

(Eustace—from page 168)

mechanics work. Following are brief outlines of the recommended program beyond the freshman level:

A. Sophomore Agricultural Mechanics Program

1. Agricultural mechanics safety
In addition to teaching safety in conjunction with agriculture, mechanics safety practices should be prominently posted in the shop near the machine or tools to which they apply.
2. Arc welding
 - a. double V butt weld
 - b. small V butt weld
 - c. butt weld—thin metals
 - d. selecting electrodes for farm welding
 - e. distortion control
 - f. pike T fillet weld
 - g. bronze welding with carbon arc
 - h. heating with carbon arc
 - i. welding with nickel alloy and stainless steel rods
 - j. build or repair a farm labor-saving item
3. Farm electricity
 - a. what is electricity? how is it used?
 - b. safety practices in working with electricity
 - c. electric circuits on the farm—installation, care, and maintenance
 - d. electric motors—care and maintenance
4. Principles and theories of internal combustion engines
 - a. principles of internal combustion engine
 - b. valves and their maintenance
 - c. cylinders, pistons, rings
 - d. principles of carburetion
 - e. principles of ignition
 - f. bearings—different types, clearance requirements and adjustments
 - g. repair small engine using appropriate maintenance manual
5. Farm carpentry construction projects
 - a. farm building frame construction

B. Junior Agricultural Mechanics Program

1. Farm power and machinery
 - a. tractor operation and daily care
 - b. tractor fuels and lubricants
 - c. tractor transmissions—maintenance
 - d. tractor hydraulic systems—how they work, maintenance necessary
 - f. overall maintenance schedule
 - (1) cooling system
 - (2) oil change
 - (3) air cleaners
 - (4) tire care
 - (5) bearing adjustments
 - g. basic equipment and repairs including waterpumps, clutches, brakes, alignments, power shaft
 - h. individual projects
inspection and maintenance of a fairly modern farm tractor

(Skadburg—from page 177)

The survey indicated farmers feel that skills and abilities in the tractor and machinery area are the most valuable to them. This is definitely an area where they can tie in a dollar and cent return on their time invested. They find all the areas valuable, but they rate the carpentry area the lowest.

I feel that these results may be somewhat deceiving. For example, if a farmer has a welder he realizes the value of welding and ranks it higher than does a non-welder. The farmers ranked

reading a micrometer low, but many have never used one and they don't realize its value. The farmers ranked the use of glues the lowest, and I feel this is a valuable area that the farmers would find more valuable if education were offered in this area. When a skill is ranked low it may be because of a lack of knowledge in this area. When a skill is ranked high it is usually used widely, and that is why it is considered valuable by the farmer.

I feel skills and abilities are very important, but the boys must be ex-

C. Senior Agricultural Mechanics Program

1. Soil and water conservation
 - a. use of the farm level
 - b. laying out a terrace
 - c. protecting a waterway
 - d. strip cropping
2. Mechanomics—the economics of custom work versus farmer-owned machinery and farm power
3. Water distribution
 - a. planning the farm water system
 - b. measuring, cutting, threading pipe
 - c. care and repair of faucets, valves, sprinklers, etc.
 - d. field trip to see a farm home water system in need of maintenance, and to recommend changes and repairs needed
4. Arc or acetylene welding
 - a. hard surfacing
 - b. welding special metals
5. Farm machinery
Perform maintenance, adjustment, and minor repair on one of following:
 - a. combine
 - b. hay baler
 - c. drill or planter
 - d. manure spreader
 - e. ensilage cutter
 - f. mowing machine
 - g. field sprayer calibration
 - h. farm tractor
 - i. hydraulics (pumps and valves)
 - j. electricity, generators, and starters
 - k. transmissions

The 1963 federal act and the 1968 amendments charged vocational agriculture with training for related occupations as well as production agriculture. In many States agricultural mechanics have been among the most popular offerings. We have been experimenting with semester and nine-week specialized farm mechanics courses for students who want only the mechanics part of vocational agriculture. Multiple-teacher departments are necessary if we are going to deliver the entire load. ♦♦♦

Themes For Future Issues

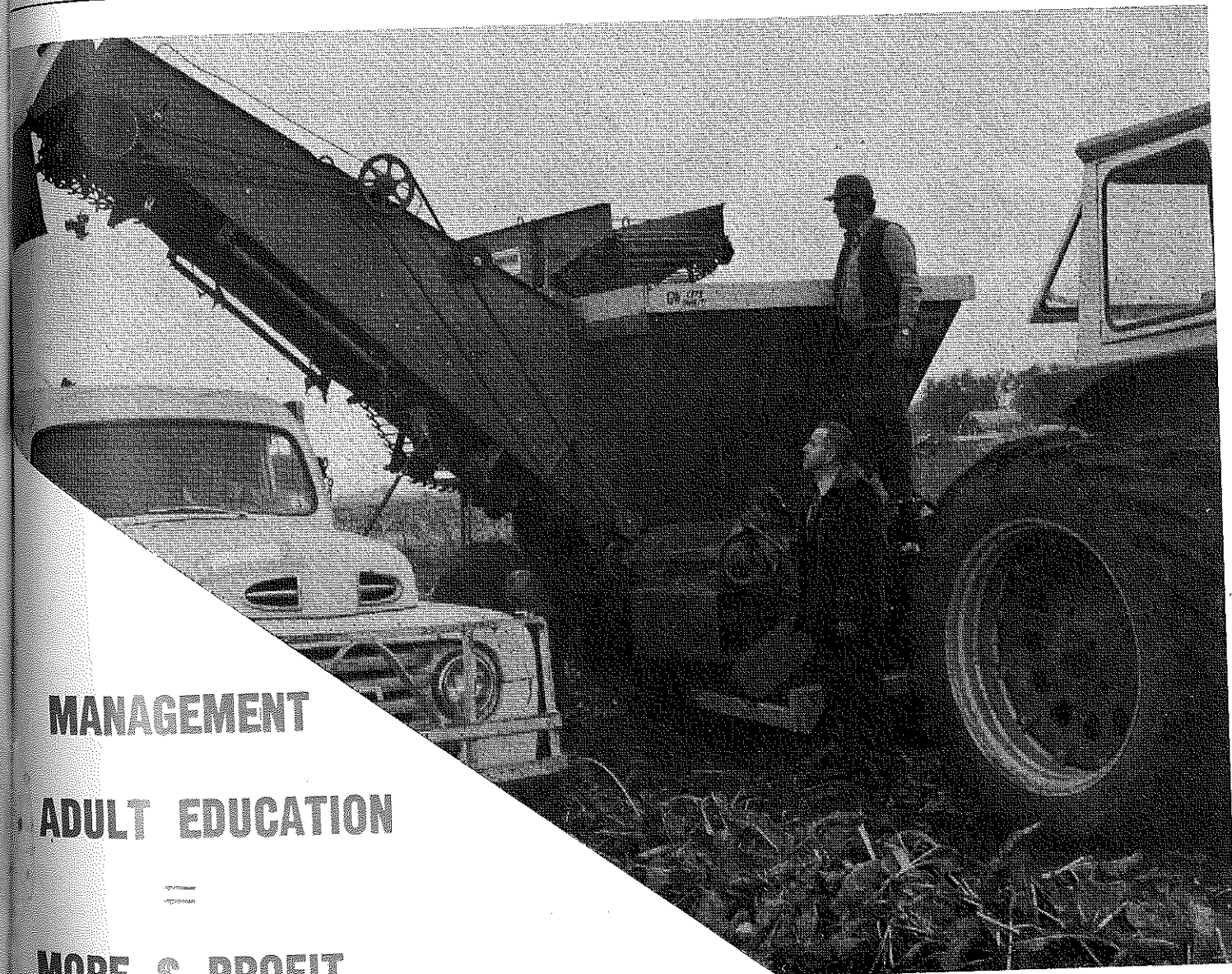
- March — Competencies for Careers in Agriculture
- April — Serving the Out-of-School Group
- May — Innovation in Agricultural Education
- June — Teaching Methods
- July — Planning the State and Local Program
- August — Evaluation
- September — A Guidance Role
- October — In-Service Education
- November — Agricultural Education in Transition
- December — Post-Secondary Education



Agricultural Education

February, 1972

Number 8



MANAGEMENT

ADULT EDUCATION

MORE \$ PROFIT

Featuring —

THE FARM MANAGEME

15282
MAYNARD J. IVERSON
COLLEGE OF ED.
UNIV. OF KENTUCKY
LEXINGTON
KY 40506

The
**Agricultural
Education**
Magazine



Vol. 44 February, 1972 No. 8

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COVER PHOTO

On-the-farm visitations enable instructors of young farmer education groups to assist individual young farmers in solving problems in areas covered by class instruction. Instructor Jack Annan (below) is shown visiting with student Duane Brunkhardt during a pause in sugar beet harvest operations near Sterling. Brunkhardt is president of the Colorado Young Farmers Educational Assn. and was runner-up in the organization's Outstanding Young Farmer contest in 1970. He had finished his own beet harvest and was operating as a custom harvester to augment his income when this picture was taken. (Photo supplied by Agriculture Education Section, Colorado Board for Community College and Occupational Education.)



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Editorials

From Your Editor . . .

**WANT RESULTS? - -
TEACH FARM BUSINESS MANAGEMENT!**



Roy D. Dillon

The authors in this issue describe the best way adult education for the production farmer or rancher can be meaningful — when the results show on the black side of the record book. Today's farmers and ranchers are modern businessmen, who describe their felt needs to their peers, agribusinessmen, and friends in terms of "costs and margin of return."

Industry utilizes efficiency experts to observe, research, and make recommendations for upgrading their operations, for the purpose of decreasing operational costs. So should the production farmer and rancher study his business systematically in order to make management decisions which can directly influence net profits.

Many local adult education programs conducted through the high school vocational agriculture department are not designed so the operator can systematically study his farm or ranch business operation. The winter series of meetings with a "different speaker every night" serves only to make new information available to those who attend. In addition, local studies show that not a very high percent

of the potential clientele group will be served over time, as many are continuous attenders. Is an "arranger of speakers" the best role for the professional agricultural educator? I submit that the professional agricultural educator has a far more important role.

As a local agricultural teacher, do you know:

1. How many production farmers or ranchers there are in your service area?
2. How many of this clientele group have participated in systematic adult education classes designed to upgrade production efficiency?
3. Livestock production efficiency factors for farms or ranches in your service area?
4. Average crop yields compared to soil index capabilities?
5. The income levels of clientele subgroups?
6. The attitudes of sub-clientele groups toward continuing education?
7. The interests of the clientele group for farm or ranch business management education?

As one of the professional educator-planners in a local school district, the agriculture teacher should use his citizens advisory committee to look carefully at the total adult

(Concluded on page 216)

Guest Editorial . . .

**A CONTINUING PROGRAM:
FARM AND RANCH BUSINESS MANAGEMENT
FOR ADULTS IN NEBRASKA**

B. E. Gingery

Administrative Director, Agricultural Education
Lincoln, Nebraska



B. E. Gingery

"Farmers should keep good records" has been echoed by many people, including bankers, county agricultural agents, agricultural economists, and farmers themselves. It is also said that "records should be kept for more than just income tax reporting purposes." Good records and accounts to analyze a farmer's or rancher's business in total and/or in part by enterprise, are a necessary part of today's farm and ranch business that should be given educational treatment. Assuming these statements to be valid, the steps taken here in Nebraska are clarified in the following paragraphs.

A few years ago Nebraska Vo-Ag teachers, State and University Ag-Ed leaders said "Nebraska Farmers and ranchers could be better managers of their business if they would maintain appropriate records, that could be properly and quickly analyzed."

The record analysis could be used to assist farmers in the management decision process. It then became clear to the Nebraska Vo-Ag leaders that many were saying farmers and ranchers should keep good farm records, but no one was giving leadership to the educational process on "how and what" kind of records should be kept, nor were opportunities being made available to the farmers for such education except in isolated circumstances. It was decided that all systems were "go" for taking on this responsibility of providing an educational opportunity for farmers and ranchers to participate in a farm management program, based upon records and record analysis. Once the need had been determined, it was necessary to put energy, time, and money into a concerted program to accomplish the task. Pre-service and in-service programs for teachers were initiated, some for credit and some non-credit, to prepare Nebraska Vo-Ag teachers for conducting a program of farm and ranch management, that should appropriately meet the needs of those enrolled.

