in Pictures

GILBERT S. GUILER
Ohio State University

There is no substitute for a personal home visit if the teacher wants to make his teaching relevant to the home situation. (Photo by Carl Weiwanger, Kansas)

D. D. Skelhut (right), teacher of agriculture at Rock Ridge High School, Wilkes, North Carolina, supervises a class of adult farmers during a course on Small Engine Repair. Charles Beames (left) is the special instructor for the course.

Recipients of 10 Minute Club awards in Montana in 1968. (Left to right) Ralph Anderson, State Supervisor; Dan Watts, John Yocum, Frank Westfall, and Luther Lahn, Teachers of Agriculture; Max Amberson, Teacher Educator. (Photo by Max Amberson)

Featuring —

AGRICULTURAL EDUCATION FOR PERSONS WITH SPECIAL NEEDS
TABLE OF CONTENTS

Editorials
Outlook for Active Participants ........................................ 55
A New Direction in Agricultural Education ............................ 55
We Must Serve Those Being Neglected ................................. 55
A Program for Slow Learners ............................................. 58
An Educational Program for Displaced Farm Workers ............... 58
Realistic Adult Instruction Pays in Many Ways ....................... 61
Education for Farmers with Special Needs ......................... 61
Working as an Agricultural Missionary ............................... 63
Identifying the Educationally Handicapped ........................... 66
Preparing for Work as an Agricultural Missionary ................. 67
Meeting Special Needs of Students Through Vocational-Centered Laboratory Learning 68
Robert W. Walker ....................................................... 68
Vocational Agriculture Helps Meet the Needs of Homeless Boys 70
Greenhouse and Nursery Program for the Mentally Retarded .... 71
Encouraging the Disadvantaged ......................................... 72
Book Reviews ..................................................................... 73
Guidelines for Developing Vocational Agriculture Programs ... 73
James B. Hamilton ......................................................... 74
Stories in Pictures .......................................................... 76

Subscription price, $3 per year. Foreign subscriptions $3.50. Student subscriptions are available at 25 cents per year. Send all subscription to T. L. Foulk, Business Manager, AGRICULTURE EDUCATION MAGAZINE, 800 East State St., Athens, Ohio 45701.

A New Dimension in Agricultural Education

Since its inception, educational education has served persons with special needs. Instructional programs—whether programs for in-school youth, young farmers, or adult farmers. Agricultural education recognizes that even when students have varying characteristics and that some of these characteristics, especially those described as handicaps or disadvantages, necessitate special teacher assistance during organized instruction, supervised study, and supervised practice.

The rather frequent practice of high school principals assigning students with special needs to teachers of vocational agriculture verifies the fact that vocational agriculture has a tradition of paying special attention to students and their needs. Further evidence of the agricultural teachers' special assistance to students are the numerous cases where this occurs.


SUBSCRIPTIONS ACCEPTED AT POST OFFICE AT ACTUAL POSTAGE

SEPTEMBER, 1968

55
WE MUST SERVE THOSE BEING NEGLECTED

T. L. Faulkner, Supervision
Alabama Department of Education

Since the beginning of public vocational education in 1917, there has been a continuing effort to provide vocational programs to meet the changing needs of individuals in a changing society. How- ever, there has been no concerted effort to meet the needs of those students who fail to fit the pattern of studies in our public schools and cannot succeed in regular programs.

SPECIAL NEEDS
Vocational leaders and teachers have struggled to prevent their programs from becoming the "dumping ground" for those students who could not conform to the general pattern of education. In doing so, rather stringent qualifi- cations were developed frequently which prevented less able students from entering existing vocational programs.

In turn, few attempts were made to adapt vocational or occupational training to fit the needs and abilities of those excluded or to develop specific vocational programs for them.

Any society which hopes to remain strong and viable must make efficient use of all its resources. One of the most valuable resources of any society is its people. We have long been con- cerned about the waste and destruction of natural resources, but only recently have we become particularly cognizant of the dangers of exploitation and waste of human resources.

