use of heptachlor. In all, a total of nine news articles and circular letters were published in the newspapers and on three radio stations on this topic, with the result that seed dealers stated that more than the usual amount of alfalfa seed was sold during the seeding season.

In addition to the usual emphasis on pasture improvement and fertilization through all communication media and work with A.S.C. committees and S.C.S. technicians, special emphasis was given to improvement through weed control. This was further emphasized by the spread of Black Thistle in this and adjoining county, which created much concern on the part of livestock producers.

Specialist assistance was secured from Allen Kates, Extension Weed Control Specialist and Mr. C. R. Willey, State Entomologist. A joint meeting was held for both counties and approximately 100 interested farmers attended. The control measures were outlined and the law was interpreted. While it is too early to report any results, the educational value of the discussion will result in checking this pest, it is believed.

Seed, feed, fertilizer and farm machinery dealers have all made valuable contributions to the program through attendance at meetings, displaying posters, publicizing, seeding and fertilizing recommendations and in furnishing machinery for demonstrations.

Tabulation of actual results is possible for the report, but the 1959 census report just received shows an increase of 2189 acres of alfalfa for the last 5 years and other pasture forage improvements as follows: Increase in acres fertilized 975; acres on which fertilizer materials were used 19,369; and increase in tons of lime used 814.

We believe through planning and study of the situation that we are continually developing a formula for providing the forage necessary for the animal units of the county.

Timely material was sent to 44 tobacco producers and Vegetable Gardening bulletins were sent monthly to Professional Workers, Home Demonstration Club Garden Leaders, 4-H Garden Project members and individuals.

D. Livestock Production

As pointed out under Agronomy, livestock production and marketing is a major factor in the agricultural economy of the county, and a definite problem is efficiency of production by all producers. There is a good outlet for all the cattle we can produce

and we have all the potential factors for production - topography, climate, grasslands and much mechanical and marketing equipment necessary. Efficiency therefore is the limiting factor to profit.

Objectives of the livestock committees are to improve this efficiency by cooperating in the Agronomy Committee's plans for improving forage production and improving the quality of the animals through breeding and management.

A long-time overall goal is to market only good and choice grade cattle that will pay a profit over production costs.

To begin the Beef Cattle Improvement program, Dr. E. C. Turner was contacted and both beef and dairy committees agreed to assist in this conducting parasite control measures. With the assistance of Dr. Turner and the agent, each committee agreed to carry out one of several materials aimed particularly at finding a satisfactory method that could be recommended for the control of face flies. This became an educational program that resulted in asking farmers "parasite conscious".

Supplementing this the agent sent a circular letter to all livestock producers with a sketch of a back rubber, one control measure for flies on cattle and enclosing an Extension leaflet giving more details.

Observation indicates that about 90% of beef cattle grazing ranges have one or more back rubbers, which give almost 100% control of horn flies. In addition, pictures have been made and published in local newspapers of these measures in operation. Many operators have used Pharmacoblending for internal parasites as well as Or-Bal and Trolene for control of cattle grubbs and heel flies.

It was observed during the feeder sales that those calves coming from herds in which parasite control measures had been taken, that flies would not change from treated to untreated animals and that the treated animals usually appeared in better condition which tended to help their grade.

1. Beef Cattle Production

A Beef Cattle Field meeting was arranged jointly by the agents involved in the Dublin Feeder Sales area, at which over 200 calf producers in the Dublin Special Feeder Calf Sale area attended the first Feeder Calf Field Day held at the farm of Mr. G. Mrs. G. W. Litten near Ballypore in Paleont County, Saturday, August 27.

The Litten herd of 100 Hereford cows and 6 bulls has been producing mostly fancy and choice grade feeder calves of good weights.

Mr. William Guthrie, President of the Dublin Hereford Feeder Calf Assn., was Master of Ceremonies and he introduced those who had parts on the program beginning with Dr. R. C. Carter, who listed the 4 factors to look for in selecting a bull, genetics, rate of gain, heritability prepotency and size and conformation.

Curtis Mast discussed, Improvement through culling the cow herd based on performance of the calf, weaning weight and age of the cow.

A. L. Eller, Instructor in Animal Husbandry at V.P.I., discussed Selection of replacement heifers from calves produced in the herd. Rate of gain, size, milking ability of the dam and general conformation were some of the factors mentioned.

K. C. Williamson, Beef Cattle Marketing Specialist, assisted by H. H. Shelburne, demonstrated points determining the differences in the grade of feeder calves, fancy, choice, good and medium.