(Continued on next page)

(Gingery — from page 195)

The Program Model

The program model implemented has been largely based upon the Minnesota Farm Management Education Program. The Minnesota Model has been proven, and was found to be adaptable to Nebraska. Basically, the program is a year-round program, continued on a sequential basis for four years.

The format calls for monthly classroom instructional meetings coupled with monthly on-farm individualized instruction for the decision makers (husband and wife) operating the farm or ranch unit.

The yearly course outlines, including a list of monthly class topics for the four year farm and ranch management programs are:

Year One — FARM OR RANCH MANAGEMENT I — FARM RECORDS AND ACCOUNTS

- October — Stimulating an Interest in Farm Records
- November — Showing the Need for Farm Records
- December — Measures of Farm Family Progress and Uses of Farm and Home Records
- January — The Inventories. Why? How?
- February — Keeping Farm Accounts Current
- March — The Cropping Program
- April — Feed Records
- May — Checking Livestock Entries
- June — The Mid-Year Check
- July — Crop Yield Records
- August — The Four Year Depreciation Schedule
- September — Income Tax Management
- October — Making the End of the Year Inventory
- November — End of the Year Crop and Feed Check
- December — Closing the Account Book for Analysis

Year Two — FARM OR RANCH MANAGEMENT II — FARM BUSINESS ANALYSIS

- January — Calculating Income and Social Security Taxes
- February — Measures of Farm Profits
- March — Measures of Farm Business Size
- April — General Interpretation of the Analysis
- May — The Importance of Inventories
- June — Evaluating the Cropping Program
- July — Analyzing the Size of Business
- August — Analyzing Machinery, Equipment and Building Costs
- September — Analyzing Livestock Efficiencies
- October — Evaluation of the Farm Business
- November — Income Tax Planning and Management
- December — Closing the Minnesota Farm Account Book for Analysis

Year Three — FARM OR RANCH MANAGEMENT III — FARM BUSINESS REORGANIZATION

- January — Attributes of Successful Farmers
- February — Determining the Most Profitable Level of Production
- March — Selection of Enterprises
- July — Evaluating Overhead and General Farm Costs
- August — Maximizing Income, Part I
- September — Maximizing Income, Part II

- April — What Do Two Years Records Mean?
- May — Analyzing the Cropping Program
- June — Evaluating the Livestock Program
- October — Maximizing Income, Part III
- November — Farmsteads, Buildings, Materials Handling
- December — Planning Transitional States

Year Four Plus — FARM OR RANCH MANAGEMENT IV — ADVANCED MANAGEMENT

The Advanced class meets about eight times per year. The monthly class topics are selected by the class members and Vo-Ag instructor to meet the class members' needs. Topics usually deal with current Farm Management problems and timely topics of concern.

The course outlines may be modified to fit local needs, and should be used only as a guide in designing the local course outline.

The Minnesota Farm Management Education model was adopted by the Nebraska Vo-Ag leaders and instructors starting in the fall of 1969. The progress in two short years has been gratifying.

The following table tells the story.

	Number in Management Program		
	1970	1971	1972
Vo Ag Departments	2	11	23
Farm or Ranch businesses	8	74	174
Number enrolled	15	135	346

The Nebraska Plan

Vocational Agriculture departments in Nebraska are predominantly one-man departments. Of the 124 departments in 1971, 117 were single-teacher departments. Three of the multiple teacher departments are conducting the Adult Farm or Ranch Business Management education. Therefore the majority of Adult Farm or Ranch Management programs are being conducted as a part of the educational service to a community by Vo-Ag teachers who have, in most instances, a full-time day school program.

The classes are conducted during the evening with the individualized on-farm instruction being accomplished after school, evenings, or on Saturdays. Due to the intensive nature of the management education program, a single-teacher department enrolls only 5-8 farm or ranch business units (i.e. 10-16 enrollees) each or every other year, depending on the day school and FFA responsibilities.

The management education program should become the core of that school's Continuing (Adult) Education program, and serve as a base for other continuing education programs of a more specific nature to upgrade farm or ranch operational skills and competencies.

These specific classes are centered around crop or livestock enterprises or Ag mechanics. In addition, "Young Farmer" programs (Adult preparatory) are conducted, and can serve as a "feeder" for later enrollment in the farm and ranch management program, when the young farmer gains complete managerial control of his business.

(Concluded on page 216)

A CHALLENGE OF ADULT EDUCATION

— A Community Profile

Romeo Cyr
Farm Management Teacher
Red Wing, Minnesota



Romeo Cyr

One of the greatest challenges we have in Agriculture Education is that of designing worthwhile programs for adults. Farmers and Agri-Businessmen in our school districts are looking for programs that provide training

that will aid them in their businesses. Each community should study its own needs and set up programs that meet these needs.

In this article I will describe the existing programs that the community of Red Wing, Minnesota has set up for its adults, and what basis has been used for determining which direction adult classes should take.

Community Background

Red Wing is located 45 miles south of Minneapolis-St. Paul along the Mississippi river. The school district consists of about 210 square miles of rolling farmland, bluffs, and woodland. The agricultural community consists of 100-120 full-time farm operations, 150-200 part-time farm operations and 8-10 farm related businesses. The farms are mixed-dairy, beef-cow, hog, and crop operations. The population of Red Wing is 15,000 with most of the farm-related businesses located in smaller area communities.

Vocational Agriculture has been operating in the local school since 1949. Early adult programs consisted of Veterans-Ag and a yearly series of general interest meetings.

Advisory Committee

In 1964 an advisory committee was established to study the agriculture phases of the community, and the needs. The advisory group was made up of three farmers, two farm-businessmen, two non-farm businessmen, one administrator and the Vo-Ag teacher.

Programs successful in Red Wing have the following characteristics:

- ★ Community support through an advisory committee.
- ★ Designed specifically for the local community.
- ★ Sufficient manpower to properly carry out courses.
- ★ Courses or classes designed to meet specific goals of people.
- ★ Identifiable enrollment and course length.
- ★ Continual evaluation system.

From their studies the committee recommended the following types of classes be established:

1. Classes that would enable a student to study all aspects of his farm operation over a period of years.
2. Classes of short duration that would cover specific enterprise problems.
3. Classes consisting of single meetings to up-date and bring out new ideas.

Added Manpower

The advisory committee recommended that to adequately plan and conduct the adult classes, a person should be hired to work full time. This was done beginning July, 1966. From July, 1966 to the present time the following programs have been established and placed into operation:

1. Minnesota Farm-Business Management.
2. Intensive Enterprise.
3. Agri-Business Presents.

Minnesota Farm Business Management
The Minnesota Farm-Business Man-



Members of the Red Wing Agricultural Advisory Committee Meet.

(Continued on next page)

agement program, so successful in other Minnesota communities, seemed to be the program that would fit the bill for providing intense instruction in Farm Management over a long period of time. It looked like the program that could provide instruction for full or part-time farm operators in the area and would fit the wide variety of farm operations within the school district.

Here is how the program operates:

1. All members involved in the farm operation on a given farm are enrolled — this includes husband, wife and farm partners.
2. Group instruction is provided throughout the year.
3. Individual on-farm instruction is provided throughout the year.
4. At the completion of each year farm records are closed out and sent to a computer center for analysis.
5. Instruction follows four stages:
 - a. Farm Records and Accounts.
 - b. Farm Business Analysis.
 - c. Farm Business Re-Organization.
 - d. Advanced Farm Management.
6. Students generally proceed through the stages during a 3-6 year period.
7. After the formal instruction stages, students continue to have their records analyzed at the computer center.

The program has shown the following progress in the Red Wing area:

Year	Farms Enrolled
1966	6
1967	23
1968	35
1969	50
1970	52
1971	55

During the past few years enrollment has reached a plateau with new classes forming as students graduate.

Let me cite an example of what can be done to help students. The student selected for this example is one that normally would not be considered as average. This was done in order to demonstrate the flexibility of this program for working with individuals. The selected student was 58 years old when he registered in the class, lived on a small dairy farm, has a medium to large family to support, worked part-time to make ends meet, and was interested in making a study of his business to better himself economically.

TABLE 1
SELECTED ITEMS FROM YEARLY INDIVIDUAL FARM BUSINESS
ANALYSIS REPORTS FOR AN EXAMPLE FARM BUSINESS

Item	1967	1968	1969	1970
Return to Farm capital and Labor	\$2523	2987	3365	5228
Outside Income	720	758	3576	4243
Total Family Income	3243	3745	6941	9471
Increase in Net Worth	-1580	50	1795	4612
Crop Yield (Index)	109	83	100	99
Weaning Pigs (number raised)	0	56	246	421
Return/litter \$	0	(-) 1.63	101.25	84.40
Pigs weaned/litter		7.1	7.7	8.6
Dairy Cows (number)	11.3	7.8	1.0	0
Butterfat/cow #	338	390	181	
Feed cost/cow \$	190	292	228	
Net/cow \$	72	51	-69	
Return/100 \$ feed	177	147	96	
Tillable Acres	121	100	100	100

Table 1 shows his progress in the class:

During the first year in the Farm Management class the farmer and his wife learned how to keep accurate records. They also studied certain things important to farming such as soil testing, feed ration balancing, etc. During the first year they also spent a considerable amount of time studying goals of the family, so when they did get an analysis report they could look at their operation in terms of their goals.

When they received their analysis

report in January, 1968 they were able to observe on paper all aspects of their operation. The next step was to learn how to interpret the report and make plans to increase their income to satisfy family goals. Weaknesses that showed up the first year included:

1. An economic unit that was too small for today's agriculture.
2. Weak financial situation.
3. Low return/cow in dairy.
4. High proportion of labor spent on dairy.

(Continued on page 200)



Members of a Farm Management Class at Red Wing, Minnesota include both husband and wife as members.

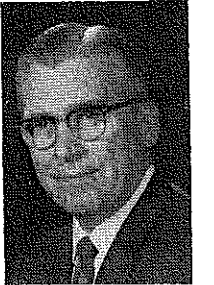
MANAGEMENT PERFORMANCE PAYS OFF — IN FARM PROFITS



John T. Starling

John T. Starling
Department of Agricultural Education
The Ohio State University

and



Richard H. Wilson

Richard H. Wilson
Department of Agricultural Education
The Ohio State University

Teachers of farm business management are aiding farmers to learn proficient business operation. The application of systems analysis approaches to the study of farm business is bringing about more meaningful identification and study of production problems as well as modification in overall management plans. These significant achievements grow out of farm management instruction when early in-depth study results in the development of new management performance capabilities.



A young farmer and his wife are shown working on their accounts. Both are enrolled in Bert Showman's Farm Business Analysis program at the Four County Area Vocational Center, Archbold, Ohio.

Start With Records

The starting point for sound farm management instruction is a good set of farm records which provide a basis for thorough analysis of the farm business.

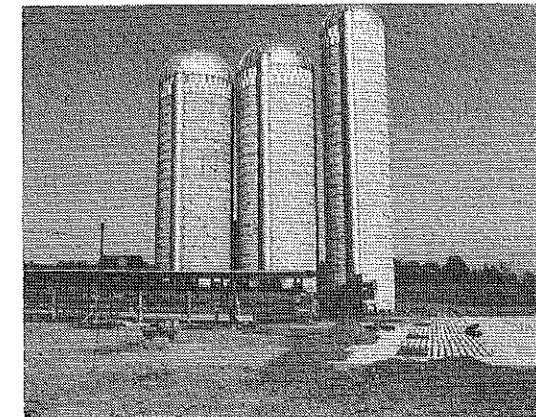
In the first phase of their instruction, they learn these management capabilities:

1. To identify depreciable and nondepreciable assets.
2. To establish salvage values for:
 - a) Power machinery and equipment.
 - b) Purchased livestock.
3. To calculate depreciation for:
 - a) Purchased breeding livestock.
 - b) Power machinery and equipment.
 - c) Buildings and improvements.
4. To establish inventories for all depreciable and nondepreciable assets.
5. To enter receipt and expense items correctly.
6. To compute monthly totals for receipts and expenses.
7. To compute capital gain/loss on items subject to capital gain and loss treatment.
8. To complete a 10-month summary and make an income tax estimate.

