

# Agricultural Education

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*Featuring — Our Place in Vocational Education*

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# The Agricultural Education Magazine

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### The Cover

This month's cover comes from Missouri through the courtesy of Carl M. Humphrey, Supervisor of Vocational Agriculture. If it weren't for this caption, you could not tell which field of vocational education these men might represent. As you could guess, they are teachers of vocational agriculture who are receiving in-service education which will improve their teaching. The ability of the teacher to perform in the vocation in which he teaches has been a hallmark of all types of vocational education and must continue to represent an important part of the experience of the successful teacher.

From the Editor's Desk . . .

## Closer Relationships in Vocational Education



Ralph J. Woodin

Vocational Education will be of more value to the individual and to society when it de-emphasizes differences and capitalizes on similarities between the present services, in a united effort to provide the best possible occupational education to those who need it.

There is always the question of who should do the cooperating. The easy and popular answer is that cooperation should come from "the others." Much more interservice cooperation in the future is suggested in that in 1968 vocational education will be subjected to a thorough evaluation. This evaluation will test whether ready access to vocational education of high quality has been provided, whether it is, realistic in terms of employment opportunity, and is suited to the interests, needs and abilities of all those who can benefit from such education.

The emphasis on future programs of vocational education as indicated by the United States Congress will not be in terms of vocational agriculture, distributive education, or trade and industrial education, as examples; but in terms of a broader approach, making use of those existing services in a cooperative effort.

The implications for agricultural education are as important as for any other service. Briefly, they are:

- Occupational guidance must become more functional at the high school level. The agriculture teacher must become better acquainted with occupational opportunities in agriculture as well as in other fields of employment.
- Curricular arrangements must be devised which

will permit students to take those combinations of vocational courses of greatest potential value at the most appropriate time.

- Occupational experience programs offered by various services in the same community will need to be coordinated more closely.
- Placement of graduates will involve the cooperation of several teachers of vocational education, rather than only the teacher of vocational agriculture.
- Community relations and public relations activities will need to present a complete picture of vocational education, rather than one of several apparently competing programs.
- Technical education will, of economic necessity, involve cooperative use of teaching staff, equipment and facilities by all services involved.
- Adult education in agriculture will provide a means not only of increasing farming efficiency, but also for some farmers, a means of supplementing farm income with an off-farm job, or for others an opportunity to earn a more satisfactory living by moving from the farm.
- In many local schools, a local director of vocational education will become necessary in order to achieve the needed coordination.

There will be those who will yearn for the good old days when in some cases each vocational service was a kingdom unto itself. For most, however, there will be greater satisfaction to be gained through providing greater service to the individual and to society as a result of a more effective program of vocational education. □

*Ralph J. Woodin*

## Our Place in Vocational Education

Guest Editorial . . . John W. Bunten, State Director



John W. Bunten

During the last two or three years doubts have arisen and questions have been raised as to the future of our system of vocational agriculture. Because vocational education in agriculture has achieved outstanding success, it is continually being challenged. We all know that criticism is constantly being leveled at the decreasing farm population, larger

farms, surplus of farm products, agricultural mechani-

zation, training for farming when fewer people will be needed in actual operation, and similar situations. Many of the criticisms are actually a tribute to the splendid job vocational education in agriculture has done in making American agriculture supreme and in contributing directly to our industrial might and high standard of living, exceeded by no other nation.

Our new directions in vocational agriculture will need to give increased emphasis to the many farm service and agriculture-based occupations. Here is an entirely new field of work that has only been served

## Our Place . . . . .

as a by-product of vocational agriculture training. Recognition has now been given to this occupational training need through the Vocational Education Act of 1963. This is an added task, supplementing what is now being done, and provides a challenge that will call for thousands of additional well-trained workers who have received education in vocational agriculture.

This new world of work in meeting the needs of the farmer must be in competent hands. The work must be done by people who have a basic knowledge in agriculture. Through vocational agriculture this need can be met and people can be prepared for jobs which did not exist a decade ago and for new jobs which will come into being later, when farms become even more complex than is true today.

We should not overlook the value of vocational education in agriculture in preparing youth for college agriculture and must, in fact, consider this as one of our goals. The new Vocational Education Act envisions vocational education serving the needs of all who need occupational training or retraining. The area vocational school concept is encouraged in the new legislation as one means of extending vocational and technical training to those who want it and need it and can profit from it. We know, however, that such a development will not come from it overnight, and area schools will probably first be established in heavy population centers. This will still leave thousands of youth without opportunities to develop salable skills in many of our rural schools. The vocational agriculture teacher is in a unique position, often being the only faculty member of a rural high school with the education and background in vocational education to give vocational leadership.

The new legislation has removed the barrier of training for off-farm, agriculture-based occupations. It has opened up a whole new vista of vocational education in agriculture. The present vocational agriculture facilities and staff must be augmented to meet this challenge. It will take vision in program development; increased staffing at all levels; a broader outlook in teacher education; and, above all, a demonstration of leadership at the local level. Vocational agriculture has met many challenges in the past 47 years and can meet this one. □

# LETTERS

Sir:

Thanks for letting me see a copy of your recent magazine which stressed the teaching of farm mechanics. I'm sure that much good can come from this kind of education, and I'm happy that your people are taking an interest in this phase of the important farm program.

CHARLES W. WHITNEY  
Executive Director  
Farm and Power Equipment  
Retailers of Ohio

Sir:

I want to respond to the letter of Dr. Howard R. Bradley in the letter section of the April, 1964 edition.

It is true that Mr. Holcomb and I left unanswered the question posed in the article "Who Will Do the Public Relations Job?" This question has been unanswered to this point in my judgment and will probably remain unanswered as far as particular designation of any one person or group who can do the job of public relations. The purpose of our article was simply to pose the question and then tell what had been done in our state in this regard.

Certainly I would agree that our efforts have not been as effective as we would desire, but we do believe that they have been worth-while. We expect to continue these efforts and others so long as they serve a useful purpose in this vital area of our program.

We are planning a noncredit short course for district public relations chairmen in June, 1964 which will be followed at our conference in August with a program for those teachers interested.

ALTON D. ICE  
Executive Secretary  
Vocational Agriculture Teachers  
Association of Texas

Sir:

May I comment briefly on the article, "Teaching and Farming Can Be Combined," by Joe Harper, Teacher of Vocational Agriculture, Colo., Iowa. Actually, I believe his article should have been entitled, "Some Vocational Agriculture Teachers Can Combine Teaching and Farming." The point is, not all vocational agriculture instructors are capable of teaching full time and farming too. In many cases it results in slighting one or the other—he becomes either a poor farmer or a poor teacher—sometimes he becomes both a poor farmer and a poor teacher. On the other hand there is the man who, through wise management and careful budgeting of time, can do a good job of both. I would expect that Joe Harper is one of these.

He sets forth the pitfalls—the dangers to avoid—in such a dual occupation. He has avoided one of these, by wise decision, to rent the crop land. In this way he avoids the time-consuming field work and most of the times of peak labor. Even at that he says he uses his free time before eight in the morning and after six at night for work with his live-

stock. Few men would be willing, fewer would be successful, in following such a rigorous schedule. One cannot help but ponder over when he finds time for teaching preparation, work with his FFA membership and chapter, work with his adult and young farmers—or a free evening with his family.

The Vocational Agriculture Instructor is hired to teach—this must come first. In placing it first, he is prone to slight his farming, and becomes subject to criticism by the farmers and others of his community for not being able to "practice what he preaches." If he takes the other tack and slights his teaching, he can get fired from his teaching job or at least he is not giving his students the full measure of benefits due them.

Some men can do both jobs—more power to them!

But for most teachers—a definite NO.

Bert L. Brown  
Director, Agricultural Education  
Olympia, Washington

Sir:

The recent article on "Liabilities in School Shops" by J. B. Morton, indicates that liabilities can be the cause of much conversation and consternation, if not responsibly treated by educators.

Mr. Morton's article related that trends toward less protection for schools and teachers is developing. This should alert schools to a greater concern about the safety features of machines, tools, and equipment and alert shop teachers to the necessity of including Safety Education in the curriculum and in the supervision plan and process.

Theoretically, the school and teacher should become closer partners in Safety Education, than they now are.

Having some responsibility both morally and legally, should promote a climate of safety consciousness and assist in maintaining an attitude of alertness, toward human and mechanical hazards inherent in Vo Ag shops. I doubt that a fervent and responsible attitude of safety consciousness would prevail, if we were completely insulated from any legal responsibility.

Safety is a state of mind. It cannot be legislated, yet legislation, wisely conceived, possibly could help. Safety attitudes are probably best developed through education. As educators, let's concentrate on this aspect. Do you have a National Education Association list of Safety Rules printed on attractive placards in your shop? Have you reviewed the curriculum lately and brought the Safety Education material up to date?

Have you checked on protection available? In Nebraska, the State Education Association includes a \$25,000 occupational liability insurance policy, as a part of the membership benefits.

B. E. GINGERY  
Consultant in Agricultural Education  
Lincoln, Nebraska

(Continued on page 7)

# Coordination of Vocational Agriculture with Other Vocational Programs

CECIL E. STANLEY, State Director, Vocational Education, State Department of Education, Lincoln, Nebraska

There can be no question as to the desirability of coordination of all vocational education services to the end that they may best serve the clientele for our programs. In many rural schools, vocational agriculture will be the first type of vocational education to have been offered, and therefore its pioneering efforts can be of great help to the establishment of additional programs of vocational education representing the other services.

Your editor has asked me to comment on three questions regarding the coordination of vocational agriculture and other vocational education services. These questions are: (1) How can the services coordinate their efforts in serving rural schools? (2) What must be retained in present vocational agriculture programs? and (3) What steps should be taken to expand education for employed farm youth and adults?

While my own background has been in the field of distributive education, this may offer some advantages in trying to answer these questions. On the other hand, as I answer them, I am thinking in terms of a director of vocational education who is responsible for all aspects of vocational education, not only in rural schools, but all of the schools in the state. Here are my answers:

*How can the services coordinate their efforts in serving rural schools?*

Our basic Federal acts providing categorical appropriations for vocational education have handicapped the various services in their efforts to coordinate their activities. Furthermore, each service area is staffed by specialists who usually know very little about the other programs of vocational education. It is also true that most states, because of their lack of non-earmarked state money, have developed their programs in accordance with federally imposed limitations.

It is still possible, however, to greatly expand our cooperative effort. Why shouldn't students who have completed two or three years of vocational agriculture, but who are inter-



C. E. Stanley

ested in some area of agri-business, be enrolled in Distributive Education during their senior year? Others might be enrolled in a senior year Trade and Industry work experience or day-trade program. The same approach is also applicable to adult education. For example, the T & I Type C, or extension program might well be used for young adults who have completed a Vo-Ag program but wish training in a related field.

It become obvious that cooperative efforts between services requires leadership by vocational educators in the broadest sense, and not merely service specialists!

*What must be retained in present Vocational Agricultural programs?*

The basic objectives of Vocational Agriculture, geared to training for farming, must be kept intact! The continuation of meaningful student farming programs with adequate supervision is a must. Vocational Agriculture must continue its expansion to additional communities in order to at least partially meet the need for highly trained farmers for tomorrow. Most states, including mine, could easily double the number of graduates from Vocational Agriculture without exceeding their annual need for the replacement of farmers.

This does not mean that our present programs should not be upgraded and

improved. Neither does it mean that Vocational Agriculture should ignore the needs of agri-business. Care must be taken, however, to see that our present program is not diluted with too many additional instructional units.

The recommendations for additional legislation, by the Panel of Consultants on Vocational Education, suggests many solutions to this problem. Agricultural educators must start planning today for new and additional programs for tomorrow.

*What steps should be taken to expand education for employed farm youth and adults?*

Our present programs for out-of-school farmers attempt to assist young farmers in their efforts to become established in farming, and to improve the farming practices of adults. Modern agricultural technology demands a much greater emphasis on problems of both farm management and mechanization. Why not borrow from the experience of other areas of vocational education, and utilize the special skills of itinerant instructors? They could either assist your regular adult course instructors, or could teach complete units or courses themselves.

The new "Manpower" program provides training for marginal farmers in nonfarm occupations so that they may supplement their farm income. The President's Panel on Vocational Education suggests an expansion and further development of this type of education.