Tillman Hepler, County Agent of Montgomery County, demonstrated dehorning and castration of calves and pointed out that it was part of the function of agents to teach farmers to do the management practices that they can do themselves, save money and to get enjoyment from handling their herds.

Rad Holpp, County Agent of Giles County, prepared the beef barbecue which was served following the program and this was said to have been the best ever eaten by all present.

Mr. Tillman Subanser, Manager of Corner Prairie Farm, Noblesville, Indiana, arrived by airplane to speak on the subject of "What the Cattle Feeder Wants." He said he wasn't interested in looks or conformation, only in profit from gains in the feed lot. He said he preferred larger calves with less fat and a feed conversion as near 6 pounds of feed per pound of gain as possible - or smaller.

It was the consensus of opinion that the field day had pretty well summed up the factors necessary to producing feeder calves as a profit.

Data was collected from the sales at Dublin and Homosha including the average weights, grades and prices as well as names of local county buyers. These marketing cattle are urged through all communication media to attend local purebred sales and to purchase the best quality bulls available. Also breeders of purebred animals and commercial feeder calf and cattle producers have given assistance in marketing or purchasing bulls and other breeding stock. Considerable study has been made by the agents regarding acceptable pedigrees and this information given to prospective purchasers.

2. Dairy Production

At the top of the list of sources of agricultural income is milk sold - \$1,653,264.00, up almost \$500,000.00 from 1954. Therefore, this commodity and the cattle producing it received major emphasis in the program.

As a basis for this emphasis the information set forth below was given dairy committeemen, and published through all communications media.

A group of outstanding Montgomery County dairy farmers met in Christiansburg and heard Extension Specialists discuss factors in farm management that would tend to help bring about an economical balance of crops, machinery and dairy cows, and therefore, more efficiency in production to give greater profits from milk.

Mr. John Shoulders, Associate Extension Agronomist, illustrated the efficiency of feed production in units of total digestable nutrients (TDN) from various sources as follows: Cost of 100 pounds of TDN from permanent pasture \$1.00; Sudan and Pearl Millet \$1.30; Corn Silage \$1.45; Alfalfa Hay \$1.80; Grass Silage \$1.85; Mixed Hay \$1.90; Mixed Grain \$2.30 and Purchased Feed \$5.00.

Mr. Shoulders showed that by studying the growth periods of forages and mixtures, the TDN from these sources could be greatly increased to supply the maximum TDN for each cow to reach top production.

Dr. Vernon Baldwin, V.P.I. Dairy Specialist showed that as the amount of good quality hay was increased, the amount of grain decreased that is needed by cows to produce 40 pounds of 4% milk. These amounts vary from 22.5 pounds of poor quality hay and 16.3 pounds of grain to 45.0 pounds of excellent quality hay and 1.33 pounds of grain.

Dr. Baldwin also discussed the forage costs for various sizes of herds and systems of harvesting, storing and feeding, including System No. I, consisting of all corn and alfalfa silage in which a total of 490 tons would be needed for a 40 cow herd using 42.2 acres; System No. II of 1/2 silage and 1/2 hay which used 348 tons from 42.2 acres; and System No. III all hay using 178 tons from 50 acres.

Factors to consider were, availability of suitable land, labor supply and machinery needed. In comparing these systems total costs ranged from \$3,833 to \$5,282 in a 40 cow herd and from \$7,163 to \$9,938 in an 80 cow herd with the variations due to the machines necessary.

Mr. Basley S. Smith, Associate Extension Engineer, also discussed the economics of machines needed under each system, or combinations of all systems. Mr. Smith listed the modern machines now available for all necessary operations including hay conditioners, vagon and truck unloaders, self feeding chopped hay keeper with artificial drying equipment. This method can be a solution to many hay making problems including machine and labor costs; time required and weather, according to Mr. Smith.

In addition to methods of harvesting, methods of storing and feeding hay and silage discussed included bunk and tower silos and chopped and baled hay, self fed or mechanically unloaded.

T. M. Napier, County Agent, suggested a tour to some dairy farm in the State where most of these operations and machines could be seen, as well as, a local field meeting in which local farmers and machinery dealers might cooperate. The specialists agreed to assist in this program.

This meeting was only an introduction to many of the problems. Plans of the Montgomery County Dairy Committee are to follow up with tours, field meetings and discussions. The object of this program is to help produce milk more efficiently - not just more milk.

Most of the information and plans presented in this meeting will be continued in the program in future years to further increase efficiency of production. Following this meeting, many of the county dairymen saw the forage feeding and materials handling equipment mentioned in this meeting at the forage handling demonstration at V.P.I. during and following the Institute of Rural Affairs where the same specialists and others discussed and demonstrated these methods.

