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The Pennsylvania State College
The Graduate School
Department of Rural Education

OCCUPATIONAL REQUIREMENTS FOR YOUNG MEN
ENTERING FARMING IN YORK COUNTY, PENNSYLVANIA

A Thesis

by

William Vernon Godshall

Submitted in partial fulfillment

for the degree of

Master of Science

December 1942

Approved:

November 21, 1942 C. S. Anderson
Department of Rural Education

Henry S. Brunner
Head of the Department

BIOGRAPHICAL SKETCH OF WRITER

The writer, William Vernon Godshall, a son of William V. and Margaret E. Godshall, was born February 11, 1913 at Centre Hall, Pennsylvania. His early public school education was received in the elementary schools of Madison, Wisconsin, where his father was an instructor in the University, and completed in Centre Hall, Centre County, Pennsylvania. His secondary education was completed at the Gregg Township Vocational High School, Spring Mills, Centre County, Pennsylvania, from which school he was graduated in 1930.

The writer's farm experience was secured while employed during summers on farms in Centre County, Pennsylvania.

Following graduation from high school, he matriculated at The Pennsylvania State College in the curriculum of Dairy Husbandry. During his college career two of the writer's summers were spent in the employ of The Pennsylvania State College Dairy and Animal Husbandry Departments. A third summer was spent on a Centre County farm where he secured general dairy farming experience. This was followed by a year's employ at Brooklawn Farms, Morris Plains, New Jersey, as herdsman.

In September 1936 the writer again matriculated at The Pennsylvania State College, this time as a graduate student in Agricultural Education. Following six months substitute teaching in the Ligonier High School, Westmoreland County, Pennsylvania, he was employed for two years as teacher of vocational agriculture in Latrobe

High School, Latrobe, Westmoreland County, Pennsylvania. For the past four years he has been employed as teacher of vocational agriculture in Fawn Township Vocational High School, York County, Pennsylvania.

He is a member of Alpha Tau Alpha, Alpha Gamma Rho, and Lions International.

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The writer recognizes the generous assistance and guidance of Professor C. S. Anderson in the planning of the study and in the classifying of the data, and for his criticism of the manuscript. He is deeply indebted to Professor H. S. Brunner and the members of his staff in Rural Education for their advice and encouragement.

Recognition is also given to Professor W. L. Henning for his assistance with the Animal Husbandry enterprise list; to Professor A. L. Beam for his assistance with the Dairy Husbandry enterprise list; to Professor D. R. Marble for his assistance with the Poultry enterprise list; to Professor H. W. Higbee for his assistance with the Crops and Soils enterprise list; to Professor C. E. Myers for his assistance with the Cannery and Vegetable Crop enterprise list; to Professor J. E. McCord for his assistance with the Farm Management enterprise list; and to Professor D. C. Sprague for his assistance with the Farm Mechanics enterprise list.

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OCCUPATIONAL REQUIREMENTS FOR YOUNG MEN
ENTERING FARMING IN YORK COUNTY, PENNSYLVANIA

CHAPTER I

Introduction

STATEMENT OF THE PROBLEM

For many years young men have been entering the occupation of farming with the main objective of becoming satisfactorily established in farming. This objective, to most young men, means owning and operating a farm. In order to reach this ultimate goal, several lines of approach are open. Some young men become farm owners the hard way; namely, by working for wages, saving and reinvesting their money. Some are renters, share croppers or purchasers, while more fortunate ones become farm owners by inheriting farms.

The success of almost any young man as a farmer depends to a large extent on the knowledge he has acquired and the experience he has gained by working on farms or conducting farm enterprises, and not so much on the manner in which he secures the farm. Various studies* have been completed in other fields of work to determine the requirements necessary for a young man to become successful in his chosen occupation. Is it not also essential to know what requirements are necessary or desirable in order that a young man become a successful farmer?

Certain basic agricultural information and certain traits

*Occupational Outlook for Georgia Youth, Atlanta: National Youth Administration of Georgia, June 1939.

and habits are important for success in farming as well as for success in other occupational pursuits. Can we determine these qualifications and present them for the guidance of young men who are considering farming as a life work? To do so would help to avoid many disappointments and farm failures. Most present adult farmers have been confronted with the same difficulties at some time during their rise to farm ownership. Some realize they might have been better farmers and more successful farmers if they had had certain training and experiences earlier in life. Many owe their present position as successful farmers to the knowledge and skills they had already acquired when they started to farm.

The experienced farm owner, then, should be a good person to consult to find out what is desirable for a young man to know when he enters farming.

OBJECTIVES OF THE STUDY

The objectives of this study can be stated as follows:

1. To determine the basic technical and occupational requirements for young men entering farming within the enterprise and among enterprises.
2. To determine and segregate the important technical and occupational requirements from those considered less important within the enterprise and among enterprises.
3. To determine some of the desirable personal and occupational requirements which young men entering farming should possess.

NEED FOR THE STUDY

More pertinent information is needed showing the skills, jobs and farm information which has been found to be important for success in farming. If, through the replies of farm owners, certain experiences and job skills are found to be desirable or perhaps indispensable for success as a farmer, then young men who contemplate farming should know what these experiences and skills are, and should acquire them in their preparation to become farmers or farm owners.

The findings of this survey may then be analyzed in relation to the present vocational agriculture teaching program in our high schools. It may be desirable for teachers to revise teaching programs in the light of certain discovered facts. Many of our young men who have studied vocational agriculture in high school are finding it difficult to get started in farming. On the other hand, it is comparatively easy for them to find employment in the city. Is it possible that this may indicate a lack of proper qualifications and a need for more specific preparation for farming? In other words, this study may point to a need for a revision of existing teaching programs and procedures in order to better prepare boys to become established in farming.

The study should meet a definite need, especially in York County, Pennsylvania, where data will be gathered for information and guidance in the occupational requirements for young men entering farming; for teachers of vocational agriculture in the area to use in revising their teaching programs, and particularly for the writer in his own teaching situation in south central Pennsylvania.

LOCATION, HISTORY AND POPULATION OF YORK COUNTY

York County, which is in the south central district of Pennsylvania, lies west of the Susquehanna River, which forms its eastern boundary. The county's original area, including what is now Adams County, was taken from that of Lancaster County in 1749. After fifty years of much dissension between the German elements in the eastern part of the area and the Irish elements located in the western region, Adams County was set off from the original county. Thereafter (1800) York County was largely dominated by German influences.

York County is bounded on the north by Cumberland County, on the east by the Susquehanna River, on the south by the state of Maryland, and on the west by Adams County. Its present land area is 903 square miles and, according to the Census of 1930, its population totals 167,135, including 84,046 females and 83,089 males. This population is broken down into 80,046 urban, 35,716 rural farm, and 51,373 rural non-farm dwellers.

YORK COUNTY AGRICULTURE

"Agriculture is one of the county's chief occupations. Very fertile limestone soils extend in a belt across the country, well into Adams County, while other soils, even if not so rich, produce excellent crops when intelligently farmed."*

Corn, hay, and winter wheat are of almost equal importance, and these form the basis for poultry, dairy, and swine production. Fruit growing is developed to a considerable extent, and near the city

*Ninth Industrial Directory of the Commonwealth of Pennsylvania. Harrisburg: Department of Internal Affairs, Commonwealth of Pennsylvania. 1938. pp. 653-656.

of York the importance of dairying and vegetable production increases.*

In 1941 York County was second only to Lancaster County in the number of farms, with 7121, including 339,881 acres of land capable of being cultivated. For the same year the combined value of its farm land and buildings amounted to \$30,769,892, and its rural farm population totaled 35,716.** As compared to other counties in Pennsylvania, 1939 figures show York County to be first in the number of mules, swine and chickens on its farms, and second in the value of field crops and eggs produced. It ranks second also in the acreage planted to corn, winter wheat and tobacco. The 7121 farms in the county average 65.7 acres, and part-time farming is common on the part of men employed in many of the county's varied industries.