Because of new legislation, vocational educators must prepare to think BIG! Of primary importance, will be your originality, imagination, and ingenuity! □

## Themes for Future Issues

Issue	Themes	Deadline For Copy
December 1964	Public Understanding of Agricultural Education	August 20
January 1965	Teaching For Off Farm Agricultural Occupations	Sept. 20
February 1965	Educating Tomorrow's Teachers	Oct. 20
March 1965	New Courses of Study	Nov. 20



J. R. Warmbrod

# State Reimbursement Policies for Vocational Education in Agriculture

J. R. WARMBROD, Teacher Education, University of Illinois

Each state receives annual grants of federal funds for vocational education in agriculture under the provisions of the Smith-Hughes and George-Barden Acts. As indicated in a previous article, all states appropriate or allocate special funds for vocational education, including vocational education in agriculture. These supplementary state funds are also distributed to local school districts as reimbursement of expenses incurred; and, more often than not, these state funds carry all restrictions imposed upon the use of federal funds.

In this article are presented the findings of a study which had as one of its purposes the identification of policies adopted by State Boards for Vocational Education for reimbursing local school districts in 1960-61 for expenses incurred in conducting programs of vocational education in agriculture. Specifically, information is presented concerning state policies for reimbursing local school districts for a portion of three types of expenditures: salaries of teachers of vocational agriculture for all day, young farmer, and adult farmer instruction; travel expenses of teachers; and, the purchase of instructional equipment and supplies. Reimbursement policies of the various states were obtained from questionnaires returned by State Supervisors of Agricultural Education in 47 of the 48 contiguous states.

## Reimbursable Expenditures Incurred by Local School Districts

Table I reveals that almost all state policies allowed the use of state or federal funds, or both, for reimbursing local school districts for a portion of the following expenditures: all-day instructional costs, young farmer and adult farmer instructional cost, and travel expenses. Only rarely were state or federal funds distributed to local school districts as partial reimbursement of expenditures for instructional equipment and supplies.

## Methods of Reimbursing All-Day Instructional Costs

Only six states completely financed the all-day program through the state foundation program of education. Foundation programs in these states allowed bonus classroom or instructional units for programs of vocational education in agriculture, thereby providing state aid for the salaries of vocational agriculture teachers from foundation program funds with no separate reimbursement from federal or state funds. All other states provided reimbursement from federal or state funds, or both, for a portion of the salaries paid teachers of vocational agriculture.

The most frequently reported method of reimbursing all-day instructional costs was to distribute vocational funds to local school districts on a percentage basis, that is, reimbursement of a percentage of the salaries paid teachers. Eight of the 27 states adopting this method of fund distribution guaranteed a specific percentage of reimbursement which varied from 25 to 100 percent. However, the more common procedure was to allow the percentage of reimbursement to vary from year to year depending on the availability of funds.

Other methods of fund distribution, each adopted by not more than four states, were: flat grants per school or per student; a sliding scale method which guarantees a higher level of reimbursement for newly established programs; reimbursement on the basis of a formula whereby the costs of the vocational agriculture program in excess of the costs of other programs in the school were calculated; and, additional salary for summer work.

## Methods of Reimbursing Young Farmer and Adult Farmer Instructional Costs

Policies of eleven states allowed no additional salary for teachers of vocational agriculture who teach young farmer or adult farmer classes, that is, the salary paid for all-day instruction provides for a complete program and

TABLE I  
LOCAL SCHOOL DISTRICT EXPENDITURES FOR VOCATIONAL EDUCATION IN AGRICULTURE REIMBURSED FROM STATE AND FEDERAL FUNDS

Expense Item	Source of Funds	
	State	Federal
Instruction	(Number of states)	
All-Day Classes	34	42
Instruction		
Young and Adult		
Farmer Class	37	41
Travel Expenses	33	37
Instructional Equipment	7	6
Total Number of States Reporting	47	

teachers are expected to teach or, in most cases, are required to teach young farmer or adult farmer classes. Four states had policies which allow a definite part of the teacher's school-day to be contracted for out-of-school work with that portion of the salary reimbursed at a higher rate than the portion of the salary designated for all-day instruction; three states financed adult farmer education in whole or in part from foundation program funds; and, two states reimbursed adult education as a part of the total cost of operating the program of vocational agriculture. All other states reimbursed young farmer and adult farmer instructional costs as a percentage of the additional salary paid regular teachers for teaching these classes or as a flat grant per class, per class session, or per hour of instruction. Policies of all but 10 states included provisions allowing local boards of education to employ special instructors for teaching young farmer and adult farmer classes.

The common procedure for encouraging young farmer and adult farmer classes was by reimbursement of these instructional costs separately from the other phases of the program of vocational education in agriculture. Generally, policies encouraging young farmer and adult farmer instruction

through separate reimbursements provided only token financial incentives. For example, in Illinois only 3.5 percent of all federal funds and 3.3 percent of all state funds distributed to local school districts in 1959-60 were for young farmer and adult farmer instruction. Separate reimbursement for the out-of-school program has the disadvantage that it implies that young farmer and adult farmer instruction may be regarded as "overtime work" for which a teacher receives "extra pay." Such a philosophy is not likely to result in the most effective educational programs.

#### Methods of Reimbursing Travel Expenses

Five states allowed no reimbursement of travel expenses incurred by teachers of vocational agriculture. All other states reimbursed to some extent the travel expenses incurred by teachers within or outside the local school district. Local school districts were most frequently reimbursed for a percentage of the travel expenses paid the teacher of vocational agriculture.

#### Methods of Reimbursing Costs of Instructional Equipment and Supplies

Only nine states reported policies allowing reimbursement from state or federal funds for purchases of instructional equipment and supplies. These states indicated that reimbursement for instructional equipment was made on the basis of applications submitted by local school districts and approved by an appropriate state agency. There was no indication that reimbursement for instructional equipment and supplies took precedence over other reimbursable expenses.

#### Conclusions and Recommendations

By and large, state policies for distributing state and federal grants-in-aid to local school districts can be described as nonequalizing since the financial abilities of local school districts were not taken explicitly into account in determining the amount due each district. Funds were distributed most frequently as reimbursement of a percentage of expenditures. This method of fund distribution was, in effect, a reward to the most financially able districts.

Special funds, both at the federal and state levels, initially established to promote and stimulate programs of vocational education in agriculture have remained as a means of supporting and maintaining existing programs

rather than being changed to stimulate new developments in public school education in agriculture.

State policies for distributing state and federal funds for vocational education in agriculture have resulted in transferring the restrictions placed on the use of federal funds to all state and local funds expended for agricultural education. Usually, federal funds received by a state and funds appropriated or allocated for vocational education by a state are combined into one fund from which a state's program of vocational education in agriculture is financed. The most frequently adopted reimbursement policy—reimbursement of a percentage of expenditures—further transfers these restrictions to all local expenditures for agricultural education since the amount of funds reimbursed a district depends on the total amount expended by a school in conducting an approved program.

The following recommendations concerning the financing of agricultural education in the public schools are proposed:

1. States should adopt fiscal policies which encourage all types of public school education in agriculture including: (a) vocational and technical education, both at the high school and post high school levels, for persons preparing for and engaged in farming and occupations in business and industry requiring a knowledge of agriculture; (b) general and non-vocational agriculture for farm and nonfarm youth and adults; and (c) programs of vocational guidance and counseling.

2. Agricultural education in the public schools should be financed as a part of a state's total program of public education. This can best be accomplished through a foundation program for supporting public education which recognizes variations in the costs of the different segments of the educational program and recognizes out-of-school enrollees in computing teaching loads.

3. States should take full advantage of the freedom allowed under existing legislation to devise policies which stimulate innovations and improvements in present programs of vocational education in agriculture and stimulate vocational and technical education in agriculture other than farming.

4. States continuing to finance vocational agriculture through special

aid funds should (a) revise policies to allow adequate recognition of young farmer and adult farmer enrollees in calculating teaching loads and which encourage the inclusion of the out-of-school program as a contractual responsibility of the teacher of vocational agriculture, and (b) investigate the feasibility of revising methods of fund distribution so that the financial abilities of local school districts are taken into account. Specifically, reimbursement policies should be re-examined to insure that the districts least able to finance adequate programs are not unduly penalized by the method of fund distribution. □

#### Letters . . . (Continued from page 4)

Sir:

Thank you for the proof copy of the May cover of the Agricultural Education Magazine. I hope that it isn't too late to get the credit line changed for the picture. We had a Union Pacific Railroad photographer take this picture for us, and we would prefer that credit be given the Union Pacific Railroad for the photograph.

I thought we had stamped this information on the back of the photograph, but it was no doubt overlooked. I like your idea of superimposing a plan for a vocational agriculture facility over the picture. I was a little disappointed, however, in the plan you used since it lacks over 500 square feet of meeting our minimum recommendations for an approved facility in Colorado.

M. G. LINSON  
Director, Division  
of Agricultural Education

#### WHITE NEW SPECIAL EDITOR

J. A. White, who is on the supervisory staff in Alabama, joins the magazine as a new special editor July 1. Mr. White holds B.S. and M.S. degrees from Auburn University in agricul-



J. A. White

tural education. He has taught vocational agriculture for thirteen years and has been a district supervisor for the past four and one-half years. He has previously served as Alabama editor for the Agricultural Education Magazine. Mr. White replaces Dr. A. J. Paulus of Tennessee who is retiring this year and will represent selected states in the Southern Region including Florida, Mississippi, Tennessee and Alabama. □

A new program of vocational agriculture education for North Carolina public schools has emerged from the numerous studies, seminars, workshops, and conferences conducted in recent years. The new program is based upon six premises:

- Agriculture is our basic industry.
- Youth should have an opportunity to acquire a knowledge of the world of work and to explore it to the fullest extent possible under the guidance of a competent teacher.
- Agricultural education at the high school level has much to offer high school youth who desire exploratory and vocational preparatory education leading toward a vocation in agriculture.
- The State's pattern of agricultural education should have structure, yet have sufficient flexibility for local adaptation, particularly at the late high school level.
- The present trend in school consolidation will continue, resulting in larger high schools and more multiple teacher departments of agriculture.
- Emerging area vocational-technical schools will provide a comprehensive program of post-high school education in agriculture for youth who need and desire further training in preparation for employment in a specific area of agriculture.

The new design for high school vocational education in agriculture in North Carolina can be described as follows:

*The Ninth Grade Level:* Vocational agriculture at this level has been redesigned to help students prepare to make the choices which are



ORNAMENTAL HORTICULTURE



## A New Design for High School Vocational Agriculture

A. G. BULLARD,

State Supervisor, Raleigh, North Carolina

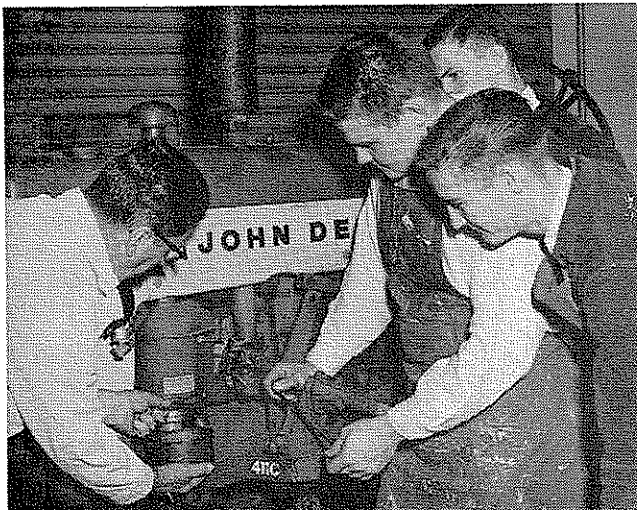
called for as they move through school toward ultimate employment in some occupation. The aim of this course is to help students develop planfulness regarding their occupational futures. Its teaching objectives:

- To help students understand the basic processes of production, processing, and distribution in the American economy and the importance of human relations and ingenuity in these processes.