New Grade A Producers - Perhaps the most significant development in dairying in 1960 was the addition of eight Grade A milk producers on a new route started in the county by a Farmers' Cooperative Milk Marketing Association operating in Maryland and Virginia under a Federal Milk Marketing Order.

These men were given assistance in locating and constructing "Grade A Barns" and in securing other equipment. A complete dairy farm layout was conducted with the assistance of Coop Fieldman and the County Agent of Campbell County where the farm is located. Four of these who built or plan to build, made the trip, to get the most up to date information available before starting to assemble their building materials.

3. Sheep and Wool Production

In order to promote better sheep production practices and attain the goal of 8,000 breeding ewes in the county, the Returns-Per-Ewe Contest was repeated as in former years, with only four producers completing and submitting required records. The returns of each are: O. A. Souder, 22 ewes, Returns-Per-Ewe \$30.98; R. L. Hutt, Jr., 60 ewes, Returns-Per-Ewe \$26.68; David Walker, 29 ewes, Returns-Per-Ewe \$23.26; George Toney, 47 ewes, Returns-Per-Ewe \$24.01.

The County Contest is sponsored by the Wool Pool. Demonstrations in parasite control and sheep shearing were conducted with 4-H flock project members and adults requesting assistance. Billy Seaggs placed second in the State Sheep Shearing Contest.

All communication media were used to contact and encourage sheep producers to control parasite and deak and castrate lambs. A report on dog control was given at the annual sheep production meeting by the local dog warden. The annual Ram Sale was held at the local market assisted by Animal Husbandry Specialists. Pictures of sheep management practices and sheep killed by dogs were published.

According to the 1959 farm census, sheep numbers have increased from 3316 to 3675 ewes kept for breeding; wool from 21,306 pounds to 26,238 pounds. Lambs sold remain about the same since many ewe lambs are being kept as ewe flock replacements.

4. Swine Production

At a joint meeting of sheep and swine producers, Dr. C. C. Brooks, professor of Animal Husbandry at V.F.I. gave the outlook on swine and commented on developments in swine breeding and marketing.

A representative of a food company explained a contract feeding program being offered farmers in the Rousek Area. Mr. Jack Wimmer of Lafayette has such a contract in operation with fifty ewes and at present 350 feeder pigs on feed.

Specialists assistance has been secured from the Extension Swine Specialist and Agricultural Engineering Specialist on water supply.

5. Poultry

Poultry Foliets published by the V.F.I. Extension Poultry Department have been distributed monthly to all poultry producers on the mailing list. Little interest has been shown in efforts to encourage commercial poultry production except in farm flocks for home consumption, though it is thought that a good potential market exists for locally produced eggs if produced in sufficient quantity to adequately

supply the market needs.

E. Marketing Distribution and Service Organization

1. Feeder Cattle and Feeder Calf Marketing Associations

Through Special sales at Dublin and Rossmore Livestock Markets, a total of 191 steers was marketed in which the agents involved assisted in getting the cattle consigned and prepared for market, which included notices of sale dates, sales group and state annual meetings, and in receiving the cattle at the market. A total of 573 feeder calves was marketed through two sales at Dublin and one at Rossmore. In addition to associations mentioned with yearling cattle, ear-tags and placers were secured and distributed to all consignors to the Dublin Feeder Calf Sales.

A special letter was written to certain prospective buyers in all feeding areas inviting them to the sales and advertising notices were run in all local papers and on radio stations.

Demonstrations in special sales for feeder cattle have had a great effect on the cattle business in the county. Except for them, many farmers who could not have changed to milk production would have been forced out of business, whereas, with the inducement of cereals and other feeding areas buyers into our markets, family size farms can continue to operate by pooling calves and yearlings in sufficient numbers to make them attractive to those buyers.

This has resulted in the increase in number of beef cows in cow-calf herds from 3,764 in 1954 to 4,500 in 1959, and the end is not yet in sight.

2. Purchased Beef Cattle

Purchased beef cattle producers have been assisted with fitting and marketing purchased bull and heifer calves particularly at Dublin New River Hereford Sale and the Blue Ridge Short-horn Calf Sale.

As a part of the Field Day program Mr. Bohamer was secured to give the feeder producers the feeder buyers' viewpoint as an added help in their supplying this demand as nearly as economically practicable.

Another effort sought was the familiarization of the cerealist feeder with the availability of Virginia calves and the promotional value it may have in inducing more buyers from that area.

