

4-H PROJECT OUTLINES
FOR
LIVE STOCK AND FIELD CROP
PROJECTS

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INTRODUCTION

In order that we may have a more uniform system in our 4-H Club Work the various Specialists have, at my request, worked out a definite 4-H Project Plan for their respective projects. The County Agent may find it necessary to make slight changes to meet local situations, but as a whole I believe you will find each plan to be practical.

It is our purpose, in cooperation with the Specialists, to give you all the assistance available in conducting these projects. Any suggestions as to how we can best do this will be appreciated.

L. R. Harrill,
State Club Leader.

BOOST 4-H CLUB WORK

SUGGESTIONS FOR ORGANIZING 4-H CLUB WORK IN THE COUNTY

I - ENROLLMENT:

- 1 - Work out plans with County Superintendent of schools.
 - (a) Select schools or communities where work is to be conducted.
- 2 - Present 4-H Club Work before teachers of the County.
- 3 - Secure support of local Civic Clubs, Parent-Teacher Associations, etc.

II - ORGANIZING THE CLUB:

- 1 - Make arrangements with School Principal for time to present 4-H Club Work. This should be done sufficiently in advance of the meeting to invite parents to meeting.
- 2 - Outline 4-H Club Work to pupils and give out enrollment cards to those interested in Club Work.

The cards should be carried home and signed by the Club Members' Parents.

3. --Send a letter to the Parents requesting their full cooperation in the interest of their boys and girls.
- 4 - The organization of the Club should take place when the enrollment has been completed. The Club Members should elect the Officers and select Local Leaders.
- 5 - Give out record books and subject matter literature.

6.- Outline Plan of Work for the
year - such as -

Type of Project Work, Tours, Picnics,
Fairs, Achievement Day, Camps, etc.

THINGS WHICH SHOULD BE INCLUDED IN THE COUNTY PLAN

III - AN ENCAMPMENT:

An Encampment should be held for the
Club Members in every County either
separately or in cooperation with
another County.

IV - ACHIEVEMENT DAY:

An Achievement Day should be held in
every County.

V - FAIRS:

Fairs are available for all Club
Members and every Member should
make an Exhibit.

VI - THE STATE SHORT COURSE:

The State Short Course should have a
representative from every Club in the
State.

HELP IS AVAILABLE FOR:

- 1 - Organization
- 2 - Subject Matter Information
- 3 - Camps
- 4 - Achievement Programs
- 5.- Leadership Training Schools.

CORN

OBJECT:

- 1 - To teach through club demonstrations the fundamental principles in economic corn production.
- 2 - To increase the acre yield and profits in corn production.
- 3 - To show the value of good seed of adapted varieties of corn.
- 4 - To introduce the best methods in fertilization and cultivation of corn.
- 5 - To teach field selection of seed corn.
- 6 - To encourage the selection and exhibiting of corn at fairs.
- 7 - To promote the study of corn judging.

PLAN OF WORK:

- 1 - Plant one or more acres of corn with seed from the source and of the variety recommended by the County Agent.
- 2 - Select the land, prepare the seedbed, fertilize and cultivate the crop according to the methods of the Extension Service.
- 3 - Select seed in the field for next year's planting.
- 4 - Harvest the crop and determine the yield per acre, the cost per bushel and the profit or loss made in the project.
- 5 - Select an exhibit of ten ears, and to exhibit, if practical, at either a club, community or county fair.
- 6 - Keep a record of all the labor and materials used in carrying out the project.

GOALS:

- 1 - Larger and more profitable acre yields of corn.

Corn Continued

- 2 - More profitable methods in fertilization and cultivation of corn.
- 3 - Better training and more practice in seed corn selection and judging.
- 4 - Record keeping on the cost of production and the determination of cost and profit in growing corn.

AWARDS:

Yield per acre-----	25
Profit above cost of production-----	25
Selection and showing an exhibit-----	15
Field selection of seed-----	15
Record-----	20
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Total-----	100

COTTON

OBJECT:

- 1 - To teach the elementary principles of profitable cotton production through club demonstrations.
- 2 - To produce larger acre yields of quality cotton at a higher profit.
- 3 - To increase the use of and adoption of improved methods of cotton culture including a more intelligent use of fertilizers for the crop.
- 4 - To teach the value of pure seed of a good variety of cotton for the community.

