This thesis is a study of school farms, including the problems encountered in stocking them with livestock, the problems in the operation and management, and the values of the school farms to vocational agriculture departments and the school.

The author was teaching at Lakeview, Oregon, when the F.F.A. Chapter farm was established in 1941 and has remained there since that time.

The chapter farm was started in the fall of 1941 when the Lake County Court set aside 160 acres of sage brush land for the chapter to use as long as it wishes.

Since that time the farm has been cleared, fenced, and improved. Machinery, equipment has been purchased and leveling done. The present net worth is around $22,000.00.

The chapter owns the necessary farm equipment and implements, three machine sheds and two grainaries, all purchased from income from the farm and equipment rental.

Plans are being made for further improvement, including the establishing of livestock on the farm. The main improvement being done at present is the drainage project which includes about five-eighths of a mile of channel through the center of the farm, filling in of the old creek beds, and some leveling.

The next step will be providing necessary buildings and facilities for housing livestock and developments of pastures and a water supply.

The main problems in the operation of the chapter farm are:

1. Keeping records and safeguarding funds.
2. Setting up rules for the operation of the farm equipment and the enforcement of them.
3. Getting the work done at the proper time.
4. Supervising the work of the boys when on the farm.
5. Making plans for the operations to be done and the management problems involved.
6. Insurance.
7. Planning and financing for future developments.

The above problems were studied in light of the findings made in a survey of 53 school farms in 10 Western States. Each of the problems was discussed and the following ones added: (1) The use of advisory committees, and (2) The acquiring and financing of land, equipment and livestock.

The main values of school farms as determined by the survey are:

1. A means of providing an enriched instructional program.
2. Stimulation of interest in the agriculture department and the F.F.A. chapter.
3. Providing a means of more effectively and efficiently teaching skills in the operation, servicing, adjusting of farm equipment and machinery, and of teaching farm safety.
4. The teaching of the value of cooperation.
5. A way of giving practical instruction in the raising of crops and livestock adapted to the area.
6. A way of providing a wealth of teaching materials.
7. A good means of getting favorable publicity.
8. A source of income for chapter activities.
9. A way of introducing new crops or crop practices to the area.
10. A way of introducing new livestock practices.

The problems in establishing livestock on a school farm are as follows:

1. Financing.
2. The type of livestock operation, breeding stock, feeder operation or both, and their relationship to:
   a. Individual student's needs.
   b. Community needs.
   c. Chapter needs.
3. Labor needs and requirements.
4. Requirements for buildings, equipment, and other facilities.
5. Feed requirements.
A LIVESTOCK PROGRAM ON A SCHOOL FARM

by

WILLIAM HERBERT HOLLOWAY

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A LIVESTOCK PROGRAM ON A SCHOOL FARM

COLLECTION OF DATA

Preparation of the Questionnaire

Several sources of information were used in making up the questionnaire. A copy of the questionnaire used by Mr. William Powell of the Taylorville High School, Taylorville, Illinois, was obtained and parts of it were used. A bulletin published by the California State Department of Education, entitled "The Objectives, Functions, Legality, Plans and Operations of School Farm Laboratories in the State of California" was another good source. The pamphlet prepared by Dr. George P. Deyoe, Professor of Agriculture Education, University of Illinois, entitled "The Use of School Land in Illinois Schools" contained useful information. The experience of the writer with the chapter farm at Lakeview for the past ten years was drawn upon.

As there is very limited published information on school farms, indicated by the few references in the Review of Literature, it was necessary to secure more information from other sources. The writer discussed school farms by personal interviews with most of the Oregon instructors having experience with them. He also presented a paper at the Regional Conference of State Supervisors of
Agricultural Education and Teacher Trainers held in Reno, Nevada, 1949, and discussed the problems with the State Supervisors present.

The use of a questionnaire to gather information on the various problems and phases of operation and management of a school farm was a necessity. A four-page questionnaire was developed and mailed.

Selection of School

Addresses of the vocational agriculture departments having school farms were obtained by writing to the State Supervisors of Agriculture Education in the eleven western states. They were asked to send ten or more names of departments having typical school farms. Replies were received from all Supervisors with the exception of Montana. Most of the states did not have ten or more departments with school farms. Questionnaires were sent to seventy-four departments and replies were received from fifty-seven departments, or a 77% return. Three of the replies stated that they had no school farms, thus leaving fifty-four usable replies, or 73%.

Usable replies and the number received from each state were as follows.

California 10 Washington 3 Colorado 3
Oregon 20 Nevada 2 Wyoming 1
Arizona 3 New Mexico 1 Utah 1
Idaho 5
Mailing the Questionnaires

The questionnaires, with explanatory letters, were sent via air mail to those outside of Oregon; regular mail being used for those in Oregon. The air mail letters required twelve cents in postage and contained a self-addressed envelope with six cents in air mail postage for returning the questionnaire. The use of air mail was done for two reasons; one, to speed up the return of replies, and, two, that perhaps a questionnaire sent by air mail would seem a little more important and perhaps a few more would reply.

As most of the instructors returning the questionnaire wanted a summary, a four-page summary was made. A two-page letter, discussing some of the findings, and the summary were sent to all instructors, as well as the State Supervisors supplying the names of the instructors.
REVIEW OF LITERATURE

There has always been a need in the teaching of agriculture for school land, according to Hamlin (7). Some of the early pioneers in agricultural education favored the use of school-owned land. In recent years there has been an increase in the number of vocational agricultural departments using land. Land is owned or leased by the school, vocational agriculture department, or the Future Farmer Chapter.

The use of land brings up many problems for the agriculture instructor, the school, and the Future Farmer Chapter involved. Deyoe (5) mentions some of the main ones as being: (1) Is their operation desirable? (2) What are the purposes of this form of group project? (3) How is the land being used? (4) How are they financed, managed, and operated?

In California, the Committee of School Land (1) feels that the school farm should be a farm laboratory and should exist only when adequate training facilities do not exist within close proximity of the school. The type of school farm in California is in general different from others in the western states. For the most part the land, building, equipment, and livestock are purchased and owned by the school districts and the income goes back to the school district. The students have little or no say in the
operation or management practices or policies. There is a section of the Education Code (School Law) giving legal status to school farms.

Dickson (6) states that when vocational agriculture classes reach the size of fifteen to eighteen students it becomes increasingly difficult to use neighboring farms for a class laboratory. A school farm which includes livestock overcomes this problem.

Decker (4) points out that the operation of school land as a group project is a very useful device for creating interest and providing pupil participation. Some boys do not have sufficient opportunity to develop the kind of projects they want at home or do not have facilities for projects. The school farm in some cases provides this opportunity.

Whitney (11) points out that group farm projects stimulate interest in class work and the Future Farmer Chapter. It is an excellent opportunity for teaching the value of group effort.

Most of the school farms require the use of considerable machinery and equipment. Johnson (8) explains how a farm machinery cooperative works and its relation to the school farm. It is also a group project giving boys an opportunity to develop leadership, receive training in solving some of their problems, and as a link in developing farmers and good citizens.
In a study of eighteen departments in California, Arizona, and Oregon, made by Cline (3) on the cooperative use of farm machinery, the procuring of land for student use was one of the main problems.

In Washington, Olson (9) states that sixty per cent of the teachers were in favor of complete F.F.A. control of financing the group project, thus the department can proceed without interference from the school or community. The other forty per cent felt that the school should provide the land, equipment, and operating expense so that the instructor could spend his time teaching rather than trying to make the farm a paying proposition.

The majority of the teachers think the main objective of school farms and group projects must be educational in nature (9). Most of the school farms are for the production of crops; a few have facilities for handling of livestock. The inclusion of livestock in a school farm program would make it more educational by giving a well-rounded experience to the students.

According to Ramsburg (10), the school farm that includes livestock enables a student to have practical experience in doing such jobs as castrating pigs, caponizing cockerels, balancing rations, caring for sows at farrowing time, and many other jobs that are necessary to keep animals and poultry in a healthy and growing condition. He further states that the use of land will increase and
that it will be used as a supplement to textbooks, bulletins, films, slides, charts, and other teaching aids.

The use of land by a school will be of aid to city or town boys even though they may not become farmers. Cardwell (2) brought out this point by asking the following questions: How many vocations are entirely separate from agriculture in that they do not deal in some way with the land and livestock of farm people? Can a banker make intelligent loans on land, livestock, or crops without some fundamental facts about agriculture? Should the implement dealer, hardwareman, merchant, and other businessman know any of the problems of the farmer? Can state and national legislative bodies represent the farm and ranch interests without some knowledge of the types of agriculture in their communities?

One of the purposes of this study is to find out (1) how other schools use their land, (2) what changes might be made at Lakeview, (3) how livestock will fit into the program, and (4) the problems involved in establishing livestock on a school farm.

The school farm at Lakeview was originally started as a group project to make money for chapter activities. Since that time, other values have entered into the picture to change the goal from a strictly money making activity. Changes need to be made from time to time to make a school farm more education and of value to the students and
community.

Up to the present time, much of the work on the farm at Lakeview has been towards improving it from sage land to good crop land. This has been done without too much cash outlay, but from now on the picture changes, as will be brought out later.

The following pages will give a picture of the growth and development of the chapter farm from the start until the present time, along with some of the problems in its operation and management.
GENERAL

The vocational agriculture department of the Lakeview High School has been operating a 160-acre farm since the fall of 1941. It is known as the Lakeview Chapter Future Farmer Farm. It was started as a cooperative activity of the chapter and is now its most outstanding activity. The author has been the instructor in the chapter since 1939.

Financially, the farming operation has been successful as indicated by a net worth of $22,000 as of November 1, 1950. When the farm was started, the chapter owned no farming equipment and had less than $100 in assets. Since the start, the income from the farm has been reinvested into equipment, buildings, and other improvements. The Lakeview Public Schools, District No. 7, has not been called on financially for the purchase of equipment, buildings, etc., except for the purchase of a plow for $150 in 1942. Since the fall of 1950, they have been budgeting up to $600 per year to hire supervision for the work on the farm.

PRESENT FACILITIES

The present assets of the chapter farm consist mainly of equipment, buildings, and supplies. Most of the equipment has been purchased new. Some equipment has come from
the State Educational Agency for Surplus Property, or from excess property from the United States Forest Service or Hart Mountain Game Refuge.

The land is located in Lake County, Oregon, in the Goose Lake Valley. The elevation averages around 4,800 feet. The farm is the northeast quarter of Section 20, Township 39 South, Range 20 East of the Willamette meridian. It is two miles from the high school.

The land is fairly level; the fall from north to south being 1.9 feet and from west to east 1.3 feet. There are some alkali spots which are located mainly on the east and on the northeast sides of the farm. The soil is of the silt type, easily breaking down into dust when worked dry.

A county road, known as the stock drive, runs along the north side. Several branches of Thomas Creek run through the farm (see aerial photograph in appendix). At present, work is underway to eliminate these and combine them into one main drainage ditch running through the central part of the farm from north to south. It has been dug and, at present, work is being done to fill in the old creek beds.

The farm is not irrigated and it lays a few miles from the end of an irrigation district. Water rights are taken on Thomas Creek which runs through the farm. Rainfall averages 13.49 inches per year. The average growing season is 125 days. Killing frosts have been as late as the
middle of June in the spring and as early in the fall as the latter part of August. Sometimes it does not frost in the fall until the first of October.

When the use of the land was first obtained, the land had never been cropped before. Sagebrush up to four feet high was growing on it. Two sides were fenced and the chapter fenced the other two, or the north and east sides. The county furnished the wire and posts for the north side as it was a county stock driveway.

The only building on the farm is a machine shed 20 feet by 60 feet. It was built by the F.F.A. members during the 1948-1949 school year. On the school grounds are located a 16 by 32 foot shed built by the chapter in 1942 and a 20 by 52 foot shed built in 1947. Two metal 1,250 bushel granaries were erected in 1947. An 800 bushel wooden granary was built in 1942 and sold in 1948.