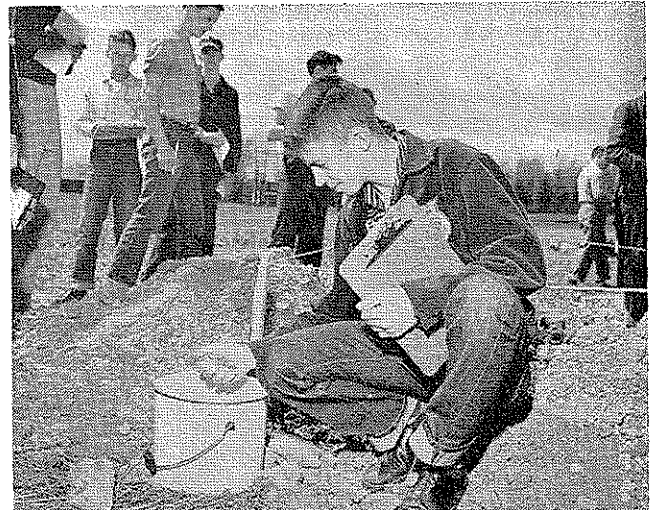
-To help students gain a first-hand knowledge, understanding, an appreciation of the changing employment patterns and opportunities in the North Carolina world of work.

-To help students learn to appraise their own interests, aptitudes, personalities, and skills in relation to a variety of vocational opportunities.

*The Tenth Grade Level:* Learning experiences related to agricultural

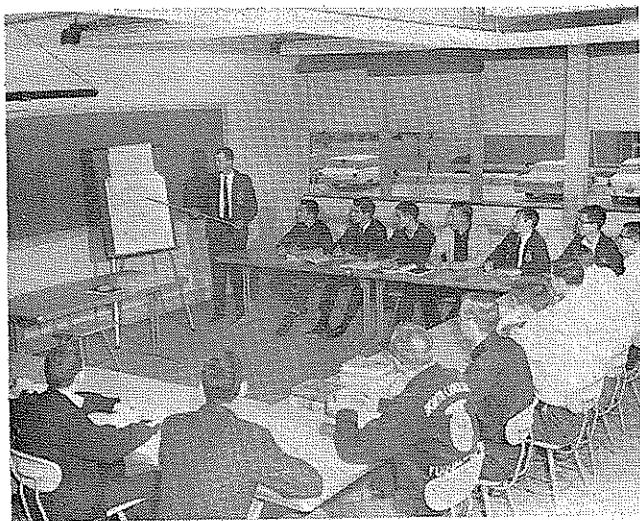


AGRICULTURAL MECHANICS



SOIL SCIENCE





ANIMAL SCIENCE



PLANT SCIENCE

science and general shop skills are appropriate at this level of education. A basic course in agricultural sciences and mechanics is offered. Its aim is to help students develop an understanding of scientific principles which have application in agriculture, to apply some of these principles in a laboratory or practical situation, and to develop some of the more simple shop skills.

*The Eleventh and Twelfth Grade Level:* The emerging pattern at this level consists of a selection of agricultural "options" based upon (1) a study of the agricultural economy of the area, (2) the kinds of employment opportunities, and the (3) preferences of students. The kind and number of options included in a given school's curriculum would depend upon the number of agricultural students and the size of the agricultural staff.

Four examples of agricultural options are given as illustrations of the option concept.

*The agricultural business option:* The primary objective of this option is to provide a sequence of learning experiences designed to help the student develop an understanding of the laws and principles of economics which will enable him to perform successfully the functions of decision-making on a sound basis. This option is especially appropriate for those students who plan to continue full-time agricultural education beyond high school; also for students who aspire to a career in a non-farm agricultural business.

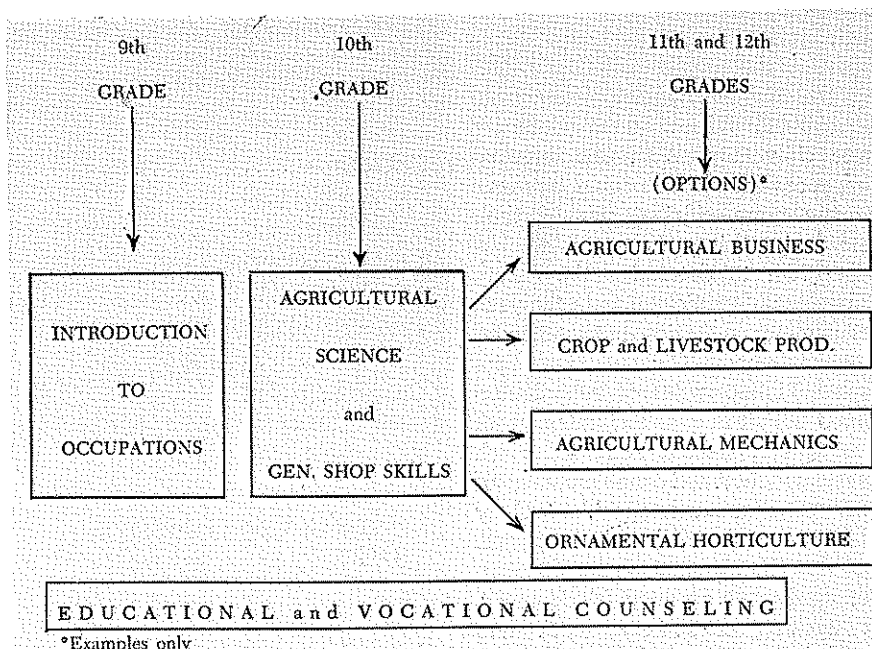
*The crop and livestock option:* Our State's agricultural economy is based upon crop and livestock production. The aim of this option is to provide

a concentration of learning experiences which will help the student understand and apply technology related to the production of crops and livestock. The option content is oriented toward those kinds of crops and livestock prevalent in a specific area of the State and to the machinery and equipment associated with these enterprises. It is designed especially for those students who plan to work in the production of crops and/or livestock.

*The agricultural mechanic option:* American farms need fewer hoe hands and ditch diggers but more skilled operators of farm machinery. In addition, the growing farm machinery and equipment industry, especially local dealers, provide a host of job opportunities for persons with mechanical aptitudes and skills. The primary aim

of this option is to develop the knowledge and skills needed for operating farm machinery and for employment, at the skill level, in machinery service shops. It is anticipated that some of the more talented students will continue their agricultural mechanics education full-time in one of the post-high curricula in an area vocational school.

*The ornamental horticulture option:* In urban areas and rural areas adjacent to them, we note much ornamental horticulture activity. Because of higher incomes and a desire for more beautiful landscapes, individuals, corporations, and governments are willing to buy the services of persons with special knowledge and skills in ornamental horticulture. The aim of this option is to prepare some of our youth for employment in this rapidly



\*Examples only

Figure 1. Emerging Pattern of Agricultural Education High School Level

expanding agricultural specialty. Such an option is especially appropriate in schools in or adjacent to urban areas.

A sound program of educational and vocational counseling should undergird the pattern of agricultural education in North Carolina high schools. Without such a program, our efforts to provide a student oriented rather than a subject-matter oriented

program are impaired. Fortunately, educational leaders are recognizing the value of these services; school consolidation is accelerating the program.

The new design for vocational education in agriculture provides the structure needed for a coordinated state-wide program of agricultural education, yet it is flexible enough for

local adaptation. It recognizes the fact of change and provides for year by year adjustments without destroying the basic pattern. The new pattern of agricultural education is being recommended to school administrators and teachers as a means of revitalizing vocational education in agriculture throughout North Carolina. □



Harold Anderson

It has long been recognized by personnel in the field of agricultural education that the summer program can be one of the most fruitful and important phases of the vocational agriculture pro-

gram. Many questions regarding the use of the vocational agriculture instructors' time during the summer months are prevalent today. These questions are of great concern to administrators, teacher trainer, state supervisory staffs and the vocational agriculture instructors themselves. How the vocational agriculture instructor can utilize his time most effectively during the summer in serving his school and community is of vital concern to all workers connected with vocational agriculture.

With the above facts in mind, it seemed advisable to secure factual information as to how the vocational agriculture instructors were actually using their time during the summer months in Colorado. This study was made during the summer of 1962 as a part of the requirements for fulfilling the Master's degree program in Agricultural Education at Colorado State University. With this information, recommendations could be made for the more efficient use of their time during this period.

In order to determine the nature and extent of participation in the various summer activities, a time record was constructed. The time record included 11 categories of school connected activities and one category of nonschool connected activities. Each instructor recorded the amount of time spent on each specific activity listed under the different categories. One day during each of the 12 summer weeks was sampled. Each of the six working days in a week was sampled twice, beginning with a Monday on the first week, a Tuesday on

## Summer Activities of Colorado Teachers Studied

HAROLD ANDERSON, Teacher Education, Colorado State University

the second week and continuing in this pattern throughout the 12-week period.

The time record was mailed to all the vocational agriculture instructors in Colorado. Of the 53 instructors who were employed during the entire summer of 1962, 50 or 94 per cent completed the time records and became the basis for the data used.

### Summer Activities of Colorado Teachers

The per cent of time spent by the Colorado Vocational Agriculture Instructors on each of the 11 categories of official school connected activities was as follows:

	<i>Per cent</i>
FFA Activities.....	31.41
Supervising Farming Programs .....	17.43
Professional Improvement.	14.68
Improving Physical Facilities .....	11.83
Planning Next Year's Program .....	9.03
Developing Teaching Material .....	4.18
Contacting Students and Parents .....	3.73
Performing Public Relations .....	3.54
Completing Correspondence Records and Reports	2.70
Engaging in Community Activities .....	.99
Conducting Out-of-School Programs .....	.48
	100.00

As can be seen, participation in FFA activities consumed approxi-

mately one-third of the total summer time. Of this total, 13 per cent was spent attending shows and fairs and 12.19 per cent was spent attending the State FFA Convention and Leadership Conference. Realizing that the FFA is an important phase of the total program, it is doubtful that this percentage of time is fully justified when there are many other areas of the program where attention is vital.

Supervision of farming programs ranked second with 17.43 per cent of the time spent. Although most instructors seem to believe that a large measure of their time should be spent in this area, this study showed that less than one-fifth of their time was actually spent in this area.

The 14.68 per cent of time spent on professional improvement shows the increased emphasis that vocational agriculture instructors are giving to attendance at workshops, field days, and summer school attendance.

### Work on Facilities

Characteristically, it seems a major portion of the vocational agriculture instructor's time during the summer is spent improving the school's physical facilities. The 11.83 per cent of time spent by the Colorado Vocational Agriculture instructors showed that they were no exception. It is recognized that vocational agriculture instructors are by experience and training a very specialized person. It is also known that most of the time spent on improving physical facilities is of an unspecialized nature and probably could be done by a school custodian. With these facts in mind, it seems vocational agriculture instructors

should strive to have these jobs delegated to other school personnel thereby leave more time for them to engage in the other areas of the summer program.

The relatively low amount of time spent conducting out-of-school programs during the summer, points out the need for vocational agriculture instructors to evaluate their summer programs and consider expansion in this area. Since many of the actual problems of production and management arise during the summer months, it appears that such problems could be solved through organized adult classes meeting regularly during this period.

### NOW HERE'S AN IDEA DEVELOPING A PROGRAM CHAPTER OF WORK

JAMES F. SMARTT, Teacher of  
Vocational Agriculture,  
Cordele, Georgia

This idea was obtained from W. B. Mayberry, of Tuskegee Institute, Alabama.

In making a chapter program of work, the manner of leadership capabilities of each boy may be utilized through supervised instruction in class. Instead of individual instruction, the selection for various committees needed for a program of work may include all boys in a class, instead of only members needed for a committee. Under this plan all boys in any size class will be used in all the positions in a program made by the chapter members through following class procedure in leadership training.

Those procedures should be followed

(1) Have all members of each class to state their committee's interest according to needs in a program of work.

(2) From these statements have those with same desire in each of the respective committees select a chairman, co-chairman and recorder.

(3) With remaining members of desired committee interest; they will become members of this committee where they have pledged.

(4) In a chapter organization meeting, the chairman of each committee on program of work will select and present proposals and recommendations for chapter goals and specify ways and means of accomplishments' for group to accept and form the unified committee chapter program.

### 54-Hour Week Reported

The study also showed that the Colorado Vocational Agriculture instructors spent an average of 53.86 hours per week on school connected activities during the summer months. This is much greater than the standard 40-hour work week of industry and tends to substantiate the need for the vocational agriculture instructor to be employed on a year-round basis. It is probable that if the summer program was not vital and necessary for the carrying out of a well-rounded program in vocational agriculture, the amount of time spent in this area would be much lower.