PLAN OF WORK:

- 1 - Grow one or more acres of cotton in the project.
- 2 - Use seed of the variety and from the source recommended by the County Agent and the Extension Service.
- 3 - Use good methods of culture and fertilize the crop with the amount and kind of fertilizers recommended by the Extension Service.
- 4 - Harvest in as good condition as practical.
- 5 - Select one plant with bolls attached in the field to be used as an exhibit.
- 6 - Keep a record of all labor and materials used in carrying out the project and determine the cost and the profit in the work.

GOALS:

- 1 - A fuller appreciation of the important factors involved in the profitable production of cotton.
- 2 - A bigger and more profitable acre yield of cotton of high quality.

Cotton Continued

- 3 - More interest in and a wider use of the best methods of cotton culture including a more intelligent use of fertilizers and a more uniform use of good seed in cotton production.
- 4 - The harvesting of the cotton crop in such a way as to produce the highest grade practical.
- 5 - The keeping of better records on the cost of production from which to determine the profit in cotton production.
- 6 - Better training in seed plant selection.

BASIS OF AWARDS:

Yield per acre of seed cotton-----	30
Profit per acre-----	35
Grade of cotton produced-----	10
Record of the work -----	25
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Total-----	100

SWEET POTATO

OBJECT:

- 1 - To introduce into the county a strain of Porto Rico variety of sweet potatoes developed at the Lower Coastal Plain Experiment Station.
- 2 - To develop through the 4-H Club Members sweet potato seed growers.
- 3 - To demonstrate methods that underlie profitable sweet potato growing by the use of good seed, proper culture, control of insects and diseases and grading for the market.

METHOD OF WORK:

The County Agent to assist in securing a sponsor for each club member entering this project who agrees to buy three bushels seed for said club member.

An agreement to be entered into between the club member and sponsor as follows: The sponsor may be the boy's father, a business man, or member or members of some civic or county organization.

PLAN OF WORK:

- 1 - To bed the seed furnished me and plant the slips beside and equal number of slips of home grown Porto Rico seed to compare the relative merits.
- 2 - To deliver to the sponsor at digging time disease-free seed equal in value (at Market Prices) to the seed received.
- 3 - (1) To follow culture practices as recommended by the Agricultural Extension Agents.
(2) To dig potatoes before frost; to grade and place in a properly constructed curing house.
(3) To dig and weigh equal areas of a row or rows of potatoes from the special seed and home grown seed plots.
- 4 - To write story of work; to make a local or county exhibit with potatoes graded according to market requirements.

RASPBERRY

OBJECT:

- 1 - To start the development of a raspberry industry through 4-H Club Work.
- 2 - To demonstrate the method underlying profitable production of red and black raspberries by the use of practically disease free plants, proper culture, fertilization, disease control and preparation for market.

LOCATION:

Avery, Henderson, Buncombe and Transylvania Counties.

LEADER:

H. R. Niswonger, Extension Horticulturist.

PLAN OF WORK:

- 1 - Acreage: Each member of this project to plant 500 plants of red raspberry and 500 plants of the black raspberry.
Varieties: Red Raspberry - Lathram
Black Raspberry - Cumberland.
With planting distance 3 x 6 feet the required number of plants will cover about one-half an acre of ground.
- 2 - If the club member is unable to finance the purchase of plants, the County Agent is to get the banks or some individual in the county to take the club member's note with his signature.
- 3 - The culture methods used in developing the planting will be those that have been found to be the most successful in producing the maximum yield.
- 4 - (a) The fruit to be sold according to standard methods used in marketing this crop.
(b) New plants to be sold from the old planting after it has been established for distribution within the county in extending the development of the industry.

Raspberry Continued

- 5 - Each club member to keep records and prepare a story of the work.

DUTY OF EXTENSION HORTICULTURIST AND COUNTY AGENT:

These Extension Agents will secure the sources of disease free plants, furnish instructions as to culture practice and assist in providing ways and means of marketing the crop.

DEWBERRY

OBJECT:

- 1 - To start the development of a dewberry industry thru the 4-H Club Members and to lengthen the period of marketing of this crop in North Carolina.
- 2 - To demonstrate the methods underlying the profitable production by the use of proper culture practices and preparation for the market.

LOCATION:

Surry and Iredell. The period of ripening and marketing of this crop will come in at the end of the production of dewberries in the Sand Hill Section of the State when there is usually a rise in market prices.