The following farming equipment is owned by the chapter:

- Farmall M tractor
- Ford tractor
- Caterpillar tractor, 1935 Model 40
- John Deere combine, 6'
- Ford plow, 2-14"
- McCormick-Derring plow, 3-14"
- Ford scraper and terracer
- Spike tooth harrow, 4 sections
- 1-3 section hitch for harrow
- 1-2 section hitch
- Minneapolis-Moline 8' heavy duty double disk
- McCormick-Derring 8' disk
- Flat bed tilt top machinery trailer (chapter constructed)
- John Deere model press wheel drill
Grain loading auger and 2-horse gasoline motor
Sulfur spreader
Air compressor, gasoline motor
2 Tournapulls, Model D4, 2\(\frac{1}{2}\) yard capacity
Motorized vehicles owned:
  1949 International truck KBS 5, 1\(\frac{1}{2}\) ton
  1941 Chevrolet coupe
  1947 International 3/4 ton pickup
  Willys jeep (built into a farm service vehicle)
Numerous small items such as chains, gas pumps, grease guns, Alemite lubricator, etc.

DEVELOPMENTS TO DATE

Several years prior to acquiring the use of the farm land, some interest developed in cooperative activities. One possibility was a chapter farm. A committee was appointed each year to look into the matter, but not much progress was made until the committee visited the county judge, J. R. Heckman. He was interested in the idea and stated that the county was taking over 160 acres of sage brush land for back taxes, and that there was also some 40 acres at the county fairgrounds available.

The committee reported back to the chapter and action started. The vocational agriculture classes visited both pieces of land to investigate the farming possibilities. Parents, business men, neighboring farmers, and others were consulted to get their opinions before the chapter reached a decision. After due consideration, the 160 acres was selected as their choice.

There were many problems raised by their action, such as: (1) how to acquire the land, (2) how to obtain the
farming equipment and other finances needed, and (3) how the work was to be done.

The first problem to be settled was the acquisition of the land. The chapter had no funds for purchase of the land, even though the land was worth not over $5.00 per acre at the time. Even if the chapter possessed money, the land would have to be sold at sheriff's sale and there was a chance that someone might out-bid the chapter.

Interested parties consulted with the county court and a decision was reached that the best thing to do was to have the land set aside by Court order for the use of the chapter. This was done on November 5, 1941. There was to be no charge for the use of the land.

FINANCING THE FARMING EQUIPMENT

Initial Financing

The next problem was the securing of necessary farming equipment. While ways of financing were being considered, work on the farm started. A tractor was borrowed from one implement dealer and a plow from another. Borrowing the equipment was not to be the answer. The ideas being considered were: (1) Parents to sign a note on the local bank, (2) Boys borrow from the Production Credit Association, and (3) Boys borrow from the Farm Security Administration.
The cooperative type of loan made by the Farm Security Administration fitted the needs of the chapter best. A model B John Deere tractor could be purchased for $1,000. Gasoline, oil, and seed had to be purchased also. It was decided that the chapter would borrow $1,300. As adults had to sign any note to secure money from the Farm Security Administration and as the author did not want to assume too much responsibility, a plan of selling $50 shares to the boys was developed. Any boy buying one or more shares would sign the note along with their parents.

The agreement between the chapter and the boys buying the shares was that from the farm earnings each shareholder was to get back the $50 for each share held plus a dividend of $25. In case the income from the farm was not enough to meet the payments when due to the Farm Security Administration, it was up to the boys to pay. Each boy agreed to put in at least 40 hours per year if needed. Twenty-six shares were sold on this basis. The boys purchased twenty-one shares and the instructor purchased five shares. The necessary forms for these shares were worked out by the members and signed by the one purchasing the shares. By this method of financing, each boy owning a share was personally liable in case the venture was a failure.
Further Financing

Further financing was needed the following year to purchase a drill, disk and harrows. Five hundred dollars was financed through the Farm Security Administration. Shares were again sold to members. In 1945, $1,500 was borrowed. One thousand dollars were borrowed from the Lakeview Logging Company Trustee Account, and $500 from shares sold to members who had cash to invest. Instead of the $25 dividend, a $15 dividend was allowed. The members figured the risk was not as great as when the chapter farm was started and therefore the amount of dividend should not be as much.

Latest Financial Status

Since 1945, all equipment purchased has been on a cash basis, as the income has been sufficient to pay off all debts. Some of the proposed improvements will call for fairly large amounts of money. The method of financing will be worked out at that time, but any plan adopted should include some plan so that members themselves will be obligated.

FUTURE PLANS

The plans for further increasing the educational value of the farm are: (1) Finish draining project,
(2) Level part or all of the farm, (3) Buildings for livestock, (4) House for caretaker, (5) Drilling a well or wells for irrigation, (6) Developing pasture, (7) Fencing, (8) Crop rotations, (9) Buying livestock.

Drainage

The drainage project under way at the present time has involved the moving of some 14,000 yards of dirt for the drainage channel. It was surveyed and staked out by the Soil Conservation engineers CA cooperative. Much of that dirt will be used to fill in the old creek beds and some for a dike project which effects four farms located below the F.F.A. farm. This project is known as the Thomas Creek drainage project. The County Court did much of the work with their drag line and their crawler tractor with carry-all, charging $20 per day. About one-fourth of the work was done by members with their crawler tractor and two Tournapulls. Some 7,000-8,000 yards of dirt remain to be moved with the tournapulls to fill in the old creek beds. It is planned to do some straightening of the creek bed running through the northeast corner of the farm.

Leveling

The amount of leveling done will depend upon several factors. These are (1) the cost involved, (2) the amount needed to fill in the old creek beds, (3) the amount of
water available from a well for irrigation, (4) the amount of work that can be done by the members. Probably the whole farm will be done over with a land plane as time and crops permit. The main leveling will be done on the part of the farm where the irrigated pasture will be located.

Need for Additional Buildings

At the present time there are no buildings on the farm other than one machine shed. As a number of town boys take vocational agriculture, it would be advantageous to them and the department if they had a place to keep livestock. Some boys, whose parents' ranches are some distance from town, move to town and board while attending school. A set-up whereby they might feed out steers or lambs would enable them to carry better supervised farming programs. It would be in line with one of the agriculture programs in the county, which is feeding out more livestock rather than shipping out feeder animals.

A place to keep chapter-owned boars and rams is also probable. The chapter has an extensive swine chain and sometimes good quality boars are not always available.

If livestock is to be kept on the farm, it would be likely that a caretaker would be needed and a house should be provided for him. A caretaker on the farm would be of value in that he could supervise the work when the boys are on the farm.
A livestock program on the farm would necessitate pastures, and pastures would need water which would call for a well for irrigation. Two wells one mile north of the farm have been developed this past year, and another one is now being dug. Estimated cost of drilling a well is about $2,000 with perhaps another $1,000 for a pump. By leveling the land, it will not be necessary to use sprinkler irrigation.

Any pasture put in will need fencing. The fencing around is in good condition, but there are no cross fences within the farm. Some new fence is to be put in along the north side of the farm where the new drainage channel was dug.

No crop rotation has been done and mainly grain has been raised since breaking the land out of sage brush. Six acres of Ranger alfalfa was planted as a seed crop. As it did not produce seed successfully, it was plowed up in 1949.

One of the purposes of setting the land aside for the F.F.A. chapter was for experimental purposes. The Klamath Branch Experiment Station has been putting in cereal grain trials on the farm since 1948. In 1950, they also included a fertilizer trial.
SOME PROBLEMS IN THE OPERATION AND MANAGEMENT AT LAKEVIEW

The following are some of the problems in operating the farm.

1. Keeping records and safeguarding funds.
2. Setting up rules for operation of the equipment and enforcing them.
3. Getting the work done.
4. Supervising the boys while working on the farm.
5. Making plans for the operations to be done and management problems.
6. Insurance.
7. Financing for the future development.

Several types of records for keeping track of the financial end of the farm have been tried at Lakeview and improvements made -- some at the insistence of the school auditors.

The first records of financial transactions were kept mostly by the vocational agriculture instructor and were not very adequate nor very accurate. Every time money was received from a sale or rental, it was entered in a ledger. Sometimes the making of an entry was overlooked and usually the amount of the receipts deposited were not checked against the amount of the receipts written in the ledger. The money was deposited in the F.F.A. chapter bank account and not with the student body funds. At the end of a year...
an attempt was made to balance out somewhere near the receipts written in the ledger and the total deposits along with the cash paid out.

One year, the superintendent asked that the books be audited by the school auditors. Some definite recommendations came out of his examination, mainly that a more accurate method of recording receipts be made and that no cash be paid out unless a petty cash fund is set up. The first audit showed several hundred dollars more in the bank account than the ledger indicated. The instructor was quite concerned as to what might have happened had there been a shortage.

A Whiz register was obtained and a receipt was written out in triplicate when cash was paid in or a boy charged with some item. Since that time, the records have become much more accurate and the auditors better satisfied.

The books were being audited for the fiscal year July 1 to June 30 with the fiscal school year. After a change of superintendents occurred, permission was given the chapter to have the books audited at a time more appropriate for a farming operation. The books were being closed on October 31 of each year, as most of the farm work is at a standstill and plans need to be made for the following year.

A record is kept of each transaction made by each boy.
sheet having the boy's name on it. The date is put down, the item, then whether it is a receipt or a charge, and entered in the proper column. A third column indicates the balance due the chapter. In case a boy has a credit, the item is circled.

After the recording of this information, the Whiz register is filed under the boy's name in a file for just that purpose. The box of alphabetized cards was made by the students. Keeping a copy of the transaction is of value in case of some misunderstanding or disagreement.

Another record is kept of receipts. These are broken down to show the separate items. A receipt for equipment rent is handled as follows: Instead of entering it under a column headed "Equipment Rental", the amount received for each piece is entered in a column under the name of the implement. At the end of the year, the amount of money received for the Farmall can be found, as it can for the other items of equipment rented out. In addition to the equipment items, other columns are for Cooperative F.F.A., Crops, and Miscellaneous.

A similar record is kept of the expenses. As all money paid out is by check, the bank stubs are used in making the entries. There are columns for each piece of equipment, gas, oil, grease, equipment purchases, fence, labor, crops, F.F.A. Cooperative, etc. At the end of the year, the amount of money paid out on each piece of
equipment can be determined. It is of value to know how much it costs to operate a particular piece of equipment. When questions arise that the rental rates are too high or too low, the records are referred to and, with this information, the students can better decide which rates are proper. When the new Farmall M was purchased in the spring of 1951, there was much argument as to what the rental rates should be. Several days were spent by each class going into factors influencing the cost of tractors. The account books were referred to, to see what had been spent for repairs on the old Farmall H. The members were then in a better position to decide for themselves what would be a fair rate to charge.

If records were kept as to the gasoline and oil consumption for the tractors, more accurate data would be supplied as a guide to operation costs. However, if the students were called on to keep too much data, it might dampen some of their enthusiasm for the farm.

The chapter treasurers, during the past three years, have been doing most of the work on the books for the farm. Occasionally the treasurer can get some boys to help make some of the entries and to balance the books at the end of each month. Boys are encouraged to look through the account and check the books and be familiar with them. Some $8,000 to $12,000 is deposited in the F.F.A. account each year. The treasurer and the adviser are not bonded
but, in the best interests of the chapter and themselves, they should be.

RULES FOR OPERATING THE EQUIPMENT

The students are encouraged to make the rules. Time is taken in each class to talk over proper and safe operation of the equipment and to make recommendations. These are then adopted at a F.F.A. meeting. It is necessary to revise the rules occasionally, as sometimes the rules will be found to be unworkable or unenforceable. Often the boys will think up stiffer rules than the adviser. The question is then asked, "How will you enforce that rule or how will you make it work?"