Our founding fathers viewed educa- tional policies as one of the most effective means for improving the individual and the produc- tive plate in society. However, with the advent of a technological-based economy, the less able and poorly pre- pared individuals have fallen behind. Education in general has failed to help this group to become productive members of a changing society.

Over 30 million Americans are below poverty level. Unemployment and social service agencies should be called upon where personal problems are involved or where it is necessary to obtain a better understanding of the environment from which many of these students come.

Industry and labor must be asked to give their support.

WHO ARE THE NEGLECTED?
Who are the socio-economically handicapped youth of the United States? In general, they are the children of low-income parents who live in our affluent society but do not share its benefits. To define the composition of these young people would be impossible. Each is an individual with his own aspirations, capabilities, interests, and dreams. But common to them all is the setting outside the main- stream of educational opportunities. The limitation on their opportunities to develop their abilities to the fullest. This limitation in most cases is the result of their family, educational, and occupational background.

With special needs include youth and adults who have one or more of the following characteristics:

1. Poor educational background; 2. Limited background and preparation; 3. Poor health and nutrition; 4. Relatively small family heads; 5. Birth defects or other physical limitations; 6. Serious emotional problems; 7. Mental retardation; 8. Drug, alcohol, or other habit problems.

From the Editor...

who are academically, socially, economically, culturally, mentally, or physically disadvantaged are primarily or- actors rather than active participators in current, regular programs. Vocational educational opportunities for high school programs emphasizing meaningful supervised experience programs have little attraction to students who have no facilities and for whom learning is not readily employable, and to students who get little or no encouragement, financially or otherwise, from home. The concern of the vocational agriculture and FFA has by-passed the student with special needs. It would be difficult to argue forcefully that the pro- grams and activities of the FFA are attractive or effective with students other than the mainline enroll in voca- tional agriculture. Adult education programs for both farmers and nonfarmers are geared almost exclusively to the innovators and early adopters. How many adults in the logged and late majority groups have taught re- cently? Are the developers of post-secondary programs of technical education in agriculture paying much attention to the disadvantaged?

So what are our alternatives? The articles in this issue are explicit on two counts. First, persons with special needs are not one group but many subgroups with varying charac- teristics, needs, and levels of aspiration. So there is a need for not one but several special education programs in agriculture. And second, special education programs in agriculture are successful for specific groups of persons whether for high school students, post-high school students, or adults.

It would be folly for us to expect to accomplish the task with present programs, staff and facilities. What is needed are new programs designed for specific groups, not watered-down, regular programs. New programs must pay particular attention to the needs, characteristics, and aspirations of those served and to their potential for employ- ment. The development of special education programs will require consideration of the types of students who are specially prepared or have special talents for teaching and working with specific groups of disadvantaged persons. What the responsibility for public education in accordance to the load of the present teaching staff, particularly in schools with one-teacher departments of agriculture, is almost certain to be less than successful.

Several articles in this issue point out that the dis- advantages of people with special needs, are weak in reading and in verbal skills, and have limited facility in the use of numbers. Note that these characteristics relate to general education. In special education, in special education programs in agriculture must involve other teachers in the school. The vocational agriculture teacher cannot overcome the effective barriers above. More emphasis should be placed on developing a school's program of special edu- cation involving instruction in agriculture rather than the special program. Very many of the characteristics of the disadvantaged are related to family characteristics and situations. Perhaps more emphasis should be placed on involving the entire family in special programs.

To serve adequately the disadvantaged, schools must provide facilities and instructional materials for agricultural

THE COVER PICTURE
Mr. James Johnson, Instructor in landscape horticulture at the George Washington Trade School, Detroit, Michigan, supervises Gregory Baswell as he operates a head edger in one of the school's gardens. George Washington Trade School provides educational opportunities for vocational students from the entire city of Detroit. (Photo furnished by Edwin St. John, Supervisor of Agricultural Education, Michigan Department of Education.)