Murphy states*** that "the general air of agricultural prosperity that pervades most of York County is probably more of a tribute to the energy and thrift of its farmers than to the inherent soil worth." He further describes York County as "all in all a prosperous land, the prosperity being accounted for both by the presence of fertile York valley but related, too, to the thrift and painstaking care of the German farmers."

*Murphy, Raymond E. The Economic Geography of York, Pennsylvania. Mineral Industries Experiment Station Bulletin 17. State College, Pennsylvania. The Pennsylvania State College, 1935. pp. 48-49.

**Pennsylvania Crop and Livestock Report, 1940-41. General Bulletin 582, Vol. 25, No. 4. Harrisburg: Pennsylvania Department of Agriculture, July-August 1942. pp. 6-30.

***Murphy, Raymond E. The Economic Geography of York, Pennsylvania. Mineral Industries Experiment Station Bulletin 17. State College, Pennsylvania. The Pennsylvania State College, 1935. pp. 48-49.

SCOPE OF THE STUDY

Farmers from the patronage area of the departments of vocational agriculture in the Delta, Dillsburg, Dover, Fawn Township, Hellam, New Freedom, and Stewartstown schools are included. These schools are distributed throughout the county and constitute a fairly representative sample of schools and school areas in York County.

SOURCE OF DATA

A logical source from which to secure authentic information contributory to the purposes and objectives of the study as stated is from farmers and farm owners. Men who have farmed five years or more and men who actually own farms should know what is required in the way of experiences, knowledges, and skills before a young man can expect to become a successful farmer. In the survey the farmers of York County, Pennsylvania were sampled and the sampling included all the centers in the county where vocational agriculture is taught in the high schools. Seventy-five satisfactorily completed interviews were secured for this study. Teachers of agriculture in the county were asked to co-operate in interviewing and securing replies from the farmers.

The personal interview method was used to secure as much of the information as possible. A questionnaire form of check list* was developed to aid the interviewer in recording the replies. The nature of the study lent itself best to the personal interview because the interviewer had an opportunity to impress upon the farmer that his candid opinion was valuable and important. Then, too, the farmer was

*See Appendix.

more willing to cooperate when called on personally than he would have been if appealed to through written communication.

The interview blank entitled "Determining Qualifications of Young Men Entering Farming as Evaluated by Present Farm Owners" may be found in the appendix. The blank is conveniently divided into three main divisions, namely: Farm Owner Personal Information, Personal Qualifications of Young Men, and Technical Qualifications of Young Men.

In preparing the request form, no attempt was made to completely cover an enterprise. All job and skill items included were felt to be desirable and necessary for young men to possess. Specialists of The Pennsylvania State College in each of the included enterprises were consulted and asked for their opinions and criticisms. After several revisions the blank was given a trial with a selected group of farmers to determine if it contained irrelevant statements or questions not easily understood. The enterprises used in the blank were selected as the most important for the prevailing type of agriculture in York County, Pennsylvania. Previous farm surveys conducted by teachers of agriculture in the various centers throughout the county were consulted in making up the job lists. The selection of the farmers in the different teaching centers was left to the local teacher of agriculture. He was instructed to interview only general farmers who were farm owners and who had farmed for at least five years. Specialized farmers were not included.

METHOD OF STUDY

Each job listed on the interview blank was checked in one of three columns bearing the headings "very important," "fairly im-

portant," and "unimportant," depending upon the degree of importance which the farmer attached to that job. Thus, a degree of importance was given to each job by the farmer.

Upon examining the replies as listed in the returned interview blank, it was decided to assign a weight value to each of the columns. Thus, the column marked "very important" was given a weight value of three; the column marked "fairly important" was given a weight value of two; and the column marked "unimportant" was given a weight value of one. Hence, the number of replies in each column, multiplied by the weight value, gives a weighted index number for each job. The weighted index numbers were ranked according to order of importance for further comparison and generalization. This treatment of data has been used because it meets the needs of data classification in this particular study.

It is apparent that, in a study of this type with its many types of related information, a tabular form of presenting data is appropriate. All data were therefore set up in table form and generalizations drawn from them.

CHAPTER II

About Farmers Interviewed

The tables which follow indicate some facts about the type of farmers who were interviewed. The historical background of the farm people in York County was described under the heading LOCATION, HISTORY AND POPULATION OF YORK COUNTY, and the agricultural background was described under the heading YORK COUNTY AGRICULTURE. The data presented here further describe the type of farmer who was interviewed. This study is based upon the replies given by these farmers when they were interviewed.

TABLE 1.—Age of Farmers Interviewed.

Age of farmer	Number	Per cent	Median
23 - 34	19	25.4	
35 - 49	32	42.5	
50 - 67	24	32.1	47.72
Total	75	100.0	

The data in Table 1 indicate the age of the farmers who were interviewed. It is to be noted that the largest group of farmers was between 35 and 49 years of age, and that this group constituted 42.5 per cent of the total number of farmers interviewed. It is also significant to note that the second largest group of farmers was between 50 and 67 years of age and constituted 32.1 per cent of the total number of farmers interviewed. Nineteen farmers were in the group from 23 to 34 years of age.

The median age was found to be 47.72 years. This compares

favorably with the figures given by the 1940 Census.* The average age of farmers in Pennsylvania is 51.6 years, and for the United States 48.0 years.

TABLE 2.—Years Experience of Farmers Interviewed.

Years experience	Number	Per cent
40 - above	2	2.7
35 - 39	2	2.7
30 - 34	14	18.7
25 - 29	10	13.3
20 - 24	15	20.0
15 - 19	9	12.0
10 - 14	10	13.3
5 - 9	13	17.3
Total	75	100.0

The data in Table 2 indicate that the largest group, or 20 per cent of the farmers interviewed, has had between 20 and 25 years of experience. It is also to be noted that over 50 per cent of the farmers interviewed have had from 20 to 35 years of experience. If the age 25 be taken as an average age at which to start farming, then the median age of 47.72 years becomes more significant in respect to the median years of experience, which was found to be 21.83 years. The mean years of experience was found to be 20.4 years.

CHILDREN IN FAMILY

From the replies of the farmers interviewed, it was found that the mean number of children per family was 2.7, and that 13 of the farmers interviewed had no children.

*Report of the Sixteenth Census of the United States: 1940, Agriculture, United States Summary, Second Series.

TABLE 3.--Education of Farmers Interviewed.

Highest school grade completed	Number	Per cent
Completing up to and including 8th grade	23	30.7
Completing 9th, 10th, 11th and 12th grades	29	38.6
Completing more than 12th grade	23	30.7

From the data given in Table 3 it is highly significant that over 30 per cent of the farmers interviewed had received education above the high school level, and that the mean years of education was 11.3. Only 23 farmers, or about 30 per cent of the farmers interviewed, failed to continue their education beyond the 8th grade.

TABLE 4.--Home Conveniences of Farmers Interviewed.

Home convenience	Nature of reply		Per cent having convenience
	Yes	No	
Automobile	73	2	97.3
Radio	74	1	98.7
Newspaper	72	3	96.0
Electric lights	68	7	90.6
Telephone	48	27	64.0
Running water	63	12	84.0
Furnace	45	30	60.0
Bathroom	59	16	78.6
Refrigerator	56	19	74.6
Truck	34	41	45.3
Trailer	20	55	26.6

The data in Table 4 indicate that nearly all the farmers interviewed have access to an automobile, a radio, and a newspaper. Eighty-two and five-tenths per cent of all the farmers in Pennsylvania

have automobiles* compared to 97.3 per cent as found in this study.

Those conveniences that are an asset to the housewife, namely, electric lights, running water, bathroom, and refrigerator are found in more than three fourths of the farm homes of those farmers interviewed. The Pennsylvania Farmer* lists 1 bathroom for every 6 farms in Pennsylvania, 1 heating system for every 5 farms; 4 out of every 10 farms have running water, while only 59 per cent of the farms in Pennsylvania have electricity. Thus, the farmers interviewed in this study are above the average as compared with those of York County.

Over 60 per cent of the farmers interviewed have either a trailer or a truck for hauling purposes. Two out of every 3 farmers reported had a telephone as compared to 1 out of 3 for York County.

FARM SURVEY INFORMATION

The data secured under the heading FARM SURVEY indicate the acres of crops and kind of livestock kept on the farms of the farmers included in this study.

These data show that the farmer interviewed was a general farmer.

*The Pennsylvania Farm Market. The Pennsylvania Farmer, Pittsburgh, Pennsylvania. Section Four.

TABLE 5.--Pertinent Facts from the Farm Survey.

	Number of farms	Per cent
Farms having less than 300 chickens	24	32.0
Farms having less than 200 chickens	16	21.3
Farms having less than 100 chickens	8	10.6
Farms having no poultry	2	2.6
Farms having sheep	5	6.6
Farms having no hogs	11	14.6
Farms having 5 or more hogs	55	73.3
Farms having 10 or more hogs	41	54.7
Farms having feeder steers	19	25.3
Farms having no horses	11	14.6
Farms having no dairy cows	4	5.3
Farms having 10 or more cows	50	66.6
Farms having 15 or more cows	40	53.3
Farms having 5 or more acres of fruit	15	20.0
Farms with 1 or more acres of potatoes	32	42.5
Farming 1 or more acres of sweet corn	31	41.3
Farming 1 or more acres of tomatoes	22	29.3
Farms growing cannery crops	45	60.0

CHAPTER III

Occupational Requirements of Young Men

PART I

Personal Requirements of Young Men

It was the desire of the writer to determine if the farmers interviewed considered certain personal qualifications of a young man to be of importance for his success in farming. The data which follow indicate some of the qualifications mentioned and the responses made by farmers concerning their importance and relationship to the occupational success of young men in farming.

TABLE 6.--Personal Requirements of Young Men Entering Farming.

Requirement	Number yes	Per cent
Should the young man:		
Be a high school graduate	70	93.3
Have a college education	38	50.6
Have had vocational agriculture training	69	92.0
Have had part-time or evening class training	69	92.0
Be married	66	88.0
Have a family	58	77.3
Be a church member	72	96.0
Belong to Grange, civilian defense or other community interest	68	90.6
Have access to an automobile	70	93.3
Have previous farm experience	73	97.3
Be mechanically inclined	73	97.3
Be able to work alone	75	100.0
Be responsible for carrying on work during the absence of the farmer	75	100.0
Make managerial decisions	72	96.0
Know what constitutes an honest day's work	75	100.0
Make suggestions to farmers or others	69	92.0
Follow directions without resentment	72	96.0
Know how to save money	74	98.6
Be neat and tidy about the house	73	97.3
Be neat and particular about clothing	70	93.3
Have nights off for movies, etc.	73	97.3
Know how to conserve rubber, gasoline, machinery and other essential material	75	100.0

The data in Table 6 indicate that the items included as personal requirements were regarded quite generally as being important for the success of the young man in farming.

It is to be noted that over 50 per cent of the farmers interviewed regarded a college education as an essential factor for a greater degree of success as a farmer. It should be remembered, too, that the mean years of education of the farmers interviewed was 11.3.

Only about 7 per cent of the farmers interviewed regarded a high school education as non-essential, and 8 per cent considered vocational agriculture and part-time and evening class training as unimportant.

It is significant to note that all the farmers answered yes to the following items: be able to work alone, be responsible for carrying on the work during the absence of the farmer, know what constitutes an honest day's work, and know how to conserve rubber, gasoline, machinery and other vital and essential materials.

Only 5 of the farmers consider the use of an automobile to be of no importance, while 73 farmers agree that the young man should be neat and tidy about the house.

The marital status of the young men seems to contribute to their success as farmers. Eighty-eight per cent of the farmers interviewed agree that to be most successful young farmers should be married, and 77.3 per cent believe that children definitely contribute to their farming success.

Fifty per cent of the farmers interviewed do not consider a college education to be necessary, but nearly all agree that it is desirable to have.

PART II

Technical Requirements of Young Men

All the enterprises in the interview survey blank and the job skills listed under each enterprise heading are tabulated according to their order of importance as determined by the weighted index number.

TABLE 7.--Technical Requirements for Young Men in the Dairy Husbandry Enterprise Listed in Order of Importance.

Job skills	Weighted index number
1. Select the herd sire	220
2. Select cows according to production	219
3. Know how to feed grain economically	218
4. Understand herd improvement by breeding	217
5. Select the calf to raise	214
6. Feed producing cows during the winter months	214
7. Know sanitation practices in milk house and barn	214
8. Feed the cow according to milk yield	212
9. Be able to drench a cow	208
10. Know how to treat a cow for caked udder	207
11. Have a knowledge of common diseases of livestock and their treatment	206
12. Know when and how to dry off a cow	204
13. Know how to milk	203
14. Treat an animal that is off feed	203
15. Know how and why to clean pails and equipment	202
16. Treat calves for calf scours	199
17. Feed producing cows during the pasture season	198
18. Know feeding value of various feeds and grains	198
19. Feed heifers to freshening	197
20. Feed dry cows	195
21. Be able to wash udder and flanks before milking	195
22. Feed the herd sire	194
23. Feed calf up to six months	193
24. Have a knowledge of bacterial action	190
25. Know the use of the Bang's disease test	190
26. Know the purposes of cow testing associations	190
27. Be able to clip an udder	189
28. Know relation of family health to wholesome milk	189
29. Weigh the grain ration for cows	182
30. Understand barn ventilation	182
31. Select the breed of cows to keep	181
32. Know the use of the strip cup for mastitis	181

TABLE 7.--Continued

Job skills	Weighted index number
33. Know the use of bedding materials	179
34. Know the value of grass silage	178
35. Select cows according to pedigree	173
36. Teach the calf to drink	171
37. Be able to mix and use whitewash	171
38. Identify feeds	170
39. How to operate a milking machine	170
40. Be able to sketch drawings of animals for registry	163
41. Know how to treat a cow for milk fever	162
42. Be able to treat cows for mastitis	154
43. Be able to groom a dairy cow	151
44. Select cows according to appearance	149
45. Know how to treat a cow for foot rot	148
46. Know how to dehorn calves	140
47. Know the anatomy of animals	140
48. Know how to operate a cream separator	134
49. Be able to trim an animal's hoofs	128
50. Fit an animal for show	126
51. Know how to remove extra teats	123
52. Know how to make butter for farm use	122
53. Know how to make ice cream for home use	121
54. Be able to test milk for butterfat	119
55. Train an animal for show	119
56. Be able to train an animal's horns	109

Reference to the data in Table 7 indicates that, for the most part, those job skills which are listed in the upper 25 per cent of the enterprise list are concerned with actual production and management problems of the dairy herd. For example, selecting the herd sire, selecting cows according to production, feeding grain economically, and improving the herd through breeding, rank very high in their value to the farmers interviewed as criteria for success of the young men in farming. Obviously these job skills are primarily concerned with production and management, and it is likely that the importance of dairying on the average York County farm is responsible for this viewpoint.

Job skills not directly associated with the income from the dairy herd on a general farm fall into the lower 25 per cent of the enterprise list. These include such items as ability to trim an animal's horns, train an animal for show, and be able to test milk for butterfat.

It is significant to note that selecting the herd sire was considered first in importance to the farmer, and the weighted index number was 220. Being able to trim an animal's horns was regarded as the least important, and the weighted index number was 109. This indicates a wide degree of importance among job skills in the dairy enterprise.

Several job skills which have been given a ranking of most importance in educational circles fall into the middle group when classified by farmers. For example, selecting cows according to appearance ranked 44th and had an index value of 149, know the value of grass silage ranked 34th and had an index value of 178, and be able to test milk for butterfat ranked 54th and had an index of 119. The question may then be asked, "Should agricultural teachers devote more time to production and management problems which are directly concerned with farm income?"

The data in Table 8 indicate that, of the animal husbandry job skills, knowing how to fit a collar and harness to a team, and knowing how to do the necessary chores about the farm for all types of livestock, were considered of equal importance. Each had an index value of 216. Being able to drive a horse or team was a close second, with an index value of 215. The importance of the horse is rather significant in view of the fact that the number of horses has been decreasing on

TABLE 8.--Technical Requirements for Young Men in the Animal Husbandry Enterprise Listed in Order of Importance.

Job skills	Weighted index number
1. Fit a collar and harness to a team	216
2. Know how to do necessary chores about the barn for all types of livestock	216
3. Be able to drive a horse or team	215
4. Select good breeding animals	213
5. Know best market weights, quality and condition for types of livestock	213
6. Mix a balanced ration	211
7. Know how to apply sanitation in the care of stock	210
8. Know heat cycles and breeding problems of stock	202
9. Know how to install guard rails in a farrowing pen	198
10. Treat a horse for sore neck and shoulders	193
11. Treat livestock for external parasites	179
12. Wash a sow before farrowing	178
13. Know how to make a self feeder and creep for stock	177
14. Study the types of barns, shelters and equipment used for sheep, swine, horses and beef cattle	175
15. Treat livestock for internal parasites	165
16. Identify livestock by ear tag or ear mark	163
17. Know how to dock lambs	158
18. Know how to teach a foal to lead	157
19. Know how to slaughter livestock on the farm	156
20. Know how to cut up a carcass of meat	156
21. Know how to dip a sheep	154
22. Be able to castrate livestock	154
23. Know how to shear a sheep	147
24. Judge a ring of each kind of livestock	143
25. Mount a horse or ride with or without a saddle	142
26. Be able to put a shoe on a horse	141
27. Be able to clip and trim a foretop on a horse	136
28. Know how to care for a beef hide or a sheep pelt	132
29. Be able to mix a good livestock spray	131

Pennsylvania farms* and 14 per cent of the farmers interviewed did not keep horses.

The job skills in the upper 25 per cent of the animal husbandry enterprise are definitely management and production.

There is also a noticeable difference in index values between the upper 30 per cent, a value of 198, and the lower 60 per cent, a value of 179. This is apparently due to the fact that general livestock farming is not so important on the average York County farm. Hogs and feeder steers are of importance, but sheep and horses are almost negligible.

TABLE 9.—Technical Requirements for Young Men in the Poultry Husbandry Enterprise Listed in Order of Importance

Job skills	Weighted index number
1. Prepare for and brood chicks in a brooder house	220
2. Know how to feed chicks and growing stock	219
3. Be able to feed laying stock	218
4. Know how to cull a flock of poultry	215
5. Know what treatment to use for lice and mites	214
6. Select practical breeds, varieties and strains	209
7. Understand the general management of the flock, including such items as use of lights, wet mash, pick guards, etc.	206
8. Be able to evaluate sources for purchasing chicks	203
9. Know how to treat poultry for worms	203
10. Know how to grade, candle and pack eggs for market	200
11. Plan a year's operation for a poultry enterprise	197
12. Know how to select breeders for hatching	171
13. Feed and manage a small farm flock of turkeys	167
14. Conduct post-mortem on fowl and recognize common poultry diseases	158
15. Know how to kill and dress poultry for market	154
16. Be able to vaccinate for pox	151
17. Be able to keep trapnest records	130
18. Know how to caponize cockerels	120
19. Know how to set an incubator of eggs and hatch chicks	114

*Pennsylvania Crop and Livestock Report, 1940-41. General Bulletin 582, Vol. 25, No. 4. Harrisburg: Pennsylvania Department of Agriculture, July-August, 1942. pp. 6-30.

The data in Table 9 indicate that the poultry enterprise ranks higher in importance than either the dairy or animal husbandry enterprise. Nearly 85 per cent of the index values range from 150 to 220. This is easy to understand when one considers that York County leads in the number of chickens on farms in Pennsylvania.* To know how to prepare for and brood chicks in a brooder house was considered most important and has an index value of 220. Feeding chicks, growing stock, laying hens, and the culling of poultry follow next in importance, in the order given.

The data in Table 10 indicate that the farmers interviewed regard the crops and soils enterprise to be more important than any of the animal enterprises. Disregarding items 25 and 26, the index values fall between 171 and 221. This is undoubtedly due to the highly productive soil found in most parts of York County, especially the southern and eastern sections. Most any crop that has a climatic requirement for the northern and north central United States can be grown successfully in York County, Pennsylvania.

It is significant to note that farmers are now realizing the importance of legumes and other grasses in the control of erosion. This job skill ranked in the upper 25 per cent in degree of importance.

It is also important to note that the farmer is not primarily concerned with such job skills as testing soil for lime and other elements, and in knowing the genetics involved in hybrid corn production, but that he is leaving these skills to the trained agricultural special-

*The Pennsylvania Farm Market. The Pennsylvania Farmer, Pittsburgh, Pennsylvania. Section Four.

TABLE 10.—Technical Requirements for Young Men in the Crops and Soils Enterprise Listed in Order of Importance.

Job skills	Weighted index number
1. Know how to prepare a good seed bed	221
2. Know when and how to cultivate various crops	221
3. Understand crop rotations	219
4. Know when and how to plant various field crops	219
5. Know when and how deep to plow	216
6. Know how to improve the pasture	215
7. Understand the use of legumes and grasses in erosion control	212
8. Know how to mix and apply poison sprays when necessary	211
9. Know how to treat seed for smut	210
10. Know the rate of seeding various crops	209
11. Know when, why and how often to spray potatoes	209
12. Know how to eradicate common insects and diseases of field crops, vegetables and fruits	209
13. Know recommended crop varieties adapted to the region	201
14. Know how to treat farm seeds for disease	195
15. Know how to provide a poultry range in the farm program	194
16. Know when and for what crops to use a field weeder	191
17. Know the approved methods for grain harvest	189
18. Know how to treat seed potatoes	189
19. Be able to make a granary vermin-proof	187
20. Be able to cut seed potatoes	187
21. Know how to make a seed germination test	184
22. Know how to select, dry and store seed corn	175
23. Be able to grade and clean farm seeds	175
24. Know how to load grain on a wagon	171
25. Know how to test soil for lime and other elements	138
26. Know the genetics of hybrid corn production	127

ist. Selecting, drying and storing seed corn, and cleaning and grading farm seeds are other examples.

