

NORTH CAROLINA AGRICULTURAL EXTENSION SERVICE

ANIMAL HUSBANDRY PLAN OF WORK
(Name of project)

for

Calendar Year 1961

<u>Major phases of project or subdivisions of project covered</u>	<u>Name of Worker*</u>	<u>Percentage of time devoted to entire project by each worker</u>
In Charge	Jack Kelley	100 Per Cent
Beef Cattle & Sheep	J. S. Buchanan	100 Per Cent
Beef Cattle & Sheep	A. V. Allen	100 Per Cent
Beef Cattle (Performance Testing)	J. W. Patterson	100 Per Cent
Meats	J. A. Christian	100 Per Cent
Swine	J. R. Woodard	100 Per Cent
4-H Club Work	R. L. McGuire	100 Per Cent

Date submitted: December 12, 1961. Signed: _____
Project Leader

Date approved: _____, 196 . Signed: _____
State Director of Extension

Date approved: _____, 196 . Signed: _____
Administrator, Federal Extension
Work, U. S. Department of Agriculture

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

1961 PLAN OF WORK
FOR
ANIMAL HUSBANDRY EXTENSION
IN
NORTH CAROLINA

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I. INTRODUCTION

An abundant supply of feed and favorable prices for beef cattle, hogs, and sheep made 1960 a good year for North Carolina livestock farmers. Most farmers are going into 1961 with the most feed they have ever had and an optimistic outlook for good prices during the year.

The livestock industry is undergoing a change in North Carolina as it is in other parts of the nation. Livestock enterprises are becoming larger and more efficient. The margin of profit per animal unit is decreasing. Hence, many of our smaller, less efficient producers are being forced out of the business. This is a change for the better - yet the small farmer is getting hurt. Efficiency will be more important than ever in 1961.

There is an increasing trend toward specialization. This is evidenced by the increased interest in the eastern

section of the State in buying feeder calves and feeder pigs and feeding them for market. Other farmers are increasing their brood sow and brood cow herds to supply pigs and calves to meet this demand.

Increased emphasis on production testing fits right into the scheme of things when efficiency is stressed. A great deal of time and effort will be devoted to expanding the production testing of beef cattle and swine.

These programs are being promoted to help develop superior strains of breeding animals with better performance - i.e., better mothering ability, better rate of gain, better feed efficiency, and better carcass quality.

The increase in size of both swine and beef enterprises will require Extension Specialists to work with County Agricultural Agents and farmers in planning the type and size of unit which would best fit each farm. Assistance would be given in planning a sound program of operation, proper housing, pasture, buildings, and equipment. Sound management, sanitation, and disease and parasite control will be stressed.

Sheep have continued to make slow but steady progress. The tendency here is the exact reverse of the trend in beef cattle and swine. Most of the sheep expansion has been in

small flocks of breeding ewes added to farms in the piedmont and mountain sections. Improvement in lamb crop and a more effective parasite control program will be emphasized in 1961.

Marketing will continue to take a great deal of the Specialists' time. Expansion in beef, sheep and swine breeding herds have stimulated the demand for better breeding stock. The increased emphasis on quality and production tested breeding stock have also helped create this demand. Both commercial and purebred breeders are working to improve their animals. Assistance will be given in culling and replacing with better breeding stock.

Feeder pig sales, feeder calf sales, lamb pools, wool pools, and fat cattle sales will be used to provide better markets for our livestock and livestock products.

After working to get a quality product produced and marketed, consumer education work will be done on proper selection and preparation of meats. Demonstrations on cutting, curing and storage will also be used as an educational tool. Increased emphasis will be placed on working with freezer locker plants and packing plants to improve buying, processing, and storage of meats.

This will be a year of change for our livestock farmers. Growing pains, specialization, emphasis on quality, low profit margin, and production testing -- all promise to keep our farmers on their toes. The progressive ones will meet the challenge -- others will not. It is the duty and responsibility of Extension Specialists to help North Carolina farmers keep up-to-date in their methods and technology. We must not fail them.

II. BEEF CATTLE:

A. Breeding

The major beef cattle problem confronting the breeders in 1961 will be that of increasing the levels of quality and performance. Animals with the genetic make-up to produce more pounds of economical desirable meat in a shorter period of time must be identified, saved and used for breeding. With the great increase in competition from other meat producing animals, fowls and fishes; beef animals must be bred to do a more efficient and faster job of converting roughage and feed gains into quality meat. The best tool available at this time to solve this problem is a selection program based on performance testing. Every effort will be made to familiarize the County Agricultural Agents and producers in all counties with this program and its applications. At least one demonstration herd will be setup in each of the beef producing counties. Demonstrations on culling, using performance records will be given in counties

where records are available. The entire program will be stressed in county work conferences and state-wide educational programs. The results will be a more profitable and enlarged beef cattle enterprise for our State.