9. To complete a Farm Business Summary and Summary form.

Cost Analysis Guides Expansion

In making decisions to expand operations it is necessary that the farmer understand overhead and operating costs and be able to determine how they will be affected by increases in capital investment. In the picture are new silos, automated feed bunks and manure disposal pit necessary for an expansion in a beef cattle feeding operation.



Major expansion of a beef cattle feeding operation included new silos, automated feed bunks and manure disposal pit.

FARM MANAGEMENT PROGRAMS WHICH ARE PLANNED IN TERMS OF SPECIFIC PERFORMANCE CAPABILITIES CAN BE EVALUATED IN TERMS OF STUDENTS' ABILITY TO PERFORM AND THEIR CONSEQUENT PROFICIENCY IN FARMING.

(Continued on next page)

TABLE 1
RESULTS FROM 25 EASTERN OHIO DAIRY FARMS WITH
OPERATORS HAVING AT LEAST THREE YEARS OF INSTRUCTION
IN FARM BUSINESS MANAGEMENT

Measures of Performance:	First Analysis	Last Analysis	Difference
Gross Farm Income	\$25,567	\$36,158	+ \$8,591
Net Farm Income	9,288	12,017	+ 2,729
Family Labor and Management Income	6,863	8,361	+ 1,498
Gross Income per \$1,000 Invested	483	502	+ 19
Number of Cows	34.6	38.6	+ 4
Total Pounds of 3.5% Milk Sold	410,698	519,569	+ 108,871
Pounds of 3.5% Milk Sold per Cow	11,870	13,445	+ 1,575
Milk Production Cost per CWT	4.92	5.34	+ .42

operation. The farmer responsible for the operation is enrolled in Bill Hudson's Farm Business Analysis program at Wayne County Area Vocational Center. He must be able to perform analyses in these areas of a farm business:

- Size of total business operation
- Financial returns
- Cropping program
- Livestock program
- Labor power and machinery efficiency

The ability to perform partial budgeting in order to determine the expected total net return from major capital investments is necessary to sound decision making.

Business Analysis Pays Off in Profits

Examples of the fruits of good instruction in Farm Business Analysis are easily provided by Homer Brown, Farm Management Instructor at Garaway High School.



Homer Brown, Farm Management instructor at Garaway High School interprets an analysis printout with farm operator in the farm business analysis program.

Farmers enrolled in Brown's farm management course soon identified the common problem of low per cow production. Their efforts were readily directed toward programs of improved breeding, feeding and culling. More efficient farm business resulted from the improved production. Figures in Table 1 offer spectacular evidence of gains growing out of the ability to perform business analysis on farm operations.

Note particularly the significant increase in Gross Farm Income, Total Pounds of 3.5 Milk Sold, and Pounds of 3.5 Milk Sold Per Cow. It is evident that improved financial returns rested on the development of the management performance capability for identifying major weaknesses first and then determining and applying the correct technology to increase production per cow.

Other important performance capabilities necessary to good farm management are these:

- To prepare and analyze a net worth statement.
- To identify farm and family goals to be used in planning the farm business.
- To select the amount and size power and machinery for a particular farm situation.
- To plan a building program for a specific farm situation.
- To organize the labor to maximize gross income per man equivalent.
- To prepare and analyze a cash flow chart.
- To plan a debt repayment schedule.
- To prepare a credit plan for the farm business. ◆◆◆

(Cyr — from page 198)

The following decisions were made during the first two years of the program:

- Phase out of dairy because of low returns and high labor.
- Substitution of feeder pigs for dairy.
- Work in a full-time job off the farm now made possible with the dairy operation phased out.

As a result this farmer adjusted his farming operation to coincide with outside work. His total family income has gone up three-fold in four years.

Students find this program aids them in getting a real perspective of their farm operations and the information received is a very important tool for decision making.

Intensive Enterprise Classes

The second type of class recommended by the advisory committee was one that would be designed to tackle specific problem areas. Students enroll over a short period of time to study subject areas. Example of such classes have been:

- Dairy Nutrition — 12 meetings.
- Feeder Pig Production — 6 meetings.
- Crop Production — 6 meetings.
- Futures Markets — 3 meetings.
- Welding — 12 meetings.

This type of class fills a real need for many farmers in the area. During each year students have an opportunity to decide what series they would prefer or feel they need for the next year.

Agri-Business Presents

This third type of class was designed to introduce new ideas from industry to farmers. Generally one meeting is involved per topic and the public is invited to attend.

Examples of such meetings include:

- The Harvestore System — Harvestore
- Controlling Weeds — Geigy Chemical
- Livestock Buildings — Butler Mfg. Industries
- Corn Drying Systems — ABM Industries
- Soil Testing — Midland Cooperative
- Higher Alfalfa Yields — Bell Creek Cooperative

This type of meeting serves the purpose of providing a forum for discussion.

(Concluded on page 205)

FARM MANAGEMENT MEANS — Good Records And More

Gene Francis,
Farm Management Instructor,
Blooming Prairie, Minnesota



Gene Francis

Yes, good farm management involves a good set of legible, accurate records, but it also involves much more. A well-kept farm account book and the annual farm analysis summary report compiled from that record are the best means a family has of studying their farm business, but they are really only tools similar to a tractor or corn planter. Unless they are used, and used intelligently, they have very little value.

Just receiving a farm analysis report will not guarantee future good earnings. The farm family and the Vo-Ag instructor must combine accurate management information with "management sense," if earnings are to improve. What are some of the "management sense talents" that tend to promote good earnings? Below are a few of the positive management abilities that one observes when working with farm families.

- The ability to set priorities is perhaps one of the most important factors in good management. What should be done first? Should one mow hay, cultivate corn, sell hogs, or attend a local field day demonstration? The good manager decides which task is most important and does it or makes arrangements to have it done. Decisions involving the use of capital, land, and other resources are also based on priorities by the efficient manager. Helping the family to determine the relative importance of each alternative use of a resource is a very important function of the farm

"A Good Set of Records and Good Management Sense are Primary Requirements For Progress Toward a Better Livelihood."

management instructor. Informed counsel by the instructor can be a very large factor in organizing the farm business along the most profitable lines.

- The ability to plan intelligently is a second most important factor. Complete information is necessary to plan effectively. All major alternatives should be reviewed and considered if a family is to make the best decision. The task of the farm management instructor is to provide the family with complete and reliable resource information on which to base decisions. A family's own analysis report is the most important basis for any decisions on a particular farm, but reliable planning information for new or changed enterprises must be secured from other sources and adapted to the individual farm.
- The good manager is *all-the-way in farming*. He doesn't hold back productive resources (labor, capital, fertilizer, protein, etc.) because of risk or uncertainty. He realizes the need to expend all resources on the job, if good earnings are to be realized.

The farm management instructor must help the family to realize the need to put all resources to work. He must emphasize the need for good profitability and sufficient size within the farm business if the family is to secure a satisfactory return. His task is to help the family realize its full potential.

- The well organized farmer *matches equipment and capabilities to the job* and to other machines. Top earning farmers avoid duplication of efforts and facilities. They realize the limitations on their management abilities,

time and capital resources.

Farm management instruction should help each family to organize their business according to size, the farmer's management ability, and the availability of capital resources.

- The top manager realizes it is the "extras" that count. Applying lime 6-18 months prior to seeding a legume; taking soil samples prior to applying fertilizer; making sure feeders are always full; testing for milk production; buying a tested boar.

Good management counsel by the Vo-Ag instructor can be a large factor in encouraging the family to put forth the small extra effort that can double net profits.

- The top managers are *not afraid of risk*. They have the ability to make changes. They realize low profits are made on low risk, secure enterprises and practices.

The farm management instructor can view the farm operation as an outsider and is often able to point up possible profitable changes that may be difficult for the farm family to see. The instructor can act as a "leavening agent" counseling for sound, new practices; cautioning against going completely off on a risky tangent.

Yes, the good farm manager has a number of special abilities. Only a few of the most important are listed above. The farm management instructor can be a positive factor in developing each of these abilities in a farm family over a period of time. A good set of records and the resulting farm analysis are the primary requirements for good management instruction and counsel. These must then be combined with *good management sense*, if the family is to progress toward a better livelihood. ◆◆

A FARM MANAGEMENT MODEL WITH APPLICATION TO ADULT FARMERS



Donald D. Osburn
Associate Professor of Agricultural Education,
University of Missouri

and



John Lee
Adult Teacher of Vocational Agriculture
Hamilton, Missouri

In Missouri most communities have decided to concentrate their efforts toward those farmers who are having problems that can be considered survival in nature.

Federal Vocational Education legislation of 1963 and amendments of 1968 enable considerable discretion regarding funds for adult education. There seems to be a developing national trend toward increased emphasis in adult education — particularly at this point in time of increased unemployment.

Missouri has implemented adult agricultural education programs at the district level. Currently, there are 16 adult teachers in Missouri — an increase of 200 per cent over the previous school calendar year. Funding of these positions varies among districts, in that some of the teachers still contribute to the day program activities, and hence reimbursement is partially supported by the day program.

Program Planning and Implementation

Noteworthy, particularly to teachers employed as adult teachers, was the fact that adequate guidelines for program planning and implementation were not available from expected sources such as teacher educators, U.S. Office of Education, and the State Department of Education.

In developing a viable program, initial reaction might be to survey the clientele to determine needs; and, hence chart course of program. Such a procedure can be highly suspect in that divergent responses with respect to a "rank ordering procedure" do not provide the decisioning index with any "weighting" procedure. Likewise, the perceived needs by the clientele may not coincide with an evaluation and need identification by an "outsider."

In Missouri educational programs pertaining to application of alternative production technologies and production inputs are available from sources such as the many farm input suppliers and resources from colleges of agricul-

ture. However, assistance in the area of farm management may be rather limited on an individualized basis. Therefore, one may conclude, primarily by default, that a major responsibility of the adult teacher is that of farm management.

Program Initiation

One may have a rather heterogeneous group of farmers, differing by type of farm, time engaged in farming, age, family goals, and financial status. Such individual differences, as well as similarities, must be inventoried and analyzed for sound program planning and implementation.

In Missouri, however, most communities have decided to concentrate their efforts toward those farmers who are having problems that can be considered survival in nature. Such farmers, by and large, also happen to be young, but not exclusively.

The enrollment size for a program is a problem that can be unique among districts; however, enrollment should be considered in two distinct stages: (1) start-up enrollment, and (2) enrollment over the long pull.

Perhaps a fewer number should be enrolled, definitely fully served, during the initial year(s) of program operation. These numbers will vary according to teacher productivity, farmer and program characteristics.

As a result of close contact with and participation in the many and varied decisions that must be made in today's complex agri-business environment, one soon realizes that in adult

work there may not only be inadequate data for decision making, but also, that limitations exist with respect to adequate command of proven tools and techniques of business analysis and decision making. Therefore, initially there is considerable "down time" in getting necessary data from farmers and for development and application of appropriate management techniques.

One of the pitfalls during the initial program operation is being drawn into and involved in what might be termed service activities. Often times, management and service activities overlap and are included in the "gray area" in so far as categorization as management (decision making) or service activities. From a farmer's point of view, once the enrollment fee is paid, it is considered a sunk cost. Therefore, he considers a teacher's labor as zero cost (additional cost) to him.

Initially, a teacher may need to engage in more service activities than desired. This may occur because the many and varied activities (concrete pouring, farm construction, purebred production and show activities, etc.) are tangible to the clientele and visible to other community leaders. On the other hand, a time lag exists for the results or product visibility associated with some of the agri-business educational techniques.

