

THESIS

Consisting of a Course of Study in

FARM MANAGEMENT

to be taught in

VIRGINIA AGRICULTURAL HIGH SCHOOLS

Submitted

for

Master of Science Degree

in

AGRICULTURAL EDUCATION

by

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INTRODUCTION.

In May, 1921, a request for all available information on courses in Farm Management for Agricultural High Schools was sent to each Professor of Agricultural Education, at the State Agricultural and Mechanical Colleges, in the United States. Eighteen letters were received in reply to the inquiry.

The following material was obtained, studied, and used as a basis for the course here offered:

1. U.S.D.A. Bulletin 592--Courses in Secondary Agriculture for Southern Schools.
2. Suggestions on Courses in Agriculture for the Smith-Hughes Schools in Kentucky, -Prof. McNeal C. James.
3. Vocational Agriculture for Teacher Training Classes in Michigan, Bul.No.19--Dept. of Agricultural Education, Michigan Agricultural College.
4. Course of Study for Farm Management. -Virginia Agricultural Instructor, Sept., 1921.
5. Outline of Course in Farm Management. -Prof.D.W. Hamilton --Washington State College, Pullman, Wash.
6. Agriculture in High Schools. -Goddard and James. --Dept. of Public Instruction, Madison, Wis.
7. The Organization of the Course of Study in Agriculture, Crandall & Barnett. --Dept. of Pub. Instr., of Columbia, S.C.
8. New York State Agricultural Teachers' Bulletin, Jan., 1920, and May 1920.
9. Course of Study in Elementary Agriculture for Wisconsin Public Schools. -F.E.Heald, Asst., Agri. Edu., U.S.D.A.
10. Letters and suggestions from other Professors of Agricultural Education in State Colleges.

The course as presented is for Virginia schools and was prepared and used under conditions which prevail at Apple Grove, in Louisa County. The course was taught there in 1922-23, and has been revised in the light of experience thus gained, and of suggestions from the Teacher-Training Department at the V.P.I.

The present form is the result of still another revision suggested by the State Supervisor of Agricultural Education, to make the work reflect the latest available suggestions as to courses of study.

It is proposed that the actual work in Farm Management be planned to occupy 153 days, or nine months of 17 working days each. The other three days of each month will usually be occupied in project study, examinations, holidays, etc. One discussion of courses of study, to which no signature appears, makes the following suggestions:

"The real purpose of the course is to teach the students how to think.

The school year logically divides itself into three periods:

1. Fall, when the outdoor work is possible. In this period get facts.
2. Winter, when outdoor work is not possible. Digest facts.
3. Spring, when outdoor work is possible. Apply facts by concrete illustrations."

The present study deals with the subject under eighteen heads, or problems. They group as follows:

- Part I. Problems 1 and 2. Farm Management from a general viewpoint.
- Part II. Problems 3. Farm Cost Accounting.
- Part III. Problems 4-9. Farm Management as it concerns the Individual Farm.
- Part IV. Problems 10-17. How would you acquire and manage a farm of your own?
- Part V. Problem 18. Resumé. What have you learned that you can apply, or help someone else to apply?

Each problem is sub-divided, and under the head of "Factors". An analysis of each problem is given. Under the third head, "Recommendations"? will be found suggestions which may help in teaching this course.

The references are given in order they occurred, in the working out of the course. References No. 1 and No. 2 together will form the basis for the course. All other references named should be available for study but will not be required so often. Reference No. 12 has been most widely used as a text in this state.