B. Feeding

North Carolina being basically a row-crop State, it has a large supply of pasture, roughage and field gleanings. North Carolina also has over two million acres which are classified as idle or unimproved pasture.

Our main feeding problem is that of getting the maximum use of pasture, silage and row-crop by-products such as roughage and field gleanings.

Emphases will be put on buying cattle to fit the individual farm and the amount and quality of feed available. The possibility of producing more stocker cattle for spring sale will be outlined. The use of grain and grass method of finishing cattle will be stressed. Information on recommended feed additives and hormones which increase the efficiency of feed utilization will be made available to all

producers.

Educational material will be furnished County Agricultural Agents and published through mass media. Method and result demonstrations will be conducted. County programs will be outlined in County Workers Conferences.

The maximum use of row-crop by-products, pasture and silage along with feed additives in a recommended feeding system will result in more cattle being fed with a larger profit.

C. Management

The problems in this area are controlled breeding, disease and parasite control, record keeping and failure to castrate and dehorn.

Controlled breeding and record keeping will be a requirement in the performance testing program; therefore, much attention will be given to this area. Disease and parasite control, castrating and dehorning demonstrations will be featured at all field days and educational meetings. Their value will be stressed in news articles, radio and T. V. shows.

Method demonstrations will be prepared and

presented with special emphasis this year going to internal parasites.

The results from management improvements are much faster than improvement from breeding but they are of a temporary nature while improvement from breeding is more permanent. Results in this area will be reflected by more healthier, heavier, higher quality calves for our feeder calf market and more satisfied producers.

D. Marketing

The big problem in marketing is getting sufficient volume to increase competition and make the use of improve marketing methods possible. To accomplish this, cooperative sales for both feeder and fat cattle will be used to demonstrate the effect of volume and uniformity in quality.

In marketing problems Extension Specialists will cooperate with the College Marketing Section, the North Carolina Department of Agriculture, the North Carolina Cattlemen's Association, Livestock Auctions and Meat Packers in the State.



NORTH CAROLINA

COUNTIES REQUESTING BEEF CATTLE WORK

III. SHEEP:

A. Breeding

The two major problems in the field of sheep production are getting ewes that will breed at the proper time and at the same time increase the level of performance. Animals with the genetic make-up to breed during hot weather and also produce more pounds of economical desirable meat in a shorter period of time must be identified, and used for breeding.

Educational meetings, field days and mass media will be used to stress the advantages of having lambs born so as to take advantage of the cooler growing season and higher prices on early market.

Individual flock owners will be encouraged to keep records and cull flocks according to production records. This program can be evaluated by a study of the time, weight and grade of lambs moving to market.

B. Feeding

The problems to be worked on this year will be headed by winter feeding of the ewes and creep

feeding of lambs.

Information on the value of providing winter grazing for the ewes and creep for the lambs will be furnished to all County Agricultural Agents and made public through mass media.

Farm flock result demonstrations, county planning meetings, field days and personal contact will be used to publicize the advantage of a sound feeding program.

C. Management

Problems receiving attention will be culling ewes on basis of production, parasite control and locking and castrating.

The problem of keeping low or non-producing ewes will be given special attention. Simple production records will be encouraged and their use will be demonstrated in every way possible. Parasites continue to be a major problem in sheep production. Method and result demonstrations to illustrate the approved practices for eradication and control will be given in the larger sheep

producing counties. Special demonstration using roulane to control parasites will be used in one or more counties this year. Early docking and castrating will also receive attention. These subjects will receive major attention at all educational meetings, field days, tours, and through the use of mass media.

Assistance will be available to all county personnel in conducting demonstrations in each of the problem areas. The economics of the adaptation of these will be stressed in all county conferences, field days and educational meetings.

The results can be observed in the records of the lamb pools as reflected in number, grade and weight.

D. Marketing

Volume and quality of both lambs and wool are the main marketing problem.

Demonstration on shearing, tying and storing wool for market will be stressed at county shearing schools, 4-H sheep shearing contests, field days, tours and T. V. programs. A series of lamb pools will be scheduled for all producing areas so

as to take advantage of volume in marketing the lambs. The lambs will be graded and sold according to grade to encourage the improvement of quality.

Improvement in quality of lambs and wool will reflect the success of the program.



NORTH CAROLINA

COUNTIES REQUESTING SHEEP WORK

IV. SWINE:

A. Breeding

The major emphasis in swine breeding at the present time is the development of meat-type hogs. A great deal of emphasis will be placed on the meat-type certification program which is being promoted by all of the major purebred swine associations.

A swine evaluation station should begin operating in 1961. Feed conversion, rate of gain, and carcass quality of breeding animals will be measured by this station in an effort to select more efficient breeding animals with more desirable carcasses.