One area in which this study

(5) From these total plans of the chapter each class and committees within sets up competition to promote their plan in program and the chapter president awards to the class with the outstanding committee a monthly prize to class chairman who excell in accomplishments for their proposal in the chapter program of work.

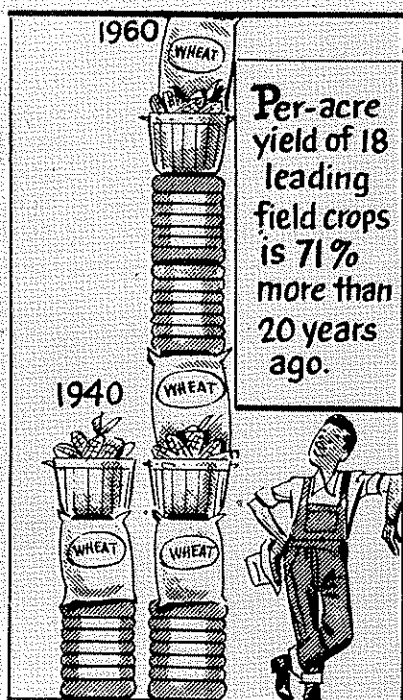
By this procedure all committee's and all boys of each class are on a committee and take pride in working to excell another class committee of the same duty in other classes. □

pointed the need for more careful consideration was that of planning and organizing the summer program. Each vocational agriculture instructor should determine the areas in which he could spend his time most productively, and then plan and organize a detailed summer schedule to implement the plan. After the schedule has been planned and approved, the teacher should strive to follow it as closely as possible. Many of the instructors participating in this study were quite surprised to find the great difference in amount of time spent in certain areas compared to the time they had planned to spend in these areas. □

movements have had limited value for the classroom teacher. Relatively too much emphasis has been placed upon group testing and group results. Over-all surveys of intelligence, personality, aptitudes, attitudes and achievements have been compared with the findings of other schools or with other national norms. Too often the effectiveness of the teacher has been judged on the basis of one or more tests given to the students. Although these tests have certain values, they are not an adequate answer to the day-by-day instruction and practical wisdom of the individual teacher in judging the achievement and abilities of the individual student. There have been numerous devices which are most helpful and gratifying. Resource individuals and materials have played their part in the learning experiences of the individual student, and yet, these factors have little value with no follow-up results and classroom coordination by the teacher.

In conclusion, it is the classroom teacher who must know how to discover the learning difficulties of his students, how to correct them, and how to prevent them. The teacher must be trained to make appropriate use not only of the standardized tests; also, a wider range of evaluation devices, but must use those tools which he himself can develop.

Generally speaking, teachers have not received the help that they need in this area from their academic course or in-service training. Some real worthwhile help should be provided for classroom teachers in this area. Therefore, I am thoroughly convinced that "Testing cannot supersede the practical wisdom of the individual teacher in judging the achievement and abilities of the individual student." □



### Testing in Judging the Achievements of the Individual Student

W. L. LAWRENCE, Howard High  
School, Ocala, Florida

To date, the results of the testing



J. E. Dougan

# Let's Tool Up for Training Technicians in Agriculture

JAMES E. DOUGAN, Supervisor, Columbus, Ohio

Agriculture is the backbone of the American economy. It always has been and always will be. It is the most basic of the basic industries and the largest. In no other nation have farmers brought so many other occupations into partnership with them, and this has created many new employment opportunities in agriculture. This continuing agricultural revolution and the impact of new and forceful economic forces on agricultural production, processing, and marketing is the basic cause of today's need for technically trained individuals in agriculture. These changes in agriculture have affected people, jobs, and production methods. They have led to many non-farm activities that are an integral part of agriculture.

## Technicians Needed

Recent studies and surveys reveal that in Ohio many employment opportunities with agricultural business and industries exist for technically trained individuals. Agricultural industry officials say they need a growing number of graduates with technical, non-degree training who can serve as laboratory technicians, plant oper-

ators, sales and service personnel, research workers, inspectors, and in many other technical occupations. Today the need is often filled by those with either too little or too much education for the particular job. Those with too little are unsatisfactory or create on-the-job training problems; those with too much soon move on.

## The Agricultural Technician

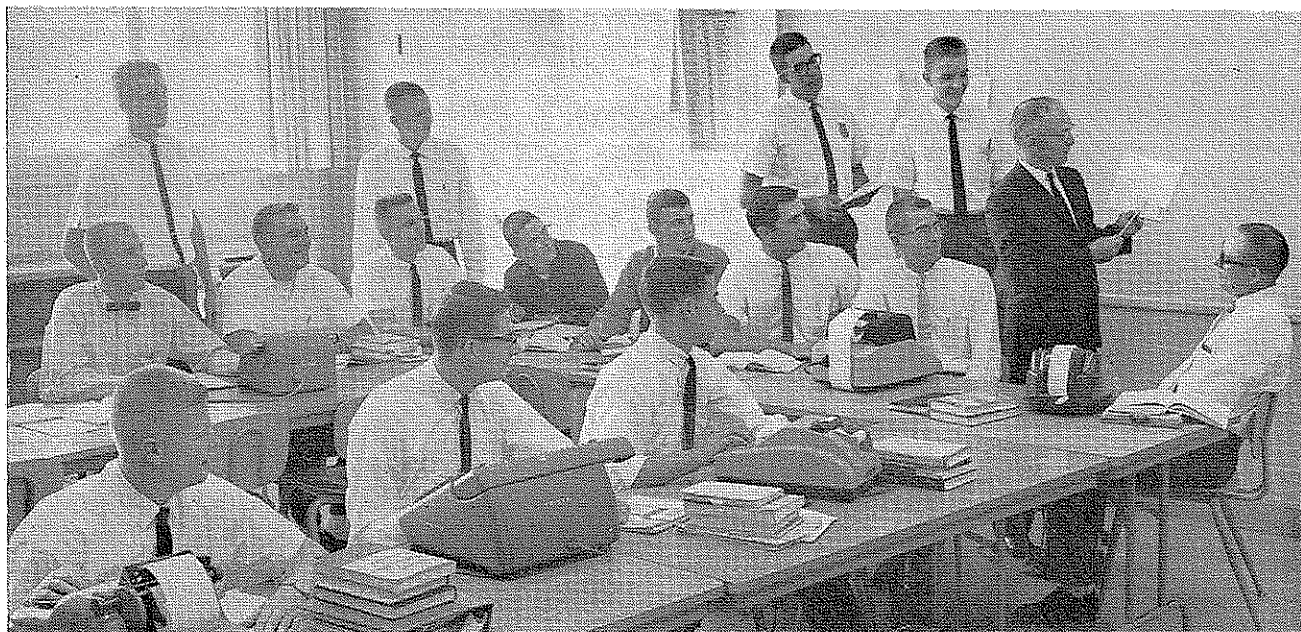
The trained technician holds a very important position in the agricultural employment pattern. He is between the skilled worker and the professionally trained individual. He provides a semi-professional service to some segment of the agricultural industry. He is responsible for using and disseminating technical information for a particular phase of the production, servicing, processing, or marketing of agricultural products. He performs laboratory tests, collects data, makes computations and analyses. He supervises individuals and needs to communicate with others. He needs to understand business principles and objectives and be able to make an analysis of financial statements. He needs to be informed on management prin-

ciples, agricultural standards, as well as technical agriculture.

## Ohio's Plan for Technician Training in Agriculture

The course of instruction is a two year post-high school educational program when conducted on a full time basis. Such programs may be operated for a longer period of time when on a part time basis. A minimum of 25 per class and/or laboratory hours for a period of 36 weeks shall be considered an academic year. The enrollment shall consist of a minimum of 12 students or a maximum of 25 for each area of technical training. The basic curriculum standards for the technician training in agriculture are:

1. *Basic Laboratory Experiences:* A minimum of 15% of the total instructional time for the program shall be devoted to basic laboratory or manipulative experiences in the areas of agricultural production, equipment, and instruments, machine and plant operation.
2. *Special Laboratory and Related Technical Subjects:* A minimum of 50% of the total instructional time for the program shall be devoted to



H. B. Drake instructs a class of future technicians in agribusiness in the intricacies of hedging grain as practiced by elevator managers.

specialized laboratory experiences and related technical subjects in such areas as livestock and crop production, agricultural mechanics, processing and marketing of agricultural products, business management and agricultural economics, production methods, and analysis of products and materials.

### 3. *Communicative and Leadership*

*Subjects:* A minimum of 20% of the total instructional time of the program shall be devoted to the development of skills in oral expression, written forms of communication, and graphic forms of expression. Also, in human relations, supervisory techniques, and other leadership development skills.

4. *The remainder of the time 15% shall be distributed according to the needs of the area of instruction.*

The above standards are used as guide lines in developing the two year post-high school course of study for training technicians in specific areas of agriculture. For example, the course of study for training resource conservation technicians would be different, particularly under the basic laboratory experiences and the special laboratory and technical subjects than the subjects that would be taught for preparing a technician in agricultural engineering and farm mechanics.

### A Technician Training Program in Agri-Business

At the present time there is an agri-business technician training program in operation at the Springfield Technical School, Springfield, Ohio. The course of study has been developed to train key people for employment in the following areas of agriculture: (1) feed and farm supply, sales and services, (2) marketing, farm products, such as grain and livestock, (3) selection, use, and application of farm chemicals including fertilizer, insecticides, and herbicides, and (4) seed selection and use. Graduates of the program will be employed in closely related areas of agriculture. In most cases, they will be dealing directly with people in production agriculture helping them to solve problems of production, marketing and distribution. The graduates will serve as sales representatives or contact individuals and later take part in managerial responsibilities.

The 17 men enrolled in the program this year come from 11 Ohio counties. Some common characteris-

tics of the men were a farm background and a sincere desire to make a contribution to agriculture other than the production area. The range in ages of the group was those who just graduated from high school up to 27 years. This summer many of the students are employed in a field of their choice to gain practical experience in an area of agri-business. The residents of Springfield and Clark County pay a tuition fee of \$377.00 a year, and non-residents, \$407.00. Starting September, 1964, another group of students will be enrolled in this agri-business technical school.

### An Active Advisory Committee

Twenty-four men made up an advisory committee which consisted of educators, including representatives from the College of Agriculture; agriculture businessmen; industrialists, bankers, and members of the state vo-ag staff. They developed the curriculum and assisted in the establishment of the technical training program in agri-business. The committee was selected by the state staff and the over-all advisory committee for the Ohio Vocational Agriculture Service. The first meeting of the advisory committee was held in January, 1963, and was devoted to identifying the place of the technician in agri-business, employment opportunities for technically trained individuals in this area, and determining the training and experience qualifications of the individual to coordinate or direct the program. At the second meeting of the committee, a chairman and secretary were selected and a five man steering committee appointed. Each member of the committee reported on the employment opportunities for technically trained individuals in their respective organization or business. The two year curriculum was discussed, and the committee recommended a coordinator be employed. It was also recommended the technician training program should start in September, 1963. The committee held three additional meetings to determine the content of the various courses of study, make recommendations for the instructional staff, discuss equipment and facilities needed, plan recruitment activities, and to plan an agri-business tech-day in June, 1963, at the Springfield center for prospective students, parents, and agricultural leaders. Open House was conducted at the Center the last part of April, 1964, for prospective students and other interested indi-

viduals. Preceding this activity the advisory committee held a dinner meeting to review the program to date and to plan for the new class that will start in September, 1964.

### Additional Technical Institutes

At the present time, the Ohio Vocational Agriculture Service is working with the advisory groups to establish technical training programs in resource conservation, horticulture, agricultural engineering, and food processing and quality control.

Already many employers have contacted H. B. Drake, the coordinator of the program, regarding the employment of the students enrolled. Much of the success of the program is due to Mr. Drake's efforts. He is well qualified to direct or coordinate the program as he has been a vocational agriculture teacher, county agent, farmer, and recently, manager of a large farm elevator.

In addition to this pilot program other studies are being conducted to determine the employment opportunities for technically trained individuals in many areas of agriculture and to determine the knowledge, skills, and abilities needed by the technicians to secure employment in the various areas of agriculture. We need to determine the instructional and training program necessary to train qualified personnel to coordinate and to teach courses of study in the technical center. Physical facilities, instructional materials, and other resources needed to adequately conduct technician training programs in agriculture need to be determined.