It is easy to set up many rules that, on the surface, would indicate a good job was being done in seeing that the equipment was being properly used. The most important thing though is adhering to and enforcing the rules.

A rule made out with little or no attention paid to it is worse than no rule at all.

The main answer is to have a few simple rules and adhere to them as closely as possible. It will mean that much of the checking will be up to the instructor. Students can help some by reporting violations, but the feeling of being a "tattletale" must be guarded against.

Another problem is checking the equipment for damage done when the equipment is being rented by boys or other
persons. One of the standing rules is that any damage done to equipment due to carelessness of the operator is to be paid for by the operator or he must make repairs. This can be done easily if the adviser can check the equipment between "rentings". However, at times, a boy or adult might want to rent some equipment and it is already at another person's place and he is to pick it up there. When the equipment is finally returned, it is sometimes damaged or a part lost and occasionally neither will admit the responsibility. Some adults are as bad as the students in trying to shift the blame. This has happened several times. Another standing rule is that the person taking a machine is to check it over before taking it and note anything wrong. This does lead to some arguments. It is usually easy enough to check any damage to equipment used on the farm, as the supervisor is there. Boys damaging equipment while it is being used on the farm have not been required to pay for it. But a careless operator does not get to do much work with the equipment unless under very close supervision. There has been very little damage done considering that so many different boys are operating the equipment. It is necessary to make the boys feel responsible for the equipment they are operating. The only fool-proof system would be to lock the equipment up in the shed and not let it be used.

Stressing the fact that they own the equipment, that
it is theirs, and therefore they must help to take care of it, is important. This will help to get better care given to the equipment.

Any system devised needs constant checking, which the busy instructor does not always have time to do. Students can be appointed to do this in some cases, but they are not always around when equipment is being taken or returned.

A good practice that is worth bringing to the attention of the students repeatedly is that, whenever they start to use a piece of equipment, they should look it over, walk around it at least once to see if they can see any loose nuts or bolts, any part out of adjustment, or a break starting in some brace. This is important not only from the standpoint of safety but from the efficiency standpoint of preventing time-consuming breakdowns and adjustment in the field. Many boys report to the supervisor or instructor that something needs attention. Forming the habit of checking over the equipment will be valuable to them in future years.

**DOING THE FARM WORK**

Practically one hundred per cent of the work on the farm is done by the boys. All the seed bed preparation, drilling, and the combining are done by the boys. Twenty acres of barley were hired combined in 1950. Other work,
such as fence repairing, roguing certified seed, is done by the boys. As a rule, the boys are not paid for working on the farm. Any work done during the summertime is paid for. In the fall of 1950, the boys voted to pay for Saturday and Sunday work. Boys running the wheel tractors were to receive 50¢ per hour and boys operating the dozer or tournapulls would receive 75¢ per hour. Other work done during school or after school is not paid for.

At times, there is difficulty in getting the work done. Boys are not required to work on the farm, but they are all urged to do their share. The difficulty varies from year to year. Some groups of boys are more interested and enthusiastic than others. As a whole it is not too difficult, especially since a supervisor has been hired to assist with the work on the farm.

Interest in working on the farm decreases from the freshman year to the senior year. As the "new" wears off the boys are not as anxious to go to the farm and do the needed work. From an educational standpoint, the students lose interest mostly because they have learned the skills needed in operating the tractors and other equipment and there is nothing new to learn.

The members of the freshman class are most anxious to do the necessary jobs of preparing the seed bed, planting the crops, and even helping with the combining. As a rule the older boys are used for the drilling and combining.
More responsibility for the management of the farm is thrown on the third and fourth year students, as it is something new to them and a challenge.

Since the fall of 1949 an adult has been hired to supervise the work on the farm. The school board had been budgeting $600 per year for that purpose. They realized the problem of trying to get the work done on the farm while the instructor is busy with his classes.

The first nine years the work was done without much supervision being given on the farm, as the author was busy with his classes or would take a whole class down to give instructions on tractor and equipment operation. During his free period and after school, he spent much of the time in supervising the work on the farm. For some types of work, such as seed bed preparation, this system was not too bad. The combining was most difficult as very few boys, even farm boys, had ever run a combine by themselves. Breakdowns created the major problem. Something would break down and the boys would not know how to make the repair and were not always able to describe the trouble to the instructor. This meant that the repairing job would have to wait until the instructor's free period. Since an adult has been hired, little time has been lost, as he is able to help the boys make the necessary repairs.

When the work on the farm was first started, the boys worked on it during their hour and a half vocational
agriculture period. This was not too satisfactory as much
time was consumed in traveling back and forth to and from
the farm. Several years ago, periods were changed to hour
periods and it was impractical to send boys to the farm for
just one hour. The problem was discussed with the faculty
and permission was obtained for boys to work on the farm
half a day at a time.

Farm work permits were mimeographed so that a boy
could get permission to miss other classes. These permits
are signed by the instructor, then the principal, and then
the teachers from whose class the boy is to be absent. In
case the teacher is giving a test or has some other special
work, the student may not go that day. These permits are
signed up a day or two in advance of the time they are to
go to the farm. This system is working quite satisfac-
torily.

All boys are given training in all the different kinds
of farm work. However, no record is kept as to the differ-
et operations they do. As a rule the first year student,
unless experienced, does not run the combine or do the
drilling. Since the use of a supervisor, this is not
adhered to as closely.

The boys keep records of the work they do on the farm
in their project record books, stating the date, kind of
work done, and hours put in.
SUPERVISING THE WORK ON THE FARM

Until 1950, the job of supervising the work on the farm was a problem. With boys working on the farm and the author teaching classes, it was difficult to teach classes and supervise farm work at the same time. It was necessary for the author to give instruction on how to do certain operations to boys that did not know how to do them.

As some of the students were town boys, they did not know how to operate a tractor, plow, disk, drill, or other implements. Classroom instruction is given them and then demonstrations given on the farm, using the equipment. Occasionally an older experienced boy would be sent to the farm to supervise and give further instruction. However, an older boy was not always available. Two boys were always sent to the farm, even though there was only one tractor to operate. In case of an accident, aid could be summoned quickly. They would also take turns in operating the equipment.

One fall, the chapter had three tractors working on the farm. This should have resulted in work being done three times as fast, but it did not. Probably less was accomplished than with one tractor, even though the boys would be sent to different parts of the farm. Like farmers, they would have to get together and pass the time of day.
Since an adult has been hired, the work on the farm progresses much more rapidly. There are three reasons for this: (1) The boys will work more and not play around; (2) Help is there in case of a breakdown or other trouble, thus saving the trouble of having a boy return to school for help; and (3) Machinery can be adjusted on the job to do the work better and more efficiently.

The adult will need some supervision and instruction on how to instruct the boys in certain of the farming operations. The school board pays the cost of hiring the adult. It is important to hire a man whom the boys like, respect, and will work for. It is also important that the adult know how to service and adjust the equipment and then see that the boys do it.

One problem is getting the equipment serviced when needed. The tractors have hour meters on them so that it is not hard to determine when certain servicing is needed, if use is made of the hour meter readings. Another year some chart or check system will be used to record the servicing done. Some boys can remember the necessary places on the tractor that should be greased and serviced and others do not. The supervisor needs to know how and where the grease fittings are and what other necessary servicing is needed and done.
MAKING THE PLANS FOR THE FARM WORK AND MANAGEMENT

After the first of November each year a financial statement is made and a budget is worked out. While discussing the budget for the coming year, many problems were taken up. For example, which crops to plant, what acreage of each, fertilizers to be purchased, new equipment to be purchased, old equipment to be sold or traded, and improvements to be made. During this time the main plans for the year are made and developed through class discussion. It takes from one to two weeks to get the financial statement and budget completed.

Other management problems come up and time is taken to investigate and study them. After studying some approved practice in class, the group very often decides to adopt it for the farm.

As far as possible, the plans and problems are up to the boys to decide. The adviser has to guide and show them the values or faults of some of the plans. The school administration here feels that it is very important that the boys have a say as to what is to be done and how the money is to be spent. It helps to carry out one of the tenets of the F.F.A. and that is democracy. The adviser tries never to dictate to the boys. Once in a while some boys feel that they have a great deal of power and that they have the say in how some things are to be done that
are not related directly to the F.F.A. or the farm.

Use has not been made of an advisory committee, although at two different times committees have been elected by the boys. The fault does not lie with the boys but with the author, as he has not called them in for meetings often enough. In the near future, use will probably be made of an advisory committee in aiding in carrying out the improvements planned.

INSURANCE

Insurance is carried on all buildings and equipment. The insurance is paid for by the chapter, even on the F.F.A. buildings on the school grounds. Public liability and property damage, fire and theft are also carried on all equipment, tractors, and motor vehicles.

All boys have been encouraged to carry the School Activities insurance. With the adoption of an accident policy by the Oregon State Association of F.F.A. for F.F.A. members, the chapter has been encouraging the boys to take out that type. If the boy has worked on the farm ten hours, the chapter will pay the first dollar of the cost of the policy.

A good unit for classroom instruction can be worked out by studying the insurance that the chapter carries and other kinds of insurance that should be carried or insurance that is available.
Plans for financing future improvements have not been worked out. The problem has been discussed with the students. Improvements have been made whenever the chapter has been able to with the income from the farm. It has been on a cash basis the last four years. Since 1947, major equipment that has been purchased with cash has been a pickup, truck, and tractors. All bills are paid on the first of each month.

As mentioned earlier, one of the major improvements to be made includes the addition of livestock to the farm. This will require irrigation for pastures and irrigation, in turn, will require the drilling of a well. Livestock will also need barns and other shelter. A caretaker will probably have to be hired and a place for him to live will need to be provided.

If this is to be done as the farm income permits, it will take a number of years, and the benefits of having livestock on the farm will be put off that much longer.

If money is to be obtained from other than the farm income, the possible sources are: public spirited citizens, logging or lumbering industry, other businesses, the County Court, and School District No. 7.
PROBLEMS IN THE MANAGEMENT AND OPERATION
OF SCHOOL FARMS WITH RECOMMENDATIONS
BASED UPON FINDINGS FROM THE SURVEY

Some of the problems to be solved in starting, operating, and managing school farms are:

1. Advisory committees
2. Acquiring and financing land, equipment, and livestock
3. Keeping records and safeguarding funds
4. Making rules for the operation of the farm equipment
5. Getting the work done
6. Supervising the work being done
7. Insurance
8. Making plans for the farming operation

1. ADVISORY COMMITTEES

Advisory committees were used by twenty-four, or 43%, of the fifty-four schools surveyed. Of those using an advisory committee, twenty-three, or 96%, stated that they were helpful and only one school mentioned that it was questionable as to their value.

The California School Farm Committee (1) advised the use of an advisory committee as an integral part in the planning and operation of a school farm. They suggested that the committee be nominated by the vocational
agriculture instructor and principal, or superintendent, and approved by the school board. The author asked for suggestions from the chapter members as to whom they would like to have on the committee. Where the school farm is primarily a chapter activity, the chapter members should have some voice in the selection of the members of the advisory committee.

A committee consists of at least five members, mostly lay farmers, and a representative of the school board. It may be advisable to have some business men as members.

The function of the committee will be (1) advisory to the vocational agriculture department with the planning, and (2) advisory to the school board as to the financing, operation, and maintenance of the farm.

Meetings of the advisory committee should be often enough to keep the committee active, so that the members will know that they have some responsibility. Meetings should not be less than three or four a year. The meetings should be called when there is something important with which they can assist. It is a good idea to work out an agenda of the business and prepare a copy for each member. This will help hold the discussions to the business of the evening and see that no item is overlooked.