LEADER:

H. R. Niswonger, Extension Horticulturist.

PROCEDURE:

- 1 - Each member of this project to put out 1000 plants with planting distances 3 x 7 feet. This required number of plants will cover about one-half acre of ground.
- 2 - If the Club Member is unable to finance this product the County Agent will arrange for the banks or some other organization to take the Club Member's note.
- 3 - The culture methods used in developing the planting will be those that have been found to be the most successful in producing the maximum yield.
- 4 - (a) The fruit to be sold according to standard methods used in marketing this crop.
(b) New plants to be sold from the old planting after it has been established for distribution within the county in extending the development of the industry.
- 5 - Each Club Member to keep records and prepare a story of the work.

Dev. berry Continued

DUTY OF EXTENSION HORTICULTURIST AND COUNTY AGENT:

These Extension Agents will secure the sources of good plants, furnish instructions as to culture practice and assist in providing ways and means of marketing the crop.

IRISH POTATO

OBJECT:

- 1 - To produce the highest yield of marketable potatoes from five bushels of seed.
- 2 - To teach improved cultural methods.
- 3 - To teach the market requirements for grades.

PLAN OF WORK:

- 1 - Each member to plant five bushels of selected or certified seed of the variety that best fits the market demand.
- 2 - Practice improved cultural methods.
- 3 - Spray to control insects and diseases.
- 4 - Determine the cost of production and profit per bushel.
- 5 - Determine total yield according to U. S. grading rules.
- 6 - Write story of work.
- 7 - Each member to make a local or county exhibit with potatoes graded according to market requirements.

BASIS OF AWARD:

Yield-----	40
Cost of Production and Profit per bu.	20
Exhibit-----	20
Story-----	20
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Total-----	100

TOBACCO

OBJECT:

To help tobacco growers of the state with the following problems.

- (1) Selection, preparation, seeding and handling of seed beds.
- (2) Selection of pure seed of varieties best suited to their conditions.
- (3) Methods of maintaining the fertility of their soils.
- (4) Selection and application of fertilizer mixtures best suited to their soils, including best amounts and methods of application.
- (5) Selection of land, its preparation and best methods of cultivation of the crop.
- (6) Harvesting and curing.
- (7) Grading and marketing.
- (8) Production of better quality without sacrifice of yield.

PLAN OF WORK:

- (1) To conduct with growers field demonstrations with the best fertilizer mixtures for the different soils and conditions.
- (2) To conduct with growers variety and cultural demonstrations in sections of the state where such work is needed.
- (3) To hold meetings for the discussion of problems vital to tobacco growers.

BASIS OF AWARDS:

Yield and quality based on the average of the section.....	50
Care and interest in crop.....	30
Complete record.....	20
	<hr/> 100

4-H SNAP BEAN PROJECT

Object: To grow a patch of Snap beans for market and to control the bean beetle.

Time: Seasonal.

Location: In counties where the bean beetle is prevalent, and where there is a local market for beans.

Leaders: E. B. Morrow and H. R. Niewonger.

Plan of Work:

A. Duties of Club Member:

- (1) To follow recommended cultural practices, and to control the bean beetle.
- (2) To keep a record of the cost of production and returns from the crop, and to write a story at end of the season.

B. Duties of Horticultural Specialist:

To furnish information on varieties, cultural practices, and pest control.

4-H GARDEN PROJECT

Object: To grow a year-round garden.

Time: Calendar year.

Location: State-wide.

Leaders: E. B. Morrow & H. R. Niswonger.

Plan of Work--

A. Duties of Club Member:

- (1) To select seeds of recommended varieties
- (2) To prevent or control insects, diseases, and other pests.
- (3) To so plan the garden that crops will be kept growing in it thruout the spring, summer, and fall.
- (4) To build a hotbed and coldframe.
- (5) To write a garden story, giving an account of cultural practices followed, fertilizers used, and of the varieties grown.

B. Duties of Horticultural Specialist:

To furnish timely information on cultural practices, varieties, and pest control.

SOIL BUILDING PROJECT WITH CORN AND SOYBEANS (OR VELVET BEANS)
2 YEARS

OBJECT:

- (1) To teach through club demonstrations the principles of soil improvement.
- (2) To increase the acre yields and profits in corn production.
- (3) To teach the production of soybeans.