3. Milk and Dairy Products Marketing Association

A meeting of Grade A Dairy operating under the State Milk Commission Marketing system was attended with members of the Roanoke market area who produce milk in Montgomery County, in which a discussion was heard on the topic of inspection by health authorities versus State Department of Agriculture inspectors.

Other meetings of the members of the Montgomery-Radford-Pulaski-Giles area were attended in order to be familiar with marketing problems. The local members of the North Carolina Milk Marketing Association were assisted in their annual meeting and arrangements were made with a local community club for a dinner meeting for this group.

Aside from assisting the fieldman of the "Grade A" Maryland-Virginia Coop in contacting producers who had shown a desire for membership, no marketing assistance has been given this new group whose milk is sold cooperatively at the highest price available each month and the producers are paid a "blend price" which is the average for all sales for the month. Approximately 1,000/541150 lbs. are being picked up by the Coop in tank trucks.

4. Manufactured Milk and Cheese Plants

Persons of two manufactured milk companies and a cheese plant have been contacted and given general assistance through the circulation of a questionnaire originating from the Dairy Science Department at the Agricultural College. Over two hundred of these questionnaires were returned and will form the basis of recommendations for assistance to this group of milk producers leading possibly to increased efficiency in both production and marketing.

5. The Local Artificial Breeding Association

This association has been assisted in public-relations, membership and other problems and in its relationship with the parent or State organization. Assistance has been given by recommendations to producers to adopt this practice as a means of improving the economics of the dairy enterprise.

6. The Local D.H.I.A.

This association was also assisted with membership and educational meetings and financial problems.

6. Wool Pool

Members of the Wool Pool were assisted in pooling the annual clip, along with surrounding counties and making a sale through secret bids at a Sales meeting arranged for on an area basis, where all known buyers were invited and given the opportunity to bid on any pools represented. The agent assisted the Directors in meetings at which they decided to participate and in attending the sales meeting. After the sale the agent arranged for loading dates and weighing, bookkeeping, repacking and loading the wool. A total of 45,000 pounds was loaded at Christmansburg, consisting mostly of Montgomery and Craig county wool. A net price of 58¢ was paid for clear wool. This has been a very satisfactory operation for all concerned and it is believed that this selling method resulted in from 5 to 10¢ per pound advantage over what might have been received by county pools having to sell individually.

F. Soil and Water Conservation and Management

The A.S.C. Committee held monthly meetings which were attended by the agent for the purpose of reviewing practices and recommending changes and additions. Assistance was given with publicity and practice sign-up drives. A summary of practices carried out under this program are as follows:

Improving permanent cover - 315 farms, 3,973 acres; 2,474 tons lime; 22,675 cut fertilizer.

Establishing permanent vegetative cover - 165 farms, 856 acres; 1,201 tons lime; 8,764 cut fertilizer.

Planting trees or shrubs - 6 farms, 44½ acres (44,000 trees);
Livestock water reservoirs to improve grassland management - 4 farms, 4 structures;
Controlling pasture shrubs with chemicals - 1 farm, 25 acres;
Pipelines for livestock water - 1 farm;
Constructing permanent open drainage systems to dispose of excess water - 3 farms, 28 acres drained;
Installing underground drainage systems to dispose of excess water - 4 farms, 20 acres drained.

Special meetings were attended with local civic groups and S.C.S. personnel in connection with a Watershed Flood Control project on the South Fork of Roanoke River, originating in the committee on Parks and Recreation of the Montgomery County Planning Commission and sponsored by the County Board of Supervisors.

S.C.S. personnel have made surveys and located dam sites and the project has been approved by the Federal S.C.C. officials.

With the expenditure of local funds this operation can be enlarged so as to make recreational facilities such as boating and camping a possibility.

Approximately 14 tons of fertilizer materials were secured for two TVA Unit Demonstrators for 38 acres of alfalfa, 23 acres of pasture and 4 acres of crops.

G. Forestry

A total of \$21,033 worth of forest products was harvested from the 47,447 acres of forest land on farms in Montgomery County in 1959. The acreage pastured decreased from 23,011 acres in 1954 to 19,084 in 1959, or a decrease of woodland pastured of 3,927 acres.

Forty-four thousand seedlings were set out under State Forestry Service supervision in the A.S.C. program, while a total of 91,400 seedlings were planted according to Forest Service records.

An educational meeting was held with the assistance of Carl Holcomb, Extension Forester, at which the following program was given:

Election of Officers

"Timber Tales", a color moving picture made in Montgomery County showing profitable forestry practices for farm woodlot owners.

Progress and Recent Trends in Lumber Grading, by Carl J. Holcomb, Extension Forestry Specialist, V.P.I.