What may be considered an educational or learning activity may later be considered a service or labor activity under different circumstances. For example, assume a teacher provides

(Continued on next page)

Farmer Jones with all of the necessary information and assists him in pouring concrete — an educational activity. If, on the other hand, Farmer Jones continues to rely completely on the teacher for pouring concrete, then the activity may be considered service in nature. In short, the optimum number of farm visits will be dependent on the degree to which the teacher engages in service activities; and hence, the number of farms served by the program.

Still another aspect of class size is the term of the educational program. One may identify groups within the program that may be designated for concentrated instructions. For example, some members may have a record system, whereas others may have very rudimentary farm accounting systems. The latter are prime candidates for such instruction.

Some advocate that such groups may be graduated from the program after reaching given levels of achievement. Granted, such groups may need less attention in terms of educational activity, but a complete severance does not seem justified. As long as an educational gap exists between the teacher and clientele members, they will always benefit from educational activities. Also, the nature of problem solving and decision making, for the role of increased teacher efficiency, implies the use and application of computer technology which farmers would not likely have access to or the expertise necessary for use.

Activity Model

A newly employed adult teacher may ask what to do first. A general answer to such a question is that one should become involved in assisting the farmer in the many varied decisions he must make. Particular emphasis should be placed on the short-run production type decision such as buy-sell type activities with respect to both farm inputs and production. In other words, the partial budgeting technique is most likely to be the most powerful and often used tool.

Also, data regarding the farm business should be accumulated as quickly as possible. Financial statistics, inventories, etc., should be accomplished as quickly as possible. Likewise, if a farmer does not have a record system that provides the necessary information

(Concluded on page 205)

PENN STATE AWARDED CAREER EDUCATION GRANT

The Department of Agricultural Education at Penn State has received a \$147,913 grant from the Vocational and Technical Division of the U.S. Office of Education for a project entitled, "Career Education in Natural Resources." Purpose of the project is to develop curriculum guides in natural resources with emphasis on a sequenced progression from an awareness of natural resource careers at the elementary level to occupational competency at the completion of high school and/or post-high school education.

Specific curriculum materials will be developed at each of four grade levels to include:

K-6. A teacher's guide that contains course outlines, reference list and materials, student activities (including projects and experiments), career awareness emphasis, and subject matter in natural resources.

Grades 7-8 or middle school. A teacher's guide that contains course outlines, references, student activities, occupational orientation emphasis, and a student resource booklet containing subject matter on natural resource protection and utilization, including occupations.

Grades 9 through 12. A teacher's guide that contains course outlines, references, student activities, and occupational briefs for natural resource occupations. Course emphasis is to develop entry level skills in natural resource occupations.

Post-Secondary. A curriculum guide containing detailed course and subject-matter outlines for technical level instruction for competency in natural resources occupations.

In the second phase of the project, the Department of Agricultural Education will offer to conduct workshops in cooperation with the ten U.S.O.E. regional offices to acquaint educational leadership in all states with the curriculum materials resulting from this project and to promote their use.

Materials produced in the project will be published by the U.S. Government Printing Office, disseminated to the states for promotional use, and sold by the Superintendent of Documents.

Dr. Richard F. Stinson, Associate Professor of Agricultural Education is project director. Three full time instructors, James H. Mortensen, Dr. Robert L. Soles, and George C. Ward are assigned to the project. A. Ronald Attarian and James W. Nichol, one-half time graduate assistants, also assist in carrying out project objectives. The 18-month project runs from June 30, 1971 to December 31, 1972. (From *Pennsylvania Agricultural Education*).



Agriculture Education staff members at The Pennsylvania State University review their new project, "Career Education in Natural Resources," with H. Neville Hunsicker, Education Program Specialist, U.S.O.E., and James C. Fink, State Supervisor, Agricultural Education, Pennsylvania. Seated from l. to r. are Fink, Hunsicker, Dr. Richard Stinson, Associate Professor and Dr. David R. McClay, Head, Department of Agricultural Education. Standing from l. to r. are Dr. Robert L. Soles, James H. Mortensen, and George C. Ward, instructors; A. Ronald Attarian and James W. Nichol, Graduate Assistants. (Photo from James H. Mortensen, The Pennsylvania State University.)

AGRICULTURE EDUCATION AND MANPOWER TRAINING IN MALAYSIA

Mohamad Yusof Hashim
Department of Agricultural Extension and Education
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Malaysia, like many other developing countries, is devoting great attention to agricultural and rural development. In her Second Five Year Malaysia Plan (1971-1975) more than 1,920.86 million (Malaysian) dollars or 26.5 per cent of the total Estimated Public Expenditure will be spent in the agricultural sector. Crop diversification, double cropping of rice, opening of new agricultural land, resettlement of the landless, increased educational and extension activities, more comprehensive research, farm mechanization, and organizing farmers into economic associations are some of the major programs being undertaken. These are designed to benefit rural people who comprise more than 70 per cent of the total population of 10 million. Increase in income, more employment opportunities, higher standard of living, better education, and bridging the gap between the have's and have not's are among the primary aims of Malaysian agricultural development. Specific objectives identified in the Second Malaysia Plan include:

- (1) To increase employment opportunities through the sound exploitation of Malaysia's land, water and timber resources;
- (2) To raise worker incomes by increasing productivity and the scale of operation, particularly among the more traditional activities where incomes are lower than in other sectors;
- (3) To expand the range and quantity and the quality of agricultural products, particularly foodstuffs (including fruits and vegetables) commercial crops and livestock products and,



M. Y. Hashim

Dr. Hashim, a graduate of the University of Illinois in Agricultural Education, is currently on the staff of the Faculty of Agriculture, University of Malaya, Kuala Lumpur.

TABLE 1
TOTAL CUMULATIVE REQUIREMENTS FOR SKILLED AGRICULTURAL PERSONNEL IN MALAYSIA, BETWEEN 1965-1985

Types of Jobs	1966	1970	1975	1980	1985	1965-85	Educational Requirement
Specialists	238	975	1150	1368	1465	1227	Degree in agriculture
Supervisors	873	1950	2300	2736	2930	2057	Post high school Diploma in Agriculture
Operatives	1204	780	9180	10944	11700	10446	High School Diploma in Agriculture
TOTALS	2315	10725	12630	15048	16095	13730	

Source: Review of Agric. Education in Malaysia, First Report, Ministry of National and Rural Development, Kuala Lumpur, March 1969, p. 4. Modification to the table was made by the writer.

- (4) To strengthen institutions such as Farmers Associations which promote fuller participation of rural residents in the economic and social life of the nation.

MANPOWER NEEDS

One of the main problems facing Malaysia in her development effort is the shortage of skilled manpower. According to estimates of the Malaysian Government's Economic Planning Unit a total of 13,730 skilled agricultural personnel are needed for the period of 1966-1985 to serve both the public and private sectors. (See Table 1). These projections do not include manpower requirements for other related sectors; namely, forestry, fisheries and veterinary services which are also under the jurisdiction of the Ministry of Agriculture.

As the table shows, the greatest manpower need is at the operative level, where junior technicians with agricultural education at the high school level are required. The next category of personnel are the supervisor-technicians who are trained at the post high school level. Degree graduates are required for research, administrative, and extension activities. From the above, the ratio of degree to diploma to operative personnel is in the order of 1 : 3 : 10 respectively. From government's estimates, manpower shortage for the period of 1971-75 will be in the neigh-

borhood of 40 professionals, 630 sub-professionals and 50 operatives. It is clear that an acute shortage will be faced at the sub-professional level.

MANPOWER TRAINING

How does Malaysia train her agricultural manpower? Basically, there are three tiers of agricultural education programs which prepare for the three levels of manpower requirement. Each of the tiers provides a different level of education in agriculture.

Level I — Agricultural Institute

Currently, there are 3 agricultural institutes in Malaysia, each with a capacity to train 300 technicians in a 3-year agricultural course at the high school level. Students enter these institutes after completing their lower secondary education. A few years back only 25 to 30 graduates were produced each year and each course lasted between one and one half to two years. To meet present demand, three more institutes will be built during 1971-1975. At these institutes students are taught a wide range of agricultural subjects with very heavy emphasis on practical skills. The majority of the graduates are employed as field extension workers or operatives, who work in direct contact with the farmers. Only those with high academic aptitudes may continue their education at the college level.

(Continued on next page)

It appears that with greater acceleration of agricultural development, the future augers well for agricultural education and for students who have genuine interest in agriculture and its development.

Level II — College of Agriculture

The College of Agriculture was established in 1925 to train students in agricultural sciences at the post secondary level which is slightly lower than that offered at the university. Enrollees must have completed their high school before they can be admitted to the three year educational program. Among courses taught are Mathematics, Chemistry, Physics, Botany, Zoology, Plant Pathology, Entomology, Crop Production, Animal Husbandry, Agricultural Engineering, Agricultural Economics, Agricultural Extension and Plant Breeding. There is equal emphasis, however, on practical skills. Since the early sixties when student enrollment only totalled about 80, the college has expanded its facilities substantially. The student intake is now 400 per year. Of these, it is estimated that approximately 380 students will graduate from the college each year. Graduates mostly serve as extension supervisors and managers of the Farmers Associations. There is also an opportunity for graduates to further their studies at the university level if they possess academic capabilities.

Level III — University of Malaya

Agricultural education at the University level is conducted at the Faculty of Agriculture, University of Malaya. Candidates for the course should possess the Higher School Certificate, that is, a satisfactory completion of a two year course at the pre-university level; have obtained the Diploma of Agriculture from the College of Agriculture or their equivalents. The course in agriculture at the University is a four-year degree program and covers subjects in general agriculture at a more advanced level than the College of Agriculture. Courses in Biometry, Animal Sciences, Food Sciences, Soil Sciences, Research Methodology, Agricultural Economics, Marketing, Sociology and Extension are also taught. In the fourth year, students are required to complete a thesis exercise by carrying out experiments or field research. Graduates are absorbed into government, semi-government and pri-

ivate bodies, in professional positions conducting research, extension or administrative work. At present the Faculty of Agriculture has facilities to produce 120 graduates per annum. Educational programs at advanced degree level are also conducted. At present, there are 40 students doing their M.Sc. and 5 undertaking Ph.D. work.

CONCLUSION

It is clear from the comprehensive manpower training program that agricultural education has a significant role to play in the agricultural and rural development of Malaysia. Concrete programs have been laid out for training the manpower to cope with the specific demands of the agricultural sector, although falling quite short of the estimated requirements. While the educational structure appears rather unique, it is however practicable within the context of Malaysian educational system. A number of advantages are also apparent in the system.

- (1) A student who has an interest in agriculture and who aspires to pursue university education could by entering the agricultural institute make his way through college and university and could still be ensured of employment in the country.
- (2) The system of education in agriculture provides employers, both government and private, a wide range of choice as to the kinds of competencies or graduates that they would like to hire.
- (3) Manpower shortages in Malaysia will in the long run be overcome, if present facilities of training are improved and expanded from time to time as needs arise. ♦♦♦

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(Cyr — from page 200)
sion of new ideas to the farm community. In addition the meetings provide a setting for agriculture industry and farmers to work together.

Additional Programs

The advisory committee is studying the possibility of expanding adult education into the following areas to supplement existing programs:

1. Farm Mechanics.
2. Agri-Business Management.
3. Horticulture.

The committee is also considering expanding the existing Farm Management program by recommending to the school board the addition of another teacher. ♦♦♦

(Osburn & Lee — from page 203)

mation for decision making, then one should be initiated as quickly as possible. A record system is not an end in itself, but is necessary for both internal farm decisions and for external purposes; internal in that records provide a check on the predicted outcomes of previous planning and budgeting activities. Likewise, deviant outcomes can be analyzed to ascertain if such outcomes were due to factors that can be controlled by the farmer or if they were external to the farm (weather, market conditions, etc.).

Records are also necessary to provide documented evidence of input-output relationships for external uses such as obtaining and justifying credit from lending agencies. Considerable variation in types and degree of record sophistication may be prevalent. At the time of program initiation, one must work with farmers as is, but a move to some standardized system is encouraged so as to increase work efficiency and provide common financial statistics for educational purposes.