PLAN OF WORK:

- First Year -
- (1) Plant one or more acres of corn in six rows, spacing the corn at about two-thirds the distance as in four-foot rows for the same land. Plant a row of soybeans between every two corn rows.
 - (2) Fertilize and cultivate the corn and soybeans according to methods of the Extension Service.
 - (3) Harvest corn and determine yield per acre. If a soybean harvester is available, harvest soybeans also, and determine yield per acre. Find profit or loss for the project so far.
 - (4) Turn under all soybean vines for soil improvement.

- Second Year -
- (1) Proceed as in first year, and note improvement in soil from the standpoint of tillage, water-holding capacity, and production.

- GOALS:
- (1) Larger and more profitable acre yields of corn.
 - (2) The more extensive use of legumes for increasing the nitrogen and organic matter supplies of the soil.
 - (3) The production of soybean seed for home use.
 - (4) Record keeping on the cost of production and the determination of cost and profit in growing corn and soybeans.

Soil Building Project with Corn and Soybeans (or Velvet Beans)
2 Years. (Continued)

AWARDS:

Yield per acre.....	25	points
Increase of 2nd. year over 1st. year		
yield.....	25	"
Profit above cost of production.....	25	"
Record.....	25	"
Total.....	100	pounds

SOIL BUILDING AND HAY PROJECT WITH SOYBEANS AND CLOVER -
FOUR YEARS

OBJECT:

- (1) To teach through club demonstrations the principles of soil improvement.
- (2) To increase the acre yields and profits in hay production.
- (3) To show the value of legumes in more economical crop production.

PLAN OF WORK:

First Year -

- (1) Apply one ton of ground limestone per acre to one or more acres, after plowing in spring.
- (2) Plant to soybeans (preferably Laredo or Otootan), fertilizing according to the methods of the Extension Service.

Harvest the soybeans for hay, and determine the yield per acre, cost per ton, and the profit or loss made in the project so far.

- (3) Then sow the land to small grain, preferably wheat. Fertilize according to the methods of the Extension Service.

Second Year -

- (4) In March drill red clover, lespedeza or sweet clover on the wheat, with 200 pounds super-phosphate per acre.
- (5) Harvest and thresh the wheat, determine the yield per acre, and profit or loss.

Third Year -

- (6) Cut the first crop of clover for hay, determine the yield per acre and profit or loss.
- (7) In the fall turn under the second crop of clover for soil improvement.

Soil Building and Hay Project with Soybeans and Clover - Four Years
Four Years. Continued.

Fourth Year -

- (8) Plant corn, and conduct the project as a regular corn project.

GOALS:

- (1) Larger and more profitable hay production.
- (2) The keeping of more livestock to utilize the hay.
- (3) The constant improvement of the soil by means of a rotation with legumes.
- (4) Larger and more profitable wheat yields.
- (5) Larger and more profitable corn yields.
- (6) Record-keeping on the cost of production, and the determination of cost and profit in diversified farming.

AWARDS:

Yield per acre.....	50 points
Profit above cost of production.....	25 "
Record.....	<u>25 "</u>
TOTAL.....	100 points

Soil Building and Hay Project with Soybeans and Clover - Four Years
Four Years. Continued.

Fourth Year -

- (8) Plant corn, and conduct the project as a regular corn project.

GOALS:

- (1) Larger and more profitable hay production.
- (2) The keeping of more livestock to utilize the hay.
- (3) The constant improvement of the soil by means of a rotation with legumes.
- (4) Larger and more profitable wheat yields.
- (5) Larger and more profitable corn yields.
- (6) Record-keeping on the cost of production, and the determination of cost and profit in diversified farming.

AWARDS:

Yield per acre.....	50 points
Profit above cost of production.....	25 "
Record.....	<u>25 "</u>
TOTAL.....	100 points

POULTRY

OBJECT:

To establish a purebred flock on every farm; to interest club members in poultry production; to teach the improved methods of feeding, housing, caring for and managing the farm flock, and through them establish a demonstration that will be of value to the community.