In Ohio, this program has been very well accepted by college groups, school administrators, agricultural organizations, the Governor's inter-agency committee, and many other groups and individuals. However, it takes money and students to conduct a successful program. We need more employment facts for the prospective student, and at the same time, add some prestige to the program such as giving an associate degree to the individual who successfully completes the two year program. □

### We Mixed the Harper's

Our apologies are due Joe Harper, author of "Teaching and Farming Can Be Combined" in the May issue. By accident we used the picture of Jack Harper, teacher of vocational agriculture, Ruston, Louisiana.



Joe E. Clary

## Four Steps for Pilot Programs

JOE R. CLARY, Coordinator of Field Services, Vocational Agriculture, North Carolina\*

Push back the boundaries of the traditional! Forge ahead into areas through which few have trod! Face up to the changes in agriculture and changes in clientele in schools and communities served by public school programs of agricultural education! This is the challenge to agricultural educators in the National Vocational Education Act of 1963.

Meeting this challenge means increased responsibility for providing leadership through expanded and extended programs. This responsibility makes it increasingly essential to provide for experimentation and program development in state plans.

Pilot programs provide one opportunity to develop and refine new approaches and new programs and to offer tested recommendations for expanding, extending, and improving all programs.

### Pilot Programs

A pilot program is a planned activity for testing a new idea in a realistic situation. It is action research on which judgment is suspended while comparisons involving some degree of controls are being made and an appraisal prepared for publication. A pilot program can provide a systematic basis through which program improvements may be brought about. Its purpose is to obtain answers to clearly stated questions that have originated in an idea for new direction. The idea must appear to offer promise, the obstacles must not be insurmountable, the administrative limita-

\*This article was written at the request of a workshop committee on Pilot Programs at the Second Agricultural Occupations Research Conference sponsored by the Nat. Center and CE held at The Ohio State University, January 13-15, 1964. Special credit should be given to Marvin Linson, Herbert Brum and Les Crabbe for a Graduate Seminar Report which provided the basic framework for the Pilot Programs Committee Report. The Workshop Report of this conference contains a more detailed report of the committee.

tions must be resolved and valid criterion measures must be chosen or developed.

There are four distinct steps in a pilot program. Each step is a different phase in the development or adoption of an innovation. The four steps are inter-related but each is sufficiently important to merit individual attention. Briefly, the four steps are:

1. Identifying new ideas and concepts.
2. Designing ideas into workable educational programs of action.
3. Evaluating through field testing.
4. Disseminating ideas which have proven successful in the evaluation step.

### Four Steps

**Step 1. Identifying new ideas and concepts.** Many people have ideas for improving vocational agriculture programs. Some of these ideas have limited possibilities for application in a state-wide program, but all need to be considered. Leaders should actively and continuously encourage the development of new ideas for program improvement and expansion and new program development.

Each state should name a Pilot Programs Committee or similar group to receive these ideas, analyze them and determine those which appear to show promise, determine needed priorities and recommend to the Joint Staffs those for which pilot programs should be developed. The committee might initiate proposals.

**Step 2. Designing ideas into workable educational programs of action.** The development of the design for the educational program is a basic step which must precede field testing. The cruciality of this step merits the use of the most competent talent and other resources that can be assembled.

The educational plan should be developed in an atmosphere of freedom from normal controls, standards, and regulations which might limit the scope and direction of the program.

The plan should "spell out" the things that are to be done, a time table (or schedule) for getting the program underway and the person responsible for each phase of the plan. An important part of the plan is the curricular content to be included. The people who are to be closely involved in the pilot program should actively participate in designing the plan. The person designated to direct the pilot program should have a major responsibility for the development of the educational plan.

**Step 3. Evaluating through field testing.** This step involves taking the completed educational plan developed in Step 2, developing the evaluation procedures (making sure that the evaluative criteria are clearly stated in advance), and then field testing under actual conditions. Field testing of innovations in agricultural education should take place under carefully controlled conditions. If certain controls are not possible, this should be carefully noted.

The completed evaluation procedure should be developed prior to field testing and followed, with minimum deviation, throughout the testing period to determine the degree to which the pilot program attained its objectives.

Since pilot programs are untried and may deviate considerably from standard procedure, only enough situations to allow for proper evaluation should be involved. The participating field study situations should be carefully selected. Personnel, materials, finances, facilities and equipment necessary to conduct the program must be arranged for and responsibilities of all individuals and agencies agreed upon and clearly stated.

**Step 4. Disseminating ideas which have proven successful in the evaluation step.** The wide-spread dissemination of new practices should take place *ONLY* after field testing has shown that these practices are educationally and administratively sound. Even then, the results may be good!

but not something that one hundred per cent of the departments in a state would want.

New innovations should be disseminated using demonstration schools in normal settings, providing maximum opportunity for interested personnel to observe and acquaint themselves with the new development. People generally accept new practices faster when these practices are observed in situations similar to their own.



R. J. Agan

## Kansas Studies Agriculture Non-Farm Occupations

R. J. AGAN, Teacher Education, Kansas State University

In a study completed in June 1963, Kansas employers in agricultural non-farm businesses responded favorably to the concept of special vocational training for their prospective and present employees. A sample was drawn from 2,979 employers who employed 6,787 employees under 126 job titles.

In replies given to Kansas State University researchers, the 500 employers included in the sample indicated a need for 2,823 additional employees (41.59%) due solely to anticipated growth of business in the next five years (1963-68). An additional 1,475 employees (22.73%) were believed to be needed each year to care for the growth and turn over in the Kansas agricultural non-farm businesses. It was not possible to determine the number of employees in the turn over process who moved from one business to another. Over the last five years these same employers had hired 5,035 employees to care for turn over and business growth. This figure represents a turn over sufficiently large enough to indicate the need for more highly trained employees.

The employers interviewed felt that 88 per cent of the employees hired could be adequately trained in special area vocational schools. There were some occupations to which the employers responded unanimously that 100 per cent of the training needs could be met in such schools. These occupations clustered into the following areas: mechanics, fertilizer applicators, salesmen, nursery aides, and assembly and hauling workers.

### Summary

This paper has suggested that there are four distinct steps in pilot programs: 1. Ideas; 2, Design; 3. Field Testing and Evaluation; and 4. Dissemination. The suggestion to start with "ideas" indicates that pilot programs should represent innovations in agricultural education.

One of the primary purposes of pilot programs is to explore areas of vocational education in which the

horizons should be pushed back and ways developed to more effectively serve the present and emerging needs of people under rapidly developing technology.

Limitations of staff, financial resources, etc. usually limit the number of pilot programs that should be attempted at one time. Therefore, a systematic procedure such as the one suggested here should be used in determining major changes and extensions in the on-going program. □

### Classifying Employee Training

The training needs of the employees were classified by the employers into two areas: (1) the functions to which the employees devoted their time, and (2) the subject matter areas felt by the employers to be essential to success on the job. The employees in the 126 job titles had a similar division made of their time while on the job. The average employee's duties in an agricultural non-farm occupation were depicted as shown in figure 1 and had the following classifications:

Works with people outside of the firm (28% of the time)

The employee should be able to:

1. Meet farm people
2. Meet non-farm people
3. Diagnose, consult, advertise
4. Sell
5. Estimate costs and buy wisely

Works with equipment, tools, and supplies (28% of the time)

The employee should be able to:

1. Operate properly
2. Maintain
3. Adjust
4. Inspect and trouble shoot

Works with business problems (21% of the time)

The employee should be able to:

1. Keep records and accounts properly
2. Make decisions wisely
3. Handle money properly

Works with production and service (15% of the time)

The employee should be able to:

1. Make use of technical and service manuals
2. Inspect for weaknesses
3. Assemble and mix products
4. Plan production

Works with personnel in the firm (8% of the time)

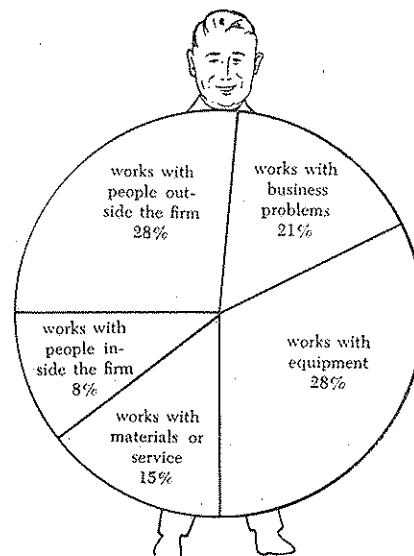
The employee should be able to:

1. Handle men
2. Train others

### Occupational Clusters

The above similarity in the division of time found in the 126 job titles indicated the possibility of forming clusters of occupations for the purpose of facilitating the vocational school training procedures. A study

Figure 1. Mr. Average Employee for Non-Farm Agricultural Businesses



of these common elements revealed 13 clusters which would include all of the 126 titles. They were:

- Elevator Manager
- Elevator and Yard Assistants
- Warehouseman
- Sales Managers
- Implement Salesmen
- Salesmen
- Mechanic
- Processors
- Assembly and hauling
- Fertilizer Applicator
- Office Personnel
- Nursery Aide
- Laborers

The above clusters not only had a commonality in the areas of work activities, but also in the subject matter areas indicated by the employers as being desirable for their employees. Employers felt that specific technical training for each occupation could be best supplied by in-service training or special training sessions provided by the company.

#### Understandings Needed by Employees

The employers were asked to select from a list of 46 technical subject matter areas the special areas of knowledge needed by the workers. Following are the subject matter areas in order of the importance:

1. General agricultural knowledge (current)
2. Salesmanship
3. Tractor, power units, and mechanics
4. Soils and crops
5. Ag. chemicals, insect and pest control

The areas of technical knowledge which failed to be classified as important by any of the employers were: forestry, physics, advanced mathematics, foreign language, and sound and light.

Employers were very emphatic in stressing their need for mechanics who can sell, salesmen who can work in the parts department or warehouse, warehousemen who can handle a complaint from a customer or adjust a product sold to the customer to give better service, the nursery aide who can meet the public on rush days in the front office, etc. The research indicated that (1) in Kansas the agricultural non-farm businesses need generalists who are specialists in one or two areas and that (2) special classes in vocational education can give the needed training for such employees. □

# Procedures for Improving Vo-Ag Notebooks

KEITH MERRILL, Teacher of Vocational Agriculture, Rupert, Idaho



Keith Merrill

If you use student notebooks in your vocational agriculture program, here are some questions:

1. Are your vo-ag notebooks really valuable?
2. Are the notebooks kept neat with usable information that is easily obtainable?
3. Do your students take pride in their notebooks?

For the past eight years the student notebook problem has not been a problem at all in my department but rather a real teaching aid. When school starts each fall, I show all the incoming freshmen the fine zipper notebooks of older vo-ag students and all the well indexed information available in these notebooks. This practice really impresses freshmen boys. Also, I challenge any questions concerning certain phases of agriculture such as diseases of livestock, feeding and rations for all classes of livestock, insect damage and control, farm arithmetic problems, or many other agricultural subjects. From the student notebook I am displaying, I turn to the proper indexed section and produce the answer to the questions asked. Each section of the notebook is indexed not by page number but according to material included in that section. The index is a divider at the beginning of each section. These can be purchased in sets from the Future Farmer Supply Co.

#### A Class Notebook Contest

The real value of the individual notebook is determined by notebook quizzes. Usually half of the class will challenge the other half to a notebook quiz. The losing team is obligated to buy each member of the winning team a bottle of pop. Only questions that can be answered from material in the notebook are eligible for the contest. Each student must answer within a given period of time

from material contained in the notebook. This practice keeps the student notebooks indexed and up-to-date and in good order. This type of quiz is held four to five times a year.

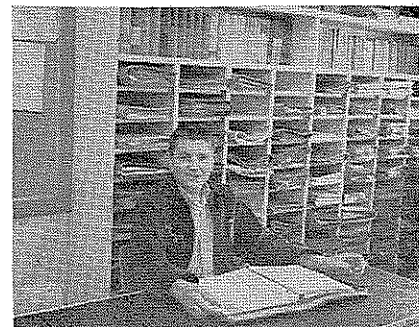
Quite often I call the classes attention to an especially good notebook. This tends to make the students feel that a reference notebook is important. When boys know that their reference notebook is going to be used and tested, they see the value of keeping it current and take pride in doing the job well. The notebook also includes many important printed handouts which are provided to supplement their classwork and to stimulate quality work in keeping a neat and legible notebook. This kind of reference material is more valuable to the student in printed form. Too much handwriting in a student's notebook wastes time and tends to make the notebook untidy.