GUEST EDITORIAL

were receiving one or more services not provided for students enrolled in regular vocational agriculture classes in 1967. There were approximately 4,520 students enrolled in special programs for students with special needs. Program activities for the vocational agriculture students with special educational needs are in substantial agreement with the load of the present teaching staff, particularly in schools with one-teacher departments of agriculture, is almost certain to be less than successful.

Several articles in this issue point out that the dis- advantages of people with special needs, are weak in reading and in verbal skills, and have limited facility in the use of numbers. Note that these characteristics relate to general education. In special education, in special education programs in agriculture must involve other teachers in the school. The vocational agriculture teacher cannot overcome the effective barriers above. More emphasis should be placed on developing a school's program of special edu- cation involving instruction in agriculture rather than the special program. Very many of the characteristics of the disadvantaged are related to family characteristics and situations. Perhaps more emphasis should be placed on involving the entire family in special programs.

To serve adequately the disadvantaged, schools must provide facilities and instructional materials for agricultural

education to a greater extent than in the past. Laboratory facilities and provisions for related and simulated occupa- tional experience are necessities for students who have no home facilities for occupational experience and for students who cannot be employed as student-trainees. Spec- ialized facilities are needed for students with mental and physical handicap. Regular instructional materials are no longer suitable for these students than is the regu- lar program of vocational agriculture.

Instructional programs in agriculture—applied plant, soil, and animal science and related machinery—are effec- tive means of serving persons with special needs. To fulfill our responsibilities to these persons, we must provide special instructional programs rather than the regular vocational agriculture program to different groups.

---

September, 1968

THE AGRICULTURAL EDUCATION MAGAZINE

66
A PROGRAM FOR SLOW LEARNERS

DONNIE L. HARLAN and J. W. GRIMES
Teachers of Agriculture
Rogers, Arkansas

We have 200 students enrolled in vocational agriculture at Rogers High School. It was our feeling that the program was not meeting the needs of several of our students. Our study of the situation and conferences with the principal and counselor led to the establishment of a program designed to meet the needs of students with handicaps that prevent them from succeeding in the regular vocational agriculture program and in other courses in the school.

A NEW PROGRAM

We felt that students enrolled in the special program should not be referred to as persons with "special needs." We decided to call the new program Coordinated Shop. The program is organized to provide instruction in areas that are of particular interest to students.

Instruction in shop serves as the stimulus for the program in helping students to discover their interests. Other courses are then coordinated to the shop program. When a student indicates an interest in a particular area, instruction in English, mathematics, and science is coordinated to this interest. Students show a response to this type of teaching and are very enthusiastic about the program. Many of them state that they have, for the first time, how English, mathematics, and science, as well as shop, are of value in everyday life.

The program is designed to accomplish three specific purposes:

1. To help students who are mentally and academically slow to participate with students of their own peer group.
2. To help students overcome the poor attitudes they have developed as a result of failure by providing opportunities for achievement in areas of interest to them.
3. To introduce students to the world of work by providing training in fields in which they can become successful self-supporting citizens.

SELECTION OF STUDENTS

The teachers of agriculture, the faculty, high school principal, and the counselor have the responsibility of selecting students for the program. It was agreed that students selected would be those who were failing or had failed the ninth grade and had unfavorable attitudes toward the school, teachers, and other students.

We found that many of the students possessed one or more of the following characteristics: poor self-image, low reading ability, limited vocabulary and poor speech habits, engaging in nonproductive activity much of which is disruptive, slowness in the performance of intellectual tasks, indifference to responsibility, poor health and poor health habits, and limited experiences in the home environment and in contacts with social, cultural, and governmental institutions.

Since many of the students were slow learners thereby making a great deal of individual instruction necessary, we decided to keep the class relatively small in size. Sixteen students were selected to participate in the Coordinated Shop program the first year.

THE INSTRUCTIONAL PROGRAM

Our next task was to decide on the content of instruction and the learning experiences that would be given. If they leave school before they receive a high school diploma and have some skill to offer a prospective employer, second, provide special classes for such students, give them the remedial help they need to acquire some basic vocational skills and teach them the social skills required in applying for a job and the attitude and conduct expected of employees on the job, including the ability to take orders and get along with fellow workers.