Thesis 3-

PLAN OF WORK:		Months:	Sep:	Oct:	Nov:	Dec:	Jan:	Feb:	Mar:	Apr:	May:	Sess.
		Total	:17	: 17:	17:	17:	17:	17:	17:	17:	17:	153
I	:1. Farm Survey	:10	:	:	:	:	:	:	:	:	:	:10
	:2. Community Problems	:	: 4	: 2	: 2	:	: 2	: 2	: 2	: 2	:	: 16
II	:3. Farm Cost Accounting	: 7	: 3	: 6	: 4	: 10	: 4	: 6	: 4	: 4	:	: 48
III	:4. Marketing Problems	:	:10	: 2	: 2	:	: 2	: 2	: 2	: 2	:	: 22
	:5. Labor	:	:	:	: 4	:	:	:	:	:	:	: 4
	:6. Business Form & Farm Law	:	:	: 1	:	:	:	: 1	:	:	:	: 2
	:7. Farm Lay-out	:	:	: 3	:	:	:	:	:	:	:	: 3
	:8. Farm Home	:	:	:	: 3	:	:	:	:	:	:	: 3
	:9. Use of Agri. Ext. Service	:	:	:	:	: 2	:	:	:	:	:	: 2
IV	:10. Capital Distributing: Credit	:	:	:	: 2	: 3	:	:	:	:	:	: 5
	:11. Types of Farming	:	:	:	:	: 2	:	:	:	:	:	: 2
	:12. Choosing a Farm	:	:	:	:	:	: 2	:	:	:	:	: 2
	:13. Replanning and Building Fields	:	:	:	:	:	: 5	:	:	:	:	: 5
	:14. Choosing Equipment	:	:	:	:	:	:	: 3	:	:	:	: 3
	:15. Stocking Farm	:	:	:	:	:	: 2	: 1	:	:	:	: 3
	:16. Maintenance of Fertility	:	:	: 3	:	:	:	:	: 4	:	:	: 7
	:17. Profit as Shown by Cost Accounts	:	:	:	:	:	:	: 2	: 5	: 3	:	: 10
V	:18. Resumé	:	:	:	:	:	:	:	:	: 6	:	: 6

REFERENCES.

1. Farm Management, by Boss -- Stewart & Kidd, Cincinnati, Ohio.
2. (Farm Management, by Warren --Macmillan Co., 64-66 Fifth Ave.,
(New York City.
(In connection with Laboratory Exercises in Farm Management,
(by same author.
3. Farm Management, by Card --Doubleday, Page & Co., Garden City, N.Y.
4. Farm Development, by Hays --Orange-Judd Co., Marquette Bldg.,
Chicago, Ill.
5. The Farmstead, by Roberts --Macmillan Co.
6. Farm Accounting, by Scoville --D.Appleton & Co.
7. *Farmers' Bul. #572 --System of Cost Accounting.
8. " " #511 --Farm Book Keeping.
9. " " #661 --An Analysis of the Farm Business.
10. " " #782 --Use of a Diary for Farm Accounts.
11. " " #635 --What the Farm Contributes directly
to the Farmers' Living.
12. " " #746 --The Farmers Income.
13. " " #299 --Diversified Farming under the
Plantation System.
14. *U.S.D.A. Year Book - 1908
15. " " " - 1915
16. " " " - 1914
17. " " " -- 1910
18. " " " - 1911
19. Farmers' Bul. # 3 -- Normal Days' Work for Various Farm
Operations.

References (cont'd)

20. Farmers' Bul. #745 --Elimination of Waste and Wasted Land on Farms.
21. " " #593 --How to Use Farm Credit.
22. " b " #654 --How Farmers May Improve Their Personal Credit.
23. " " #792 --How the Federal Farm Loan Act Benefits the Farmer.
24. " " # 370 --Replanning a Farm For Profit.
25. " 2 # 592 --Courses in Secondary Agriculture for Southern Schools.
26. Co-operation in Agriculture, by Powell --Macmillan Co.
27. Co-operative Marketing of Agricultural Products, by Macklin--Macmillan Co.
28. Soils and Crops, by Hunt & Burkett -- Orange-Judd Co.
29. Co-operative Marketing; V.P.I.Extension Bul. #81, Blacksburg, Va.
30. Baileys' Cyclopedia of Agriculture.
31. *Circular #44. Bureau of Plant Industry - U.S.D.A. Minor Articles of Farm Equipment.
32. Bul. # 212 - Bureau of Plant Industry -U.S.D.A. Farm Equipment in Ohio.
33. Circular # 112 - U.S.D.A. Office of Secretary. The Farm Labor Problem , by Onsley.
34. Law for the American Farm, by Green --Macmillan Co.
35. Farmers' Bul. #927 --Farm Home Conveniences.
36. " " #771 -- Homemade Fireless Cookers and Their Use.

(*| Address U.S. Dept. of Agriculture, Dept of Publication, Washington, D.C.