A.S.C. Forestry Practices for Montgomery County in 1960,

L. H. Gardner, Chairman, A.S.C. Committee and K. B. Humphries, A.S.C. Office Manager.

Forestry committeemen, sawmill operators and farm woodlot owners attended, as well as, Forest Service officials.

Some results of the forestry program in the county obtained from the District Forester's office given below, indicate the effects of the cooperative education program.

	<u>Units</u>	<u>Acres</u>
No. seedlings planted	91,400	92
New landowners given assistance	21	342
Volume of timber marked (M/Bd.Ft.)	115	53
Volume of pulpwood marked (cords)	64	21
Number of fires	14	52
Average acreage per fire		4

H. Wildlife

Farmers and Sportsmen cooperated to preserve wildlife through the bad weather. The Montgomery County Board of Supervisors made feed available to sportsmen and farmers who agreed to distribute it where it would be found by quail and other game and song birds, at the following Feed Stores; East End Seed and Feed Company, Christiansburg Fuel & Supply Company, Big Spring Mill at Elliston and Blacksburg Feed and Seed Company. In addition, the employees at the Appalachian Electric Company donated 175 pounds of feed for this purpose.

Many farmers, rural citizens and sportsmen fed wildlife themselves.

Precautions were taken to prevent crows and starlings from eating the feed by placing it under brush and in sheltered places near woods and where the quail will not become prey to snakes, skunks and hawks while eating the feed.

I. Planning and Management of the Farm Business

Individual assistance has been given farmers purchasing farms in the county and to those contemplating changing or adding enterprises. In addition to those requesting assistance, we have taken names from published notices of transfers of real estate in local papers in order to make other contacts where assistance might be welcomed.

Other assistance has been given in this phase to owner tenant agreements and contracts through individual office visits, phone calls and written requests.

During the absence of an assistant agent in Farm and Home Management, contacts were made with 62 members of this group previously worked with. Farm plans have been drawn up for two new cooperators.

W. J. Richmond filled this vacancy as of August 1, and is in the process of revising the procedure in the approach to this phase of Extension work.

J. Farm Buildings and Farm Mechanical Equipment

With the creation of the Maryland-Virginia Milk route in the county, nine new Grade A milk handlers built new milking parlors or stanchion barns, purchased bulk tanks and some pipe line milkers.

The Extension Farm Building Specialist was secured to visit each of the prospective dairymen. Building sites were first located, type of plans decided upon, after which a day was scheduled for conferences with those starting to build. This

was followed by another tour of the farms to check on changes and general progress. Four of these producers were ready by September 1 and the remaining 5 began production by October 1, which was the deadline for acceptance under the Grade A marketing order.

The Coop fieldmen supplied information on bulk tanks, milker compressors, motors and bulk tanks and installed the tanks purchased through the Coop Supply Service.

State Department of Agriculture inspectors supervised the sanitary and regulatory requirements in making these installations.

Many other miscellaneous items of assistance were given. A roadside market was equipped with a cooling system, approximately six home owners were assisted with information on installing water systems, numerous plans were loaned for general purpose barns, machine sheds, poultry houses, chaffers and equipment for cattle, sheep and hogs, buck rubbers, salt and mineral boxes for livestock, parasite control, proper nutrition, spray equipment for crop and livestock pests, and seed and brush spraying.

K. Horse Surroundings - Landscaping Home Grounds

The Landscaping Specialist was secured for approximately 20 families and organizations to assist with selection and care of shrubbery, lawn arrangements and insect and disease control. Also landscape notes were mailed to professional workers and community organizations.

L. Feeds and Nutrition

This agent assisted the home agent in weight reduction through proper nutrition program by cooking before and after pictures of the participants. This was a part of an overall Extension program to encourage better nutrition in the county through use of more meat and milk in the diets from those food items produced in the county and to help promote the sale of more of these products.

To run the countywide program, Dr. R. W. Engel, Head Bleach-lactery and Nutrition Department, V.P.I., was secured as guest speaker at the Montgomery County Board of Agriculture meeting, at the Balmain Community Improvement Center, where 26 members and guests were present. Dr. Engel spoke on Nutrition Around The World.

He pointed out that 60% of the people of the world do not have enough food to eat, and 40% have more food than they need. In the Philippines, the average person may have one egg every 12 days and one pound of meat per month. He stated that many of the people around the world are small, not because they are a small

rate, but because they do not have proper nutrition.

Dr. Engle explained U.M.I.C.E.F. program - "Democracy is a more desirable way of life than a dictatorship" - our reason for trying to help other people in their problem of food and nutrition. He also said we are way ahead of the Russians in agriculture.