Third, develop work-study programs to help meet the financial needs of these students to allow them to stay in school. This procedure has the added advantage of allowing them to get some experience in the world of work while receiving teaching and counseling from the school. Finally, the school can encourage dropout to return, whether they have left school recently or are now adults. This would involve creating a climate of acceptance as well as offering the courses needed and making available counseling they might require or request.

Our next task was to decide on the content of instruction and the learning experiences that would be given. If they leave school before they receive a high school diploma and have some skill to offer a prospective employer.

Second, provide special classes for such students, give them the remedial help they need to acquire some basic vocational skills and teach them the social skills required in applying for a job and the attitude and conduct expected of employees on the job, including the ability to take orders and get along with fellow workers.

Third, develop work-study programs to help meet the financial needs of these students to allow them to stay in school. This procedure has the added advantage of allowing them to get some experience in the world of work while receiving teaching and counseling from the school. Finally, the school can encourage dropouts to return, whether they have left school recently or are now adults. This would involve creating a climate of acceptance as well as offering the courses needed and making available counseling they might require or request.

VOCA TIONAL AGRICULTURE PROGRAMS

This brings us to the question of planning a state or local program for students with special needs. In most cases the vocational agriculture courses would almost double our budget for vocational agriculture since over 90 per cent of our programs are still one-on-one teachers throughout the nation.

It seems to me that the alternative is that most of the instruction in agriculture for students with special needs will have to be done by present vocational agriculture teachers. The larger school systems should employ additional teachers and when possible.

The public and Congress are expecting vocational education to come up with a practical training program for students with special needs. The pressure and demands for us to comply are getting stronger every day. They expect us to serve these kids who are being neglected. I predict that we will comply with this challenge and responsibility.
AN EDUCATIONAL PROGRAM FOR DISPLACED FARM WORKERS

ROBERT C. HAYNIE, Teacher Education
Agricultural, Mechanical and Normal College
Pine Bluff, Arkansas

Two programs for post-high school education of students and young adults who have special needs are conducted at the Agricultural, Mechanical and Normal College, Pine Bluff, Arkansas. The program for regular post-high school students is funded partly by the State Department of Education under the provisions of the Vocational Education Act of 1963. The Displaced Farm Worker Training Program is funded partly under the Economic Opportunity Act.

Both programs are designed to help farm and rural people develop interests and abilities for work in occupations requiring less than a baccalaureate degree. Another purpose is to encourage and prepare persons for continuing study in training beyond high school. Since the Displaced Farm Worker Training Program deals with the more academically handicapped, it will be described in this article.

Displaced Farm Workers

The Displaced Farm Worker Training Program is intended to provide basic education and vocational training for 75 to 100 seasonal farm workers. Many of the displaced farm workers in the training program have the Arkansas-Mississippi Delta area, where pockets of poverty and hunger exist. These students are not far removed from a fixed attitude on the part of a power structure who believed that sharecroppers did not need education and training. Such disadvantaged students were destitute from birth to have special needs that could not be met through regular educational programs.

The need for the program is a result of the rapid mechanization of the farming industry in Arkansas. For all of these reasons, these workers and their parents have spent about one-third of every year as tenants. Before the minimum wage was extended to farm workers, the farm owners provided meals and宿 and the food year round for those farm workers and assured them for these services during the growing and harvest season. Because the planters and tenants now pay the minimum wage, workers are no longer able to spread the benefits over the long unemployed period. The planters are finding it more feasible to hire trained mechanics and machine operators than leaving the work to the untrained and unskilled workers or means of income.

The farm workers, who formerly worked only during growing and harvest season, now find themselves almost completely unemployed. This situation makes them the most disadvantaged persons in their particular communities.

The Program at A.M. and N. College

In organizing and conducting the Displaced Farm Worker Training Program, the College asked residents of the communities involved to aid in the identification, recruitment, and selection of trainees. As the program developed, local residents worked on advisory committees to determine areas of intense need and necessary program changes. Where it is possible to do so, local residents are given employment in the actual conduct of the program. The public assistance programs in the communities of the participants are urged to make available health and welfare services.

The program is conducted as a residential program at the Agricultural, Mechanical and Normal College. However, the occupational placement of the trained workers will be as near to their homes as possible. This aspect of the program is being coordinated with on-the-job training programs under the Maquoketa Development and Training Act and with Neighborhood Youth Corps programs.

Program of Instruction

The instructional program designed to meet the needs of the displaced farm worker includes:

1. Basic education: communication skills, human relations, and agricultural mathematics.

2. Vocational training: agronomic agriculture, agricultural mechanics and repair, body work repair and painting, automobile mechanics, nursery, carpentry, electricity and electronics, welding, tailoring, practical nursing, and secretarial training.

3. Consumer education.

The most important need of the participants is employment. The success of the program depends on basic education which provides improved displaced farm worker for vocational training. The mass displacement of tenants from farms with the men have made a living for many years on a subsistence level makes it mandatory that someone become concerned to the point where help is given not as a handout, but as an opportunity to develop skills that the displaced farm workers and their children sufficiently.

In Hardin County, Tennessee, began its "War on Poverty" in 1961 when the community of Walnut Grove was selected for special consideration. The first move came with the consolidation of all one-teacher schools into one large elementary school. To help weld the several smaller communities into the new community, the county superintendent of public instruction instructed J. J. Bell, teacher of vocational agriculture at Central High School, Savannah, Tennessee, "to go to Walnut Grove and show those folks how to make a living."

WICH CROP

A community survey showed that 250 farms had an average annual gross cash income of $788.00. The reason for the low net returns were many. The highly eroded soil of coastal plain origin was basically unproductive. The timber had practically all been cut during World War II and there was little suitable land for pasture or feed crop production.

The remaining feature of the existing soil was that it warrants early in the spring. It was also responsive to fertilizer and therefore suited to corn crops. Which crop would depend upon available markets.

SOME POSSIBILITIES

The first new crop selected was strawberries. At this time a professor was interested in giving detailed instruction in planting, fertilizing, cultivating, harvesting, and marketing. The farmer leaned a crop of strawberries. The sales of the crop and the income from the sale of strawberries was $5000. The farmer then decided to grow strawberries.

A. J. Paulus

University of Tennessee

SOME RESULTS

The added income has brought about many changes in the social, educational, and economic life of the community.

New churches, stores, and houses have been built. Old dwellings have been replaced with attractive modern structures. Some 60 percent of the houses have been built in the last five years.

The county superintendent says, "There has been an increase in school attendance in the last five years. The children are actually learning faster due to better home and health conditions. The dropout rate has decreased. Requests for free school lunches have dropped 70 percent."

A. J. Paulus

University of Tennessee

(Continued on page 67)
Education for Farmers with Special Needs

LOWELL A. GOUGH and HAROLD R. ROWE
Research Coordinating Unit for Vocational Education
University of Kentucky

As is true in other parts of the nation, an overwhelming number of the persons with special needs who live in Kentucky are far removed from crowded city ghettos. To varying degrees, they are deprived socially, psychologically and physically, but most of all they are economically deprived. Unlike the urban poor, the rural poor frequently own at least a section of real estate and more frequently they are likely to have strong psychological and emotional ties to the small strip of land which they either possess or share.

It has been shown in Kentucky that a number of small farm owners and share croppers tend to have net annual incomes of less than $1,200. From time to time some of these farmers abandon rural living and migrate to a city in search of employment, but more often than not they remain on the farm and fail to obtain sufficient income to provide an adequate level of living for their families. Their children seldom receive either an adequate diet or a high school education. When the children become of employable age, they are likely to migrate to a city in search of employment.

This article reports the results of a Manpower Development Training Act pilot project which suggests a feasible and partial solution to the rural poverty problem and consequentially a partial alleviation of the urban poverty problem. The program was conducted in the Somerset, Kentucky, area.