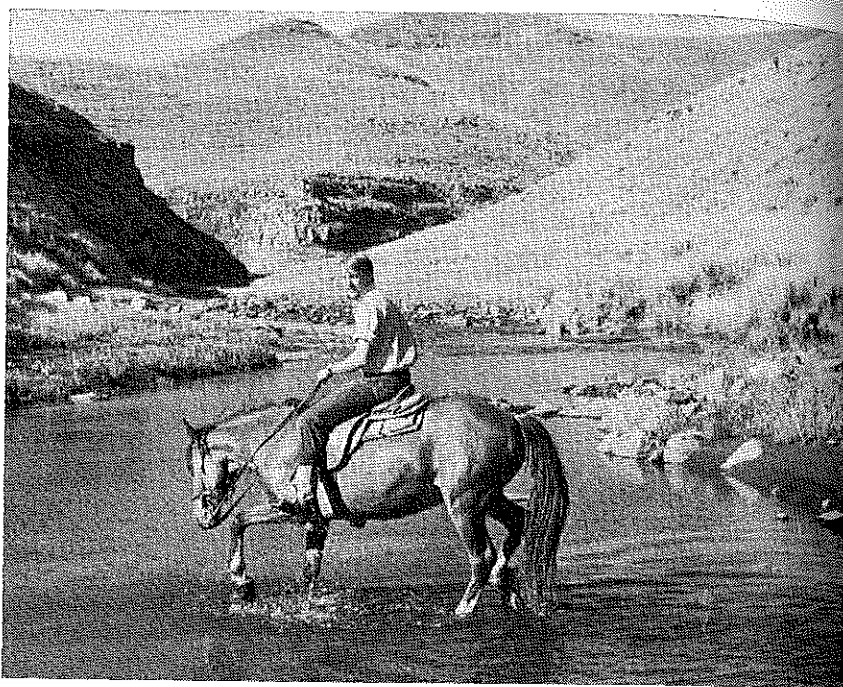
The "whole farm planning" or organizational activities for the purpose of meeting farm family goals should come after the previous educational activities have occurred. Also, the need for "whole farm planning," in all probability, will possess a relatively low priority when the educational program is initiated. Farmers of given geographical areas most likely have identified, when family goals and enterprise favoritism is considered, the enterprises with which they have a "comparative advantage" in terms of production. ♦♦♦

Story in Pictures

ROBERT W. WALKER
University of Illinois



Odell Miller, Raymond, Ohio N.V.A.T.A. Region IV Vice-President presents Region IV Geigy Professionalism Award to Melvin Nicol, Teacher of Agriculture, Maroa, Illinois, at the annual summer conference of the Illinois Association of Vocational Agriculture Teachers. (Photo by Charles L. Harn, Past-President of the I.A.V.A.T.)



Peace Corps volunteer, Tom Cassel, is serving in the Kingdom of Lesotho, South Africa. Tom, a mechanical engineer, designs and installs irrigation systems for the Ministry of Agriculture. He has extended his service for a third year to train a technician to take his job next year. The government of this small country is asking the Peace Corps to send volunteers who were educated as teachers of agriculture. (Peace Corps photo)



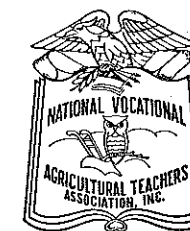
Manuel Massa, right, California Young Farmer, Princeton Chapter, explains to judges Pius Scheuber, left, and Dennis Hampton his cultural practices in growing rice. Manuel was regional winner in the California Young Farmer's Farm Improvement Contest and is here being judged for the state's top honor. (Photo by William D. Wills, Agricultural Mechanics Specialist, California State Polytechnic College)



James Wall

News and Views of NVATA

James Wall
Executive Secretary, NVATA
Lincoln, Nebraska



Many individuals and groups were recognized for Outstanding Achievements at the Twenty-Third Annual Convention of the National Vocational Agricultural Teachers' Association held in Portland, Oregon, December 1-8, 1971.

Six Outstanding Young Teachers, one from each of the NVATA Regions, won all-expense trips to the convention, courtesy of United States Steel. One of the requirements for entering the contest is that the individual must have taught at least 3 years but not more than 5 years. The Winners were:

- Region I—Ed Strong, Payette, Idaho
- Region II—Allen Nelson, Fort Morgan, Colorado
- Region III—Lee Mendenhall, New Richland, Minnesota
- Region IV—Gary Walter Bauer, Sunbury, Ohio
- Region V—James R. Watson, Smithville, Tennessee
- Region VI—David Miller, Gaithersburg, Maryland

The Charles Pfizer Company presented \$500 checks to the advisors of the FFA Star Dairy, Livestock and Poultry Farmers. Receiving checks were:

- Roy Reno, Riverton, Wyoming — Advisor of the Star Livestock Farmer
- Jerry Sherwin, Cuba City, Wisconsin — Advisor of the Star Poultry Farmer
- Ed Fisher, Hilmar, California — Advisor of the Star Dairy Farmer

The six Regional Winners of the NVATA Career Orientation Contest sponsored by the New Holland Division of Sperry Rand told of their experiences in Career Orientation during a "special session." Dr. Walter Jacoby, Vice President, Programs, The American Institute of Cooperation was the panel moderator. The winners were:

- Region I—Dan Birdsell, Deer Park, Washington

- Region II — Eugene Ruby, Denver, Colorado
- Region III — Don Leibelt, Green Bay, Wisconsin
- Region IV — Glenn Griffith, Westerville, Ohio
- Region V — Guy Angel, Waynesville, North Carolina
- Region VI — Oscar Harris, Sandyville, West Virginia

Donald Kabler, a past NVATA Vice President for Region I from Oregon, reported on his Agricultural Tour of Europe. Don was the winner of the NVATA Professional Recognition Award sponsored by Geigy Agricultural Chemicals.

Certificates were presented to state associations who qualified for the Professional State Association Award which is given to those associations attaining a high percentage of certain activities as suggested by the National Organization. Receiving certificates were:

- REGION I
 - Arizona — Dwain Gale, Prescott, Arizona
 - California — Edward Leal, Modesto, California
 - Montana — Daniel Watts, Fairview, Montana
 - Oregon — Wright Noel, Bend, Oregon
 - Utah — Mario Bussio, Orem, Utah
 - Washington — John Myer, Onalaska, Washington
 - Wyoming — Oliver Wille, Baggs, Wyoming
- REGION II
 - Colorado — Herbert Lightsey, Longmont, Colorado
 - Kansas — Gary Jones, Peabody

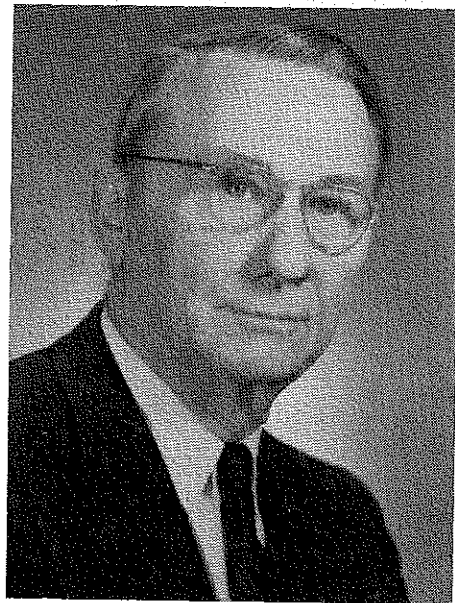
- Oklahoma — Clifford Christ, Wewoka, Oklahoma
- REGION III
 - Iowa — Grover Miede, Monticello, Iowa
 - Minnesota — John Murray, Jackson, Minnesota
 - Nebraska — Myron Schoch, Lyons, Nebraska
 - North Dakota — Howard Pearson, Bowman, North Dakota
 - South Dakota — Robert Pollmann, Brandon, South Dakota
 - Wisconsin — James Ferries, Manitowoc, Wisconsin

- REGION IV
 - Illinois — Charles Harn, Fairview, Illinois
 - Michigan — William Harrison, Caledonia, Michigan
 - Kentucky — Jim Wilds, Versailles, Kentucky
 - Missouri — Jefferson Battles, Fulton, Missouri
 - Ohio — Warren Reed, Convoy, Ohio
- REGION V
 - Georgia — James Odom, Hahira, Georgia
 - North Carolina — Jack Cole, Marshall, North Carolina
 - Tennessee — Ralph Moffatt, Millington, Tennessee

- REGION VI
 - New York — Bruce Hilton, Hilton, New York
 - Pennsylvania — Dr. Leroy Smeltz, Hegins, Pennsylvania
 - Vermont — Joseph Button, Bradford, Vermont
 - Virginia — John Parker, Sunbury, North Carolina
 - West Virginia — Paul Silcott, Weston, West Virginia

Central States Seminar in Agricultural Education

Date: February 7-9, 1972
Place: Sherman House Hotel, Chicago, Illinois
Program Chairman: Shubel D. Owen, Teacher Education, North Dakota



W. F. Stewart

Much of the success of vocational education in agriculture can be attributed to the excellent foundations made by the early pioneers engaged in establishing the profession. The principles and procedures that have made vocational agriculture successful are still basic in the expansion and development of new programs. One of the early pioneers who made a significant contribution to vocational agriculture was Dr. W. F. Stewart. Dr. Stewart served as Professor and Chairman of the Department of Agricultural Education at The Ohio State University from 1917-1948. He continued on the staff in agricultural education until his retirement in 1955.

Dr. Stewart's former students remember him as an enthusiastic supporter of effective classroom teaching and for the promotion of associated occupational experience. These he insisted were basic elements in vocational education. He likewise believed that teachers of agriculture should organize and conduct adult programs of instruction.

Many of Dr. Stewart's ideas concerning teaching were recorded in his book *Methods of Good Teaching* published in 1950. On the first page he states:

"I am interested in becoming a good teacher in whatever field I decide to work. I have seen enough mediocre teachers, uninteresting teachers, teachers who were merely 'keeping school.' I want to be a good teacher. It is with this high goal of worthy endeavor that I hope each student about to prepare for

W. F. STEWART —A Pioneer Leader In Developing Vocational Agriculture

teaching will enter his period of training."

In all of his classes, Dr. Stewart emphasized the importance of methods. A statement that he made after years of work in the field is indication of what he regarded as significant in teaching:

"Methods of good teaching depend upon *meeting pupil needs* or the usefulness of the knowledge in the learner's life activities; the interest of the learner in his lesson; the thinking and understanding that result from the discussion of the lesson; the repetition if it is necessary that is provided to fix the useful knowledge in mind. That is our 'million dollar idea.' Is it yours?"

Throughout Dr. Stewart's career he gave special emphasis to the problem method of teaching. He believed firmly that if teaching is interesting, useful, and challenges thinking, then it needs to be related to the pupil's home and farm situation. For him, subject matter had only one use and that was to solve relevant problems. This undoubtedly could be emphasized in present day teaching to assure that we might have more meaningful and effective learning.

In May 1920 Dr. Stewart prepared and had printed a bulletin entitled *Vocational Agriculture in the High School*. This bulletin provided general information for establishing departments of vocational agriculture. One of the sections in that bulletin was devoted to the importance of supervised farm practice. Dr. Stewart took the position that all students should have occupational experience. He pointed out that it represented the application of the long accepted pedagogical prin-

ciple of learning by doing and providing the realization of the fact that experience is the best teacher. In that time, more than 50 years ago, he indicated that this is not a new practice in education. He noted that a pupil learns and becomes a better student in English composition by actually writing; in his musical education by hours of application at the piano; and in dentistry or medicine by months of practice in clinics. It is interesting to note his statement:

"If the pupil preparing for the vocation of farming does not live on a farm, then he must provide for practical farm work or it must be provided at a place where he can arrange for satisfactory supervised practice under farm conditions. This may be on a school farm or on another farm where he may engage to work."