Plans are being made to do additional on-the-farm production testing. Weighing and backfat probing of gilts and boars will be used with both purebred and commercial breeders to aid in selecting meatier breeding animals with better rates of gain. Commercial breeders will be encouraged to use boars from certified litters or certified matings. Efforts will be made to make both the purebred and commercial breeder aware that twice as much progress can be made in improving the quality of swine if proper selection is used in selecting breeding gilts as well as boars.

Continued emphasis will be placed on quality feeder pig production. Additional efforts will be made to inform extension agents and farmers of proper type breeding animals, best systems of crossbreeding, and breeding techniques which will result in the greatest number of high quality pigs.

Multiple farrowing will be encouraged among the larger breeders so that better use will be made of facilities and labor resulting in a lower pig cost. This would help assure a constant supply of feeder pigs for farmers who buy pigs to feed to market weight.

Grading demonstrations and Type Conferences will be held to further acquaint commercial and purebred breeders with the type of hog which is most desirable on today's market.

B. Feeding

Tremendous progress has been made in the last five years in getting swine producers to feed a balanced ration. Intense educational efforts by Extension Workers, feed companies, and farm publications have made most farmers aware of the advantages of feeding a balanced ration.

Most of the work in feeding this year will be to inform Extension Agents and farmers of the most economical ways to feed hogs. Since feed represents approximately 80% of the total cost of production, any major reduction in production cost will have to be accomplished by reducing feed costs. Efficiency will be stressed. Farmers will be encouraged to feed adequate protein, but not too much. Utilization of as much home-grown feed as possible will also be stressed as a means of cutting the cost of production.

Pasture will be recommended for all breeding animals for producing cheaper pigs. It will also be recommended for market hogs if the land would not be more productive for other purposes. Pasture will definitely save concentrates and cut feed costs. Pasture still has a place in our feeding program.

The feeding of hogs on concrete has made the need for a balanced ration critical. This is especially true insofar as protein, vitamins, and minerals are concerned. Trace minerals must be provided for hogs fed on concrete if they are to do well. Anemia in baby pigs caused by iron deficiency is a good example

of this. More emphasis will be placed on informing Extension Agents and farmers of the importance of a completely balanced ration, i.e., adequate T.D.N., digestible protein, vitamins, and minerals.

Emphasis will be placed on feeding sows and gilts to produce large litters of big, healthy pigs with better livability. These pigs should be creep-fed and should weigh at least 40 pounds at eight weeks. They should reach market weight in 5½ months on 350 pounds feed per cwt. gain if proper breeding and feeding practices are followed.

Feeding demonstrations on pasture and on concrete will be conducted in cooperation with County Agricultural Agents to show farmers the merits and costs of production under both systems.

C. Herd Management

Efficiency will also be the keynote in herd management. The program will be; get more pigs, save more pigs, and grow more pigs -- all for less cost. These points will be brought to the producer through field days, tours, educational meetings, news releases, television, radio, and on-the-farm demonstrations.

Emphasis will be placed on disease and parasite control and a good housing program.

A good sanitation program will also be stressed since it is the key to a successful disease and parasite control program. Rotation of pastures, disinfecting, farrowing houses, and temporary grazing will be advocated.

A state-wide disease control program has been developed and will be promoted. It is as follows:

1. Isolate all additions to the herd for 21 days.
2. Test all breeding animals before adding to the herd for Bang's and Lepto, if hogs have not been tested.
3. Blood test all breeding animals when program is initiated.
4. Vaccinate pigs at 6 weeks of age for Cholera, using modified virus with ample serum. Also vaccinate for Erysipelas if it is manifest on the farm or in the area.
5. Re-vaccinate gilts three weeks before breeding for Cholera and Lepto.

6. Vaccinate all breeding animals yearly for Cholera and Lepto.

A great deal of emphasis will be placed on housing. With the trend toward larger units and more specialization there is a greater need for better housing. Pole-type, central farrowing houses will be recommended as a good, economical type of housing.

County Agricultural Agents and farmers will be advised on fitting the swine enterprise to the farm. The farmers will be advised to make their swine unit as large as land, labor, feed, and capital will permit. This will result in more efficiency, and better use of labor and facilities, hence, a lower cost of production.

D. Marketing

Farmers are finally beginning to heed outlook information on market conditions. This is evident because they are doing a better job of adjusting their swine enterprises as market conditions vary. Hence, price fluctuations have not been as severe as had been predicted.

Primarily, our work is in getting a better product to market. This starts with proper meat-type

breeding animals. Proper feeding to a desirable market weight also must be stressed. Meat-type hogs are worth from \$1.00 to \$3.00 more per head at market weight than fat hogs. They cost no more to produce. They encourage the consumer to buy more pork. We must encourage more meat-type hogs.

Farmers will be encouraged to produce meat-type hogs and market them on a graded basis.