An advisory committee can be of value to the agriculture instructor in helping him solve some of the problems that come up.
2. ACQUIRING AND FINANCING LAND, EQUIPMENT AND LIVESTOCK

The acquisition of land for the farm is a problem. The survey shows that twenty-eight of the schools owned the land that was farmed. Two departments or chapters owned the land. Five schools leased land and eighteen chapters leased or rented land.

One department stated that it had lost its lease and was looking for more land to farm. Another instructor stated that a long-term lease was essential, thus allowing for permanent pastures, crop rotations, and some long-time planning. Several others reported that they rented land from year to year which was not satisfactory. Another instructor (whose questionnaire came in long after the summary was made) stated that the land had been sold and the lease lost and "as a result we are holding the sack with the equipment which does not get used enough to pay for the depreciation".

One department mentioned the sale of school bonds to finance the farm set-up, another that it was done through gifts of money from the people of the area.

The financing of the rent and the equipment is a problem for Future Farmer chapters that have to do their own financing for their equipment or for cash rent. Some chapters do custom work with their equipment in order to raise money for the equipment. One instructor reported
that by the time the equipment was paid for it was worn out. Some have sold shares to the members in order to raise money for purchasing equipment.

In addition to the above sources mentioned, chapters may borrow from banking institutions, Production Credit Associations, or buy from dealers on contract. In some cases, the school board buys part or all of the equipment. Donations or gifts from interested persons is another source.

Nine schools stated that they had received gifts of machinery and equipment. Some schools indicated that they did not have enough equipment and must depend on borrowing it. Seventeen departments stated that they borrowed equipment from dealers and forty departments borrowed equipment from parents, students, and others. Thirty-seven departments stated that chapter or school-owned equipment was the most satisfactory.

The financing of fuel, grease, oil, and repairs was done by the schools in seventeen cases, the advisory council in one case, and by the chapters in thirty-five cases. The fertilizer, seed, etc. was financed by the school in fourteen cases, the chapter in thirty-nine cases, and one each by a dealer and advisory council.
Methods of Procuring Land
1. Purchase or lease from school funds (taxation).
2. Purchase or lease through public subscription.

Methods of Procuring Machinery, Equipment, and Livestock
1. Borrowing from lending agencies.
2. Selling shares to students.
3. Borrowing from private individuals or firms.
4. Buying on contract from dealers.
5. Rebuilding equipment donated to the departments.
6. Rental of equipment to members, parents, and others.
7. Custom work.
8. Public subscription.
11. Livestock breeders.
12. Chapter activities such as Smokers, Rodeos, Work Days.

3. KEEPING RECORDS AND SAFEGUARDING FUNDS

In all departments, the keeping of the records fell directly or indirectly upon the instructor. In four cases the records were kept by the school office. In fifteen cases it was done entirely by the instructor. In fourteen
cases it was done by the chapter, the treasurer or committee, and in fourteen cases by the instructor and the chapter, usually the treasurer.

In paying bills and accepting income, the instructor took the full responsibility in fifteen cases. In fourteen cases it was done by the chapter or treasurer, and in four cases by the school office. The remaining twenty-one cases reported that it was done by the instructor working with the treasurer.

The use of a Whiz type register for the recording of receipts and charges is advisable. This type of register has the original and two copies. One can go to the boy or person making the transaction, one may be a file copy to be filed under each boy's name, and a third may be used by the auditor in checking the cash transactions.

Such records can be useful in keeping records of the amount of rental received for each piece of equipment, as well as the amount spent on repairs. Such information will be useful to classes in determining proper rental rates and for other cost studies.

**Safeguarding the Funds**

The chapter may keep its funds in its own bank account, or with the student body funds. The advantage of a separate bank account is that it simplifies the payment of bills and the handling of cash. In some cases the
superintendents require that the funds be kept with the student body funds. In the California departments surveyed, the money from the farm went into the School Farm Account and were part of the regular school funds and not chapter funds.

Auditing

The survey showed that thirty-three departments, or 61%, had their books audited. In eight cases, or 24%, the auditing was done by the chapter or a committee; in eight more cases, or 24%, it was done by the school office; by Certified Public Accountants in fifteen cases, or 46%; and two, or 6%, by the County School auditors.

The auditing of the farm account books by someone other than the chapter or committee is advisable. It will protect the instructor from having poor and faulty books.

The Uses of the Income

The profits or income from the farming operations went to the school districts in 20% of the cases, to the chapters in 76% of the cases, and to the members in 4% of the cases. One school reported that the income from the crops went to the school and the income from the livestock went to the chapter. Two schools reported that some or all of the income went to individuals who rented the land for their projects. Most of the departments reporting the
income going to the school districts stated that it went into a separate farm account or a farm revolving fund.

The school or chapter farm income as a source of money for the chapter activities is quite important, as thirty instructors (56%) reported that it was very important, twelve (24%) stated that it was of average importance, and only twelve (24%) stated that it was of little or no importance.

Of the twelve instructors stating that this was of little or no importance, seven were in California where the income of the ten farms surveyed went to the schools. One of the California chapters received the livestock income and they stated that the income was an important source of money for chapter activities. The two other departments in California stated that it was of average importance.

4. RULES FOR OPERATING THE EQUIPMENT

A good set of rules for the students to follow in using the equipment is important. One Future Farmer chapter had this to say about its rules: "It is the aim of the Future Farmer Chapter to have each member obtain the maximum benefits from the chapter-owned equipment. It is yours to use for improved home projects in the hope it will lead to more progressive scientific farming. The following list of rules and regulations governing the use of the F.F.A."
tractor and equipment. These rules are not to hinder but to enable you to derive the greatest benefits to fulfill your obligation and responsibility in the operation of the equipment".

Of the forty-six departments answering the question as to who makes up the rules for their operation, eleven advisers stated that they alone made up the rules, twenty-three said they worked with the chapter, committee, or advisory committee, and twelve stated that the chapter or committee had the sole responsibility.

Of the eleven departments in which the instructors made the rules, nine of the farms were school owned and the income went to the school district. This indicates that, when the profits go to the chapter, the chapter has more voice in the operation of the farm. The students will be more interested in adhering to the rules if they helped to make them.

It has been the writer's experience that rules need to be changed from time to time. Some rules will be found unworkable or unenforceable and must be dropped or revised. The more the boys have a say in drawing up the rules and in their modification, the more apt they are to follow them.
A Typical Set of Rules

The following rules were made up from the various rules sent in with the questionnaires.

Safety Rules

1. The adviser shall have mimeographed forms signed by the boys and his guardian to the effect that he has permission to operate the chapter machinery and that the adviser, chapter, and school district are relieved of all responsibility and liability in case of accident.

2. Tractors and trucks will be operated and driven at safe speeds. Brakes on the tractors shall be locked together for driving on the road.

3. No more than one shall ride on the tractor unless during an instruction period.

4. Any boy or person caught or proven to be abusing any of the chapter equipment shall not be allowed to use the equipment.

5. Each boy must pass an operator's test before being allowed to use the equipment by himself.

Other Operating Rules

1. Any damage done to the equipment due to carelessness of the operator shall be fixed, repaired, replaced, or paid for by the operator.
2. Equipment must be lubricated, oiled; the water, battery, and tires checked before taking and then again on returning if service is due.
3. The equipment is to be cleaned on returning.
4. A tractor driver is under the same laws as a car driver when on the public highway or road except that a driver's license is not required.
5. Road travel time counts as rental time.

Some of the rules sent in with the questionnaires contained the rental rates. The rates to chapter members were usually less than to parents or others. None of the California departments rented the equipment to the boys or anyone else.

In answering the question on renting equipment, thirty-three departments stated that equipment was rented to members, twenty-three rented to parents, and thirteen rented to others.

5. GETTING THE WORK DONE

No question was asked in the questionnaire as to the problems in doing the farm work, but sixteen instructors mentioned in the comments some of the problems they had.

The problems mentioned are:
1. Doing the work one class at a time.
2. Farm too far from school.
3. Getting help during the peak labor season.
4. Periods too short.
5. Having enough work to keep help during the summer.
6. Supervising the work on the farm and teaching classes at the same time.
7. Farm should be large enough to employ a full-time manager.
8. Securing good hired help.
9. Farm too large.
10. Getting students excused from other classes for farm work.

**Hiring Help**

The use of a hired adult to do all or most of the work or to mainly supervise the work the students do will provide the answer to many of the above problems. A total of eighteen, or 33%, of the departments hired adults to do all or most of the farm work or to supervise the work. The other thirty-six departments did the work themselves.

One department hired three men to do the farm work along with some student help. The wages of the hired adult help averaged $230 per month, and in most cases included a house and utilities. Six schools employed adults mainly as supervisors. Two schools had both a hired supervisor and a hired adult to do most of the farm work. Wages for the
supervisors varied from $200 per month to $375 per month. One school indicated that one of the instructors in the department lived on the school farm to assist with the care of the livestock.

Only one school hiring adult help had no livestock on the farm. In this case, he was employed in the fall and spring to supervise the planting and harvesting of the grain crop.

Only eighteen departments required boys to work on the farm. Six stated that school or project credit was given, but none stated how much credit was allowed or how many hours of work were required. Several stated that points towards earning an F.F.A. letter was allowed. In the matter of paying students wages, thirty-three departments paid students for work out of school time and the wages varied from 60¢ per hour to $1 per hour.

Who Does the Work?

Four questions were asked as to who did the following:

1. Seed bed preparation.
2. Planting the crops.
3. Harvesting.
4. Caring for the livestock.

Seed Bed Preparation

The seed bed preparation was done entirely by a
hired adult in three cases, with help from the instructor or students in eleven other cases. The instructor helped in eight cases. In five cases, the boys did all the seed bed preparation during school time and, in three cases, it was all done out of school time. A total of thirty-four cases reported that the students did all the work either during and/or out of school time.

**Planting the Crops**

The planting was done entirely by hired adults in five cases and, in seven cases, they helped. In one department, the instructor did all the planting and was assisted in five other cases. In eight departments, the planting was done entirely by the students during school time and, in one case, it was done entirely by students during non-school time. In a total of thirty-four cases, the boys did all the work during and/or out of school time.

**Harvesting**

More of the harvesting was done by adult help than in any of the other farm work. Some departments indicated that the harvesting was contracted and, in the summarizing, this was put down as hired adult help. In nineteen departments, the harvesting was
done entirely by adult help and, in seven more cases, adults assisted. The instructor helped in five cases and, in five departments, the boys did all the harvesting. In no school did the boys do all of the combining or harvesting during school time, however, in fifteen cases the boys did it all during and out of school time.

**Caring for the Livestock**

In three departments, the hired adult did all the feeding and caring for the livestock and, in eight other cases, they helped. In four cases, the instructor helped with the care of the stock. In seven more cases, the students did all the feeding and caring for the stock either during school time or out of school time.

**Student Help**

One of the educational purposes of the school farm is to teach the necessary skills in the operation, servicing, and adjusting of the farm equipment. To do this the student must then use the equipment on the farm. Several instructors mentioned the problem of doing this merely during the agriculture period. If the student can work on the farm only during the agriculture period, too much time is taken up in traveling to and from the farm and cleaning up.
With one hour periods, this works a great handicap, especially where all or most of the work is done by the students.

Obtaining permission for the students to work on the farm a half day at a time would be beneficial. A higher per cent of the time would be spent in doing the work and learning the necessary skills and the work would be done faster. Some of the high school teachers frown upon the practice of excusing students from their classes to work on the school farm. Perhaps better acquainting the members of the faculty with the farm by taking them on a tour of it would be helpful. Twenty-six departments stated that they had taken some or all of the faculty on a trip to the farm. Forty-one stated that it would be worth while to acquaint the faculty with the farming operation and only one stated that it would not be worth while.

Exploitation of Student Labor

In discussions the author has had with State Supervisors, teacher trainers, and agriculture instructors, the problem of exploiting student labor has been mentioned. Some of the instructors mentioned this as a problem. However, no question was asked along this line.