The County Agent spoke briefly on "Marketing Agricultural Products" and urged use of agricultural products produced in our county for better nutrition. He commented on the growth of the Board of Agriculture from about 12 members in 1946 to the present 43 committees, organizations and related groups. He mentioned the feeder calf marketing program, and the two billboard signs erected during the past year on milk, by the Montgomery-Palmetto-Giles Milk Association.

In agriculture are we doing enough advertising? He stated that we have not yet scratched the surface on the advertising and marketing of our products here in the county.

Mrs. Kate Keesee Hoge, Home Demonstration Agent, spoke on the County Nutrition and Weight Reduction Program. Mrs. Hoge commented on the meals served, products grown in the county such as; meat, milk, vegetables, fruit and cheese. These are home grown and of nutritive value.

Mrs. Evangeline Spain, Assistant County Home Demonstration Agent, spoke on the 4-H program, stating there were over 700 4-H club members in the 20 clubs in the county, with an average of 2 projects per member.

T. E. Taber, III, Assistant County Agent, spoke on the county-wide 4-H project - Health, and listed several ways club members have been instructed in this project, as follows: 1. Make a list of things to do to improve their health, 2. Information on proper method of garbage and trash disposal, 3. Control of rats and mice, 4. Improve method of handling milk and dish washing, 5. Pest Control, 6. Equine medicine check, 7. Toec wear supply, 8. Planning adequate meals, 9. Care of teeth. Taber also asked adults to encourage children to eat fruits and drink milk.

K. Community Development and Public Affairs

Community Improvement - Two committees were assisted with plans and programs in County and Area Improvement Contest. Judges were secured and assistance was given in conducting a tour of the communities at the time of judging. The Palmetto Community won first place and representatives of the local Chamber of Commerce donated prizes of \$40.00 to the first place community and \$30.00 to second. This was done at regular club meetings following the contest and pictures were taken and news stories written and published.

Polmont Community won an additional \$50.00 in the Area Contest. This together with the local prize and the proceeds from cane sales and apple butter sales enabled the community to pay off the note on their community center building.

Recreation Survey - Planning Meeting

Members of the Montgomery County Extension Service Board met in the Directors' room of the First National Bank in Christiansburg, October 13, to consider a request from the Montgomery Planning Commission to assist in considering a survey to determine the recreational needs and desires of the county people and the county's resources for providing these needs.

The agent opened the meeting and stated the purpose- that of planning for adequate recreation and facilities. He cited the waste of all other resources that took place in the early development of the county, due to lack of planning and forethought, the increased cost of materials and of rebuilding soil fertility due to their depletion and pointed out that human resources also could better be conserved through properly planned recreational facilities. Increased population will bring about greater competition for remaining available areas for recreational facilities. Development of plans for adequate recreational facilities is part of a master plan being set up by the County Planning Commission with the general purpose of guiding and accomplishing a coordinated, adequate recreational plan for the county.

The agent turned the meeting over to Mr. L. B. Hutter, President of the Extension Service Board, which includes the leaders of all County Extension organizations and other interested organizations, both rural and urban.

Mr. Hutter explained the overall purpose and background of the Planning Commission of which he is also a member, and how the work of the two groups might be coordinated. He pointed out that the main interests and goals are the same- that of proper use of all resources through thorough and timely planning.

Mr. Hutter then opened the floor for discussion.

The agent next introduced Mrs. Kate Bates Hays, Extension County Home Demonstration Agent who defined recreation and explained its various categories that are suited to all age and special interest groups. Recreation is anything you choose to do in your leisure time which gives you refreshment of mind and body and satisfaction of spirit, which may be done alone or in groups. In concluding her talk, Mrs. Hays asked, "What recreational facilities do we have in Montgomery County? What do we need? What do the people want?"

After the matter of the questionnaire was discussed by everyone present, the group voted unanimously to assist with the survey after the questionnaire has been prepared by officials of the Commission and Planning Committee.

A Survey Committee was then appointed as follows; Mrs. J. T. Lucas, Chairman; Mrs. Roy Collins, Mrs. George Fowley, Mrs. Wayne M. Banks, Mrs. Ludlow Tenny, Mr. P. L. Cecil and Mr. C. R. Workman, who will develop the survey assisted by Mrs. Grubbs, Mr. Netter and Extension Workers.