#### Indexing Notebooks

The notebooks are separated into the following classifications:

- General Livestock and Poultry
- Beef
- Swine
- Sheep
- Dairy
- Crops
- Soils and Fertilizers
- Insects
- Farm Shop
- F. F. A.
- Records and Miscellaneous

Notebooks are kept in the ag room in attractive shelves where each boy



Gary Wisecaver and his ag notebook, the notebook shelves are visible in the background.



has his name on a notebook pigeon-hole. If notebooks are to be of value, they need to be good ones that will be cumulative over a four-year period. They must have neat, well indexed information which boys can use not only while in school but as a good source of information after graduation from high school. Many boys report that they take these notebooks

to college to help them in their introductory courses in livestock, soils, and similar classes. Much of the information is also valuable as these young men start out their careers as farm operators.

These notebooks are not graded individually by the instructor. If a notebook is in good shape, the boys will get good grades when notebook

quizzes are given. Keeping good notebooks does take time but it pays good dividends to both the student and the teacher.

There are 188 vo-ag students in our department with 100% F.F.A. members in two F.F.A. chapters. There are just two teachers in our department so you can see we need all the teaching aids we can get. □

## Public Relations—A Basic Part of Vocational Education

THOMAS H. BELL, Information Specialist, Vocational Agricultural Education, Montgomery, Alabama

There was only one essential difference between the important histories of mariner Captain Christopher Columbus, and astronaut Colonel John Glenn. That difference was that back in 1492, Columbus did not know how to create good public relations.

If Columbus had been able to use public relations, his countrymen would have known about his plans, they would have been personally involved and vitally interested in the outcome of his journey off over the edge of the earth, just as Americans everywhere were caught up in Glenn's exploits.

People have always been pretty much the same. When they don't know the facts, they invent fictions. These fictions and rumors always seem to be the thickest and most numerous when interest is high and information is hard to find.

Five hundred years ago, reactions to ventures west to find India were skeptical, to say the least, yet great hope and personal involvement were evident everywhere over last year's proposed flights into space. The truth, pure and simple, is that a well planned, modern-day public relations program, and that alone, gained popular sentiment and support for Glenn's vastly more doubtful, dangerous, and expensive undertaking, and thereby sold the idea, and guaranteed its success.

There is a serious lesson in this for teachers in Vocational Education, and in particular, for vocational agriculture teachers. The same sentiments the Spanish people had about Columbus 500 years ago, are held today by some Americans about Vocational Education.

The taxpaying public is usually more concerned with the vocational school or the vocational department within a school than with other parts of public education, because that is the part that is usually more expensive than any other type of instruction. It is right that they should be concerned, and it is a part of your job to respond to that concern. You need to inform your taxpayers about how their money is being spent, how your time is being used, and how their children are being prepared for jobs after they finish school.

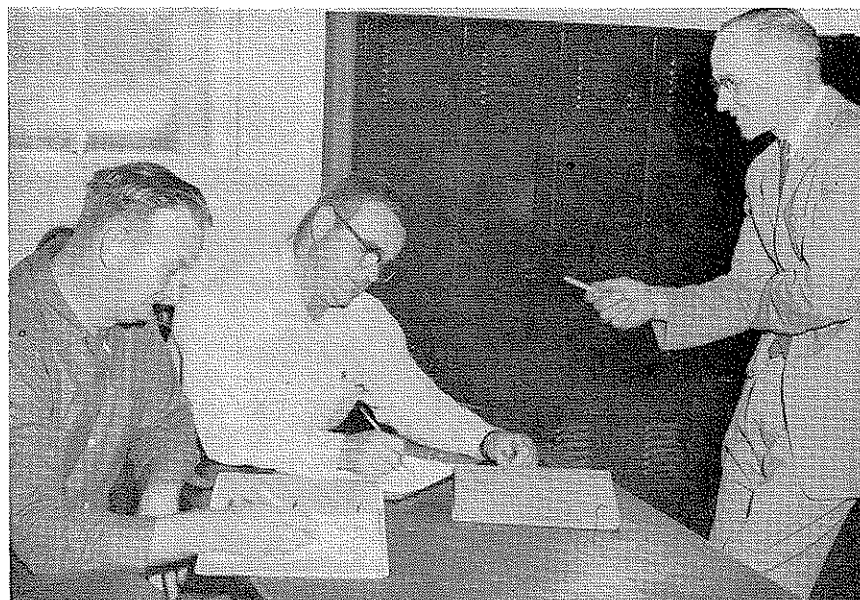
Today, public objections to vocational education, and particularly vo-ag and home economics, are as severe as those the Spanish people made about Columbus. We hear more of the efforts of people interested in the "bad" side of vo-ag than we do of those interested in the "good" side. In a large part this is your fault, as a vocational teacher. Information seems to be scarce, and rumors and fictions are flying thick and fast.

It is not a question of deciding whether to have or not have a public relations program. The publics interested in your program have already gathered their opinion, with or without your having helped shape it. The decision that you have to make is whether you want an effective or ineffective relationship with your publics. The progress of vocational education in this country has historically depended upon the attitudes of the public and public willingness to support the program. Even a well planned program of public relations will not always guarantee goodwill—but, it will aid in winning public

acceptance and support without which vocational education could not exist.

You can tell your story. You already have the audience's interest, and you can get the ability. If your particular public were sitting just across the table from you, you wouldn't worry too much about the mechanics of how to go about telling him. Somehow you would find a way to get his sympathy, to tell him the story, to answer his questions, and to point out all the conclusions favorable to your program. No one has ever been able to turn a sow's ear into a silk purse, and neither will you. There is no magic formula for winning public support, and in the long run good public relations can be accomplished only when based on sound administration and thorough, effective teaching. If you are doing a creditable job of educating, you can expect your community's approval and support for your program. If you are not training children properly, no amount of public relations will keep you out of hot water.

Remember this too: Effective communication is not an additional component of an effective modern program of agricultural education. It is an important, and basic part of the program. To claim that you, as an agriculture teacher, have no time for publicity work and are too busy for newspaper articles, radio or television programs, and civic and faculty group activities is equal to admitting one of two things—that you are too lazy to do everything that is expected of you as a vocational teacher, or that you have something to hide in your department and in your teaching.



L. G. Sharp (left) emphasizes a point during one of his Manpower Training Classes. Left to right are students Virgil Brooks and Robert Nagy, both of Jefferson.

## A Year's Experience with Manpower Training Courses for Dairy Workers

DONALD E. HAGEN, Principal, Jefferson High School, and  
LLOYD SHARP, Special Teacher of Agriculture, Jefferson, Ohio

MDTA came to Jefferson Area Local Schools in the spring of 1963. Extensive pre-planning and much "spade work" by the Ashtabula office of OSES, advisory committees of Ashtabula County businessmen and interested citizens, and the Jefferson Area Local Board of Education and its administration and instructors of vocational agriculture, had borne fruit. For rural, but changing, Ashtabula County, located sixty miles east of Cleveland, Ohio, the constant need for dairy farmhands and nurserymen by our 680 farm men has always posed a problem. Worker turnover and migration into higher paying industrial jobs has been a real "thorn in the side" of the farmer. For the Jefferson Area Local Schools and its adult vocational agriculture instructor, Lloyd Sharp, co-author of this article, the entry into the Manpower Development Training Program field of instruction brought many new opportunities. We began with our eyes wide open, but viewed this new venture as a tremendous challenge.

Today, four courses later—two for dairy farmhands and two in horti-

culture (nursery, outdoor, and vineyard)—and quite a bit wiser, we feel that we are in a position to offer some concrete thoughts and possibly could provide a few answers. The major purpose of this article could be presented by exploring four major areas which are: (1) "Plus" factors of the program; (2) Problems encountered; (3) Pitfalls to be avoided; and (4) Projections for the future programs.

### "Plus" Factors

After 17 years of adult teaching, this instructor found it to be quite a challenge—working with men who were being retrained. Our trainees were learning something new and so was the instructor. As the courses progressed, the men saw new opportunities opening before them; and, the instructor also found his outlook changing. No matter how many courses you teach, you always find each group a little different and these MDTA trainees were no exception. For these trainees who were truly interested in learning. We found that despite their low educational level there was decided improvement.

These men can and did learn. It is gratifying to see men actually learn a marketable skill. In many cases we provided a skill which made our trainees employable over a full twelve-months period. Our job placement of 50%-60% of trainees has been about average for all MDTA programs.

### Problems

Our biggest problems, aside from course content and practical experience difficulties, came from the trainees themselves. Unfortunately, the educational level of some was too low to enable them to benefit from the program. In some cases the men were just plain not interested, they lacked sincerity and genuine interest in the course. It was almost impossible to overcome either of these factors. Too often, financial difficulties caused men who were interested to become dropouts. MDTA does not:

- (1) Reimburse nonheads of households for the course.
- (2) Provide a sliding scale of reimbursement for heads of households with large families.
- (3) Permit any outside employment while in the training program. (This is in the process of change which would permit twenty hours of part-time work without deduction from aid support.)

The difficulties in course content are quite simple. We did not allot sufficient time for various subject areas. It looked good on paper, but it took actual class instruction to establish a corrected outline for the courses. One area of instruction which definitely needed, and still needs, improvement is that of actual "on-the-farm" instruction. The MDTA groups need more practical experience. Field trips are good, but "down-to-work" instruction is a necessity.

### Pitfalls

As one famous automobile manufacturer stated, "Ask the man who owns one," thus we offer the following thoughts for your consideration from "ones" who have "owned" MDTA programs.

No. 1. A successful program requires full cooperation of the industry involved. We did not receive full cooperation of the local agriculture industry and their reticence to join created stumbling blocks. We are constantly striving to convince these few industries still outside our program to realize those advantages which could

be obtained by working on a MDTA program. We would urge all who are either beginning or planning MDTA programs to actively seek and encourage full industrial cooperation.

No. 2. The men who are to be retrained must be carefully screened before entry into the program. We experienced difficulty because we were not involved in the original screening. We now feel that the success of the program is impaired if the instructor does not have a strong voice in class selection.

No. 3. Course outlines, which must include on-the-farm instruction, should change as local conditions vary. How many times have we read this and yet we try to take an outline and make it fit rather than have the outline fit the locality which it must serve? Do not become trapped by something that looks good on paper. Each course must be tailor-made and only you can be the tailor.

No. 4. In MDTA programs it must be "back to school and no fooling." We established the following rules and regulations:

- (1) Students must attend class twenty-five hours each week unless personally ill or there is serious illness or a death in the immediate family.
- (2) Verbal excuses for absence or tardiness will *not* be accepted. A written report must be completed by the student to explain either absence or tardiness.
- (3) Repeated tardiness or absence will result in dismissal from the school.
- (4) Each student will be held responsible for books, bulletins, and tools issued to him. In the event of loss or damage to the above items he will be required to make financial restitution to the school for the value of the item.
- (5) Intoxicating beverages are *not* to be brought onto the school property or used during school hours. Any violation of this rule will result in immediate dismissal.
- (6) Horseplay will not be tolerated and any student who persists in such behavior will be dismissed.
- (7) Students will arrive at the school each day *cleanly shaven* and in *suitable clothes* for the school work planned for the day.

- (8) Smoking will *not* be allowed in the classroom, but will be permitted in an area designated by the instructor.
- (9) Smoking will not be allowed on field trips. Any student who persists in violating the two smoking rules will be dismissed.
- (10) All students will participate in the program to maintain the cleanliness of the school facilities.
- (11) Visits by friends will not be allowed during school hours.

These rules may seem to be harsh; however, they have served us well. We would heartily recommend these regulations as a guide to others.

No. 5. MDTA curriculum guides may be more restrictive than one realizes. On the technical side as an example, we call your attention to Section IV of the MDTA curriculum guide for the nursery, orchard, and vineyard course which states "Instruction in various areas of vineyards, nursery, and orchard. Demonstration and Practice (by students) in transplanting and

pruning in *non-productive* or *public facilities*." This statement curtails opportunities for practical teaching opportunities. Read carefully all the print in the course description and curriculum guides because your program may be directly affected. This one paragraph and the underlined words has had much to do with our particular nursery program. Just maybe you will find the same thing in your program.