A farm operated by a school should be for the purpose of providing additional educational facilities beyond the classroom. This would mean that any work done on the farm
by a student should be an educational process. After a skill is learned, the student should be assigned another job at which he can learn a new skill. After a student learns a skill he usually loses some interest, at least in repeating that skill over and over again. At Lakeview, the interest in working on the farm decreases progressively after the freshman year to the senior year.

According to the above statements then, if a boy is required to do work that he can do well, it is no longer educational and can be considered exploitation of labor. Just where is the line of demarkation between the ending of learning and the starting of exploitation? Just how many hours does it take an average student to learn to operate a tractor and the implements? How expert should he become before his work can be considered exploitation?

In schools that have hired adults to do all or most of the work, there is probably no exploitation of student labor. What about departments where the chapters operate the farm as a group cooperative project and are responsible for it and therefore the farm must be operated at a profit? It is undoubtedly necessary in most cases that boys do work beyond the learning of the skills involved. Is it justifiable from the standpoint of cooperative effort, or of accomplishing by group activity? Is there learning or educational value from such cooperative effort by a group and does it justify exploitation of student
labor to make the project successful?

In adult life, people work together to develop community projects such as a public park, a swimming pool, or an auction sale for Future Farmers and 4-H members. They are doing a community service. A school farm that is solely the function of a chapter is providing educational facilities that a school would not otherwise have or in many cases could not afford. Is this not community service to some degree?

Only 28% of the instructors stated that the farm was of little or no importance from the standpoint of being a means of introducing new crops or varieties and showing their value to the community. Fifteen per cent stated that the farm was of little value in speeding up acceptance of practice that is difficult to initiate on the home farm. Only 5% stated the farm was of little value in the teaching of skills necessary to the handling of farm equipment. This would mean then that the majority of the instructors feel that the things taught on the farm can be beneficial to the students and the community; in other words, it can be considered a form of community service.

From this standpoint, some exploitation of student labor is justifiable. Students need to learn that they are a part of the community and that it is their responsibility to help improve the community in which they live. Just how much so-called exploitation can be allowed? It
is a hard question to answer. If there is complaint from
the people of the community, from parents or school
officials on this matter, then the instructor should make
a careful check into the problem.

6. SUPERVISING THE WORK BEING DONE

The busy agriculture instructor has his hands full
when charged with the responsibility of a school farm in
addition to his regular classes. It is impossible for him
to give the students working on the farm the proper super-
vision when he is teaching a class. Some adult supervision
or help is needed.

The main value of a supervisor is to watch and assist
the boys when doing the farm work. The writer has found,
since the employment of a supervisor, the farm work pro-
gresses much faster. The supervisor is able to help in
the following ways:

1. See that the boys work all the time and do
not waste time.
2. In the case of breakdowns, he is able to
assist with the repairing.
3. He can see that the equipment is properly
serviced and operated.
4. See that the boys set or adjust the equipment
properly.
5. See that the safety rules and other rules are observed.

6. In case there is livestock on the farm, he can see that the students care for them properly.

Six departments stated that they hired adults to supervise the work on the farm. Two departments had other hired help in addition to the supervisor. Half the instructors having supervisory help stated that the farm competed for their time in visiting students. A total of thirty-three instructors, or 62%, stated that the farm competed for their time in supervising their students. The use of a supervisor on the farm then is not the answer in freeing the instructor entirely from the duties and responsibilities of operating a school farm. The supervisor is undoubtedly a help. The instructor should be allowed some time from his classes to devote to managing the farm. As one instructor aptly stated in his comments, "The agriculture instructor is a leader and an educator and not just a repairman and laborer for the school farm".

Four instructors commented that the farm was extra work without extra pay -- just another job for the instructor. If a school farm is justifiable from an educational standpoint, then it is justifiable that some school funds be spent on it. Some funds could well be spent in hiring
adult help to supervise and to relieve the instructor of some classes.

7. INSURANCE

Farming is a hazardous occupation and operating a school farm with inexperienced help makes it even more so. The instructor is in a vulnerable position with respect to an economic cooperative project such as a school farm. According to Mr. Mark Nichols, State Supervisor of Agricultural Education of Utah, in a paper presented at the Regional Conference of State Supervisors at Reno in 1948, the Future Farmer chapter is regarded as an integral part of the public school system and, legally, all the equipment which the chapter acquires belongs to the school district. He further recommends that the instructor obtain from the school board written permission to carry on a school farm.

The instructor must at all times exercise care in instructing and warning his students with regard to the safety precautions. He must keep repeating and emphasizing them to his students.

In answering the questions on insurance, forty-three departments stated that some type of insurance was carried and thirteen stated they carried no insurance of any kind. Of the forty-three departments, thirty-four of them had some type of insurance that covered the workers. Hired adults were covered by state industrial accident insurance.
In Oregon, some of the members carried insurance with the Oregon School Activities Association, which offers some financial aid in the case of accident. Six of the eight replies from Washington stated that their members had the Washington Future Farmer Insurance.

Machinery and equipment insurance was carried by twenty-nine schools. The types mostly mentioned were public liability, property damage, and fire and theft.

The instructor and the school should be protected in the case of liability on their part. Property damage, public liability, and bodily damage insurance can be purchased at reasonable rates, as can fire, theft, and collision.

Accidental injury insurance for the boys working on the farm is high-priced unless they have such a policy as the Washington F.F.A., or one like the Oregon School Activities Association.

Some states require that cars and trucks be covered by property damage liability and bodily injury insurance. Chapters owning cars, pickups, and trucks should make certain that they meet the state requirements.

A Contractors' Equipment policy is issued by some companies which will cover farm tractors and equipment against fire, theft, collision, flood, etc. Other companies issue a policy for farm or orchard equipment covering the above items. Farm Comprehensive Liability policies are available that offer liability insurance for bodily
injury and property damage.

All instructors should talk over their insurance problems with their local insurance underwriters to make sure that they get the insurance they need to cover their specific problems.

8. MAKING PLANS FOR THE FARMING OPERATIONS

One of the important phases in the operation of a school farm is the making of plans for the year's operation. The making of the plans includes a budget and a net worth statement. In the making of a budget, ten instructors stated that they alone made out the budget, nine worked with the chapter or committee or advisory committee, twenty chapters or committees made out the budget themselves, while eleven worked with the instructor and advisory committee. In only four cases did the advisory committee assist with preparing the budget. A total of thirty-one chapters took part in the preparation of the budget. Thirteen schools stated that no budget was made for their farm.

Budgets are required in project record books for member's projects. If they are of value to a boy for his project, the budget is also of value to a chapter operating a farm. It is of special value in determining how the income is to be spent. The students will have a better understanding as to what can be purchased in the way of
equipment, and what needs to be spent for crops, livestock, and other operating expenses, including insurance.

In departments where the money goes to the school district, the making out of a budget will give them practical experience which they would hardly obtain otherwise.

Of the eighteen farms having livestock, ten instructors determined the amount of livestock to be raised and five worked with their chapters in making the decision. Only four chapters alone determined the amount of livestock to be kept on the farm. In one case, the advisory committee alone made the decision.

In determining the management practices of the livestock, nine instructors alone did the deciding and nine worked with the chapter members. In three cases, the chapter or committee was solely responsible. In seven cases, the chapter worked with the instructor or advisory committee. The advisory committee was used in three cases.

The greater part the students can take in planning the management of the school farm, the more educational it will be to them. The amount of planning will vary from farm to farm. A small five-acre piece of land all in one crop will not require the planning that a larger operation will, which has a variety of crops as well as livestock. The more varied the problems the students help solve, the more worth while experiences the students have.
ADDITIONAL INFORMATION OBTAINED FROM THE SUMMARY OF THE QUESTIONNAIRE

Most of the data obtained from the questionnaire will be found in the chapter on Problems in the Management and Operation of School Farms with Recommendations Based upon Findings from the Survey. The information presented here does not adapt itself to the above.

Tenure of Instructors

The instructors in the departments having school land have been in their departments an average of 6.1 years, the range being from 1 year to 22 years. Most of the instructors started the farms in their departments, as forty-eight of the fifty-four instructors have been in their departments longer than the farms have been in operation. Only six instructors were in departments where farms were already in operation when they moved to the schools.

This indicates that the school farm does not cause the instructor to move -- in fact, it seems to do the opposite and act as a stabilizer.

Number of Years Farms Have Been Operating

The farms have been operating an average of 4.5 years, the range being from 1 to 30 years. However, most of them have been started recently, as indicated by the fact that thirty-one of the fifty-two reporting the length of
operation have been operating three years or less. There were eight farms between 4 and 5 years old, six between 6 and 10 years, six between 11 and 15 years, and one for 30 years.

Size of the Farms

The school farms ranged from five acres to four hundred eighty acres, with an average of eighty acres. There were thirty-nine farms of forty acres or less in size, fifteen between forty-one and eighty acres, three between eighty-one and one hundred twenty acres, six between one hundred twenty-one and one hundred sixty acres, and three over one hundred sixty acres.

Ownership

There were twenty-eight farms owned by school districts and three by the vocational agriculture department. Five of the farms are leased by the school and eighteen are leased or rented by the chapters. Of the twenty-three leased or rented farms, fifteen had written leases for the land.

Distribution of Income or Profits

The profits or income from the farms were divided as follows: in twelve cases, the money went into a school farm account or to the school district; in thirty-nine
cases, the chapter received all the income and, in two cases, the money was shared by the chapter and the school. In one case, the profits went to the members, as individuals rented land for their projects.

In the ten California departments surveyed, the income went to the schools or into a separate farm account, except for one department which reported that the livestock income went to the chapter.

Seven of the ten California departments did not feel that the income from the farm as a source of money for chapter activities was of any importance. Two stated that the income for chapter activities was of average importance, and one stated that it was very important. This was the department that received income from the livestock produced on the farm. Of all the departments answering the question as to the importance of the farm as a source of income for chapter activities, only twelve, or 24%, stated that it was of little or no importance. Twelve, or 24%, stated that it was of average importance, and thirty, or 56%, stated that it was very important.

Along the same line, only two departments, or 4%, stated that the farm was of little or no importance in stimulating interest in the department or chapter, 36% stated it was of average importance, and 60% that it was very important.
THE VALUES OF SCHOOL FARMS
AS DETERMINED FROM QUESTIONS ASKED

There were fourteen statements asked regarding the values of the school farm and the degree of their importance to a vocational agriculture department.

The instructors were asked to check whether they thought the items were very important, of average importance, and of little or no importance. All the instructors except one thought that the farm would help provide an enriched instructional program. Forty-one thought that it was very important and twelve stated that it was of average importance.

Another statement along the same line -- whether they thought the farm would provide a wealth of teaching materials -- brought the following response. Twenty-seven checked this as very important, twenty-two as of average importance, and five stated it was of little or no value.

This would mean then that the farm is accepted by a large majority of the instructors as being of great value to the vocational agriculture department in providing better programs and real teaching situations. The farm will enable the department to turn out better trained students.

Only three instructors stated that the farm was of little or no value in teaching skills related to farm machinery and equipment. Forty-one stated that this was
of great importance, and eight that it was of average importance. With chapter or school equipment at hand, it is much easier to teach the necessary skills to all boys in the department. Some town boys or boys on small or part-time farms would not have as good an opportunity to learn such skills.

As a means of stimulating or increasing interest in the department or Future Farmer chapter, the farm rates high. Only two stated that it was of little or no value.

A large majority stated that the farm was of great importance as a means of teaching the value of cooperation. One of the main objectives of the Future Farmer organization is to teach the value of cooperation. The farm is an excellent means of carrying out this objective.

Most instructors stated that the farm is a good way of getting favorable publicity for the department. Several made comments that this could also be bad. A farm poorly managed and operated could certainly be a detriment to the department, the school, and the instructor, whereas a well managed farm properly used can certainly help sell the value of the department and the program to the community.