Problem	: Considerations	: Recommendations
I.(1) Farm Survey (To include map- ping farm in detail)	:1. Need :2. Methods	: : A.(1) General community :survey, and (2) survey of :each boys' home farm . :Instructor should help each :boy make accurate surveys as :indicated above: (1) to go :into boy's Project Record :Book, and (2) to be reviewed :by instructor and kept for :reference. Boy plans project :work by home farm survey, :and instructor modifies :course according to information :in community and farm surveys. : : B. During this time :each boy should draw a map of :his home farm to scale, :showing: : (1) Location of fences, :drains, roads, streams; :general lay of the land. : (2) Size and shape of fields : (3) Cultivated fields, :pasture, woodland, waste land. : (4) Crops grown on each :field for last four years- :rotation. : (5) Approximate yield of :each pasturage, field, crop, :wood, etc. : (6) All farm buildings. : (7) Compute income on each : field and put this on : map. Use data available, : such as projects, reports; : markets quotations, etc.

Problem	Considerations	Recommendations
III.(4) Marketing Problems	1.Reasons for marketing problems	1.From Ref.#29, learn:
	2.Study of markets of local importance	(a) Distinctive Characteristics of cooperative corporations.
Time - 22 days	3.Graphs and charts.:	(b) Why American Farmers cooperate.
Ref.# 27, 29.	4 Cycles of over-Production and under-productions.	(c)Condition that facilitate the organization of cooperatives.
" # 1,pp.204-211	5 Law of supply and demand.	(d) Some factors affecting success or failure of cooperative organization.
" # 2,pp.416-28	6 Advertising.	
"Weather,Crops, and Markets", U.S.D.A.,Washington D. C.	7 Grading and packing.	A study of the particular marketing organization most important to the locality has been made. Prob.# 2.
	8 Standardization.	2.Make a graph showing the fluctuation in prices of important local products during a term of years.
	9 How to market.	Show how a farmer can take advantage of the information gained.
	:10 When to market.	
	:11 World markets.	3.Study actual and proposed legislation to bring about equalization of prices. How much can a farmer buy with a barrel of corn? Why?
	:12 Stabilization and equalization of prices.	
	:13 Co-operative marketing organizations within reach.	4. Show Pupil that much of our trouble along marketing lines is due to our own loose, unsystematic business methods.
	a-Underlying principles.	
	b-Defects.	
	c-Benefits.	

Problem	: Considerations	: Recommendations
(17) Profit as Shown by Cost Accounts.	: 1.a. Cost of production of each field crop.	: 1. Items should be computed, when possible, from pupils' own cost account records.
Time - 10 days.	: b. Selling price.	:
Ref. #1, pp. 167-198.	: 2.a. Cost of unit production from stock.	: 2. Farmer's Labor Income- net proceeds (including increase in inventory) minus interest, depreciation and all other expenses.
" #2, chaps. 16 & 17	: b. Sale price.	:
" #6, 7, 8, 9, & 10.	: 3. Received for \$100 worth feed fed to	: 3. Full analysis of cost accounts should be made to show their value and teach pupil to analyze cost accounts and interpret results.
	: a. Cattle.	:
	: b. Hogs.	:
	: c. Sheep.	:
	: d. Poultry.	:
	: 4. Received per 10 hr. day spent on each (a.b.c.d.) above.	: 4. During this time the pupil should do some work on re-drawing the map of his farm including recommended changes. Considerable time may be spent on this as a part of the analysis of cost accounts.
	: 5. Cost per man and horse hour (of labor).	: All data on map should be corrected in the light of new information gained.
	: 6. Farmers' labor income.	:
	: 7. What line of work paid best?	:
	:	:
	:	:
	:	:

(18) Resumé	: 1. Summing up.	: 1. What have you learned in this course that you can apply or help someone else to apply?
Time-8 days.	: 2. Application.	:
	: 3. Pupil's reactions.	: 2. What have you actually applied?
	: 4. Complete redrawing of map showing suggested changes and corrections.	:
	:	: 3. Clear up all matters of doubt.
	:	: 4. Cover matters of importance not touched on up to this time.
	:	:
	:	: 5. Finish redrawing map.
	:	:
	:	:
	:	: