

February, 1938

FOREWORD

The Vocational Education Act states that one of its objectives is to "meet the needs of persons fourteen years of age or over who have entered upon or who are preparing to enter upon the work of the farm or farm home."

The various phases of farm management suggested in this publication by Professor Burdick fit logically into that objective, particularly paragraphs 13, 14, 24, and 25, pages 11 and 12, for those who are planning to begin farming for themselves.

For these reasons, this material will be of assistance to teachers of day, part-time and evening classes. These problems have been set up on the case basis instead of the job basis. The use of teaching material supplied by the students has often been mentioned but not done in enough cases to establish it as a general practice. This bulletin is an attempt to help outline a workable procedure to that end. Its study and application is commended to all teachers. Where possible, teachers are urged to "try out" this material during the balance of the year and tell where it may be improved at the next annual conference. Criticisms and suggestions for improvement from the field will be welcome.

L. R. Davies
State Supervisor of
Agricultural Education

TABLE OF CONTENTS

	<u>Page</u>
Accounting References	1
Livestock Problems	3
Livestock Feed and Other Costs	3
Livestock Marketing	4
Livestock General Problems	5
Crop Problems	6
Production Costs	6
Marketing Crops	7
Farm Management Problems	8
Problems Not Outlined	13

SUGGESTED PROBLEMS FOR JUNIOR AND SENIOR HIGH SCHOOL STUDENTS
WHO ARE INTERESTED IN THE BUSINESS SIDE OF FARMING

These problems are arranged in the following sequence: For livestock and crops, the first problems suggested, deal with the securing of accurate facts. Then some problems are arranged to use these facts to aid the student in analyzing and studying this enterprise, to give him a basis for comparing it with other enterprises.

The problems for farm management are suggested to aid the student in studying and making individual decisions which illustrate the kind of decisions which must be made by a farmer. They also include some analysis which treats the farm as a whole, rather than dealing with the individual enterprise. No student will have time to do all of these problems. The instructor will discover special interests on the part of the student, and can direct the student toward working on the problems which deal with these special interests. Emphasis should be placed upon the use of these problems to help train the student in attacking a farm management problem in a way that will lead to sound conclusions. He can use this method in meeting new problems in actual life. Emphasis should be placed upon figuring out a solution, rather than upon following blindly some arbitrary method of analysis. For this reason a minimum of forms and detailed instructions are included in this outline.

Farm Records and Accounts - The first problem which might be studied would include a review of existing references and published account books which are available for use in studying the farm business. The local county agent or the extension economist of your State College of Agriculture may have some special account books for use within your state. These are usually designed for use by farmers who are keeping records of a year's business. Students should learn to prepare special forms for class use to meet their local needs.

The following references show some suggested account forms:
(Farmers' Bulletins are publications of the U. S. Department of Agriculture, Washington, D. C.)

Farmers' Bulletin 1182, Farm Inventories
Farmers' Bulletin 511, Farm Bookkeeping
Farmers' Bulletin 572, A System of Farm Cost Accounting
Farmers' Bulletin 1139, A Method of Analyzing the Farm Business
Farmers' Bulletin 782, The Use of a Diary for Farm Accounts
Farmers' Bulletin 1564, Farm Budgeting
Farmers' Bulletin 1614, Business Records for Poultry Keepers
Illinois Circular 362, Farm Accounts that Count
Kansas Circular 150, Accounts for Kansas Farmers
Nebraska Extension Circular 800, Planning and Analyzing the Farm Business
New Jersey Circular 160, A Farm Account Manual for New Jersey Farmers
New Mexico Extension Circular 73, An Easy Way of Keeping Farm Accounts
Vocational Education Bulletin 183, Business Problems in Farming, U. S.
Department of Interior, Washington, D.C.

Case, H.C.M., and others. Workbook in Farm Management. The Interstate, Danville, Illinois, 1937. \$1.00. Has many forms for use in studying the farm business.

- Forster, G. W. Farm Organization and Management. Edwards Brothers, Inc. 1935. Contains many tables of quantities which will aid in calculation.
- Hopkins, J. A. Farm Records. Collegiate Press Inc. 1936. This book discusses the use of records and budgets in studying the farm business.
- Hopkins, J. A. Elements of Farm Management. Prentice-Hall. 1936. This book has many useful tables showing average quantities of feeds and labor used for livestock and crops.
- Hudelson, R. R. A Guide to Farm Planning. Mimeographed. Department of Agriculture Economics, University of Illinois, Urbana. 15¢. Has tables of feed requirements for many classes of livestock.
- McNall, P. E., and McMurry, K. F. Agricultural Bookkeeping. Longmans, Green and Company, 1937. This is an excellent, inexpensive outline for use in studying farm records.
- Studebaker, M. E. Bookkeeping and Accounting for Rural Schools. South-Western Publishing Company, 1932. This stresses the bookkeeping side of accounts, but uses farm receipts and expenses as illustrations.
- Warren, G. F. Farm Management. Macmillan Company, 1913. Chapters 16 and 17 deal with farm records and forms to use in keeping records. This is an old book, but it has some excellent counsel.

I. LIVESTOCK PRODUCTION

Problems dealing with the economic and efficiency phases
of livestock production

A. LIVESTOCK FEED AND OTHER COSTS

These problems apply to any kind of livestock. No special problems are included for just one kind of livestock. (The assumption here is that feed requirements have been stressed in the first two years.)

1. Keep a careful record of amounts of feed for some one class of livestock used by the student. This should be in total, and per head of livestock.

2. A closely related problem will be to study and observe how to secure accurate weights of feed under farm conditions, i. e., measure and weigh feeds with the commonly used feeding equipment, such as buckets of various sizes, sacks of various sizes, shovels or scoops, forks, boxes, or other equipment used in handling feed. Bundle feeds can be weighed by the bundle.

Where larger scales are available, the comparison between measured stack tonnage of hay and scale weights will be a valuable problem. Note especially the influence of size of stack, time of settling since stacking, and whether first, second or third cutting, upon accuracy of measured tonnage.

Granaries and other storage, such as silos, should be measured and the actual weights of feed as found during the feeding period compared with the estimated quantities which were calculated from measurements and weight tables.

3. Actual quantities of feed used per head, as found for the animals studied, should be multiplied by local feed prices to find the feed cost per animal. (Note: Where several students have different feeds for the same class of livestock, it is helpful to study these and explain reasons for difference in cost per head.)

4. From tables such as those in Feeds and Feeding by Henry and Morrison, calculate the digestible nutrients in the feeds fed, and find the total digestible nutrients for the year.

5. Find the cost per 100 pounds of digestible nutrients. (Note: This again will be a valuable item to compare with other students.)

6. Keep a continuous record of production per animal if dairy or poultry are being studied. Weigh other animals at start and end to find increased growth.

7. At local prices, find the value of this total production, or take actual prices if the animals and products are sold. Include the value of products used on the farm.

8. Calculate the total cash value of the year's production.

9. Divide the total cash income by the total cash value of feeds to secure "income per \$1.00 of feed."

(Note: Many farmers will stop right here and think they have studied their livestock all that is necessary. The instructor should discuss some or all of the following points and have some students work on these additional livestock problems.)

10. Labor used on livestock. Keep a daily record of the hours or minutes required to do chores, i.e., feed, water, clean, or do other tasks in connection with livestock. Where horses, trucks or tractors are used in hauling, keep a record of these hours.

11. Total the hours for the year and use local rates per hour to find the labor cost. (Note: Be sure to include a rate to cover the cost of wagons, or other equipment which is used for these animals, and use a charge per hour for these items which will as nearly as possible cover their "cost" or represent local charges for their use.)

12. Study the "labor" cost as found under problem 11, to find how much of it is "cash," such as work done by regularly paid laborers, how much is done by unpaid members of the family, how much is for horse work, how much for tractor or truck, (this should be considered as cash).

13. Keep a record during the year of any other cash expenses for this class of livestock, such as dips, vaccines, "condition powders," fly sprays, service fees, etc., and find the cost per animal for those items.

14. Make a list of other items of expense, such as a charge for the use of barns, corrals, feeding equipment, sire service not paid in cash, a charge for drinking water, interest on the investment in these animals, and depreciation on the animals themselves if they are breeding stock, which will ultimately sell at cull prices. (For example, a cow may have a market value of \$50 per head when young, and sell for \$25 as a canner. If she has been 5 years in the breeding herd her depreciation would be \$5.00 per year.

15. Make a summary of all the items of expense included in the problems 3, 10, 13 and 14.

16. Compare problem 15 with the total returns in problem 7 to find the "net profit" per animal. This should be compared with the results found by other students, and with published results for similar livestock.

17. The summary in problem 15 may be divided by the total production, (i.e., pounds of milk, dozens of eggs, pounds of growth,) to find the total cost per unit produced.

18. Another problem, not so easy to estimate, might be to find the amount and value of the manure produced by this animal. This value will, of course, increase the income as found in problem 7, or can be used as a deduction from the total costs as found in problem 15.

B. LIVESTOCK MARKETING

1. The value of livestock production found in problem 7 may be studied further. From local newspapers or dealers, secure prices every week or month. From the production record in problem A-6, find the production for each week or month. Calculate the value of the livestock products by months.

2. What increase in income would result if the entire year's production were sold at the highest price found for any one month? Does this justify attempting to time production so that sales could be made this month? Is this month always the month of best prices? (Get your father and experienced farmers in the community to help answer this question.)

C. LIVESTOCK GENERAL PROBLEMS

1. The total cost of production as found in problem A-15 should be analyzed to find how much of it represents out-of-pocket cash expense, and how much represents farm feeds, and family labor, and indirect expenses. The total "cash costs" can be compared with the total income in problem A-7 to find how much "net" was available to pay for the use of these "non-cash" items. Should a farmer furnish these non-cash items and expect no return for them other than manure?

2. Some of the feeds used might have been wasted if this livestock had not used them. Find how much of the feed costs are for feeds that might not have any value if not fed. Would you continue to feed these even if there was no income from them other than manure?

3. Study the feed costs again to find the total of all farm-raised and of all purchased feeds? Should a farmer confine his livestock production to the number of head necessary to use his farm feeds? What would happen if every farmer in the community planned on buying feed from his neighbors?

4. How many head of livestock would be needed to use the available feed on a farm? This is a long problem and should be studied carefully, using either the results from problem A-1, or similar data for other classes of livestock. (Make your final figure "acres of crops per head of _____ kind of livestock.")

5. The effect of livestock upon crop production. This is a difficult problem. Try to find out from your father and neighboring farmers whether they have had experience which will help answer the question. Ask if they have records of crop yields where manure was used to compare with yields with no manure. Some farmers keep more livestock than do other farmers. Find out the differences in yields per acre. Be careful that these differences are not due to something besides the use of manure. (It might be irrigation water, soil, seed, methods of handling the crop.) (See problem 8, under the Farm Management section, for other suggestions on this problem.)

II. CROP PRODUCTION

Problems dealing with the economic and efficiency phases of crop production

A. PRODUCTION COSTS

Crops may be studied from two points of view: to find total costs, or to find differences in cost.

1. Differences in cost. Barley and oats may be compared by studying what, if anything, is done to produce one that is not necessary for the other. Seed and threshing costs are the most obvious points of difference; seed treatment and twine (in case a binder is used) are other possible points of difference. Find the increase in cost for one crop and compare with the difference in value between the two crops. This gives a quick, comparatively easy basis for determining which crop will show the best returns.

(Note: The crops compared in this way should be the ones with generally similar requirements, as for example, different spring-sown grain crops; corn vs. beans; corn vs. potatoes; possibly potatoes vs. sugar beets; cabbage vs. onions; alfalfa vs. sweet clover. For most of these there will be differences in work as well as differences in seed or cash costs. In this case, the extra operations, for example on potatoes compared with corn, and on corn compared with potatoes, should be studied on the basis of the hours of man, horse, tractor and equipment work required on one crop that is not required on the other. With local rates for the cost of each of these, a summary can be prepared to show extra income to aid in a choice between the two crops.)

2. Cost of growing a crop. Where this is desired, each operation on a crop should be studied to find the hours per acre required, using local rates for finding the cost of these operations. Seed, sacks, spray material, water, taxes, use of building for storage, interest on the land investment, etc., all must be included.

3. Cost per unit of crop. When acre costs have been secured, they may be divided by the production to find the cost per ton, hundredweight or bushel.

4. Returns from a crop. These may be analyzed on the basis of gross returns per acre, or they may be compared with the costs found in problem 2, to find the net returns. The net returns may be shown per acre or per unit of the crop (ton or hundredweight) or per hour of man labor spent in their production. The idea of these various methods is to find one that will be most valuable in judging the comparative profitableness of the crop.

5. Cash costs. In some cases, it will be helpful to analyze the costs as summarized in problem 2, to find which items are cash or out-of-pocket, and which items are non-cash. The labor on a crop should be studied carefully. Some crops have a high proportion of paid labor spent on them (for example, sugar beets). These cash costs may be compared with the gross returns from the crop to find how much balance remains to help pay for the use of the non-cash items required in the production of the crop.

B. METHODS OF MARKETING CROPS

1. Feed crops should be compared on the basis of the cost per unit (ton or hundredweight) as found in crop problem A-3, in contrast to the market price of the same crop. This will suggest either how much is saved or lost by producing this feed rather than buying it.

2. Crops grown for sale should be studied to find the possible prices during several months of a marketing season. Local or central market prices should be used. Differences in price should be compared with differences in storage cost found in crop problem B-3.

3. Storage costs. These should include a charge for the use of storage space; a charge for interest on the value of the crop; insurance on the stored crop; and shrinkage in the crop, together with all labor of sorting, insect treatment and extra sacks, twine, crates, etc. The total of these should be shown in relation to the quantity sold from storage, and expressed as a cost per hundredweight or other unit sold. Culls and waste (especially with potatoes) which have a feed value, should be given credit in finding the net cost of the salable crop. The cost of storage added to the market price at time of storing will give the required sale price after storage to cover storage costs.

4. Market prices at local and central markets should be studied and compared to the costs of shipping the crop to the central market. These costs may be learned from railroad officials, truckers, or local merchants.

III. FARM MANAGEMENT

Problems dealing with the farm as a whole

The problems suggested in connection with livestock and crop production are "farm management" problems; they deal with parts of the farm. There are other problems which do not relate to any one enterprise, or which involve several enterprises, or which deal with the farm as a whole. Some of these are considered in the following problems.

1. Labor Distribution. This problem can be done over a period of several months. In its most exact form it involves a student record of the hours of man labor spent on each crop, or livestock enterprise months by months throughout the year (sometimes such records are already available). These should be set up in graphic form. The purpose of this problem is two-fold: to show at what time in the year each farm enterprise requires labor, and to show at what times in the year there is either serious competition for labor or a shortage of work.

2. Analysis of labor distribution. With the data in problem 1, the student should study the effect of reducing or increasing the areas of a crop or the numbers of livestock, the object being to "smooth out" the labor distribution so as to avoid excess demands for labor at one time or a lack of employment at another.

This problem may take another form - a search for some enterprise to fill the time when the labor distribution chart shows a lack of employment.

Either of these will prove valuable in answering the question, "How can I use my time to the best advantage?" They aid in organizing a farm so that crop and livestock production are in balance; so that men and materials are kept busy, and profitably employed.

3. Layout of farmstead. Prepare a scale plan of the location of each building of the home farmstead. Then measure the distance between buildings, and make a summary of the miles of travel per day required to do the customary chores. Try various possible changes in location of buildings on paper. Calculate miles saved and express the saving as a yearly total, using local rates per hour of time, and assuming average speeds for men walking.

Compare this cost of time with the cost of moving the buildings. (Where a building is sufficiently important, a similar problem might be made for the floor plan of the building.)

4. Layout of fields. Prepare a sketch of the field boundaries of the home farm. Measure the distances from the farmstead to the nearest corner of each field, and calculate the time spent in going to each field on an acre basis. Try various possible revised field layout plans, and find the time saved in reaching fields, assuming that the farmstead remains in its present position. (The crops grown and operations performed affect this problem.)

This problem may take another angle, i.e., the uneven, irregular shapes of fields should be compared to square corner rectangular fields of the same area to find the time wasted in extra turns and lost motion while working on crops. Estimate one half minute as the time required per turn, and use a plow or other machines as the basis of the estimate.

5. Area to justify a particular machine - for example, a combine. Start with the local rate for use of a combine (per bushel or per acre) and calculate the yearly costs of a combine such as depreciation, repairs (these can be secured from present owners and from machinery salesmen), interest on one-half the purchase cost, daily cost (or per acre cost) for operating the combine. Compare these with the area to be harvested to find the estimated cost per acre. If this is approximately equal to local rates (or lower) it will justify the purchase. Try this for several acreages to find the minimum area to approximately balance ownership costs with local present or anticipated future rates for the use of the combine. (This method may be followed for other machines.)

6. Buying new vs. repairing old machines. Find from local dealers the approximate cost for overhauling an old machine. Secure estimates as to how long the machine should last after such an overhauling. Find the probable area on which the machine will be used, and calculate the cost per acre for the repaired machine. (Be sure to include all items of cost.)

Find the average annual depreciation on a similar new machine and find what this is per acre for the area on which it will be used. (This assumes that the old machine has no depreciation value left, as it is about to be abandoned, while each machine will need extra repairs and interest beyond the "over-hauling" of the old.) This is a rough guide as to the choice. There are many other items, some complicated, that need attention, such as the machine and its capacity and its cost per acre due to capacity, and the time that can be saved if a larger new machine is purchased, also the chance to do custom work for the neighbors, etc.

7. Crop rotations. Set up several rotations that are commonly used in the area. From your father and local farmers, find what operations can be saved in one rotation as compared to another and the estimated cost of these operations.

Find the effect of one crop upon another, as to yield, control of weeds, insects, or plant diseases. Find effect of grain or other nurse crop upon stand of alfalfa or other hay seeding.

From these studies, prepare a set of comparative advantages of each rotation. (See problem 20 for another rotation problem.)

8. Cost of fertility maintenance. Select 2 farms in your community, one of which has a reputation for low yields, the other for good yields. Find out if these differences are due to soil fertility. From good farmers in your community find what the poor farm needs to restore it to good fertility. From local dealers find the cost of fertilizer. From farmers find the labor required and materials (green manure or farm manure) that will be needed. Estimate the cost of restoring this fertility. Consider the time element, i.e., how many years before yields are restored. (See problem B-5 for other suggestions on fertility.)

9. Cost of run-down farm. With the data in problem 8, and the differences in yields, make a summary of: (a) total costs over a period of years until fertility is restored; (b) value of crops lost due to lower yields while building up the run-down farm. Compare this summary with the difference in market price between the run-down farm and the good farm.

10. Farm Inventory. Make a complete list of the livestock, machinery, feed, supplies and real estate on your farm. It is helpful to use one of the available forms for preparing this inventory. Discuss with your father the problem of placing a value on these items.

11. Calculate the depreciation on buildings, machinery, and such animals as work horses and breeding cows.

12. Farm Budgets. This is a problem that involves many estimates and requires familiarity with local crops, yields, expenses, prices, and feed requirements as well as the amount of labor and power needed to operate the farm. It can be made as accurate - or as inaccurate - as the knowledge of the ones who make the budget. The advantage of a budget arises from the information which it gives as to the possibilities from a given farm set-up, without waiting and spending money for a year. It is possible to go over the budget and check on possible economies in expenses, or study ways to improve the income, and do this before the year's crop and livestock production have been started. Especially does it permit a study of the limitations to income which are due to such things as small size of farm, small numbers of livestock, extra expenses for this particular farm or anticipated low prices for farm products. If the results from the budget are indicative of what looks like unavoidable loss, adjustments can be made on paper, seeking to escape this loss before it becomes a fact.

The student should work closely with an experienced person in preparing a budget. Check every item against local experience and use prices that seem reasonable. Sometimes the future market quotations will aid. For example, in early spring, the September or December future quotations on corn, wheat, oats, barley, lard, give some clue as to expected prices at harvest time. Where they are available, use some long-time average price. This has one advantage in making a budget, in that it shows what this farm set-up should do over a period of years. Good years and bad years come in spite of planning. A farmer must study the long-time possibilities if he is to plan to improve his business.

Many of the problems in this outline will aid in accumulating material which will be needed in preparing a budget. The exact form and set-up of the budget may be patterned after those illustrated in bulletins (F.B. 1564) or other printed material. The important items to be considered may be summarized under the following heads:

- a. Inventory of necessary livestock, machinery, feeds, supplies, buildings, land - with numbers, values, and depreciation for the year.
- b. Proposed crop rotation.
- c. Areas, yields per acre, total production of each crop.
- d. Use of each crop as to feed, seed, home use, sales.
- e. Amounts, prices and total estimated receipts of crop.
- f. Production, amount of home feed used, amounts of purchased feeds for each kind of livestock.

- g. Numbers, weights, prices, and total receipts from livestock.
- h. Miscellaneous source of income, amount, price and total receipts.
- i. Farm expenses, items, amounts, rates, and total estimated cost for all items of farm expense, including depreciation.
- j. A financial summary of receipts and expenses.
- k. A net or "farm income" to show the amount remaining to pay the operator for his own time, and for the use of his investment.
- l. Value of farm products consumed on the farm.

The next step - study the budget to find omitted expenses, or places to change it. Try to learn to the conservative side in preparing a budget, i.e., be pessimistic as to yields and prices, and make the expenses large enough to cover some unexpected costs. Too many people think of receipts and forget the expenses when they are planning for the future.

13. Keeping a year's records of a farm. This should be worked out on a satisfactory basis between the student and some interested farmer (relative or other). It would be desirable to get in touch with the Department of Rural Economics of the State Agricultural College, or with the County Agent, to secure recommended forms or account books to be used for this study. This problem will prove to be a valuable help to the student who intends to farm for himself.

14. Summarizing a year's record. The summary and study of a year's record offers many opportunities for valuable data to be used in studying farm management. It will aid in studying some of the other problems in this outline. It is advisable to summarize the record in such a way that it will permit the preparation of an income tax report. Local income tax representatives will usually furnish forms and aid in making such a summary. Quantities and prices should be secured wherever possible to aid in further study.

15. Finding cost per hour of man labor. This can be done in two ways - approximately or accurately. The approximate method is to reduce the pay of every man on the farm to a day basis, including an estimate of the value of farm furnished board. Divide this day wage by the average hours of work per day. If the result shows some variation between different men, make an "average" that in your judgment comes nearest to including the wage paid all men. The accurate method requires a record of the actual work done by each man for a month and the actual cash and board cost. Make a total of all hours for the month and of all costs; include the use of bunkhouse and labor supplies. From these secure a rate per hour. Be sure to include the hours of operator and family labor and an estimate of the probable cost of this work. The result will be a rate per hour for the month. If greater accuracy is desired, do this for a year in place of one month.

16. Finding the cost per hour for horse work. This can be done as with man labor. All farm feeds; the use of buildings; cash vet. or other costs; interest; depreciation on work horses; cost of man hours on chores, all should be included. The time worked by horses should be formed from actual records, the local price paid for the hire of horses. Find the reasons for this difference.

17. Finding cost per hour of tractor work. Do this in a way similar to that used for horses. In comparing the rate per hour with that for horses, check on the amount of work done by each source of power.

18. Cost of equipment. This may be studied for special equipment such as potato equipment, or grain equipment, or for all horse-drawn equipment, or for all tractor-drawn equipment. The depreciation, repairs, labor on repairs, and interest should be totalled. The cost may be compared to the area of crops on which the equipment is used to find a fairly satisfactory base for stating the cost of equipment.

19. Use of Outlook Report in reorganizing a farm. Make changes in crop areas of your home farm for the coming year in line with recommendations of the annual outlook report. This should be done after consultation with experienced farmers.

20. Effect of crop rotation on income. Take the actual areas of crops on your farm, and the yields and prices on this farm, and revise the cropping system to follow a rotation adapted to the locality and to keep uniform areas of each crop. For this revised cropping system, apply yields and prices from the actual record and find the total value of the crops under former and revised systems. Discuss with local farmers whether this revised rotation would give equal or different yields from previous yields.

21. Installment credit. With monthly payments reported by local finance corporations, calculate the actual interest rate paid on time purchases.

22. Mortgage interest. Calculate the average annual cost per \$100.00 for 3 year renewal mortgage at local rates and fees, and for 20 or 30 year amortized loans.

23. Insurance program. Make a list of all kinds of insurance available for a farm. Check those which all farmers should have. Discuss the list with local farmers. (Compare the cost of this insurance from several insurance companies.)

24. Methods of renting farms. This problem may be studied from two important viewpoints. First, find the usual terms for share or cash renting in the community, and reasons for these methods. Second, apply these rental terms to the records of receipts and expenses which have been studied in the crop production problem (2 and 4). Find whether the shares of actual receipts and expenses indicate that the customary rental terms are fair to both landlord and tenant.

25. Ways of improving landlord and tenant relationships. Discuss this with local farmers to find their experience and opinion as to how to improve tenancy.

26. Laws affecting farming. Study state laws that affect livestock, crops, marketing, cooperation, irrigation water, to gain familiarity with legal aids and restrictions upon farming. Discuss these with local farmers to learn how effective or valuable these laws are for local conditions.

There are endless problems confronting a farmer. Each community will have problems which deserve careful study. Some which have not been discussed in this brief outline might be:

- a. Determining what farm improvements to make.
- b. Selecting a particular size or make of machine.
- c. Comparing different fencing materials.
- d. Selecting most economical feed to be purchased.
- e. Insurance costs on farm buildings, and on stored crops. (See farm management problem 23)
- f. Methods of handling farm labor.
- g. Methods of housing farm labor.
- h. Planning year-long employment for labor. (See farm management problem 2)
- i. Making out income tax returns for a farm. (See farm management problem 14)
- j. Finding new markets.
- k. Trying new methods of marketing.
- l. Determining need for a farm truck.
- m. Determining need for a local cooperative marketing organization.
- n. Possibilities of cooperative buying of farm supplies.
- o. Determining need for government aid to farming in the community.
- p. Estimating the value of farm products used in the home.
- q. Estimating the area that one man can handle with given power and equipment.
- r. A study of Federal legislation that affects farming.

Another profitable study might be to prepare a list of useful bulletins and publications to make a farm library for a scientific aid to the local community.