Dr. Stewart emphasized the fact that the project must be large enough to employ actual farm operations and that this experience should be carefully planned. He stated that:

"Each pupil should be able to select a satisfactory project which has the approval of the father and the teacher. The selection of a project should also involve the interest of the pupil, his home conditions, and his classroom instruction. Throughout the course the pupil, the parent, and the teacher should constitute a cooperative partnership.

Project supervision on the part of a teacher should be considered as a teaching process in a class consisting of one pupil. On each visit to the pupil's project the teacher should

(Continued on next page)



Ralph E. Bender

Ralph E. Bender and Willard H. Wolf
Teacher Education, The Ohio State University



Willard H. Wolf

test the pupil's understanding of the various phases of practice which he is using, has used, and will use. The pupil's participation in his project should be both physical, managerial, and financial."

Stewart pointed out that the student should not only do much of the labor but that he should assume responsibilities of management, keep accurate records, and analyze those records in order to make further improvements. "Participation in the financial results of a project should always be encouraged as a very effective means of increasing the pupil's interest in agriculture."

Dr. Stewart's philosophy of education was influenced by his experience as a youth on a northern Illinois farm where he was born June 28, 1885. He felt that if educational opportunities had been provided his parents during their productive years farming would have been more profitable and life on the farm less arduous and more enjoyable. Consequently, he was insistent that teachers of vocational agriculture conduct practical courses for adult farmers.

Education at the academy and college at Princeville, Illinois, which was academically oriented, likewise influenced Dr. Stewart's philosophy. He had majored in Latin and mathematics and did exceptionally well as a student. However, he felt that his education would have been much more effective had it been oriented to meeting the needs for living a satisfactory life in a democratic society. Consequently, he was most vitally concerned that education for youth be practical and highly functional. His constant reminder was that teachers recognize the attributes of an ideally educated individual and then "educate your boys and girls to the end that they develop in the direction of this ideal."

Dr. Stewart received his Master's degree at the University of Wisconsin and his Ph.D. from Columbia University. He started his professional experience by teaching a rural grade school in his home community for three years. He likewise taught at Profitsville, Illinois and Tracy, Minnesota. In these situations he also served some as a principal and as a superintendent of schools. He served as Vice President of the American Vocational Association

(Concluded on page 211)



Willard A. Clawson

TRY THESE IDEAS ... IN YOUR TEACHING

Willard A. Clawson
Teacher of Agriculture
Tates Creek Senior High School
Lexington, Kentucky

☆ Use programmed instruction units or mini-units in plant, animal and soil science. Try incorporating the following ideas listed into the individualized study guide units:

1. Write multiple choice questions with a choice of 5 answers, having 2-3 correct answers. The student must select the answer most nearly correct.
2. Use text books as reference guides only in the programmed instruction units. The text books we now have do not contain enough information on Agri-business. An individual study guide should be prepared on Agri-business.

☆ Use study guides in groups.

A group leader, usually a very good student, can help other students in completing vocational agriculture workbooks, individual study guides and programmed instruction units. (Have the better students tutor other students who need help.)

☆ The programmed instruction units will enable the student to "secure his own learnings." The teacher will act as a director or guide only, not as a transmitter or emitter of information.

☆ The student will learn, not by listening to facts or just answering questions, but by going directly to the source of a problem for answers. Part of their education is learning where to find facts through the use of programmed instruction units in Agri-business and plant, animal and soil science. The student then uses the knowledge and facts that they have or can obtain in the solving of problems in their occupational experience programs. The students will, therefore, put into practice the facts, knowledges and understanding that he needs to prepare himself for the

world of work.

☆ Write sentences with KEY words left out, to be completed by the student.

☆ Write paragraphs with KEY words left out, to be filled in by the student.

☆ Write "easy to do" laboratory exercises to be completed by students at the end of each exercise or unit in order to determine if objectives are reached. A principle or practice could be demonstrated by a student carrying out an experiment which proves the theory.

☆ The teacher could give a demonstration to help clarify some point of difficulty.

☆ Programmed instructional units could be written by:

1. Having outstanding vocational agriculture teachers over the state contribute a unit or parts of a unit in areas in which they are specialists.
2. Giving credit to the person by having his name on the programmed instructional unit.
3. Having contributions made by university specialists in various fields.
4. Having outstanding vocational high school seniors have a voice in what goes in the programmed instructional unit.

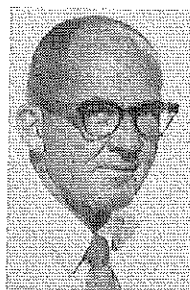
☆ Sell students on the idea of being word detectives, and cause them to develop an interest in words. Have a vocabulary list or a word building exercise at the beginning of each unit or individual study guides.

☆ Avoid having students "recall information."

☆ Get at the "why."

☆ Have interpretation exercises. ♦

USING ADVISORY COMMITTEES WISELY

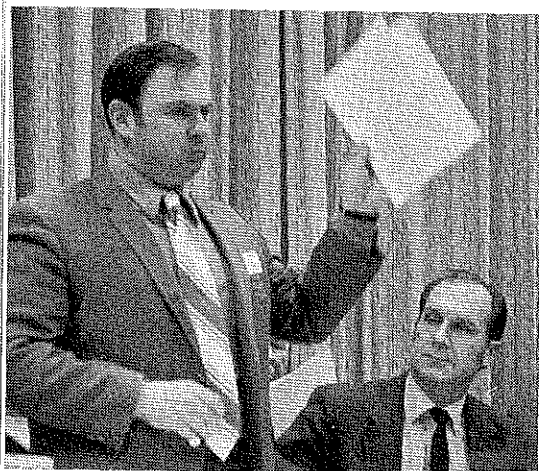


John B. Mulvana
Ph. D. Graduate
Agricultural Education
The Ohio State University
Columbus, Ohio

John B. Mulvana

For many years educators have recognized that the involvement of lay citizens is essential for the development of effective programs of vocational education. Leaders in off-farm related business and industry have been used by some teachers of vocational agriculture to assist in developing and conducting meaningful educational programs. This cooperative effort has been especially important because of the technological change and an associated increase in numbers and kinds of employees needed with special skills and knowledges.

Consequently, there is a need for lay citizens particularly to promote and improve programs of agricultural education. Even though advisory committees may beneficially serve departments of agricultural education, it should not be presumed that they will guarantee effective programs. Then, why are some committees successful while others are not? The study reported in this article answers this question.



One of the 38 members of the Cleveland Horticultural Industry Education Advisory Committee offering suggestions for extending instruction in Vocational Horticulture in the Cleveland Public High Schools. Presently 15 teachers are employed in Vocational Technical Education in Agriculture in the Cleveland Public Schools, the largest Department of Vocational Agriculture in Ohio.

and



Willard H. Wolf
Professor of Agricultural Education
The Ohio State University
Columbus, Ohio

Willard H. Wolf

Two objectives were pursued to identify the characteristics of effective and ineffective advisory committees in agricultural education in the public secondary schools of Ohio.¹ They are:

1. To determine the effectiveness of advisory committees as related to the perceptions and understandings of teachers and supervisors of agricultural education.
2. To determine the effectiveness of advisory committees, in such areas as organization, function, and activities.

Teachers and supervisors of agricultural education in fifty comprehensive high schools and area vocational centers served by advisory committees provided the data. Included were advisory committees serving the entire vocational education program, or serving the entire agricultural education program, or serving specific occupational areas.

Characteristics of the Schools Using Advisory Committees

The predominate range of enrollment for the schools included was 601-800 students. The highest range of enrollment in programs of agricultural education was 51-60 students. Sixty-one per cent of the schools had advisory committees concerned with specific occupational areas, and thirty-nine per cent had general departmental advisory committees.

Thirty-four per cent of the schools had single teacher departments, twenty-seven per cent had two teacher departments, and thirty-nine per cent had three or more teacher departments.

The agricultural teacher was the individual mainly responsible for initiating the advisory committee.

The characteristics not associated with either the effective or ineffective committees were:

1. Number of regular members on the committee.
2. Occupational areas represented by the committee members.
3. Opinions of respondents regarding whether or not the major occupational areas in the school district should be represented on the committee.

Characteristics of Effective Advisory Committees

1. The agricultural teacher, school administrators, supervisors, and representatives of school boards served as ex-officio members of the committee.
2. School board members and women were included as regular committee members.
3. Membership representation by geographical areas was not considered important.
4. Tenure of members was usually three years.
5. Terms of appointment were generally staggered.
6. Committees tended to appoint members to serve two or more consecutive terms.
7. Responsibility for appointing new members was assigned to the teacher, the school administrator, and the advisory committee.
8. In addition to the agricultural teacher, others were involved in nominating new members and notifying members appointed.
9. More regular and special meetings were held.
10. Chairmen, vice-chairmen, and secretaries were elected.

Characteristics of Ineffective Committees

1. Terms of members were one or two years, or indefinite.
2. The agricultural teacher usually

(Continued on next page)

nominated and appointed new members.

3. The teacher usually notified members of their appointment.

Procedures and Activities Associated with Effective Advisory Committees

1. The chairman usually presided over the meeting.
2. Agendas were prepared and distributed to committee members prior to each meeting.
3. Minutes were usually kept by a regularly appointed secretary.
4. The agricultural teacher and others on the committee distributed copies of the minutes to the members.
5. They studied and made recommendations regarding such areas as curriculum, course content, facilities, FFA program, and evaluation.
6. They explained the program of agricultural education to individuals and groups in the community.

Procedures and Activities Associated with Ineffective Advisory Committees

1. The agricultural teacher usually presided over the meetings.
2. They prepared fewer agendas.
3. The agricultural teacher usually kept the minutes of the meetings.

Means of Improving the Utilization of Advisory Committees

1. Meet more often than twice a year.
2. Organize formally.
3. Schedule meetings to accommodate the most members.
4. Study the curriculum and course content of agricultural education.
5. Conduct community surveys.
6. Increase the number of members to five or more.
7. Promote the program of agricultural education in the community.
8. Evaluate the total program of agricultural education.

Authors Recommendations

1. School board members, school administrators, vocational directors, and supervisors should be involved in initiating the advisory committee. They should also participate as ex-officio members in committee activities.
2. Women should be included as members.
3. Information of a permanent na-

ture should be maintained, i.e. minutes of committee meetings, recommendations, and curricula data.

4. Lay citizens should participate as members and be given recognition for their contribution.
5. Promote continuity in committee functions and activities by establishing three years as the minimum length of term for member participation and stagger the terms of appointment.
6. The agricultural teacher, the school administrator, and the committee members should nominate and appoint new members.
7. The committee should be formally organized and elect chairmen, vice-chairmen and secretaries from the lay members.
8. A chairman from the lay membership, not the teacher, should preside over the meetings.
9. Agendas should be provided for each member prior to the meetings.
10. The secretary from the lay membership should be assigned the responsibility for keeping the minutes of the meetings.
11. The committee should explain the program of agricultural education to individuals and groups in the community.
12. The committee should assist in the evaluation of the total program of agricultural education and should make an in-depth study of each major facet of the program.
13. Both in-service and pre-service educational programs should be conducted in teacher education to promote a better understanding of the organization, function, and utilization of advisory committees.

The findings of this study indicate that many educators are not aware of the value of an advisory committee. Neither are they cognizant of their responsibilities in organizing and utilizing advisory committees.

Once the teachers recognize that advisory committees can be a helpful resource in conducting effective programs of vocational education, the essential elements associated with their use are not particularly difficult to employ. ♦♦♦

¹The article is based on Dr. Mulvana's dissertation which was completed in June, 1971.

New Regional Editor



O. Donald Meaders

O. Donald Meaders B.S. and M.S. from the University of Nebraska, and attended Oklahoma A & M and the University of Illinois. He received his Ed.D. from Michigan State University in Agricultural Education.

Dr. Meaders has worked as a teacher of vocational agriculture in Nebraska, state consultant in agricultural education, vocational education resource specialist and teacher educator in Michigan, and has completed overseas research and advisory assignments in Taiwan. His present responsibility includes research and development in vocational-technical education. He teaches and advises graduate students including foreign students and has assisted in conducting recent Michigan studies designed to determine the need and feasibility for vocational-technical education in identified educational areas in Michigan.