#### Projection

We hope to begin another dairy program which would provide training for men already engaged in dairy operation who for many reasons find their business venture netting less than \$1200 per year. Here is a real need. These men are already in the field, but are not successful. An MDTA program for them would find interested persons who have the laboratory for on-the-farm instruction and who, by their very nature, are already screened. We hope that approval of this program will expand the already great potential of Manpower Development Training Program. □



Robert Severance

## Win that Contest!

MR. ROBERT SEVERANCE, JR.,

Voc. Agriculture Teacher, Simpson, Kansas

Vocational agriculture instructors who bemoan the fact that athletics get all the praise and glory in our high school program should take notice. Mediocre to poor departments are often blamed on the over-emphasis of the athletic program, thus leaving little of the spoils for the vocational agriculture department.

It might be well to relate a few of the experiences that would be evident if positions were reversed with the vocational agriculture department in the public limelight as are the various areas of athletics in our high schools.

Let us first assume that you have a full schedule of judging contests every Friday night of the school year. This is supplemented during the winter months when you have contests on both Tuesday and Friday nights.

#### Winning the Angus Contest

Your week starts immediately following the judging contest on Friday evening. At this time you would check the statistics chart, the score-book, and your upfield spotters to ascertain the reason why you did or did not win the livestock judging contest. Various conclusions are reached. Many facts are evident. The "B" team needs much more experience on Angus steers plus a more thorough groundwork on fundamentals. The "A" team is still not sure of their offensive pattern and have many kinks to work out concerning oral reasons. If you are going to make any showing in the league, you are really going to have to work these details out in a hurry. Exhausted, you trudge home not knowing where to start on next week's contest preparation.

Saturday morning brings the inevitable trip to the downtown barber-shop. You don't need a haircut particularly but you know that the local quarterbacks are having a heyday concerning the livestock judging contest the previous night. You figure you might as well join them. After the ice is broken by some of your friendly remarks, they give you a bit of praise for the showing the night before. But they also offer a few suggestions. A couple of the more vocal ones tell you the steers should have been judged on fat qualities only, others insist that the low-set ones are the most desirable, while still others feel that the emphasis should be on quality. Nobody agrees on what the pattern should be. Very gracefully you take your leave, so that the original "scorch-the-coach" session might continue.

Having sent the press on its merry way, you start the wheels rolling for the battle with Silo High. Of course, you are hired as vocational agriculture instructor, but right now your most important job is to beat Silo High. Midmorning you learn that Bill Smith, your ace judge, was kicked by a steer during the Hereford class Friday night and may be a doubtful starter. What a blow! Without his keen judging ability and oral reasons mastery, a victory Friday night would be nigh to impossible. And so it goes.

The rest of the week finds intensive drills, extensive field trips, late suppers, sleepless nights, and very little vocational agriculture being taught to the rest of the students. After all, we've got to beat Silo High in the livestock judging contest Friday night. Meantime, the family suffers, the nerves become frayed, and ulcers blossom.

#### —And Now Next Week

Friday night arrives and the contest is won by a narrow margin. Whee-ee! But alas, next week we have to play Hampshire High. The following week is the same song, second verse. Sure do pity the coach at Silo High; bet he's really "catching it" from his quarterback club. That loss may cost him his job.

Is it worth it all? What we would love to do is to just teach boys and not have to put up with all of this win, win, win stuff - - - .

Still like to have the vocational agriculture department in the same position as the athletic department?

No! Thank you.

## Why Are We Here?

JOHN SHOWALTER, Instructor of  
Vocational Agriculture,  
Abingdon, Virginia



John Showalter

Why are we here? We hear this question regularly as we participate in our FFA chapter meetings and we feel a glow of pride as the well known answer is echoed: "To practice brotherhood,

honor rural opportunities and responsibilities, and develop those qualities of leadership which a future farmer should possess."

"To practice," "to honor," and "to develop" are three key thoughts in this answer. If we as vocational agriculture teachers were called to answer this question today, how would we do so? I believe that none of us consider the physical act of conducting our high school classes to be a sufficient reason for being employed. Instead we look to our complete program which includes on-farm instruction and classes for young and adult farmers as well as high school classes. Let us examine ourselves and our work on the basis of these key thoughts which our FFA members recite.

How many teachers of vocational agriculture practice brotherhood? Each of us is practicing brotherhood in several ways as we go about our daily work. (1) We work with our fellowmen in all walks of life. (2) We work with our fellow educators to raise the educational level of the groups we serve. (3) We work with farmers and with other agricultural agencies to help satisfy the nutritional needs of the world. (4) We should be working with Christians to develop a higher ideal of spiritual values among those with whom we work.

#### How We Honor Responsibilities

To honor rural opportunities and responsibilities is simply to accept or to take advantage of them. The Bible teaches that we should do good unto all men as we have opportunities.

We as vocational agriculture teachers have a unique opportunity and responsibility of working with our high school students and also with the out-of-school group in our community.

Every community has young men who are just getting established in farming and who have many problems which we can help them solve. We are trained in the fields of education and of agriculture. We have facilities with which to work and access to current information as well as the knowledge of how to apply this information to help solve the problems we encounter. Many young farmers are lacking in all of these.

Often it is with this group that we have the greatest opportunity for improving their attitudes, their participation in social and other community activities, and in many cases their economic conditions at the same time we are helping them to solve their farm problems. With all of these persons we can help to build good working relationships which will allow them to cooperate more fully with each other in meeting and solving community problems and agricultural problems that are shared by them. We have seen the average American farmer rise to the point where one man can now produce food and fiber to meet the needs of himself and 26 other people. We have an abundance of food for our people, but can we stop now?

#### Today's Opportunities

We still have underprivileged and uneducated people in our own country and the population explosion threatens us with the necessity of producing 2½ times our present output per acre of farm land within the next 50 years. If our country is to remain strong in the world and if our children are to enjoy the same standard of living that we now enjoy, we must provide the leadership and the training in our respective communities which will stand solid for our part in this inspiring task.

How do we develop leadership? Through participation in activities which require leadership ability. When we guide others as we have already mentioned, we help them to develop leadership. By so doing we develop our own ability. We owe ourselves, our families, and our communities the best ability that we can develop to help ourselves and our fellowmen. The Bible also teaches that if we neglect the talents that we have they shall be taken from us, while he that uses his talents shall have other talents added to the ones that he has.

## News and Views of the Profession

### PERSONAL NOTES

Special Editor, M. G. McCreight, of the University of Nebraska, Lincoln, Nebraska, is responsible for the items which appear below. Anyone having items dealing with promotions, changes in positions, retirements, deaths, and similar items should send them directly to Mr. McCreight.

Dr. T. R. Buie, Head of the Agricultural Education Department, returns in September to Southwest Texas College after a one and one-half year leave of absence for teaching in Formosa at Taichung University.

Mr. Robert V. Kerwood was recently appointed assistant professor at West Virginia University at Morgantown.

Mr. Warren G. Kelly, West Virginia University, is on leave from September 1, 1963 to August 31, 1964, while working toward a Doctorate.

Dr. Richard A. Baker joined the Agricultural Education staff as an assistant professor on September 1, 1963, at Auburn University, Auburn, Alabama.

Mr. H. R. Culver, district supervisor of vocational agriculture, resigned in December 1963. He was employed in the field office, State Department of Education, Auburn, Alabama.

Dr. Gordon Swanson, professor of Agricultural Education, has been appointed Coordinator of International Education, College of Education. Dr. Swanson remains half-time in the Agricultural Education Department of the University of Minnesota, St. Paul.

Dr. Joe P. Bail on sabbatical leave from Cornell is visiting research professor at the University of Arizona, Tucson, Arizona, February 1 to August 1, 1964.

Dr. Virgil E. Christensen was appointed assistant professor in July 1963, in the Department of Agricultural Education at Cornell University, Ithaca, New York. □

Mr. T. J. Madden, former instructor in vocational agriculture at New Richmond, Wisconsin, died suddenly at the age of 71 years.

Madden taught rural school at Marion, Wisconsin, from 1911 to 1913, taught general agriculture at New Richmond and Washburn, Wis-

consin, from 1917 to 1920, taught vocational agriculture at New Richmond from 1920 to 1951 and conducted the Veterans Farm Training Program at New Richmond from 1951 to 1963. Thus, he had served as an agricultural instructor at New Richmond for a period of 46 years.

Mr. Madden was a past president of the Wisconsin Association of Vocational Agriculture Instructors and throughout the years had maintained one of the strong programs of vocational agriculture in the state. □

### Five Retire in Central Region

Five veterans of agricultural education with a total of 190 years of experience in the profession were honored for their retirement at the North Central Regional Conference in Chicago in March.

A brief account of each of these five men is given below—

#### Dr. Carsie Hammonds

Dr. Carsie Hammonds retired this year as Chairman and Professor of the Department of Agricultural Education at the University of Kentucky, Lexington, Kentucky, where he has served in this capacity since 1925. Dr. Hammonds has completed an enviable record in terms of years, of variety of contributions and of quality of service to the profession of agricultural education. During the past 50 years, he has served in many aspects of education, beginning as a rural elementary teacher in Russell County, Kentucky, as a teacher of vocational agriculture, basketball coach, principal, critic teacher, and then since 1925, as a professor of agricultural education.

Dr. Hammonds conducted and directed numerous research studies including eleven doctoral dissertations. His service in writing in the field of education includes serving four years as editor of the Agricultural Education Magazine, serving as contributing editor of the American Vocational Journal, publishing the booklet, "Contributions of Leading Americans to Education." He is also the author or co-author of thirteen books in the field of agriculture and agricultural education, and has written numerous editorials and articles for the Agricultural Education Magazine.

Dr. Hammond's professional services include serving as a member of the national committee which wrote "Educational Objectives in Vocational Agriculture," as a consultant on the improvement of college teaching, as a member of the national committee on the improvement of instruction of American Association of Colleges for Teacher Education, as a consultant on the improvement of teaching for Negro educators in agricultural education, as a speaker at more than 100 high school commencements, and 19 annual conferences for workers in vocational agriculture outside of Kentucky. He has also served as a speaker at the Central, North Atlantic, and Southern regional conferences for workers in agricultural education.

#### Melvin W. Cooper

Melvin W. Cooper, Assistant Supervisor of Vocational Agriculture in Wisconsin, retires this year after completing 42 years in agricultural education. Mr. Cooper, a graduate of Platteville State College, began teaching vocational agriculture at Patch Grove High School in 1918. He also taught 15 years at Fennimore High School. Mr. Cooper served at the state level in various capacities. He was a state supervisor of food production, war training, in 1941, and was also employed as a supervisor of the veterans' farm training program. Since 1954, he has been a regular vocational agriculture supervisor. Mr. Cooper has done extensive graduate work at the University of Wisconsin and was awarded the Honorary FFA Degree in 1963. For the past twelve years, he has been a special editor for the Agricultural Education Magazine, and has a son who is a Doctor of Veterinary Medicine, who is the editor of the Journal of Veterinary Medicine.

#### Mark Z. Hendren

Mark Z. Hendren retires this year after completing 43 years in agricultural education. Mr. Hendren graduated from Iowa State College in 1922 and in 1938 received a Master of Science Degree in vocational education. His first teaching assignment was at Ridgeway, Missouri, in 1922. For the past 18 years he has served as supervisor for the northeast area of Iowa with supervisory responsibility for 65 schools. As an assistant supervisor, he has had special responsibilities for state judging contests, the

state FFA convention, the state vocational agriculture conference, and state fair events. He also has served as executive secretary of the Iowa Vocational Association.

Melvin H. Goeldner

Melvin H. Goeldner, Osceola, Iowa, retires as an assistant supervisor of agricultural education in Iowa. He had served in this capacity for the past 13 years. He had previously served as a vocational agriculture teacher at Osceola. A veteran of World War I, he received his Bachelor of Science Degree from Iowa State College in 1922. As assistant supervisor, Mr. Goeldner worked with 65 schools in southwestern Iowa and both vocational agriculture and veterans' farm training programs. His other supervisory responsibilities included assisting with the state FFA convention, the state fair, and other state-wide programs. Mr. Goeldner has received the Honorary Iowa Farmer and American Farmer degrees. Since his retirement, Mr. and Mrs. Goeldner have visited New York City and Washington, D. C., and relatives in Texas.