The farm is also important as a means of providing instruction of a practical nature toward the improvement of crop and livestock production. Only five instructors checked this as unimportant.

Most of the instructors agreed that the farm would be
of more value if it had livestock. Only seven stated that they did not think the addition of livestock would be of value. The presence of livestock on a farm would offer more opportunities for making more thorough studies of them.

The farm is also a means of speeding up the acceptance of practices that are difficult to initiate on the home farm. By demonstration of these practices to the students on the school farm, their value can be shown and the boys will be more willing to adapt them or can sell their parents on the value of such practice or practices.

The farm, as a means of introducing new crops or varieties, is not as important as some of the other values. Fifteen stated that the farm was of little or no importance. Some of the departments checking the form on this point were in an area where many varieties were standardized. For example, school farms in the cotton areas can plant only one variety. Nevertheless, there were thirty-eight of the fifty-three schools checking this statement as average in value or better.

The farm as a place to centralize breeding operations for the F.F.A. projects had thirty checks as average or very important, and fourteen stating that the farm was of little or no importance. All the departments checking this point did not have livestock on the farm.

The farm as a source of income for chapter activities
was ranked as very important by thirty departments, or over half of them. Twelve ranked it of average importance and twelve as of little or no importance. Most of those scoring the form down to this point had school-owned farms and the income went into a school account rather than the chapter's funds.

The farm as a means of providing farm employment for students needing such training, or a place for conducting projects for boys lacking such facilities, received lower rating than any of the other points. Most of the boys who would be in the above classification would be town boys or boys living on small acreages or part-time farms. One instructor stated that it was difficult to have both chapter and individual projects on the farm. In California, the recommendation is that boys not be allowed to have projects on the school farm. This is the opposite view of the school farm at Miami, Florida. The writer had an opportunity to visit this farm in 1950. There, the eighty acre farm is for the use of students for their projects. It also provides city boys an opportunity to study vocational agriculture and carry supervised farming programs.

At Lakeview, some land was rented to members during two different years. The practice was discontinued because the boys decided that the chapter needed all the income for buying additional needed equipment and to make other improvements as needed. After buildings are built so that
livestock can be kept on the farm, town boys may then carry livestock projects on the chapter farm. This will enable the farm to better serve the needs of the students.

If the above-stated values of school farms are listed in the order of their importance, based on the percentage of instructors checking them as very important or of average importance, they would be as follows:

<table>
<thead>
<tr>
<th>Rank</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>To provide an enriched instructional program.</td>
</tr>
<tr>
<td>2.</td>
<td>A way to stimulate or increase interest in the vocational agriculture department and F.F.A. chapter.</td>
</tr>
<tr>
<td>3.</td>
<td>To provide, under proper supervision, skills in operating, servicing, and storing farm machinery, and, at the same time, farm safety.</td>
</tr>
<tr>
<td>4.</td>
<td>To teach the value of cooperation.</td>
</tr>
<tr>
<td>5.</td>
<td>To provide instruction of a practical nature that will improve crop and livestock production in the area.</td>
</tr>
<tr>
<td>6.</td>
<td>To provide a wealth of teaching material.</td>
</tr>
<tr>
<td>7.</td>
<td>That the farm have livestock on it if facilities were available.</td>
</tr>
<tr>
<td>8.</td>
<td>To speed up acceptance of practices that are difficult to initiate on the home farm.</td>
</tr>
<tr>
<td>9.</td>
<td>A WAY OF GETTING GOOD PUBLICITY FOR THE CHAPTER AND DEPARTMENT.</td>
</tr>
<tr>
<td>10.</td>
<td>A source of income for the chapter and department.</td>
</tr>
<tr>
<td>11.</td>
<td>To introduce new crops or varieties and show their value in the community.</td>
</tr>
<tr>
<td>12.</td>
<td>A place to centralize breeding operations for livestock projects.</td>
</tr>
</tbody>
</table>
13. A means of providing farm employment for students needing such training.

14. A place to conduct supervised farming projects for non-farm boys or other youth lacking such facilities.
PROBLEMS INVOLVED IN ESTABLISHING LIVESTOCK ON A SCHOOL FARM

The inclusion of livestock on a school farm is desirable. Seventy-eight per cent of the departments not having livestock on their land stated that the addition of livestock would be desirable. In response to another question as to the importance of livestock on the farm, 60% stated it was very important that the farm have livestock, 25% stated that it was of average value, and 16% said it was of little or no importance.

There was livestock on twenty-two of the farms, totaling 1,418 head of dairy, beef, sheep, and swine. There were 7,000 head of poultry raised last year. Of the livestock, 56% were owned by schools, 23% by F.F.A. chapters, and 16% by individual boys. Poultry ownership was divided as follows: 60% by schools, 25% by F.F.A. chapters, and 15% by individuals. Two schools listed livestock but did not give the number on hand.

The following are the number of schools having livestock, including poultry, and the number of kinds of livestock on their farms. Two schools had five kinds of stock, five had four kinds, three had three kinds, five had two kinds, and seven had only one kind of stock. One school reported 186 head of beef, of which 171 were steers fed out by the F.F.A. chapter or its members.

Of the 98 head of dairy cattle, 73 were owned by five
schools, 10 head by three chapters, and 15 in one school by individual members.

The 393 head of beef were owned as follows: 118 head by six schools, 210 head by six chapters, and 65 head by individuals in five schools.

Of the 493 head of swine, eight schools owned 307 head, five chapters owned 82 head, and individuals in seven schools owned 104 head.

Ownership of the 439 head of sheep is broken down as follows: five schools owned 284 head, four chapters owned 98 head, and individuals in two schools owned 57 head.

The 7,000 head of poultry were reported as five schools owning 4,200 head, two chapters with 1,800, and one school had 1,000 head owned by individuals.

It is just as important to teach skills and management practices for livestock as it is to teach the other phases of the farming operation. Planning the addition of livestock will bring up problems requiring careful study. The following factors will be considered at Lakeview.

1. Type of livestock operation, i.e., feeding or breeding stock or both.
   a. For the students' individual needs.
   b. For community needs.
   c. For the chapter's needs.

2. Feed requirements.

3. Building requirements.
4. Labor needs.

5. Financial requirements.

Type of Livestock Operation

The type of livestock operation to be conducted on the farm will involve, primarily, a consideration of students' individual needs and then the chapter. As town boys are enrolled in vocational agriculture classes, it is sometimes difficult for them to have adequate project facilities. In some cases, boys from large ranches move into Lakeview during the school year to attend school, and then there arises the problem of a suitable project since the boys are home only some week-ends and during the summer. Most of the time, their livestock is being cared for by other persons. A place on the farm for them to fatten out livestock produced on the home ranches would be desirable.

The Lake County Farm Planning Conference in 1947 made the recommendation that feeder cattle and lambs finished with grain on good feed should increase the county income and help reduce the freight costs now paid out on hay and grain shipped out of this area. The Lakeview Rotary Club has been interested in this program for some time and has sponsored a local auction sale for fat stock raised by the Lakeview Future Farmers and 4-H Club members. They recently started a commercial feeding contest in which pens of steers, lambs, and hogs are fed out. The feeding of
pens of stock helps to bring out the commercial aspect of
the feeding program as compared with feeding individual
animals for the auction sale.

Considering then the needs of some of the town boys,
boys from large ranches some distance from Lakeview, and
stressing the importance of more finishing of livestock
rather than selling of feeders, the first livestock devel-
opment on the farm should be facilities for fattening beef,
lambs, and perhaps hogs.

Feed Requirements

The kinds and amounts of feeds needed for the raising
of breeding stock or for fattening feeder stock will be
one of the determining factors as to the type of livestock
program to develop first. The breeding stock will be on
the farm the year round and will require pasture during the
pasture season from May to September. Feeder stock would
require some fall pasture before being put on feed.

The amount of pasture that will be available will be
limited by the water supply. Two wells one mile north of
the F.F.A. farm have been drilled to a depth between 300
and 400 feet, and have not been too satisfactory. Another
well is being drilled to a deeper depth to see if there is
a better water supply. The results of this well drilling
will be a determining factor as to what water developments
will be made on the chapter farm. Several shallow wells
have been developed for household and stock water use on farms just west of the school farm.

Alfalfa and grass pasture could be developed on the dry land that will be usable for spring and fall pasture. Good dryland alfalfa fields are on the north and west of the chapter farm.

If adequate water cannot be developed on the farm, then a feeder program on the farm would be the main livestock development. Feeder stock, steers, and lambs purchased in August and September would graze the alfalfa grass pasture and the grain stubble. Plenty of dryland alfalfa and feed grain can be raised to produce the necessary feed for a livestock operation.

Building Needs

In planning the type of buildings needed for livestock, the kinds of livestock, number of head to be cared for, and whether a chapter project, individual, or both will be factors in deciding building needs. The cost of any building program will be a limiting factor as to the extent of such a program.

The kind of stock, whether dairy, beef, sheep, or hogs, will influence the type of barns, sheds, pens, and corrals needed, as well as the amount of feed to be stored. Buildings for feeder stock will not need be as expensive as buildings would be for, say, dairy stock.
The matter of the chapter feeding out stock as a group project versus individuals will have some influence on the building requirements. If individuals are fattening out steers, lambs, or hogs, more separate pens will be needed as well as places to store hay, grain, and supplies separately. Each individual's feed would need to be stored near where it is to be used. The "borrowing" of each other's feed would be a problem if the feed and supplies were stored in a community building. The dividing up of the pastures might be a problem. Some boys will probably want to keep sows and their litters on the farm and facilities for them would need to be considered.

**Barn Yards**

The matter of barn yards will be a problem requiring solution. The land lays quite flat so that there will be very little surface run-off. The sub-soil is mostly clay so that there would be little sub-soil drainage. Muddy yards are not conducive to efficient gains in livestock. If feeder stock is the main type of stock on the farm, they would be fed mainly in the fall and winter and would be muddy much of the time.

The problem can be solved by (1) Paving with concrete, (2) Filling in with gravel, (3) Using sawdust, (4) Using a combination of sawdust over gravel.

The methods or method to be used will depend on (1)
Cost, (2) Efficiency of the various methods in keeping yards in good condition, (3) Maintenance costs, and (4) Ease of cleaning manure.

The handling of the manure and the necessary equipment needed will be another problem. At present, the chapter does not own a manure spreader nor loader. A manure shed or pit will be needed.

The size of the sheds and pens will need to be worked out. Some boys will be feeding out individual steers, pens of five, ten, or fifteen. In lamb feeding, they would probably feed pens of ten, twenty, or twenty-five head. Pens for sows, and litters, would be needed too; others might feed out weaners for market.

Labor Needs

The addition of livestock to the school land brings up the problem of a caretaker. One instructor stated on his questionnaire that he planned to establish livestock on the farm of a non-confining type. Individually-owned feeder stock on the farm would not require a hired adult the year round. Chapter-owned stock would necessitate the hiring of someone to tend the stock, and more of the instructor's time would be involved in supervision.

The hiring of a full-time adult would be of advantage. He could not only look after or supervise the feeding and handling of the livestock, but could supervise other farm
work. The disadvantage would be primarily the cost of his salary and the need for a house for him in which to live.

**Financing of Building and Livestock**

The cost of the building will be a limiting factor. Some of the money can come from income from the crops produced on the farm, some from rental of the facilities to individual members who use them. Donations of money and lumber will be necessary. Changing from grain crops to small seed crops should bring in more income per acre. Here again, water will be a limiting factor for small seeds.

**Studying the Problem**

Most of the problems mentioned above will be studied and conclusions reached by the students in their vocational agriculture classes. Many of the problems will be more adapted to study by the junior and senior boys.

It will be necessary to take field trips to examine buildings and other livestock facilities needed for the stock. Sheep and beef barns should be visited. Livestock bulletins and magazines can be searched for information.