H. Summary of Extension Influence

The preliminary 1959 farm census sheet lists 1003 white and 17 non-white farm operators on 1020 farms in Montgomery County. It is believed that through individual assistance, through office and farm visits, phone calls and letters, and assistance to groups through meetings and all other communication media, a majority of these people have been reached. A study of the changes made since 1954 indicates that these have been for the most part in the direction of recommendations based on information disseminated from the Land Grant College through the Extension Service. Smaller acreages but higher yields, fewer dairy cows but more milk per cow, fewer beef cows but higher grades, fewer sheep but more wool and lambs, etc., etc.

It is recognized that economic situations affect both farmers and agricultural personnel in the same way. However, the most repeated questions coming from farmers to county agents are those pertaining to outlook information concerning the agricultural products of a county. Equally as frequent are questions on production and marketing. Therefore, we conclude that most people are influenced in their plans and activities by the answers they get from the Extension Service. It is quite probable, too, that most questions come from those who do not actively participate in any of the many community and commodity programs conducted with Extension assistance. These requests for individual aid and information tend to round out the sphere of Extension influence, the basic framework of which is in the plans developed by the agents from programs developed with the assistance of leaders of all economic and social groups.

G. Cooperation with Other Public Agencies

Meetings are scheduled each year with the assistance of the Farm Management Specialist, to assist persons who assist others in filling out Income Tax and Social Security forms. Also names of those people who usually do this work are submitted to this Specialist who participates in state and area meetings.

Farm Credit Administration personnel usually attend farm planning and demonstration meetings held by agents.

The Farmers Home Administration, S.C.S., Ve-Agricultural Teachers and Extension Agents, all participated in contacting prospective members of the Milk Marketing Coop in getting the route established in the county.

There is a two-way flow of information between local headquarters of Rural Electrification Administration and the Extension office.

The T.V.A. supplements the A.S.C. program and pioneers in the development of better fertilizer materials and their use by Farm Unit Demonstrators.

The Health Department cooperates in having water samples tested from new wells, supervises fluid milk sanitation, coverage disposal, etc. in connection with new dairy barns, etc.

The Highway Department cooperates in the Muck Thistle Eradication program and with community clubs and individual property owners in clearing rights of way of brush and noxious weeds.

The State Department of Agriculture and Forestry both cooperate in regulatory and educational programs respectively as they effect Extension programs and vice-versa.

Soil Conservation Districts hold rotational meetings in the counties of the District in which the agents participate.

Ve-Agricultural teachers cooperate in their communities in the adult county-wide programs carried on by Extension agents.

The relationship with all civic groups in the county is excellent. A group in Radford sponsors a 4-H Forestry Contest, while another in Christiansburg sponsors a 4-H Grade Bee Flock project, while another contributes supporting bids on 4-H club steer projects at the annual sale, and approximately \$1,000 is contributed to this project each year by business firms. The local Chamber of Commerce sponsors the Community Improvement Club Contest. The local Banks underwrite expenses of adult local 4-H leaders to their annual conference at Natural Bridge.

P. 4-H Clubs

An active 4-H Club Council meets 2 to 3 times a year to plan the overall 4-H activities in the county which includes; National 4-H Club Week, County Contests, District Contests, Field Days, 4-H Achievement Day and County-wide project for the coming year.

A Senior 4-H club serves the purpose of keeping or helping keep the older youth interested in 4-H club work. This is done by

holding meetings monthly that are in keeping with the desires and needs of such a group. The meetings usually consist of formal opening, short business session, a speaker or information of importance to the entire group and followed with refreshments or dancing.

Each individual 4-H member selects his or her own individual projects, with the clubs and County Council making the club project selection.

The needs which were most prominent at the beginning of the year were:

1. More adult leaders and more participation by adult leaders to assist in project instruction and overall club supervision.
2. Ways of keeping older 4-H members interested in club work and activities that would get more participation in local and state contests by these members.
3. Get more clubs and members to take part in Achievement Day Program and Share The Fun Contest.
4. More participation in projects which would be of interest to 4-H club members and their parents, such as; gardens and small fruits.
5. Programs to interest business firms and organizations in lending support to the 4-H program.

Plans to meet these needs:

1. Organize an Adult Leaders' Committee, which would meet at least twice a year to discuss current and long-time 4-H problems.
2. Hold Leaders' Training meeting to provide information on subject matter material needed for project information.
3. Hold an Achievement Record Training meeting to instruct older 4-H members in the proper way to assemble achievement records.
4. More individual contact with business men and organizations to show them the importance of the 4-H program and more public relations work through newspaper, radio and TV.
5. Encourage participation in observance of National 4-H Week, Rural Life Sunday and other National, State and County events.
6. To publish a County Yearbook.