First in importance, from the farmer's viewpoint, is the ability to prepare a good seed bed, and to know when and how to cultivate various crops. The index value for each skill is 221.

To understand crop rotations, know when and how to plant the various field crops, know when and how deep to plow, and know how to improve the pasture come next in importance, in the order given.

The upper 25 per cent of the job skills in order of importance, as ranked by the farmers interviewed, are significantly cultural practices.

TABLE 11.--Technical Requirements for Young Men in the Cannery and Vegetable Crop Enterprise Listed in Order of Importance

Job skills	Weighted index number
1. Know how to use labor efficiently in harvesting crops	215
2. Know how to inoculate soil or seed for legume production	213
3. Know how to operate common field machinery for cannery crops	202
4. Be able to transplant seedlings	197
5. Understand the value of disease resistant varieties	197
6. Evaluate and determine reliable seed sources	190
7. Know how to prepare a storage for vegetables	190
8. Service and maintain cannery field machinery	190
9. Know how to treat seed for diseases	187
10. Know how to plan and plant a garden	186
11. Know how to establish and use a mulch	184
12. Be able to make a seed germination test	183
13. Be able to fill out an order for vegetable seeds	178
14. Know how to grade and bunch vegetables	172
15. Know how to prepare and seed a hotbed	170
16. Know the process of certifying seed	145
17. Know how to sterilize soil for seeding purposes	145

The data in Table 11 indicate the cannery and vegetable crop enterprise to be of about equal importance with the crop and soils enterprise.

It is significant to note that the use of labor efficiently and the operation of field machinery for cannery crops are regarded as very important by the farmers interviewed.

TABLE 12.--Technical Requirements for Young Men in the Fruit Growing Enterprise Listed in Order of Importance.

Job skills	Weighted index number
1. Be able to prune fruit trees and small fruits	207
2. Know when to use different sprays	206
3. Know how to plant a tree	204
4. Know when to pick fruit for best market price	203
5. Know how to mix various orchard sprays	202
6. Know when and how to fertilize the orchard	200
7. Know what fruit varieties to select for the region	200
8. Know how to pick fruit	199
9. Know how to pack fruit for market	199
10. Know how to manage an orchard soil in a bearing orchard	196
11. Know a desirable location for fruit growing	196
12. Be able to select and seed cover crops in the orchard	195
13. Know how to care for nursery stock when it arrives	195
14. Know when and how to cultivate the young orchard	192
15. Be able to lay out an orchard or a small fruit area	181
16. Know how to graft fruit trees	156
17. Know how to make grafting wax	142
18. Know how to select and judge exhibits of fruit	139

From the data in Table 12 it is apparent that the fruit growing enterprise is not considered to be as important as the other enterprises in the interview survey blank. This is probably accounted for by the fact that this enterprise is carried on somewhat sectionally and intensively rather than being common to all parts of the county under general farming conditions. In other words, this enterprise is not a part of general farming in York County, Pennsylvania.

The data in Table 13 indicate that farm management is considered to be the most important enterprise by the farmers interviewed.

Sixty-three per cent of the job skills were rated an index value above 200.

TABLE 13.--Technical Requirements for Young Men in the Farm Management Enterprise Listed in Order of Importance.

Job skills	Weighted index number
1. Know when to do work on the farm	222
2. Know proper time to harvest crops	222
3. Know how to keep records of receipts and expenses	220
4. Correct barn faults for labor efficiency	219
5. Know when to sell farm products	219
6. Know when, where and how to market farm products	217
7. Know how to properly handle barnyard manure	215
8. Know when and how to apply manure in the rotation	213
9. Understand the fertility value of farm manure	211
10. Know best procedure for fertilizing crops	211
11. Be able to prepare farm products for market	211
12. Know how to build a good sod	211
13. Understand the value of green manure crops	211
14. Know the ways of getting started in farming	210
15. Know how to manage production within the enterprise	207
16. Know why manure should be reinforced with phosphate	204
17. Know the crops adapted to certain soils	202
18. Plan operations for the year for each enterprise	195
19. Know how to figure cost accounts for each enterprise	195
20. Be able to take a farm inventory	191
21. Be able to lay out strips, sod waterways or diversion ditches for soil conservation	186
22. Know how to figure labor income	184
23. Know how to prepare a budget	182
24. Know where and how to get farm credit	178
25. Know how to figure income tax returns	172
26. Know farm insurance rates, types, etc.	170
27. Know laws affecting farmers	170

Know when to do work on the farm, and know the proper time to harvest crops, were both given index values of 222, which is the highest of any job skill listed.

Although many farmers do not keep complete farm records including receipts and expenses, it is significant to note that 97.8 per

cent of the farmers interviewed regarded this job skill as very important. The index value is 220.

Correct barn faults for labor efficiency, and know when to sell farm products, were considered very important by 97.3 per cent of the farmers interviewed. The index value for these items is 219.

It is significant to note that farm problems relating to insurance, farm laws, income tax reports, preparing a farm budget, obtaining farm credit, and calculating labor income rank in the lower 25 per cent of the job skills in degree of importance to the farmers interviewed.

From these data it is obvious that the business side of farming ranks very important to the farmers interviewed.

Reference to the data in Table 14 indicates that, for the most part, the repairing, adjusting and servicing of farm field machinery is considered very important. Over 90 per cent of the farmers interviewed rank these job skills in the upper 25 per cent of the enterprise list in degree of importance.

Know how to weld, know how to temper, know how to repair an electric motor, know how to shingle a roof, and know how to cut glass are considered to be the least important and rank in the lower 25 per cent of the job skills list.

The farmer evidently believes that these job skills can best be handled by someone who is specially trained for that purpose.

It is significant to note that the index values range from 116 to 207, and that 85 per cent of the job skills have index values below 200. Considering the farm mechanics enterprise in general, one

TABLE 14.—Technical Requirements for Young Men in the Farm Mechanics Enterprise Listed in Order of Importance.

Job skills	Weighted index number
1. Repair, adjust and service a binder	207
2. Sharpen hand and power tools	207
3. Repair, adjust and service a tractor	205
4. Repair, adjust and service a mower	205
5. Mix cementing materials	195
6. Repair, adjust and service a sprayer	195
7. Know how to tie common farm knots	190
8. Be sufficiently skilled with tools to construct such items as nests, feeders, etc.	190
9. Know how to select fencing materials	189
10. Be able to adjust, service and maintain garden machinery	187
11. Know how to repair, adjust and service a gas engine	182
12. Know how to adjust and service a potato grader	181
13. Be able to paint buildings and machinery	177
14. Be able to repair a hole by soldering	165
15. Be able to make an adjustable rope halter	161
16. Know how to splice a rope	159
17. Be able to construct such electrical items as electrical brooders, electric fence, etc.	159
18. Know how to construct a hotbed	159
19. Be able to electrify small farm equipment	158
20. Be able to properly install a window	157
21. Be able to stitch and repair leather material	157
22. Be able to do the normal common electric wiring operations about the farm	156
23. Know how to file and set a hand saw	152
24. Be able to lay a drainage system	151
25. Be able to brace corners of buildings	151
26. Be able to read an electric meter	148
27. Know how to hang a door	148
28. Repair and maintain an eaves spouting	144
29. Know how to cut glass	140
30. Be able to shingle a roof	132
31. Repair an electric motor	128
32. Know how to temper	118
33. Know how to weld	116

may conclude that farmers are a busy group of people; too busy, in fact, to do most of their own repair work. Disregarding expense, most of the farmer's machinery can be replaced or repaired quickly by someone else, and the farmer does not consider these job skills to be of the same degree of importance as the other job skills in other enterprises.