The Pilot Project

The primary goal of the educational programs were to raise the farmer's income above the poverty level and thereby to improve his level of living. The training for the courses were selected by a group of county extension agents, vocational agriculture teachers, Soil Conservation Service technicians, and Farmers Home Administration supervisors.

All applicants for training were those with the special need—poverty. The typical applicant for training had four dependents, an annual income of less than $1,200, a sixth grade education, and few skills on which to rely in order to make an adequate level of living as a farmer.

Specialists from the University of Kentucky studied the resources of the area and recommended that specialty farming be introduced because the area is particularly suited to fruit and vegetable crops. It was thought that the sale of the farm owners and operators in the Somerset area could profit from the addition of fruits and vegetables to their farming programs.

Courses Offered

Preparation for change in farming crops began with a MDTA course that was designed to train peach growers. Another course trained a class to grow green beans, cucumbers, and tomatoes. In addition, some trainees learned how to operate profitably greenhouse for the purpose of growing tomatoes and watermelons. In another course the trainees learned to grow blackberries, blueberries, and strawberries. An important part of all of the courses was the instruction in the use of services of government agencies and participation in marketing cooperatives.

In a typical course trainees are provided 33 weeks of instruction both in the classroom and on the trainees' farms. The trainees were taught ways of increasing productivity and ways of increasing business efficiency. Among the topics taught were the introduction of new crops such as fruits, berries, and vegetables into a small farming operation. Other topics include farm and house planning, money management, effective employment of family labor, land use, marketing procedures, and production of a home food supply. An important aspect of the courses was that all trainees practiced their learnings in a group on each trainee's farm and they practiced solving their farming problems cooperatively.

Evaluation of the Program

Interviews with the vocational education program coordinators, the area farm labor representative, and the course instructor with an analysis of the course outcomes identified farming practices that are indicators of expected changes in the behavior of trainees that could result from the instructional programs. Using this list of expected outcomes, interviews with nineteen trainees in one course indicated the following outcomes.

- The average net income per trainee increased from $618 before the course to $2,200 by the end of the second year after the course. The increase in net income ranged from $200 to $4,200. The increases show that generally the objective of the course was more than realized; however, some of the trainees' income improved more than others.
- The gain in combined net incomes of all trainees was $30,500 by the end of the second year after the course. The total allocation of funds for the course was $35,505; therefore, 94.6 percent of the allocation was recovered by the end of the second year after the course.
- The trainees whose increase in net income was above the median after the course had adopted significantly more intensive farming practices than did the trainees whose increase in net income was below the median.
- Another significant difference was seen in the degree to which the trainees' farming practices were adopted by neighboring farmers. The trainees whose increase in net income was above the median noticed a larger number of differences in their neighbors than did the trainees whose increase in net income was below the median.

The trainees expressed a need for further training in specialty farming practices and the need for an opportunity to work continually with other farmers to solve their current farming problems.

Summary

It is evident that ways and means for solving the rural poverty problem are needed. The general farmer training programs conducted under the MDTA in the Somerset area of Kentucky are good educational innovations.

Similar programs should be continued and enlarged. In addition, experimentation with other approaches to solution of the rural poverty problem are needed.

In the words of one MDTA general farmer trainee, the training is "just like a fire—it is helpful if you put it to use." In the absence of continuing education, the trainee who has managed to rise above the subsistence level may fail to put his learning to use effectively and he may never fully develop to his maximum potential.

Realistic Adult Instruction Pays in Many Ways

(Continued from page 61)

Education for Farmers with Special Needs

LOWELL A. GOUGH and HAROLD R. ROWE
Research Coordinating Unit for Vocational Education
University of Kentucky

As is true in other parts of the nation, an overwhelming number of the persons with special needs who live in Kentucky are far removed from crowded city ghettos. To varying degrees, they are deprived socially, psychologically and physically, but most of all they are economically deprived. Unlike the urban poor, the rural poor frequently own at least a section of real estate and more frequently they are likely to have strong psychological and emotional ties to the small strip of land which they either possess or share.