The Goals for 1960 were:

1. Hold a County 4-H Achievement program.
2. One hundred percent project completion.
3. Have at least two County Council meetings during the year.
4. Participate in Montgomery County Fair.
5. Put up more 4-H roadside signs in the county.
6. Observe National 4-H Club Week.
7. Record books up to date in order to be eligible for 4-H Camp.

8. Participation in WSLA Contest.
9. More participation in County and District Contests.

4-H Club Activities:

4-H Club Officers' Training meeting.
Series of Livestock Judging Clinics for all 4-H livestock and dairy members and those interested in judging. This included a trip to Forest, Virginia, to visit livestock farms of that area and judge livestock.

The Rindler Klugele club helped support the county 4-H Forestry program by donating 9100 four prizes which was used at a County 4-H Forestry Field Day. Displays on use of wood were set up by local business firms and 6-olubs. Approximately 100 people came to observe the activities of the day.

The County Council met in February and November. Plans were made for National 4-H Week, Achievement Day and a county-wide 4-H project for the opening of school in the fall. Officers were elected for the new year.

In observance of National 4-H Week, the following programs were carried out: 4-H members gave program at meeting of Klugele Club; held a County 4-H Senior club meeting; held a 4-H County-wide Fallomble Banquet, with approximately 150 attending; and held a 4-H Sunday Herdship Service.

A county-wide 4-H Public Speaking Contest was held in May with approximately 15 participants and 25 adults attending.

A Sheep Shearing School for 4-H sheep project members was held and a Shearing Contest at the County Fair. One of the boys was second place winner in the State 4-H Sheep Shearing Contest.

The Agricultural Exposition at V.P.I. was attended by members of the livestock and dairy judging teams.

District contests were entered by the livestock and dairy judging teams, also sheep shearing and tractor driving contests. Harry Beavers won the District Tractor Driving Contest. Livestock Judging Team was second in the District.

Two 4-H Club members attended Electric Congress in Richmond. Eleven members and one adult attended Senior 4-H Camp at Virginia Beach.

Two 4-H county clubs participated in the WSLA Club Improvement Contest.

A 4-H County Camp Planning meeting was held with Crofts, Floyd and Montgomery Committee to plan for a 4-H Camp at Hinson, W. Va.

Approximately 103 4-H members and leaders attended camp. It was considered by the leaders as one of the best camps held.

Approximately 25 purebred cattle breeders were visited to secure calves for the baby beef and purebred heifer projects. Local area purebred sales were attended by agents, 4-H member and parents, where six heifers were purchased for 4-H projects.

Thirteen 4-H club steers, 5 purebred heifers and 6 fat hogs will be exhibited at the Roanoke Area Fat Stock Show. Fifty-five business firms supported the sale, with additional bids amounting to over \$800. Montgomery County had the Reserve of the show, Champion Hereford, Champion Shorthorn and Reserve Champion Angus. Montgomery County had 7 of the Top Ten Carcasses at the Roanoke Fat Stock Show. Montgomery County 4-H club members also had the Champion hog and pen of 3 at the show.

The members of 4-H club steers, purebred heifers, sheep and hog projects, exhibited at the County Fairs and were assisted in fitting and showing their animals.

Demonstrations and assistance with 4-H livestock projects were given on problems such as; docking, foot trimming, castrating and dehorning.

Instructions, slides, movies, bulletins and speakers were used for the 1960 Health project. Of the 613 boys and girls taking this project, 548 completed.

Of the progress made toward the goals listed above, a total of 438 agricultural records were submitted for a 74.7% completion of projects supervised by the agents.

Two clubs entered the WSLA 4-H Improvement Contest. Roanoke Road won first, with Blacksburg ME. second.

The County quota attended Short Course, in addition to the livestock, dairy judging teams, and the sheep shearing contestants. Four additional members attended that could commute and attend on a day time basis.

A large number of clubs exhibited at the County Fairs, in all phases of livestock, field crops and other exhibits.

Seven adult leaders attended the 4-H Leaders' Training Conference at Natural Bridge. Local sponsors donated \$100 for their expenses.

Twelve new 4-H adult leaders have volunteered to help with 4-H club work in their respective community. Two new community clubs have been organized. Two training meetings were held for adult leaders.

A 4-H training meeting for 4-H officers was held with local newspaper men and business leaders assisting.

The assistant county agent attended Cornell Extension Summer School where technical information on Nutrition of the Ruminant Course in Digestion, Absorption and Uses of Digestible Nutrients, also Energy Transmission and the Relation of Certain B¹ Vitamins to the Oxidation of Carbohydrates, Fat and Protein.

The assistant agent attended a class in Leadership Development and prepared a paper on Methods and Approach on Leadership.