CHAPTER IV

Conclusions and Recommendations

CONCLUSIONS

Reference to the data in this study would seem to justify the following conclusions:

I. Based upon the replies of farm owners the following personal and technical skill requirements relating to farming are the most important for a young man to possess if he is to become a successful farmer:

A. Personal requirements listed in order of importance.

1. Be able to work alone.
2. Be responsible for carrying on work during the absence of the farmer.
3. Know what constitutes an honest day's work.
4. Know how to conserve rubber, gasoline, machinery, and other vital and essential materials.
5. Know how to save money.
6. Have had previous farm experience.
7. Be mechanically inclined.
8. Know how to make managerial decisions.
9. Be a high school graduate.
10. Have had vocational agriculture training.
11. Have had part-time or evening class training.

B. Technical and skill requirements listed in order of importance.

These technical and skill requirements were con-

sidered very important by the farmers interviewed, and rank in the upper 25 per cent according to their index values.

1. Dairy Husbandry Enterprise listed in order of importance.

Select the herd sire.

Select cows according to production.

Feed grain economically.

Improve the herd by breeding.

Select the calf to raise.

Feed cows during the winter.

Practice sanitation in the milk house and barn.

Feed cows according to milk yield.

Drench a cow.

Treat a cow for caked udder.

Know livestock diseases and treatment.

Know when and how to dry off a cow.

Know how to milk.

Treat an animal that is off feed.

2. Animal Husbandry Enterprise listed in order of importance.

Fit a collar and harness to a team.

Know how to do barn chores for all types of livestock.

Be able to drive a horse or team.

Know how to select good breeding animals.

Know market weight, quality and condition for
all types of livestock.

Be able to mix a balanced ration.

Know and practice sanitation in the care of
livestock.

3. Poultry Husbandry Enterprise listed in order of
importance.

Prepare for and brood chicks.

Feed chicks and growing stock.

Feed laying stock.

Cull a flock of birds.

4. Crops and Soils Enterprise listed in order of
importance.

Prepare a good seed bed.

Know when and how to cultivate crops.

Understand crop rotations.

Know when and how to plant crops.

Know when and how deep to plow.

Know how to improve a pasture.

5. Cannery and Vegetable Crop Enterprise listed in
order of importance.

Use labor efficiently in harvesting crops.

Innoculate soil or seed for legumes.

Operate field cannery machinery.

Know value of disease resistant varieties.

6. Fruit Growing Enterprise listed in order of import-
ance.

Prune trees and small fruits.

Know when to use various sprays.

Know how to plant a tree.

Know when to pick fruit for best market price.

7. Farm Management Enterprise listed in order of importance.

Know when to do work on the farm.

Know the proper time to harvest crops.

Know how to keep records of receipts and expenses.

Correct barn faults for labor efficiency.

Know when to sell farm products.

Know when, where, and how to market farm products.

8. Farm Mechanics Enterprise listed in order of importance.

Repair, adjust, and service a binder.

Be able to sharpen hand and power tools.

Repair, adjust, and service a tractor.

Repair, adjust, and service a mower.

Know how to mix cementing materials.

Repair, adjust, and service a sprayer.

Know how to tie common farm knots.

Be sufficiently skilled with tools to construct such items as nests, feeders, etc.

II. All of the farmers included in this study agree that the most important personal qualifications for a potential farmer to have are: to be able to work alone, be responsible for carrying on work during the absence of the farmer, know what constitutes an honest day's work, and know how to conserve rubber, gasoline, machinery and other essential and vital materials.

III. The data indicate that farm management is considered to be the most important enterprise by the farmers interviewed. Sixty-three per cent of the job skills in this enterprise have index values above 200.

The job skills which rank in the upper 25 per cent of the enterprise list, in their degree of importance are: know when to do work on the farm, know the proper time to harvest crops, know how to keep records of receipts and expenses, correct barn faults for labor efficiency, know when to sell farm products, know where and how to market farm products, and know how to properly handle barnyard manure.

IV. Those job skills which are listed in the upper 25 per cent of the dairy enterprise list are concerned primarily with actual production and management problems of the dairy herd.

V. The poultry husbandry enterprise ranks first in importance among the livestock enterprises. Ninety-eight per cent of the farmers interviewed agree that preparing for and brooding chicks is the most important poultry job skill.

Furthermore, over 95 per cent of the farmers consulted in this study regard the feeding and growing of chicks and laying stock and the culling of the laying flock as the most important job

skills in the poultry enterprise.

VI. The crops and soils enterprise is given a rating of greater importance than any of the animal enterprises. Over 95 per cent of the farmers interviewed consider the upper 25 per cent of the job skills above an index value of 215. These are: be able to prepare a good seed bed, know when and how to cultivate crops, understand crop rotations, know when and how to plant crops, know when and how deep to plow, and know how to improve a pasture.

VII. Farmers do not regard repair work to be as important as other enterprise job skills. Nearly 85 per cent of the job skills have index values below 200, indicating that trained repairmen are doing most of the repair work, or that worn out machines are being replaced by the purchase of new ones.

In general, the farmers included in this study are not primarily concerned with job skills of a specialty nature but instead are leaving these tasks to specialized men who are agricultural trained men.

RECOMMENDATIONS

I. It is recommended that teachers of vocational agriculture include in their courses at least the upper 50 per cent of the job skills that are listed in all of the agricultural enterprises. Some or all of the other job skills may or may not be included, depending on the emphasis placed upon the enterprise in a given community.

II. Those job skills with high index values are regarded to be of sufficient importance by experienced farmers to warrant repetition by teachers of vocational agriculture. Thus, if the teacher is

following the cross sectional method, he need not be disturbed by the apparent necessity of repeating the teaching of important job skills.

III. It is further recommended that teachers place more emphasis on the teaching of farm management problems. The consistently high index values of the job skills in this enterprise warrant this recommendation.

IV. Teachers should place a greater degree of importance on the teaching of general production and management problems in both the livestock and crop production enterprises, and less importance on highly specialized problems.

V. Teachers should make use of the findings under "Personal Requirements" in planning and organizing material for guidance courses. These high ranking personal requirements should be brought to the attention of the boy who is planning to enter farming as a vocation. Teachers should train young men to evaluate the occupation of farming in its broader aspects and to make the personal adjustments necessary to establish a successful home on a farm.

It is to be pointed out that the recent trend in agricultural training has been to emphasize farm income and to minimize consideration of the broader personal and human aspects of farm life. Young men should understand both aspects of farming and their relationship to each other before entering upon farming as an occupation.

VI. Teachers should help young men to realize the need for and the value of continuing their education after leaving school. Although a college education is not regarded to be a necessity, nearly all of the farmers agree that it is desirable to have. Teachers should

discuss with pupils the relationship between education and farm income. Teachers should also help young men to obtain and apply such scientific information about farming as seems necessary for their greatest success as farmers.