(Bender & Wolf — from page 209) in 1942-45 and Editor of *The Agricultural Education Magazine* in 1944-46.

Dr. Stewart prepared an additional bulletin *Helps in Mastering Parliamentary Procedure*. This publication was to aid teachers in developing abilities of students to conduct meetings appropriately. More than 2,000,000 copies of this publication had been made. It was revised in 1970 by three of Stewart's former students, Bender, Woodin, and Guiler.

Students of Dr. Stewart remember him as being an ardent bridge player and sports enthusiast. He traveled considerably during his retirement years and did some teaching at other institutions. Dr. and Mrs. Stewart are both deceased; they leave three daughters and nine grandchildren. Stewart's 48 years of service were significant in providing a sound basis for success in agricultural education. His philosophy and teaching are still relevant. He was truly one of the stalwarts in developing a better educational program for rural youth. ♦♦♦

THEMES FOR 1972

Has the title of one or more of the 1972 *Agricultural Education Magazine* themes caught your eye? Are you doing something in your program that you are especially proud of?

A major purpose of our journal is to improve vocational education in agriculture through exchange of working ideas. By the time you read this page, the Editors will be working on materials for the May issue of the *Magazine*. Below are several ideas concerning each theme. Can you identify a present or emerging topic on which to prepare a 3 page typed double-spaced manuscript? Send it with a picture of yourself to a Regional Editor (see inside front cover) or to the Editor so as to reach them at least **two and one-half months** ahead of the issue for which you are writing.

May — "Innovation in Agricultural Education"

1. What Instructional Programs are Working, from the Viewpoint of "What Happens to Students!"
2. Do Individualized Instructional Courses Work?
3. Are Self-Paced, Mastery Oriented Courses Practical?
4. Can We Use and Measure Behavioral Objectives in Teaching?
5. How Can the Teacher Over 40 be Encouraged to Consider Changes?

June — "Teaching Methods"

1. What Are Some New Tricks in the "Same Old Classroom?"
2. New Ideas on Student Motivations.
3. Tying Classroom Instruction to On-Job Tasks.
4. Team-Teaching Approaches.

July — "Planning the State and Local Program."

1. Who is Responsible at the Local Level for Program Planning?
2. Why is a State Plan Needed, and What is Included?
3. Why Develop a Long Range Local Plan?
4. How do the Local, State, and Federal Plans Fit Together?
5. How Should a Teacher Prepare a Local Plan Most Efficiently?

August — "Evaluation"

1. What Does the National Evaluation Tell the Vocational Teacher?
2. What Are the Roles of Regional and State Education Department Personnel in Evaluation?
3. What Factors Must the Local Teacher Measure to Accurately Evaluate his Program?
4. Who Should be Involved in Evaluating Local Programs?
5. How Can Changes be Made Based on Evaluation Information?

September — "A Guidance Role"

1. What Should be the Guidance Role of the Vocational Teacher in the Elementary, Junior High, High School, and Post-High Institution?
2. New Strategies for Teaching Occupational Awareness.
3. Current Research Underway and Recently Completed in Occupational Guidance for the World of Work at all Levels.
4. What Can a Vocational Teacher Realistically Do in Occupational Guidance?
5. Identifying Student Interests.

October — "In-Service Education"

This is another very important issue in that operational in-service programs in several states could be described.

1. How Can a Teacher Upgrade Himself in a Particular Instructional Area?

November — "Agricultural Education in Transition"

1. How Can a Teacher Change From Year to Semester Courses?
2. Planning for Preparation for Families or Clusters of Jobs.
3. What is the Newest Policy we Have Regarding the Local Program Objectives and Design?
4. What Changes Have Taken Place in Vocational Education in Agriculture in the Last 10 Years? And What Future Changes Should we Consider Seriously?
5. What Does the Student Desire as he Looks at Job Opportunities?

December — "Post-Secondary Education"

1. Why Should the Secondary Teacher be Fully Aware of Post-Secondary Programs Available to his Students?
2. Articulating Secondary and Post-Secondary Programs.
3. The Growth of Post-Secondary Programs.
4. Ideas for Team Program Planning Among Secondary and Post-Secondary Teachers.

Send manuscripts to a Regional Editor, or to:

Roy D. Dillon, Editor
The Agricultural Education Magazine
 302 Agricultural Hall, East Campus
 College of Agriculture
 University of Nebraska
 Lincoln, Nebraska 68503

FARM FINANCIAL MANAGEMENT

Lee W. Doyen
 Director of Agribusiness
 Cloud County Community College
 Concordia, Kansas



Lee W. Doyen

Our public schools need to include more training in the area of farm financial management. I became aware of the lack of knowledge of our high school students, young farmers, veterans and adult farmers after teaching vocational agriculture for fourteen years and working for eight years as an assistant manager for a production credit bank which served five counties. I had a rude awakening to find how little knowledge the farmers had when they discussed their credit and financial needs. They were too dependent on their local bankers when it was time to find the needed answers to their questions to carry on a successful farming operation. Too many farmers did not know where to go to obtain the information they needed to help carry on their farming program.

After observing the lack of knowledge, I was determined to develop some kind of training for the senior year of high school vocational agriculture, young farmer classes and college students majoring in agribusiness. I had the opportunity to try out my ideas the last two years that I taught secondary vocational agriculture and the three years that I have been teaching a course of credit and finance in a two-year community college.

I found by talking to instructors who taught agriculture in high school adult classes, technical schools and community colleges, that they were aware of the need for training rural people in farm financial management. Most of the instructors agreed that the reason they did not do much in the area of farm financial management was because of the lack of preparation they had received in this area in college. The instructors did not feel competent to teach farm financial management. Too many of our college eco-

nomics departments do not offer courses that will prepare their graduates to be prepared to give needed advice for farm financial management. Too many of the agriculture graduates are trained in theory because their instructors have not had an opportunity to really come face to face with the farm financial management problems facing our farmers today. The only way that the students and adults have of learning more about the needs of financial management is for the instructors in the schools to provide some training through organized classes.

Instructors ask what should be included in a farm financial management course. This will depend on the age group, area of country, instructor's training, and resource people available in the community. Instructors will find that it is hard to find time to cover all the areas that are important in teaching a farm financial management course. There will be enough material to teach the different classes that can be organized in the community. The following areas need to be covered if a total program is going to be offered in farm financial management.

1. CREDIT
 - a. Establishing credit rating.
 - b. Selecting institution.
 - c. Types of credit as to use.
 - d. Types of credit as to maturity.
 - e. Debts a farm can carry.
 - f. Making real estate loan workable and sound.
 - g. Available credit. (advantages and disadvantages)
 - (1) Long Term.
 - (2) Short Term.
 - h. Who controls interest rates.
 - i. Causes of inflation.
 - j. Ways of figuring interest.
 - k. Things to remember when using credit.
 - l. Maintaining and keeping good credit.
 - m. Determining the cost of money.
 - n. Installment buying.
 - o. Basis of credit.
 - p. Finance terminology.
2. COUNTY COURT HOUSE
 - a. Treasurer's office.
 - b. Clerk's office.
 - c. County Registrar of deeds.
 - d. Probate Court.
 - e. County attorney.
3. COMMERCIAL BANKS
 - a. Federal Reserve System.
 - b. Bank Farm Management.

- c. Trusts.
4. BUILDING AND LOAN ASSOCIATION
5. LIFE INSURANCE
 - a. Insurance Terminology
6. CREDIT BUREAU
7. MUTUAL FUNDS
8. FARM CREDIT SYSTEM
 - a. Federal Land Bank.
 - b. Federal Intermediate Credit Bank.
 - c. Bank of Cooperatives.
9. PRODUCTION CREDIT ASSOCIATION
10. CREDIT UNION
11. RURAL ELECTRIC SERVICE OR R.E.A.
12. MAKING AND USING A WORKABLE HOUSEHOLD BUDGET
 - a. Six important reasons for having a budget.
 - b. How to make a budget.
 - c. How to manage your food dollars.
 - d. Freezer — Frozen food plan.
 - f. Convenience foods.
13. ESTATE PLANNING FOR FARMERS
14. BUDGETING AND USE OF CASH FLOW

High school students enjoy the field trips to the county court house. They can see where the offices are and the records that each must keep. A high school student will not have time to go into the extensive subject matter as thoroughly as the students enrolled in young farmer, adult farmer, technical school and community college classes. The instructor will have to be the one to decide just how much to include in each.

An instructor should not back away from teaching farm financial management. He will find that there are plenty of teaching aids available and most of them will be free. Bulletins and circulars are available through state agriculture extension departments. Text books, reference material and pamphlet are available from many organizations.

The best teaching resources available to the instructor who does not feel adequately prepared are the financial resource people in his community. Many of these people are well informed and willing to share their knowledge if invited into your classroom. One must be sure to make arrangements several weeks in advance and to inform the person as to what

(Concluded on page 215)

ASSISTANTSHIPS AND FELLOWSHIPS IN AGRICULTURAL EDUCATION, 1972-73

David A. Hamilton
Dean, School of Agriculture and Home Economics
Tennessee State University

The 1972-73 survey of the Publications Committee of the American Association of Teacher Educators in Agriculture reveals a continuing availability of assistantships. There are, however, fewer numbers available than in past years.

Key to Listing:

Data provided are in the following order: Nature of assistantships (number available); number of months available during year; beginning month of employment; amount of work expected; monthly remuneration and other considerations such as remission of fees; whether aid is for master's, advanced graduate program, or doctoral students; source of funds; the 1972 deadline for application, and the person to be contacted. Slight variations in this pattern are due to the nature of the data provided by reporting institutions.

Alabama A & M University

Research assistantships (4); 12 mo.; September; one-half time; \$250; fees remitted; master's and advanced graduate program (double AA certificate); CSRS and EPDA; July 31; Dr. James I. Dawson, Professor and Chairman, Agri-Business Education Department.

University of Arizona

Research assistantships (2); 9 or 12 mo.; June or September; one-half time; \$360; out of state tuition waived; master's; Department budget; March 1 or 6 mo. prior to enrollment; Dr. Floyd G. McCormick, Professor and Head, Department of Agricultural Education.

University of Arkansas

Research assistantships (4); 12 mo.; June for summer assistantship; July for 12 mo.; one-quarter time; \$125-\$250; out of state fees remitted; master's, educational specialist, doctoral; university, state board for vocational education, grants; April 1; Dr. Denver B. Hutson, Department of Vocational Teacher Education.

Graduate assistantships (2); 9 mo.; September; one-quarter time; \$125-\$250; out of state fees remitted; master's, educational specialist, doctoral; university, state board for vocational education, grants; April 1; Dr. Denver B. Hutson, Department of Vocational Teacher Education.

Auburn University

Adult education assistantships (2); 9

mo.; September; one-third to two-thirds time; \$200-\$400; master's, advanced graduate program, or doctoral; university; November; Department Head.

Vocational education assistantships (4); 9 mo.; September; one-third to two-thirds time; \$200-\$400; master's, advanced graduate program, doctoral; university; November; Department Head.

Rehabilitation assistantships (9); 12 mo.; September; one-third to two-thirds time; \$200-\$400; master's, advanced graduate program, doctoral; grants; November; Department Head.

Clemson University

Research assistantships (2); 12 mo.; July or August; one-half time; \$260; reduced fees; master of agricultural education; university; April 1; Earl T. Carpenter, Head, Department of Agricultural Education.

Cornell University

Research assistantships (4); 9 mo.; September 1; one-third time; \$300-\$350; fee and tuition remitted; master's and doctoral; state, research and Cornell Institute for Career Education; April 1.

Teaching assistantship (1); 12 mo.; July 1; one-third time; \$300-\$350; fees and tuition remitted; master's and doctoral; state, research and Cornell Institute for Career Education; April 1; William E. Drake, Professor and Chairman, Agricultural Education.

University of Georgia

Research assistantships (2); 12 mo.; July 1 preferable, or September; one-half time, \$450; out of state fees waived; doctoral; state department of education; February 15; G. L. O'Kelley, Jr., Chairman, Division of Vocational Education.