Use will be made of the advisory committee, as their suggestions and advice will be needed in carrying out the plans for the addition of livestock to the farm.
SUMMARY AND CONCLUSIONS

The following conclusions were reached as a result of the compilation of the survey and the reading of available literature on the use of school farms and school land by vocational agriculture departments.

That the use of land is desirable in connection with vocational agriculture departments.

That the addition of livestock to a school farm is desirable and adds to the educational value of school farms.

The use of school land for the raising of crops and livestock as a part of the instructional program of the vocational agricultural departments in the following ways:

1. Provides an enriched instructional program.

2. Stimulates interest in the agriculture department and the F.F.A. Chapter.

3. Provides a means of more effectively teaching skills in the operation, servicing, storing, of farm equipment and of teaching farm safety.

4. An effective means of teaching the value of cooperation.

5. Provides a means of giving practical instruction in the raising of crops and livestock adapted to the area.

6. Provides a wealth of teaching material for agriculture classes and in some cases for other high school and grade school classes.

7. A way of getting good publicity for the department and chapter.

8. A source of income for chapter activities.

9. A way of introducing new crops or crop practices to the area.
10. A way of introducing new livestock practices to the area.

The following recommendations are made as to the operation and management of school or chapter farms:

- That there should be an advisory committee and that full use should be made of it.
- That the farm land be owned or obtained on a long-term lease basis.
- That, regardless of whether the farm is school owned, some or all of the income should go to the F.F.A. chapter so as to give them more of the responsibility and management.
- That proper and adequate records be kept of the receipts and expenses.
- That detailed records be kept of the operating expenses for each piece of equipment.
- That an audit be made of the receipts and expenses by some one other than chapter and adviser.
- That, where funds are under control of the chapter, both the adviser and treasurer sign the checks, or, when funds are in the student body account, both sign payment orders.
- That students have a voice in making and enforcing rules for the use and operation of the farm equipment.
- That the farming equipment be made available to students for their own use for supervised farming work.
- That the vocational instructor be freed from some of his teaching load to devote to supervision of the farm.
- That, where possible, farms be of sufficient size to allow for the employment of a manager.
- That students be permitted to work on the farm at least one half day at a time.
- That care be used so as not to exploit student labor.
That adequate insurance be carried on the equipment and property owned, such as fire, theft, public liability, property damage, and comprehensive liability.

That students be covered by some type of accident insurance or workman's compensation.

That the school cover the instructor and itself with liability insurance.

That yearly budgets be made out by the students and adviser.

That written approval of the school board be obtained for the operation of the farm.

That at least an annual report be made to the administration and school board.

That the operation and function of the school farm be presented and explained to the faculty at a faculty meeting.

That the faculty be taken on a tour of the farm.

In establishing livestock on a school farm, the following factors should be considered:

1. Financing, the amount of money needed for purchasing stock and providing necessary buildings and equipment.

2. The type of livestock operation -- whether for breeding stock or feeder stock or a combination of both, in relation to:
   a. Individual student's needs.
   b. Community needs.
   c. Chapter needs.

3. Labor requirements.

4. Requirements for buildings, equipment and other facilities.

5. Feed requirements.
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8. Johnson, J. S. This farm machinery cooperative really works. The agricultural education magazine 17:212. 1945.


APPENDIX
Map of Farm
Name of school_________________ County_____ State__________

Vo-Ag instructor _____________ Years in Dept. ___________

Years school farm has been in operation ________________

Size of farm _______ acres. 1951 crops and acreage _______ ___________

Farm ownership
Is farm owned?_____ rented or leased?_____ by the school?_____ FFA Chapter?_____ Do you have a written lease?_____ Signed by? ________________________________

Livestock owned on farm

<table>
<thead>
<tr>
<th>Kind</th>
<th>Breed</th>
<th>Number owned by</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>School Chapter</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Individual</td>
</tr>
</tbody>
</table>

Do the profits go to the School District, Chapter funds, Membership (circle one)

Who does the following

Ag. Chapter or Advisory Instr. & comm. Committee Other

Determine crops to be raised?

Determine varieties planted?

Determine time for doing the various farming operations?

Sees that the machinery is operated and maintained properly?
Who does the following: 

<table>
<thead>
<tr>
<th>Activity</th>
<th>Ag. Chapter or Advisory Instr. &amp; comm.</th>
<th>Committee</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Keeps records of receipts and expenses?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pays bills and accepts income?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buys or sells the livestock and crops?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If you make out a budget for the farming operation who makes it out?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Determines the amount of livestock to be raised?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Determines the livestock management practices?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FARMING OPERATIONS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hired Boys on Boys</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adult Instr. Boys on school time</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys not on school time</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Who does seed bed preparation?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Who does the drilling?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Who does the combining?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Who cares for and feeds the livestock?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you employ a man to do all or most of the actual farming operations?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wages per month?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you employ a man mainly to supervise the work?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wages per month?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

FINANCING THE SCHOOL FARM

Who finances the cost of the machinery? School District, FFA Chapter, other (circle one)

Have you had any gifts of machinery? List items

Do you borrow machinery from implement dealers?
Do you pay rent?
Do you borrow equipment from parents, students, or other farmers?
Is Chapter or school-owned equipment most satisfactory? _____
Who finances the cost of the following:

Fuel, oil grease, repairs (circle one) School Dist., Chapter, Other

Fertilizer, seed, etc. (circle one) School Dist., Chapter, Other

Are the farm books audited? _____ Who does the auditing? _____
Number of vo-ag students in the dept. at present _______
Number of boys who have worked on the farm _______

Is work on the farm required? _____ Is school or project credit given? _____

How much credit for how many hours? _______________________________

Are the students paid wages? _____ How much per hour? _____

GENERAL:

Do you rent out farm equipment to members? _____ Parents? _____
Other? __________________

If you have a list showing rental rates, please enclose it.

Who makes the rules for operating the equipment? _______

If you have a copy of your rules please enclose it.

If you could start over, would you have a school farm? _____

If you do not have livestock on the farm, would their addition (if you had the facilities) be desirable? _______

Does the school farm compete with your time for visiting students? _______

What type of insurance do you carry? _____________________________

On the boys and other workers? _________________________________

On machinery and equipment? _____ Any liability type? _______

Is the farm used in connection with day school? _____________

Young Farmer? _____ or adult programs? _____ (including veterans)
Do you use an advisory committee? Is it helpful?

Have you ever taken the faculty members on a tour of your farming operations?

Do you think it would be worth while doing so to better acquaint them with your program?

Can you see any effect of the farming program on the home farms of your boys?

The following is a list of items that are some of the aims, functions, purposes, or uses made of school farms. Will you check in the proper column your opinions as far as your farm is concerned.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>Very important</th>
<th>Average importance</th>
<th>Little or no importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. To provide an enriched instructional program</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. A means of providing farm employment for students needing such training</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. A place to conduct a supervised project for non-farm boys or other youth lacking such facilities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. To provide instruction of a practical nature that will improve the crop and livestock production in the area</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. To provide, under proper supervision, skills in operating, servicing, reconditioning, storing farm machinery and teaching farm safety</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. To provide a wealth of teaching materials</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITEM</td>
<td>Very important</td>
<td>Average importance</td>
<td>Little or no importance</td>
</tr>
<tr>
<td>------</td>
<td>----------------</td>
<td>---------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>7. <strong>To speed up acceptance of practices that are difficult to initiate on the home farm</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. <strong>To introduce new crops or varieties and show their value in the community</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
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<td>9. <strong>A source of income for chapter activities</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. <strong>A place to centralize breeding operations for FFA projects</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. <strong>A way to stimulate or increase interest in the Vo-Ag dept. and FFA chapter</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. <strong>A way of getting good publicity for the chapter and the Dept.</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. <strong>Teach the value of group cooperation</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. <strong>That the farm have livestock on it if facilities were available</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. <strong>Other</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

State one or more problems that you are having now. (List on back of this sheet)

Do you wish a copy of the compilation of this questionnaire?____

Address ____________________________
LAKEVIEW FFA
AGREEMENT ON OPERATION OF TRACTORS

I agree to care for the tractor and other implements properly, and to pay for any damage or breakage occurring to the tractor or implements while in my possession, due to carelessness.

I also know that I will be suspended from driving the tractor for a period of four weeks if I drive or handle the tractor improperly such as:

a. Driving recklessly
b. Driving up town without reason
c. Driving tractor without proper servicing
d. Damaging the tractor thru carelessness and neglect
e. Allowing unauthorized person to drive the tractor

I further agree that I will not drive or use the tractor without permission of the committee, and that I must first pass a written test, a driving test, and a servicing test.

Name ______________________
President ________________
Secretary ________________

Date ________________
CERTIFICATE OF OWNERSHIP OF SHARE IN THE
LAKEVIEW FUTURE FARMER MACHINERY CO-OP

THIS IS TO CERTIFY THAT ________________________ is
the co-op owner of ______ shares valued at $50.00 (fifty
dollars) each in the Lakeview FFA Machinery Co-op organized
in 1945.

From the farming profits a 30% dividend will be paid
after the value of each share has been paid which is fifty
dollars ($50.00). After the dividend has been paid the
share or shares owned by the share-holder will be turned
back to the Future Farmer Chapter and I, __________________
will no longer have an interest in the tractor and equip-
ment purchased by my share or shares.

IN WITNESS THEREOF, the President, Secretary and the
adviser of the Lakeview FFA Machinery Co-op have signed
this certificate.

This _____ day of ____________, 19____.

_____________________ Sec.

_____________________ Adviser

_____________________ Pres.
<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Voc. Ag. Departments</td>
<td>796</td>
</tr>
<tr>
<td>No. of departments or FFA Chapters operating</td>
<td></td>
</tr>
<tr>
<td>owned farms</td>
<td>140</td>
</tr>
<tr>
<td>owned by school</td>
<td>135</td>
</tr>
<tr>
<td>owned by Vo Ag Dept.</td>
<td>2</td>
</tr>
<tr>
<td>owned by FFA</td>
<td>3</td>
</tr>
<tr>
<td>No. of departments or FFA Chapters operating</td>
<td></td>
</tr>
<tr>
<td>leased farms</td>
<td>100</td>
</tr>
<tr>
<td>leased by school</td>
<td>33</td>
</tr>
<tr>
<td>leased by FFA</td>
<td>54</td>
</tr>
<tr>
<td>Leased by Vo Ag Depts.</td>
<td>13</td>
</tr>
<tr>
<td>No. of departments or FFA Chapters operating</td>
<td></td>
</tr>
<tr>
<td>garden plots</td>
<td>98</td>
</tr>
<tr>
<td>No. of departments or FFA Chapters operating</td>
<td></td>
</tr>
<tr>
<td>testing and observation plots</td>
<td>90</td>
</tr>
<tr>
<td>Acres in owned farms</td>
<td>4,164</td>
</tr>
<tr>
<td>Acres in leased farms</td>
<td>3,003</td>
</tr>
<tr>
<td>Acres in garden plots</td>
<td>92</td>
</tr>
<tr>
<td>Acres in testing observation plots</td>
<td>103</td>
</tr>
</tbody>
</table>

--- Elmer Johnson, USOE
Dear Co-worker:

I am last getting around with the summary of the school farm questionnaire. Too often I have received a summary of a questionnaire - and there were no conclusions, just the questionnaire with the answers. I usually wasn't smart enuff to draw any conclusions myself. Anyway I will make a few comments about the results.

Questionnaires were sent to 73 departments and 57 replies received with three of them not filled out so I had 54 usable.

The instructors have been in the departments an average of 6.1 years, ranging from one to 22 years. Six instructors did not start the farms in their school as the farms have been operating longer than the vo-ag man has been there. This indicates the school farm does not cause the vo-ag man to move. It might do just the opposite - act as a stabilizer.