BIBLIOGRAPHY

- Anderson, C. S. Vocational Interests of Rural High School Pupils in Pennsylvania. Bulletin 342, The Pennsylvania State College. 1937.
- Brown, H. H. The Educational Needs of Out-of-School Farm Youth. A Master's Thesis, Kansas State College.
- Clark, L. T. How Young Men Became Established in Farming in Richland County, Illinois. A Master's Thesis, The University of Illinois.
- Dawson, A. W. A Study of Out-of-School Farm Youth Within the Area Served by the Auburn Indiana High School. A Master's Thesis, Purdue University.
- Hoskins, E. R. Young Men in Farming. Voc. Ed. Bull. No. 188, United States Office of Education, Washington, D. C.
- Murphy, Raymond E. The Economic Geography of York, Pennsylvania. Mineral Industries Experiment Station Bulletin 17, The Pennsylvania State College. 1935. pp. 48-49.
- Ninth Industrial Directory of the Commonwealth of Pennsylvania. Harrisburg: Department of Internal Affairs, Commonwealth of Pennsylvania. 1938. pp. 653-656.
- Occupational Outlook for Georgia Youth. Atlanta: National Youth Administration of Georgia. June 1939.
- Pennsylvania Crop and Livestock Report, 1940-41. General Bulletin 582, Vol. 25, No. 4. Harrisburg: Pennsylvania Department of Agriculture. July-August 1942. pp. 6-30.
- Pennsylvania Farm Market. The Pennsylvania Farmer, Pittsburgh, Pennsylvania. Section Four.
- Report of the Sixteenth Census of the United States: 1940, Agriculture, United States Summary, Second Series.

APPENDIX

PERSONAL INTERVIEW

Determining Qualifications Of Young Men Entering Farming
As Evaluated By Present Farm Owners

Farm Owner Personal Information

Name of Farmer _____ Address _____

Age _____ Years you have farmed _____ yrs. Children in family _____

Highest school grade completed _____

Home Conveniences: (Check those found on the farm)

_____ Automobile	_____ Electric lights	_____ Furnace
_____ Radio	_____ Telephone	_____ Bathroom
_____ Newspaper	_____ Running water	_____ Refrigerator
_____ Truck	_____ Trailer	

Farm Survey: (Indicate acres of crops and number of livestock)

		No.	Breed
_____ A. Corn, field	_____ A. Sweet corn	_____ Horses	_____
_____ A. Wheat	_____ A. Tomatoes	_____ Dairy Cows	_____
_____ A. Barley	_____ A. Peas, field	_____ Feeder Steers	_____
_____ A. Oats	_____ A. Beans, field	_____ Poultry	_____
_____ A. Potatoes	_____ A. Apples	_____ Hogs	_____
_____ A. Hay	_____ A. Peaches	_____ Sheep	_____
_____ Others _____		_____ Others _____	

Personal Qualifications
of Young Men (Check answer)

Should the young man be a high school graduate ___yes___no

Should the young man have had vocational agricultural training ___yes___no

If not a high school graduate, should he have had part-time or evening class
training ___yes___no Should he have had college training ___yes___no

Should he be (married) ___ or (single) ___ Should he have a family ___yes___no

Be a church member ___yes ___no Belong to Grange, Civilian defense or other
 community interest ___yes ___no Have access to an automobile ___yes ___no
 Have had previous farm experience ___yes ___no
 Be mechanically inclined ___yes ___no Should he be able to work
 alone ___yes ___no Be responsible for carrying on work during the absence of
 the farmer ___yes ___no Be able to make managerial decisions ___yes ___no
 Know what constitutes an honest day's work ___yes ___no Be able to make kindly
 suggestions to other people or to the farmer ___yes ___no Should he be able to
 follow directions without a feeling of resentment ___yes ___no Know how to save
 money ___yes ___no Be neat and tidy about the house ___yes ___no Be neat and
 particular about his clothing ___yes ___no Have nights off for movies, etc.
 ___yes ___no Know how to conserve rubber, gasoline, machinery and other vital
 and essential materials ___yes ___no.

Dairy Husbandry Check List

	Very import- ant	Fairly import- ant	Un- import- ant
1. Select the breed of cows to keep _____			
2. Select cows according to appearance _____			
3. Select cows according to production _____			
4. Select cows according to pedigree _____			
5. Select the herd sire _____			
6. Select the calf to raise _____			
7. Know how to feed grain economically _____			
8. Know feeding value of various feeds and grains _____			
9. Identify feeds _____			
10. Weigh the grain ration for cows _____			
11. Feed the cow according to milk yield _____			
12. Feed calf up to six months _____			

13. Feed heifers to freshening _____			
14. Feed producing cows during the pasture season _____			
15. Feed producing cows during the winter months _____			
16. Feed dry cows _____			
17. Feed the herd sire _____			
18. Teach the calf to drink _____			
19. Know how and why to clean pails and dairy equipment _____			
20. Know when and how to "dry off" a cow _____			
21. Know how to milk _____			
22. How to operate a milking machine _____			
23. Be able to test milk for butterfat _____			
24. Fit an animal for show _____			
25. Train an animal for show _____			
26. Know how to dehorn calves _____			
27. Be able to groom a dairy cow _____			
28. Be able to clip an udder _____			
29. Know how to remove extra teats _____			
30. Be able to trim an animal's hoofs _____			
31. Be able to train an animal's horns _____			
32. Know the use of bedding materials _____			
33. Understand barn ventilation _____			
34. Understand improvement of dairy herd by breeding _____			
35. Be able to wash udder and flanks before milking _____			
36. Have a knowledge of bacterial action _____			
37. Have a knowledge of common diseases of livestock and their treatment _____			
38. Know the anatomy of animals _____			
39. Treat calves for calf scours _____			

40.	Treat an animal that is off feed			
41.	Know the use of the Bang's disease test			
42.	Know the use of the strip cup for mastitis			
43.	Be able to test cows for mastitis			
44.	Know how to treat a cow for foot rot			
45.	Know how to treat a cow for caked udder			
46.	Know how to treat a cow for milk fever			
47.	Be able to drench a cow			
48.	Know sanitation practices in the milk house
and barn			
49.	Be able to sketch drawings of animals for
registry			
50.	Know the value of grass silage			
51.	Know the purposes of cow testing associations			
52.	Be able to mix and use whitewash			
53.	Know how to operate a cream separator			
54.	Know how to make butter for farm use			
55.	Know how to make ice cream for home use			
56.	Know relation of wholesome milk to family health			

Animal Husbandry

1.	Select desirable breeding animals of livestock			
2.	Judge a ring of each kind of livestock			
3.	Mix a balanced ration of home grown feeds and
protein supplements and roughage			
4.	Study the types of barns, shelters and equipment
used for sheep, swine, horses, beef cattle			
5.	Be able to mix a good livestock spray			
6.	Treat livestock for external parasites			
7.	Treat livestock for internal parasites			
8.	Treat a horse for sore neck and shoulders			

9. Know how to dip a sheep _____			
10. Know how to apply sanitation in care of livestock _____			
11. Wash a sow before farrowing _____			
12. Be able to identify livestock by ear tag or ear mark _____			
13. Know how to dock lambs _____			
14. Be able to castrate livestock _____			
15. Know how to slaughter livestock on the farm _____			
16. Know how to cut up a carcass of meat _____			
17. Be able to do necessary chores about the barn for all types of livestock _____			
18. Know how to install guard rails in a farrowing pen _____			
19. Be able to clip and trim a foretop on a horse _____			
20. Know how to teach a foal to lead _____			
21. Know how to fit a collar and harness to a horse or team _____			
22. Be able to drive a horse or team _____			
23. Mount a horse or ride with or without a saddle _____			
24. Know how to shear a sheep _____			
25. Know how to care for a beef hide or sheep pelt _____			
26. Know how to make a self feeder and creep for livestock _____			
27. Be able to put a shoe on a horse _____			
28. Know heat cycles and breeding problems of livestock _____			
29. Know best market weights, quality and condition for types of livestock _____			