University of Illinois

Research assistantships (10); 9 or 11 mo.; September; one-quarter or one-half time; \$133-\$192 (one-quarter time), \$265-\$385 (one-half time); tuition waived; master's, advanced certificate, doctoral; university, state contractual funds, research; April 15; Dr. Paul E. Hemp, Chairman, Division of Agricultural Education.

Fellowships (1); 9 or 11 mo.; September; one-quarter or one-half time; \$133-192 (one-quarter time), 265-\$385 (one-half time); tuition waived; master's, advanced certificate, doctoral; university, state contractual funds, research; April 15; Dr. Paul E. Hemp, Chairman, Division of Agricultural Education.

Iowa State University

Research assistantships (2); 9 mo.; September-May; one-third time; \$290; master's, advanced graduate program, doctoral; agricultural experiment station; June 1; Harold R. Crawford, Head, Department of Agricultural Education.

Kansas State University

Teaching assistantship (1); 9 mo.; June or September; one-half time; \$300; reduced tuition; masters or doctoral; March 1 to Dr. James J. Albracht, Coordinator, Agricultural Education.

Research assistantship (1); 9 mo.; June or September; one-half time; \$300; reduced tuition; masters or doctoral; March 1 to Dr. James J. Albracht, Coordinator, Agricultural Education.

Montana State University

Research assistantship (1); 9 mo.; September 15; one-third time; \$178; out of state fees waived; master's; College of Agriculture; Dr. Max L. Amberson.

Teaching assistantship (1); 12 mo.; September 15; one-third time; \$350; out of state fees waived; master's; experiment station; Dr. Max L. Amberson.

University of Missouri

Research assistantships (2); 12 mo.; July 1 or September 1; one-half time; \$300; out of state fees remitted; master's specialists, doctoral; department instructional materials laboratory; April 1; Gene M. Love, Professor and Chairman.

Teaching assistantships (2); 12 mo.; September 1; one-half time; \$300; out of state fees remitted; master's specialists, doctoral; state department of education; April 1; Gene M. Love, Professor and Chairman.

Oklahoma State University
Research assistantships (2); 11 mo.; September-July; one-half time; \$335; out of state fees waived; doctoral; state division of vocational technical education and agricultural experiment station; April 15; Dr. Robert R. Price, Professor and Head, Department of Agricultural Education.
Teaching assistantships (2); 9 mo.; September-May; one-half time; \$335; out of state fees waived; doctoral; university teaching funds; April 15; Dr. Robert R. Price, Professor and Head, Department of Agricultural Education.

Pennsylvania State University
Research assistantships (10); 12 mo.; July, September, January, March; one-half time; \$300; fees waived; master's, advanced graduate program, doctoral; federal, state, industry; April 1; Department Head.

Purdue University
Research assistantships (4); 10 and 12 mo.; September-July; one-half time; \$280-\$366; fees remitted except \$60; master's, doctoral; university; April; Dr. James P. Clouse, Chairman, Agricultural Education.

Farleton State College
Teaching Assistantships (10); 9 mo.; September; one-half time; \$300; non-resident fees waived; master's institutional; April 1; Dr. J. L. Tackett, Dean, School of Agriculture and Business.

Tennessee State University
Research assistantships (4); 9 mo.; September; one-half time; \$125; master's; state; June 1; Dr. Gul M. Telvar, Head, Department of Agricultural Education and Agricultural Economics.

Texas A & M University
Teaching assistantships (3); 9 mo.; September 1; one-half time; \$325; out of state tuition waived; master's, advanced graduate program, doctoral; Texas Agricultural Experiment Station; April 1; Dr. Earl H. Knebel, Head, Department of Agricultural Education.

Research assistantships (3); 12 mo.; September 1; \$350; out of state tuition waived; master's, advanced graduate program, doctoral; college of agriculture; April 1; Dr. Earl H. Knebel, Head, Department of Agricultural Education.

Fellowships (1); 9 mo.; September 1; \$375; out of state tuition waived; doctoral; graduate college; April 1; Dr. Earl H.

Knebel, Head, Department of Agricultural Education.

East Texas State University
Research assistantships (2); 9 and 12 mo.; September 1; one-half time; \$300; master's; state; April 1; Dr. A. C. Hughes, Agriculture Department.

Tuskegee Institute
Research assistantships (5); 9 mo.; September; one-half time; \$150-\$200; master's; April 15; Dr. William A. Hunter, Dean, School of Education or Dr. Grady W. Taylor, Head, Department of Vocational Technical and Adult Education.

Fellowships (2); 10 mo.; June; one-third time; \$200; master's; May 15; Dr. William A. Hunter, Dean, School of Education or Dr. Grady W. Taylor, Head, Department of Vocational Technical and Adult Education.

Scholarships (1); 12 mo.; August; Dr. William A. Hunter, Dean, School of Education or Dr. Grady W. Taylor, Head, Department of Vocational Technical and Adult Education.

Virginia Polytechnic Institute and State University

Research or teaching assistantship (1); 9 or 12 mo.; September; one-half time; doctoral; \$340 to \$385; March 15 to Dr. Alfred H. Krebs, Head, Agricultural Education.

Instructorship (1); 12 mo.; July; one-half time; doctoral; salary to be determined; April 15 to Dr. Alfred H. Krebs, Head, Agricultural Education.

University of Wisconsin

Research assistantships (2); 10 or 12 mo.; July or September; one-half time; \$304; out of state fees waived; master, doctoral; department of public instruction, grants; February 15; Walter T. Bjoraker, Chairman, Department of Agricultural and Extension Education.

Wisconsin State University—Platteville

Research assistantships (5); 9 mo.; September; \$300; out of state tuition remitted; master's; state; April 1; Dean, Graduate School, Platteville, Wis.

Wisconsin State University—River Falls

Research assistantships (6); 10 mo.; September; one-third time; \$220-\$250; out of state tuition waived; master's; state; April 1; Dean, Graduate School, River Falls.

(Doyen — from page 213)

subject matter to include in his presentation. An instructor may obtain help from the following: insurance agents, local bank and trust companies, production credit associations, federal land bank association, farm and home administration, credit unions, building and loans, stock and bond brokers, farm management specialist, lawyers, credit bureau, county extension agents and college agri-business instructors.

I have tried to encourage each of you who has taken time to read this article to begin to make plans to include farm financial management in your instruction. Our rural people need your help and each of you can supply their needs. Unless each of you provides some training on farm financial management our rural people will be at the mercy of those with whom they do business.

I use two texts, *Personal Finance* by Cohen and Hanson and *Agriculture Finance* by Murray and Nelson. As supplemental reading the publication entitled *Farm Money Management* published by Meridith Publishing Company, is a good publication for high school students. I also have prepared a *Credit and Finance* book which I use to teach my classes. I was forced to do this since I could not find a text book that would fit all my needs. The book covers the areas that I have suggested. Instructors in Kansas that teach vocational agriculture, technical agriculture and agri-business in community colleges are making use of the *Credit and Finance* book. ♦♦

Editors Note: A list of references helpful in organizing a course in farm financial management is available by writing to the author.

TRY THIS IDEA:

David R. Blecha
Vocational Agriculture Teacher
Ewing, Nebraska

Each Thursday place on the classroom Bulletin Board a list of problems to be covered the next week for each class. This allows the students to prepare themselves for the problem to be covered on a certain day. It also allows the weekend for students to be thinking of questions of problems directly concerning them. Students tend to relate better to class discussion when they know where the class is headed.

This list of assistantships and fellowships in agricultural education is prepared annually by the Publications Committee of the American Association of Teacher Educators in Agriculture. David A. Hamilton is Dean, School of Agriculture and Home Economics, Tennessee State University, Nashville.



David A. Hamilton



Officers of the first Collegiate FFA Chapter in South Dakota, chartered at the Mitchell Area Vocational Technical School at Mitchell, discuss program plans. The Chapter Officers, all from South Dakota, are, left to right: Milo Zeeb, Vice President, Menno; Steve Sulzbach, Reporter, Newell; Elz Valley, President, Newell; Milo Schaeffer, Secretary, Menno; Lanning Edwards, Treasurer, Lecher; and Mike Kayle, Sentinel, Gregory.

(Dillon — from page 195)

farmer or rancher clientele group in the school service area, determine the present levels of productivity for sub-groups depending on the business characteristics, and set production and profit goals for a long range adult education program.

If the farmers or ranchers to be enrolled in an adult education program are to increase the efficiency of their business they must do so by using the best "tools" possible — accurate records. Therefore, farm business record keeping should be the lead course, with the production courses spinning off after one or two years records begin to indicate where class members need to upgrade their efficiency. Production classes will be most meaningful to a farmer or rancher when he can relate the practices directly to production costs or profits based on his performance records.

The local agriculture teacher should plan with other agencies such as agricultural extension, agribusiness, and government offices in order to utilize each agencies' talents most effectively.

The agriculture teacher can have more long-range impact on farm or ranch profits through a farm business management adult education program (built on sound record keeping) than any other form of adult education he may undertake in a community. The higher business profits increase the purchasing power of the farmer or rancher, which has desirable side benefits, especially in the more rural areas. Improved standards of living in the home and community can result.

Have you considered that members of the present clientele group are results of previous educational and experience programs whether formal or not, and that proportionately a higher per cent of those graduating from high school who will likely remain or return to the community, will probably be in agriculturally oriented jobs than in any other occupational category in rural areas?

The local agricultural teacher has "everything going for him" when he implements a systematically planned farm business management adult education program, with pro-

duction classes designed to support the record analysis classes. Such a program will likely require two or more teachers to adequately conduct the secondary and adult programs. If the decision makers on a Board of Education can see the impact of such a program on increased farm business income and community benefits, the chances of implementing such a program are greatly increased. Why not begin with one class of ten couples (man and wife) the first year, and build a case for increased staff with results of a small group?

The farm business management program, planned and taught by the local vocational agriculture teachers, can make the most effective use of the agriculture teacher's competency. Have you considered this approach to adult education?
--RDI

(Gingery — from page 196)

Thus, the concept of management education is the core of a total continuing (Adult) program in agricultural education, with our major thrust toward this concept. Nebraska Vo-Ag men are accepting the challenge enthusiastically. The program is in the "growing" stage and no doubt there will be many refinements and more sophistication in the years ahead.

The management program may also be seen as a development of the human resources in the rural areas improvement through increased farm income and satisfaction.

Nebraska vocational agriculture educators believe they are making a contribution to rural development through the farm and ranch management program.

It is our hope that we may witness continued growth and eventually establish a yet to be determined number of regional full time centers throughout the state. With the continued cooperation of the Vo-Ag teachers, the Ag-Teacher Education Staff, State Vo-Ag Staff, and the necessary funds to maintain this thrust, we will accomplish our objective. ◆◆◆

The Eighth International Seminar on Vocational Education and Teaching in Agriculture will be held August 7th to September 8th in Zollikofen near Berne, Switzerland.

The theme of the Seminar is *Towards a Modern Conception of Teaching*. The main Seminar runs from August 7 to August 23rd, with costs for room and board about \$215. A Final Study Field Trip will be held from August 26 to August 28 for an additional \$75, and \$75 for a post session from August 28 to September 8th. Since the Seminar is sectioned, you could probably complete the main course and fly home in time for school to begin.

The Seminar offers an opportunity for Agricultural Educators from 150 countries to study together. If you desire further information and application materials you may contact the Editor, Dr. Ray Agan at Sam Houston State University, Huntsville, Texas, or write directly to: Secretariat of the ICAE, Division of Agriculture, 3003 Berne, Switzerland. Applications must be received by May 30, 1972.

— Ray Agan

VOCATIONAL EDUCATION WEEK
February 13-19, 1972

Promotional materials are available from AVA Headquarters, 1510 H Street N.W., Washington, D.C. 20005. Order blanks are available in the January AMERICAN VOCATIONAL JOURNAL.



Glen McDowell, President, NVATA, receives congratulations from Don Lehmann (left) 1970-71 National FFA President upon his receipt of the Honorary American Farmer Degree, at the recent National FFA Convention held in Kansas City, Missouri.