It has been shown in Kentucky that a number of small farm owners and share croppers tend to have net annual incomes of less than $1,200. From time to time some of these farmers abandon rural living and migrate to a city in search of employment, but more often than not they remain on the farm and fail to obtain sufficient income to provide an adequate level of living for their families. Their children seldom receive either an adequate diet or a high school education. When the children become of employable age, they are likely to migrate to a city in search of employment.

This article reports the results of a Manpower Development Training Act pilot project which suggests a feasible and partial solution to the rural poverty problem and consequentially a partial alleviation of the urban poverty problem. The program was conducted in the Somerset, Kentucky, area.

The Pilot Project

The primary goal of the educational programs were to raise the farmer's income above the poverty level and thereby to improve his level of living. The training for the courses were selected by a group of county extension agents, vocational agriculture teachers, Soil Conservation Service technicians, and Farmers Home Administration supervisors.

All applicants for training were those with the special need—poverty. The typical applicant for training had four dependents, an annual income of less than $1,200, a sixth grade education, and few skills on which to rely in order to make an adequate level of living as a farmer.

Specialists from the University of Kentucky studied the resources of the area and recommended that specialty farming be introduced because the area is particularly suited to fruit and vegetable crops. It was thought that the sale of the farm owners and operators in the Somerset area could profit from the addition of fruits and vegetables to their farming programs.

Courses Offered

Preparation for change in farming crops began with a MDTA course that was designed to train peach growers. Another course trained a class to grow green beans, cucumbers, and tomatoes. In addition, some trainees learned how to operate profitably greenhouse for the purpose of growing tomatoes and watermelons. In another course the trainees learned to grow blackberries, blueberries, and strawberries. An important part of all of the courses was the instruction in the use of services of government agencies and participation in marketing cooperatives.

In a typical course trainees are provided 33 weeks of instruction both in the classroom and on the trainees' farms. The trainees were taught ways of increasing productivity and ways of increasing business efficiency. Among the topics taught were the introduction of new crops such as fruits, berries, and vegetables into a small farming operation. Other topics include farm and house planning, money management, effective employment of family labor, land use, marketing procedures, and production of a home food supply. An important aspect of the courses was that all trainees practiced their learnings in a group on each trainee's farm and they practiced solving their farming problems cooperatively.

Evaluation of the Program

Interviews with the vocational education program coordinators, the area farm labor representative, and the course instructor with an analysis of the course outcomes identified farming practices that are indicators of expected changes in the behavior of trainees that could result from the instructional programs. Using this list of expected outcomes, interviews with nineteen trainees in one course indicated the following outcomes.

- The average net income per trainee increased from $618 before the course to $2,200 by the end of the second year after the course. The increases in net income ranged from $200 to $4,200. The increases show that generally the objective of the course was more than realized; however, some of the trainees' income improved more than others.
- The gain in combined net incomes of all trainees was $30,500 by the end of the second year after the course. The total allocation of funds for the course was $35,505; therefore, 94.6 percent of the allocation was recovered by the end of the second year after the course.
- The trainees whose increase in net income was above the median after the course had adopted significantly more intensive farming practices than did the trainees whose increase in net income was below the median.
- Another significant difference was seen in the degree to which the trainees' farming practices were adopted by neighboring farmers. The trainees whose increase in net income was above the median noticed a larger number of differences in their neighbors than did the trainees whose increase in net income was below the median.

The trainees expressed a need for further training in specialty farming practices and the need for an opportunity to work continually with other farmers to solve their current farming problems.

Summary

It is evident that ways and means for solving the rural poverty problem are needed. The general farmer training programs conducted under the MDTA in the Somerset area of Kentucky are good educational innovations.

Similar programs should be continued and enlarged. In addition, experimentation with other approaches to solution of the rural poverty problem are needed.