Poultry Husbandry

1. Select practical breeds, varieties and strains of poultry _____			
---	--	--	--

2. Be able to plan a year's operation for a poultry enterprise			
3. Be able to evaluate sources for purchasing chicks			
4. Know how to cull a flock of poultry			
5. Know how to feed chicks and growing stock			
6. Be able to feed laying stock			
7. Know how to prepare for and brood chicks in brooder house			
8. Know how to grade, candle and pack eggs for market			
9. Know what treatment to use for lice and mites of poultry			
10. Know how to treat poultry for worms			
11. Know how to caponize cockerels			
12. Be able to vaccinate for pox			
13. Know how to conduct a post mortem of a fowl and recognize common poultry diseases			
14. Know how to kill and dress poultry for market			
15. Understand the general management of the poultry flock including such items as use of lights, wet mash, pick guards, etc.			
16. Know how to feed and manage a small farm flock of turkeys			
17. Know how to set an incubator of eggs and hatch chicks			
18. Be able to keep trapnest records			
19. Know how to select breeders for hatching purposes			
<u>Crops and Soils</u>			
1. Know how to improve the pasture			
2. Understand crop rotations			
3. Know how to provide a poultry range in the farm program			

4. Know when and how deep to plow _____			
5. Know how to prepare a good seed bed _____			
6. Know when and for what crops to use a field weeder _____			
7. Know when and how to plant the various field crops _____			
8. Know the rate of seeding various crops _____			
9. Know how to select, dry and store seed corn _____			
10. Know recommended crop varieties adapted to region _____			
11. Know how to make a seed germination test _____			
12. Be able to grade and clean farm seeds _____			
13. Know how to treat farm seeds for disease _____			
14. Know the approved methods for grain harvesting _____			
15. Be able to make a granary vermin proof _____			
16. Know how to load grain on a wagon _____			
17. Know when, why and how often to spray potatoes _____			
18. Know how to treat seed potatoes _____			
19. Know how to treat seed for smut _____			
20. Know how to eradicate common insects and diseases of field crops, vegetables and fruits _____			
21. Know how to mix and apply poison sprays when necessary _____			
22. Know how to test soil for lime and other elements _____			
23. Be able to cut seed potatoes _____			
24. Know the genetics involved in hybrid corn production _____			
25. Understand the use of legumes and grasses in erosion control _____			
26. Know when and how to cultivate various crops _____			

Cannery and Vegetable Crops

1. Know how to prepare and seed a hotbed			
2. Know how to sterilize soil for seeding purposes			
3. Be able to transplant seedlings			
4. Know how to plan and plant a garden			
5. Be able to make a seed germination test			
6. Know the process of certifying seed			
7. Be able to fill out an order for vegetable seeds			
8. Be able to evaluate and determine reliable seed sources			
9. Know how to treat seed for diseases			
10. Know how to prepare a storage for vegetables			
11. Know how to grade and bunch vegetables			
12. Understand the value of disease resistant varieties			
13. Know how to inoculate soil or seed for legume production			
14. Know how to establish and use a mulch			
15. Know how to use labor efficiency in harvesting crops			
16. Know how to operate common field machinery for cannery crops			
17. Be able to service and maintain cannery field machinery			

Fruit Growing

1. Know when and how to cultivate the young orchard			
2. Know how to manage an orchard soil in a bearing orchard			
3. Be able to select and seed cover crops in the orchard			

4. Know how to plant a tree _____			
5. Know when and how to fertilize the orchard _____			
6. Know what fruit varieties to select for the region _____			
7. Know how to care for nursery stock when it arrives _____			
8. Know when to pick fruit for best market price _____			
9. Know how to pick fruit _____			
10. Know how to pack fruit for market _____			
11. Know when to use different sprays _____			
12. Know how to mix various orchard sprays _____			
13. Know how to select and judge exhibits of fruit _____			
14. Be able to prune fruit trees and small fruits _____			
15. Know a desirable location for fruit growing _____			
16. Be able to lay out an orchard or small fruit area _____			
17. Know how to graft fruit trees _____			
18. Know how to make grafting wax _____			

Farm Management

1. Understand the fertility value of farm manures _____			
2. Know when and how to apply manure in the rotation _____			
3. Know best procedure for applying fertilizers to crops _____			
4. Know why manure should be reinforced with superphosphate _____			
5. Know how to keep records of receipts and expenses _____			
6. Know how to prepare a budget _____			
7. Plan operations for the year for each enterprise _____			
8. Know the crops adapted to certain soils _____			

9. Know where and how to get long and short term farm credit			
10. Be familiar with laws affecting the farm and farmer			
11. Know how to figure cost accounts for each enterprise			
12. Know when, where and how to market farm produce			
13. Be able to prepare farm products for market			
14. Know how to properly handle barnyard manure			
15. Be able to correct weaknesses in barn arrangement for more efficiency in the use of labor			
16. Know how to build a good sod			
17. Understand the value of green manure crops			
18. Be able to lay out strips, sod waterways or diversion ditches for soil conservation			
19. Know the proper time for harvesting farm products			
20. Know when to sell farm products to best advantage			
21. Know how to manage production within the enterprise			
22. Be able to take a farm inventory			
23. Be able to figure labor income at the end of the year			
24. Know the rates, types and problems involved in farm insurance			
25. Know when to do work on the farm			
26. Know the ways of getting started in farming			
27. Know how to figure income tax returns			
<u>Farm Mechanics</u>			
1. Know how to splice a rope			
2. Be able to make an adjustable rope halter			

3. Be able to tie common farm knots			
4. Know how to mix cementing materials			
5. Be able to do the normal common electric wiring operations about the farm			
6. Be sufficiently skilled with tools to construct such items as nests, waterers, self feeders, etc.			
7. Be able to construct such electrical items as electrical brooders, electric fence, etc.			
8. Be able to repair an electric motor			
9. Know how to read an electric meter			
10. Be able to electrify small farm equipment			
11. Know how to sharpen hand and power tools			
12. Know how to file and set a hand saw			
13. Know how to cut glass			
14. Be able to properly install a window			
15. Be able to repair a hole by soldering			
16. Be able to stitch and repair leather material			
17. Know how to construct a hotbed			
18. Be able to adjust, service and maintain garden machinery			
19. Know how to adjust and service a potato grader			
20. Know how to repair, adjust and service a mower			
21. Know how to repair, adjust and service a binder			
22. Know how to repair, adjust and service a sprayer			
23. Know how to repair, adjust and service a tractor			
24. Know how to repair, adjust and service a gas engine			

25. Be able to lay a drainage system _____			
26. Know how to select fencing materials _____			
27. Know how to repair and maintain an eaves spouting _____			
28. Be able to shingle a roof _____			
29. Be able to paint buildings and machinery _____			
30. Know how to hang a door _____			
31. Be able to brace corners of buildings _____			
32. Know how to temper metal _____			
33. Know how to weld _____			

Interviewer's Name _____

Date of interview _____ Time consumed in interview _____ hrs.

**End of
Title**