PROCEDURE:

1. The county agents to select the club members by visiting those whom he thinks will make successful members.
2. The club leaders cooperating with county agents and poultry specialist will assist in the club organization, in selecting of purebred birds, and will furnish information to be used by the club members.
3. The county agents to arrange with civic organizations or banks to finance the project where deemed necessary.
4. The poultry specialist will visit clubs when possible and assist with the project in any way possible.
5. The project will be scored at the end of the year by the county agents using the following score card as basis for awards:

Feeding-----	40
Scratch-----	10
Mash-----	10
Green feed or cod liver oil-----	10
Weight at 10 weeks of age-----	10
Sanitation-----	20
1. Dropping boards cleaned twice a week--	5
" " " once " "	--3
2. Water founts cleaned each day-----	5
" " " 3 times a week----	3

Poultry Continued

3.	Condition of litter clean and dry-----	5
	" " " wet and filthy-----	0
4.	Condition of nest dry and clean-----	5
	" " " dirty-----	0
Housing-----		15
	Good warm house well ventilated-----	10
	Located on southern slope with good drainage-----	5
Management-----		15
	Culled regularly-----	5
	Forty percent production or above-----	10
Records and story-----		10
TOTAL-----		100

LOCATION: State wide

RESULTS EXPECTED: That a greater interest will be shown in poultry and the demonstrations will be a means of establishing more purebred flocks on the farm.

DAIRY CALF

OBJECT:

To teach the club members the approved methods in feeding and handling dairy calves, create in them a desire for livestock and through them conduct a demonstration that will be of value to the community.

PROCEDURE:

- 1 - The County Agent will arrange with local banks to finance the movement where financial assistance is necessary.
- 2 - The State Club Leader cooperating with the Dairy Specialists will assist in perfecting the club organization in selecting the calves and will furnish subject matter to be used by the club members.
- 3 - Club Members may select either pure bred or grade calves. (The "grade calf" must be sired by a pure bred bull).
- 4 - It is suggested that the County Agent select the club members by calling personally on those whom he thinks will make successful members.

LOCATION:

Any county having an agricultural agent.

RESULTS EXPECTED:

That a greater interest in dairy cattle will be developed among the young people and through them carry on a demonstration in developing dairy calves which will be of great value to the grown-ups.

Dairy Calf Continued

BASIS OF AWARD:

		<u>SCORE</u>	
	First	:	Second
Development as shown by condition and		:	
Daily gains in weight - 55 points -		:	
Dairy conformation - 20 points -		:	
Record and Story - 10 points -		:	
Management, including		:	
equipment and cleanliness of same - 10 points -		:	
Ease of handling - 5 points -		:	

The County Agent should score animals at the beginning of contest and at the time when contest ceases. Thereby giving every member an equal advantage.

PIG CLUB

-OBJECT:

To teach not only the system of feeding and the seasonal marketing of hogs which has proven most profitable in North Carolina when consistently followed, but also to teach why it is most profitable.

PROCEDURE:

One pig, or more if desired, farrowed between January 1, 1929 and March 15, 1929 should be weighed and started on full feed as soon after reaching the age of eight weeks as possible.

Feed should be weighed and mixed either in accordance with directions in the Pig Club Manual or the mimeographed sheet, "Balanced Rations for Market Hogs." In either case, feeding should be done in strict accordance with directions. An amount of corn at least equal to the amount of supplemental feed mixed should be weighed and kept with the mixture, and the pig should be fed from these exclusively.

An entry showing the date, weight of pig, variety and amount of feeds mixed, and the amount of corn set aside for the pig or pigs, should be made in a book kept for the purpose. Accurate records are easily kept in this manner, and a computation of results is possible at any time by simply weighing the pig and the remaining feed.

Such computation should be made on their project by all Pig Club members on September 25, and the financial returns of the project should be based on a valuation of 10¢ per pound of gain made by the animals fed.

The project should be reported in the form of a story and submitted to the county agent not later than _____.

Results will be judged in accordance with the following score card.

<u>SCORE CARD</u>	
Following instructions	30 points
Financial returns	25
Record and story	25
Activities of club member	20
Total ---	100 points

SHEEP

OBJECT:

To develop the Sheep Industry in certain counties and to teach the Club Members the practical methods in Sheep Management.

LOCATION:

Any county adapted to sheep raising.

PLAN OF WORK:

- 1 - Each Club Member to start with five or more ewes.
- 2 - Club Members to follow instructions of Extension Agents.
- 3 - County Agent to assist the Club Members with arranging finances when necessary.

ANTICIPATED RESULTS:

A greater interest in sheep growing and a building up of the Sheep Industry in certain sections of North Carolina.

BASIS OF AWARD:

Financial returns.....	30
Fitting and showing.....	20
Following Instructions of Extension Agents.....	30
Records and Story.....	<u>20</u>
Total.....	100