Multiple farrowing is being encouraged among larger producers to make better use of labor and facilities. This reduces cost of production and also provides a more uniform supply of hogs for our packers.

Assistance will be given in the marketing of quality feeder pigs. North Carolina already leads the South in this field and efforts will be made to stay ahead. Assistance will be given Agricultural workers, auction market operators, and other interested parties in marketing quality feeder pigs through existing sales or by organizing new sales. Additional efforts will be devoted to organizing cooperative shipments of pigs to contract buyers.

Educational meetings, grading demonstrations,

and other communications media will be used to help solve marketing problems.

Outlook information will be supplied farmers and Extension Agents to keep them informed on market trends and outlook.

Purebred breeders will be assisted in conducting purebred sales. Commercial breeders will be assisted in locating good purebred boars.

E. Other Activities

1. County Agricultural Agents in each county will be encouraged to develop a long range swine program for his county. Office conferences will be held with the County Agricultural Agent and his Assistants in swine producing counties. An outline of swine work which would be timely will be presented. Assistance will be given in formulating a County Swine Program.
2. Field Days at demonstrations and on farms to teach the best methods of swine production.
3. Type Conferences are being planned to demonstrate the best type of hogs to grow.

4. Grading demonstrations with packers, market operators, and County Agricultural Agents.
5. Work with markets and packers to improve market facilities.
6. Work with Farm and Home Development families and encourage hog production wherever practical.
7. Swine tours with Extension Agents and farmers.
8. Radio, television, news articles, and circular letters will be used.
9. Requests by County Agricultural Agents for assistance with swine work in their county will be filled insofar as possible.

VI. 4-H CLUB:A. Steer Projects

The favorable market prices and strong local civic and business support of 1960 coupled with lower feeder prices this fall should cause an increase in the number of calves in the 1961 shows. With the outlook for lower prices in 1961 the major problems will be reducing feed costs and increasing efficiency.

Rations using home grown grain will be recommended to all Agents and Club members. The importance of roughage, salt, minerals and water in the ration will be stressed in all meetings and personal contacts. More emphasis will be placed on sound management.

The results of this work will be reflected on the short run by the feed cost per pound of gain and on the long run by the number of fathers, neighbors and graduated 4-H members including cattle feeding in their farming operation.

B. Sheep

Projects in this field include fat as well as breeding flocks. The main problem of the fat lamb

projects is the number of projects is not large enough to have a good show and sale. With the breeding flocks the problems are about the same as the adult program. This year breeding, feeding and management will be stressed in the same manner as for adult farmers.

More emphasis will be put on the shows and sales to increase interest. Fitting and showing demonstrations will be put on in counties with lamb projects. Agents and Club members will be furnished a list of necessary supplies. Show officials will be encouraged to put more emphasis and offer larger prizes on fitting and showing.

C. Swine

Breeding and fattening projects are available for Club members. The majority of the breeding projects are in the nature of pig chains, sponsored by civic, commercial and professional groups. The market barrow projects are available in all counties with 25 different county and district shows and sales.

The problems in breeding, feeding, management

and marketing are handled in the same manner of the adult program. The big problem to be emphasized in Club work is selecting hogs that are of the true meat type and the right age and weight to be at their peak at show time.

Demonstrations and shows will be used and educational material furnished on the selection of breeding stock and pig and market projects. Selection of animals that are off-springs of certified meat type boars will be stressed.

D. Other Activities

In addition to the Animal projects, Specialists will work with Agents, Community Leaders, Club members, Civic Groups, Industry and other interested in club projects. These projects will include livestock conservation, livestock judging teams, sheep shearing and county ham shows and sales.

The area receiving additional attention in the next year will be the change from school clubs to community type clubs.

VII. PROJECTED PROGRAM NEEDS:

1. More efficient units.
 - (a) Conduct cost studies on different size enterprises to determine optimum size.
 - (b) Determine the degree of mechanization that will give maximum efficiency.
2. More productive breeding stock.
 - (a) Expand the present on-the-farm swine testing program.
 - (b) Initiate a central swine evaluation station.
 - (c) Expand present on-the-farm beef cattle testing program.
 - (d) Encourage commercial meat animal producers to base selection of foundation animals on production records.
3. Marketing by grade.
 - (a) Grading demonstrations.
 - (b) Organized beef, sheep and swine sales based on grade
 - (c) Educational work with farmers, buyers and processors.

4. Disease and parasite control.
 - (a) Demonstrations and field days.
 - (b) Encourage farmers to adopt a disease and parasite control program.
5. Knowledge of animal nutrition.
 - (a) Demonstrations.
 - (b) Conferences and field days.
 - (c) An educational program for agricultural workers, farmers and feed service personnel.
6. More and better records
 - (a) Educate farmers as to the value and use of farm records.
 - (b) Demonstrations using production records as a basis for selection and culling.