Harry W. Leonard

A veteran of World War I, Harry W. Leonard's first teaching job was at Pierceton, Indiana, where he organized one of the first FFA chapters in the state. Since that time he has completed 31 years of service in agricultural education. Professor Leonard received his Bachelor's Degree from Purdue University in 1921 and his Master's Degree in Agricultural Economics from Purdue University in 1929. Since 1937, he has been an assistant professor in agricultural education with responsibilities as an itinerant teacher trainer, supervising practice teaching, and teaching graduate level courses on farming program development. Professor Leonard recently made a "people-to-people" trip to Russia and the iron curtain countries.

## Public Relations . . .

(Continued from page 17)

If vocational agriculture is to remain the important and vital program it is today, it must also be concerned with gaining the understanding and support of the 90 per cent of our population who are not engaged in farming. This is your job as a vocational agriculture teacher. It is a job



**LIVESTOCK AND LIVESTOCK PRODUCTS** by T. C. Byerly. Published by Prentice-Hall, Inc., Englewood Cliffs, New Jersey. 422 p., illustrated; 1964. Price \$10.00.

This new book presents in forthright language the current state of the livestock industry in the United States and discusses the principal species. It outlines environmental, nutritional, genetic, physiological, engineering, and economic principles which underlie money-making production. Treated fully are the problems of disease, parasites, and livestock insects. Special attention is given to quality of livestock and livestock products, utilization of livestock products, and marketing of livestock and livestock products.

The text is broad in scope, yet contains enough specifics to allow the student a working background for solutions of common livestock production problems. It is a valuable reference to the teacher and for advanced students in vocational agriculture.

Dr. Byerly is currently Administrator of Cooperative State Experiment Station Service of the U. S. Department of Agriculture.

Denver B. Hutson  
University of Arkansas

**George D. Searseth, MAN AND HIS EARTH**, Iowa State University Press, Ames, Iowa. 1962. pp VIII + 199. Price \$4.50.

The relation of man and the soil is the central theme of this book, written in a style every high school student should be able to understand, yet interesting to adults who are concerned with the conservation of land and the adequacy of the food supply.

The author organized his manuscript into 15 chapters in which he discusses some of the characteristics of the soil in different climates from

that you must do, or bad public relations will, in a very short time, do the job for you. And, the nation will suffer irreparable damage. □

the Tropics to the Arctic. He follows these with a discussion of organic matter, nitrogen, phosphorus, potash and carbon dioxide and concludes with a description of some of his demonstration work on his own farm and with his philosophy regarding the food supply and nature of man.

Throughout the book the author has interwoven an analysis of current research, and research recently reported with glimpses of possibilities for the future through research which needs to be undertaken for the further benefit of mankind.

The book should be in the libraries of every department of vocational agriculture and read by both the high school students and adults in each community.

Raymond M. Clark  
Michigan State University

**EXPLORING AGRICULTURE** by Everett F. Evans and Roy L. Donahue. Published by Prentice-Hall, Inc., Englewood Cliffs, New Jersey. 402 p., 1963. Price \$6.04.

The book is intended primarily for the study of general agriculture, and the purposes of the authors are to help the reader understand the basic problems in agriculture, and the role of science in solving these problems.

The text contains 300 photographs, and suggested class activities at the end of each chapter. The text would be interesting and easily understood by secondary school pupils, and would be valuable as a reference book in vocational agriculture libraries.

Mr. Evans is a consultant in Conservation Education and Professor Donahue is a member of the Agronomy Department, Kansas State College. The first edition of this book was published in 1957. Included in the second edition are new chapters on "Alaska," "Hawaii," and "Occupations Related to Agriculture."

James Albracht  
Michigan State University

**ENGINEERING FOR DAIRY AND FOOD PRODUCTS**. Published by John Wiley and Sons, Inc., 605 Third Avenue, New York 16, New York. 674 p., Illustrated; 1963. \$17.00.

This is an up-to-date treatment of basic engineering applications in the modern food industry. Important fea-

tures include emphasis on systems as well as individual processing units in the dairy and food industry, coverage of the sanitary engineering phases of food processing, and special emphasis on automation. Other pertinent topics include power application, 3A standards, steam generation and utilization, refrigeration and cold storage rooms, freezing, pumping, homogenization, and evaporating, condensing and drying.

While advanced for high school students, the book may be considered as a valuable reference for teachers and plant technicians in the dairy and food processing industry. It contains numerous tables and references and is supplemented by questions and illustrative problems for self study.

Dr. Farrall is the inventor of a number of successful dairy processing machines, and is chairman of the Department of Agricultural Engineering of Michigan State University.

DENVER B. HUTSON  
University of Arkansas

**ROOTS IN THE SOIL**, by Johnson D. Hill and Walter E. Stuermann. Philosophical Library, New York, 1964. Pages 162, price \$4.75.

In this little book the authors have presented a philosophical and historical study of agriculture in the United States. They have described agricultural policies of the Government and have suggested an evaluation of these policies within the framework of an agricultural philosophy.

The authors are convinced that there can be a philosophy of agriculture, just as there is a philosophy of religion or of politics. They feel that this point of view has been neglected in most philosophical reflection and that it must be introduced into our consideration as we move ahead in social and political programs dealing with agriculture and with farm labor.

The book will be of interest to many students of vocational agriculture, particularly for advanced students at the high school level, and for those in technician training at the post-high school level. The authors have dedicated the book to 4-H and FFA members of the nation.

Johnson D. Hill is Chairman of the Board, Atlas Life Insurance Company, and Walter E. Stuermann in Professor of Philosophy, University of Tulsa.

Raymond J. Clark  
Michigan State University

**NATURAL HISTORY.** Richard A. Pimentel, Reinhold Publishing Corporation, 430 Park Avenue, New York 22, N.Y., 1963. pp. xii plus 436. Price \$9.75.

*Natural History* will be of interest to teachers of agriculture, as well as to teachers of biological science, since it shows the interrelationships of the sciences to ecology, origin of soil, and other factors closely related to agriculture.

This book is in no way a textbook for agriculture, but it will be useful primarily as a reference for students of vocational agriculture at the high school, young farmer and technician levels of training.

The book consists of twenty chapters, each illustrated with sketches and drawings.

A list of references for further reading appears at the close of each chapter. The pages are larger than the common textbook, measuring approximately 8¼x10½ inches. Printing is in two columns on the pages.

Dr. Richard Pimentel is Professor of Biological Sciences at California State Polytechnic College, San Luis Obispo, California.

Raymond M. Clark  
Michigan State University

**HORSES AND HORSEMANSHIP** by Dr. M. E. Ensminger. Published by the Interstate Printers & Publishers, Danville, Illinois. 583 pages, 1963. Price \$5.50.

This is a new, larger revision of Dr. Ensminger's 1956 edition bearing the same title.

This publication should be valuable as a reference for those who are interested in the care and management of horses on a small or large scale. The chapter on horsemanship should be particularly valuable to those just beginning to ride for recreation. This book could be a useful reference in vocational agriculture libraries in those communities where horses are important.

The author is well known in the animal science field, having written several books and many articles. He is the former chairman of the Animal Science Department at Washington State University.

Philip B. Davis  
Oregon State University

"Experience keeps a dear school,  
but fools will learn in no other."  
Benjamin Franklin.



## N.V.A.T.A. News

James Wall  
Executive  
Secretary

Effective July 1, 1964, AVA dues were increased from \$5 to \$10. The increase was voted by the House of Delegates at the 1963 Convention in Atlantic City. At the same time a plan was approved whereby rebates would be made to the various vocational services in the states in recognition of achievement of a high percentage of potential membership.

Each Division of AVA may submit a plan to the Board of Directors for its approval, specifying the manner in which any rebate will be distributed.

At a May 1964 meeting of the Executive Committee of the Ag Division of AVA, held in Washington, D. C., it was decided to recommend the following plan to the Ag Division for their consideration at the 1964 convention in Minneapolis. Also shown is the estimated revenue that would be returned to each group, based upon AVA membership as of June 1, 1963. State Ag Teachers Associations—50%—\$13,281; NVATA—45%—\$11,952.90; Ag Ed Division—3%—\$796.86; NASAE—1%—\$265.62; and AATEA—1%—\$265.62.

The amount of rebate per member will be determined by the percent of potential AVA membership attained by each state ag teachers association according to the following table: 100%—\$3.00, 95%—\$2.75, 90%—\$2.25, 85%—\$1.75, 80%—\$1.25, 75%—\$1.00, 70%—70¢, 65%—50¢ and 60%—25¢.

It is true that with a rebate plan some associations will be paying more than others toward the support of NVATA. The total given to the support of the two organizations would be the same. Those paying less toward NVATA would be paying more toward AVA.

It is felt that the rebate plan will offer some relief to members of the AVA Ag Division who have always, because of their high percentage of potential membership, paid more than their fair share of AVA expenses.

The rebate plan can also serve state associations desiring to attain a higher percentage of their potential membership.

In order for NVATA to meet ever increasing expenses it is imperative that additional revenue be secured in the very near future. It is believed that the rebate plan will be the least painless method to use to secure the needed funds. □

# Stories in Pictures

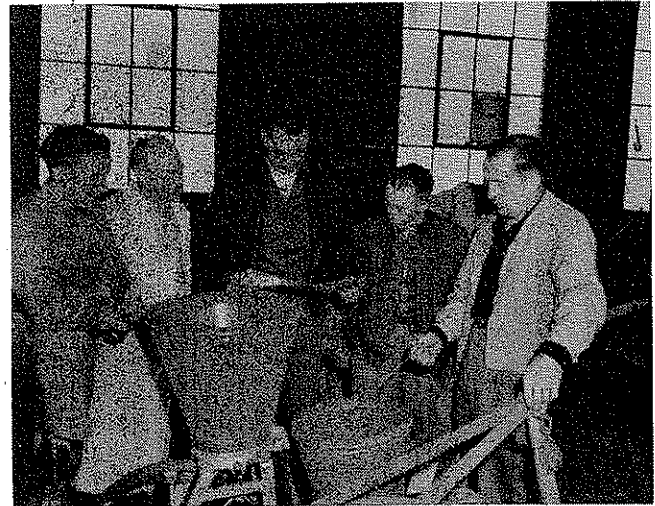
## Registered Angus Heifer Is Donated to Reading FFA Chapter



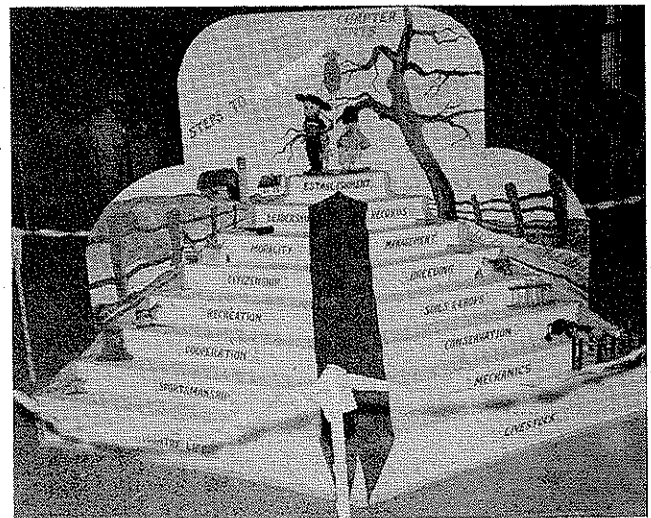
Calvin Dickinson (right) of Camden, Michigan recently donated to the Reading FFA Chapter a registered Angus heifer for the purpose of establishing a beef cattle chain within the local FFA. The recipient of this animal was Fred Reppert (center), a sophomore in the Reading Chapter and his advisor is Gordon Bloom.

The first heifer calf born to this animal will be given to another deserving boy in order that the beef chain be perpetuated.

It is hoped that this chain will help establish breeding beef cattle herds in this section of Hillsdale County.



David Barrett, center, Ashley, Ohio, believes in Farm Mechanics Instruction for Young Farmers.



The Kahoka, Missouri FFA Chapter presented this prize winning exhibit at the Missouri State Fair.



**FIRST FARMER**—Using simple wooden tools, two early farmers give up the hazardous nomadic life and settle down with their mates in one place to till the soil and start villages. The exhibit on "The Beginnings of Agriculture," shown above, bring this early period of man's history to life at The Triumph Of Man pavilion at the World's Fair in New York.