The farms have been operating an average of 4.5 years. The range being from 1 to 30 years. Most of them have started recently as 31 have been operating 3 years or less; 8 for 4-5 years; 6 between 6 and 10 years; 6 between 11 and 15 years and one 30 years.

The average acreage for the 54 farms was 80 acres with a range from 5 to 480 acres. 39 of the farms were 40 acres or less, 15 between 41 and 80 acres; 3 between 81 and 120 acres, 6 between 121 and 160 and 3 over 160 A.

There were 23 farms owned by the schools, three by the chapters, 5 are leased by the schools and 18 leased or rented by chapters. There are 15 written leases, thus 7 had no leases.

The profits from the farms are divided as follows: 12 cases to the school or farm account, 39 chapters receive the profits and in 2 cases the profits are split with the school and chapter. In one case the profits went to the membership.

In the 10 California school surveyed all the income went to the school or farm account, except one farm reported that the livestock income went to the chapter. In
this connection one Calif. school checked as very important the item that the farm is a source of income for chapter activities. Two checked it as fairly important and 7 said it was of little or no importance. On most of the Calif. farms the ag instructor or director does most of the managing, making most of the decisions as to what is to be done. The members enter into the picture very little. The advisory committee is involved more times and are the chapters. With the larger farms and the size of investment, I can well understand the problem of too much student management. Where the income goes to the chapter as it does in 90% of the cases outside of the 10 Calif. schools the vo-ag students have much say in the farming operation, management and making of decisions. In my estimation there are educational losses by leaving the boys out of the picture.

Two of the California schools indicated that hired individuals did all the work on the farm. You will note in the summary that in the part on who does the farming operations that an adult does the combining or harvesting more times alone than any of the other operations. I have found from experience that an inexperienced boy on a combine can be expensive, but how will they learn otherwise. The same holds true for seed bed preparation or planting. Inexperienced boys will take longer and not do as good a job as an adult. Some schools stated that an experienced boy goes along with the beginner when doing the farm work. Several mentioned the problem of supervising the farm work while teaching a class. It is important that the boy learn how to do these jobs properly and they will learn faster and better with good supervision while doing the job.

About 75% of the chapters borrow equipment from parents, students or farmers and several mentioned the problem of getting the equipment at the proper time.

About 55% of the departments have the farm accounts audited. About half of those were done by CPA's.

No clear picture was obtained as to the number of hours to be worked on the farm for project credit. Several allowed points towards earning an FFA letter.

Almost 60% of the instructors indicated that the school farm competed with their time for project supervision and several felt quite strongly on this point.

Some questions I asked should have been worded BETTER and others I should have asked. I am much wiser now and sure that I could make out a better questionnaire.
(Heaven forbid that I ever get the urge to do so) There are still lots of things I would like to know about school farms.

I wish to thank all of you for filling out and returning the questionnaire. I appreciate the comments that some of you added on the last page, some using the whole back page. I got a good chuckle out of the following comment: "If the instructor is capable of leadership on a chapter farm, why not have one of our own? Hell - we aren't doing this just for our health".

If any of you have any questions you'd like to ask, or further information you'd like to ask I would be glad to correspond with you. Haven't finished my thesis yet but that you would be interested in this summary. Also by writing this out, I am getting some ideas of what to put in the thesis.

Thanks again for your cooperation.

Yours truly,

Wm. H. Holloway
Agriculture Instructor
SUMMARY OF QUESTIONNAIRE OF SCHOOL FARMS
From 54 departments in 10 Western States
Survey made by William H. Holloway, Lakeview, Oregon

Years in department ave. 6.1 Years school farm has been in operation ave. 4.5 Size of farm average 80 acres.
Crops for 1951 and acreage - Grain 31 farms ave. 27A.
Alfalfa, 18 farms ave. 19 A. Pasture on 19 farms ave. 25.4 A. Hay on 6 farms with ave. of 39 A. Cotton on 7 farms ave. 50 A. Sugar beets, small seeds, castor beans, flax, vegetable crops and others were mentioned.

Ownership
Owned by Chapter or Dept. 3 Owned by School 38
Leased by Chapter 18 Leased by School 5

Livestock on the farm.

<table>
<thead>
<tr>
<th>Kind</th>
<th>School</th>
<th>Chapter</th>
<th>Individuals</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dairy</td>
<td>73</td>
<td>5</td>
<td>15</td>
<td>93</td>
</tr>
<tr>
<td>Beef</td>
<td>118</td>
<td>215</td>
<td>60</td>
<td>393</td>
</tr>
<tr>
<td>Swine</td>
<td>307</td>
<td>82</td>
<td>104</td>
<td>493</td>
</tr>
<tr>
<td>Sheep</td>
<td>284</td>
<td>98</td>
<td>57</td>
<td>439</td>
</tr>
<tr>
<td>Poultry</td>
<td>4,200</td>
<td>1,800</td>
<td>1,000</td>
<td>7,000</td>
</tr>
</tbody>
</table>

Profits go to the school district - 11, to the chapter funds - 40, membership - 2

Do you employ a man to do all or most of the actual farming operations - 14 schools. Average salary $230.00 Most of these included house, utilities, etc.

Employ a man mainly to supervise work on the farm - 6 schools, wages $200-$375.

Who finances the cost of machinery - school dist. 20, FFA Chapter 32, Advisory council 1.
Who finances cost of gas, oil, grease, repairs - School 17, Chapter 35, Advisory Council 1.
Who finances cost of fertilizer, seed, etc. - School 14, Chapter 39, Advisory Council 1, Dealer 1.

Have you had gifts of machinery - Yes 9
Do you borrow machinery from parents, students, farmers - Yes 40. Do you borrow from implement dealers - Yes 17.
Pay rent - Yes 5. Is chapter or school owned equipment most satisfactory? - Chapter 10, School owned 14, 13 answered yes.
Are the farm books audited - Yes 30. Auditing done by chapter or committee 8, School office 8, Certified Public Accountant 15, County auditors 2.

Number of students in department 3,372. Average 62. Number that worked on farm 2,435. Average 45. Is work on the farm required - Yes 18. Is school or project credit given - Yes 6. Are the students paid wages - Yes 33 for out of school time. Rate 60-81.00 per hr.


Who makes the rules for operating the equipment? Adviser alone - 11, adviser with chapter or committee - 23, chapter or committee alone - 12.

If you could start over, would you have a school farm - Yes 42, No 5, ? 3.

Would the addition of livestock on the farm be desirable? Yes 22, No 6.

Does the farm compete with your time for visiting students Yes 33, No 18.

Insurance. 41 carried some type. 13 had none. 34 had insurance on workers, boys and adults. 29 had insurance on machinery and equipment.

Is farm used in connection with day school - Yes 54, Young Farmer - Yes 10, Adult program - Yes 12 (including veterans)


Have you taken the faculty members on a tour of your farming operations - Yes 26. Do you think it would be worth while doing so to better acquaint them with the program - Yes 41, No 1.

Can you see any effect of the farming program on the home farms of the boys - Yes 31, Not yet 6, No 3, ? 3.
<table>
<thead>
<tr>
<th>State</th>
<th>No. sent</th>
<th>Usable replies received</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arizona</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Colorado</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Idaho</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>Nevada</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>New Mexico</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Utah</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Washington</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>California</td>
<td>14</td>
<td>10</td>
</tr>
<tr>
<td>Oregon</td>
<td>24</td>
<td>20</td>
</tr>
<tr>
<td>Wyoming</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>75</strong></td>
<td><strong>54</strong></td>
</tr>
</tbody>
</table>

**IMPORTANCE OF THE FOLLOWING.**

1. To provide an enriched instructional program  
   - Very: 41  
   - Average: 12  
   - Little or none: 1

2. A way to stimulate or increase interest in the vo-ag department and FFA Chapter  
   - Very: 32  
   - Average: 19  
   - Little or none: 2

3. To provide under proper supervision, skills in operating, servicing, storing farm machinery and teaching farm safety  
   - Very: 41  
   - Average: 8  
   - Little or none: 3

4. Teach the value of cooperation  
   - Very: 33  
   - Average: 16  
   - Little or none: 4

5. To provide instruction of a practical nature that will improve the crop and livestock production  
   - Very: 32  
   - Average: 17  
   - Little or none: 5

6. To provide a wealth of teaching material  
   - Very: 27  
   - Average: 22  
   - Little or none: 5

7. That the farm have livestock on it if facilities were available  
   - Very: 28  
   - Average: 11  
   - Little or none: 7

8. To speed up acceptance of practices that are difficult to initiate on the home farm  
   - Very: 18  
   - Average: 26  
   - Little or none: 8

9. A way of getting good publicity for the chapter and department  
   - Very: 22  
   - Average: 24  
   - Little or none: 8
<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Very</th>
<th>Average</th>
<th>or none</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.</td>
<td>A source of income for chapter activities</td>
<td>30</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>11.</td>
<td>To introduce new crops or varieties and show their importance to the community</td>
<td>16</td>
<td>22</td>
<td>15</td>
</tr>
<tr>
<td>12.</td>
<td>A place to centralize breeding operations for FFA projects</td>
<td>15</td>
<td>15</td>
<td>14</td>
</tr>
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<td>13.</td>
<td>A means of providing farm employment for students needing such training</td>
<td>9</td>
<td>25</td>
<td>18</td>
</tr>
<tr>
<td>14.</td>
<td>A place to conduct supervised projects for non-farm boys or other youth lacking such facilities</td>
<td>18</td>
<td>17</td>
<td>19</td>
</tr>
</tbody>
</table>
Who does the following?

<table>
<thead>
<tr>
<th>Activity</th>
<th>Agriculture Instructor</th>
<th>Chapter and or committee</th>
<th>Advis. Comm.</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>With</td>
<td></td>
<td>With</td>
<td>Help</td>
</tr>
<tr>
<td></td>
<td>Alone</td>
<td>Help</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>25</td>
<td>31</td>
<td></td>
</tr>
<tr>
<td>Determines crops to be raised?</td>
<td>18</td>
<td>22</td>
<td>40</td>
<td>11</td>
</tr>
<tr>
<td>Determines varieties planted?</td>
<td>11</td>
<td>20</td>
<td>31</td>
<td>39</td>
</tr>
<tr>
<td>Determines time for doing the various farming operations?</td>
<td>23</td>
<td>19</td>
<td>42</td>
<td>24</td>
</tr>
<tr>
<td>Sees that the machinery is operated and maintained properly?</td>
<td>25</td>
<td>20</td>
<td>45</td>
<td>23</td>
</tr>
<tr>
<td>Keeps records of receipts &amp; expenses</td>
<td>15</td>
<td>14</td>
<td>29</td>
<td>35</td>
</tr>
<tr>
<td>Pays bills and accepts income?</td>
<td>18</td>
<td>14</td>
<td>32</td>
<td>36</td>
</tr>
<tr>
<td>Buys or sells the livestock &amp; crops?</td>
<td>15</td>
<td>17</td>
<td>32</td>
<td>28</td>
</tr>
<tr>
<td>If you make out a budget for the farming operation who makes it?</td>
<td>10</td>
<td>9</td>
<td>19</td>
<td>31</td>
</tr>
<tr>
<td>Determines the amount of livestock to be raised?</td>
<td>10</td>
<td>5</td>
<td>15</td>
<td>8</td>
</tr>
<tr>
<td>Determines the livestock to be raised?</td>
<td>9</td>
<td>9</td>
<td>18</td>
<td>3</td>
</tr>
</tbody>
</table>

**FARMING OPERATIONS**

<table>
<thead>
<tr>
<th>Task</th>
<th>Hired adult</th>
<th>Instructor</th>
<th>Boys on School time</th>
<th>Boys not on School time</th>
<th>Boys help Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who does the following?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seed bed preparation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drilling (planting)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Combining (harvesting)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cares for and feeds the livestock</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Includes boys doing work on school time, out of school time or both. They have no outside help.*