In the words of one MDTA general farmer trainee, the training is "just like a fire—it is helpful if you put it to use." In the absence of continuing education, the trainee who has managed to rise above the subsistence level may fail to put his learning to use effectively and he may never fully develop to his maximum potential.

Realistic Adult Instruction Pays in Many Ways

(Continued from page 61)
Honduras are starving! The ones that really pull at your heart are the children. So we considered the cities and the towns. It is not a matter of starvation or a heavy infestation of worms, or a common scene in Honduras, but a scene that never becomes easy to look at.

There are vast opportunities in Honduras for agriculture, and only 1 per cent of the population is engaged in agriculture. Practically all of these people will practice a different type of agriculture called "slash and burn" where a piece of jungle is cleared, burned, planted, harvested, plowed again, burned and abandoned. They use two implements: machete and a pointed stick. No animals are corralled; chickens, hogs, cows and all animals roam at will throughout the villages sharing equally the house and kitchen table with the family. This system makes vegetable growing impossible as well as continually reforesting with weeds the hoes and yards where the children play.

**A DIRECT APPROACH**

One approach to agricultural education being used in Honduras is the direct approach, an educational teaching the persons who will actually use the information. An example of this approach is a one-week vegetable gardening workshop held in Laka. It was typical of several held in Honduras during November and December of 1967.

Men from twenty different villages attended the workshop. Walking is the only means of transportation, so many of them walked four or five days. Laka is a Mosquito Indian village of fifteen families. This village is located on a small mud bank of 100 yards square rising out of the swamp and lagoons of northeastern Honduras. There are an estimated 16,000 Mosquito Indians living throughout this vast area in similar villages with less than two persons per square mile.

During April and May of 1967 the rivers that feed the swamps and lagoons destroyed their rice crop which is one of their staple crops. Flooding is becoming an annual occurrence in this area of an emerging coastal line. Their other staple, banana, is being attacked by a new disease—"Alamo." There are no known controls for this disease, only experimental varieties. But resistant varieties are not available to the poor campesinos. The fruit companies that have developed resistant varieties need all they can reproduce for their own plantations.

**WHAT WAS TAUGHT**

In an effort to get the people to switch to a shifting agriculture to one of more permanence, the following were taught about vegetable gardening: selecting a site for a kitchen garden of 1,000 to 1,500 square feet; making a compact pile from kitchen and animal wastes not presently being used; importance of garden vegetables in the diet; soil preparation including turning under a cover crop and preparing a fine seed bed; planting seeds deep enough to help them viable; proper planting depths and distances; garden management practices: disease control; insect control; weed control; and starting seedlings in a seedbed.

A learning by doing method was used in teaching each of these steps. By the end of the week a compost pile and a model garden had been planted.

**THE RESULTS**

The illiterate Mosquito Indians responded to this type of instruction. Forty-year-old men eagerly helped make the garden. They actually pushed each other out of the way with such comments as, "Let me turn the soil for the teacher so I know that I am doing it right. I will have to do it when I get back to my village" and "Let me plant that seed, I never planted a seed before in my life." At the end of the workshop each person was given a package containing fifteen different vegetable seeds of the type that were planted during the workshop.

Recently a professional photographer making a world-wide trip photographing activities of agricultural missionaries found the best garden he had seen growing in Curupita. It had been planted and cared for by one of the men who practiced the skills learned at the workshop in Laka.

**ANOTHER APPROACH**

Not all agricultural education in Honduras is with the indigenous Indians. A second approach is being tried in the San Pedro Sula area of Honduras.

During the 1967-68 school year, Garland E. Gingerich was on sabbatical leave from his position of teacher of agriculture, Penn State University, State College, Pennsylvania. During that period of time, Mr. Gingerich served as an agricultural missionary in San Pedro Sula, Honduras (Central America). He served as an agricultural education advisor for a coordinated effort by three church groups to promote community development on the northern coast of Honduras.

The project was administered by Agricultural Missions, Inc., 475 Riverside Drive, New York, New York. Persons interested in short-term or long-term work as an agricultural missionary should contact: Agricultural Missions, Inc., 475 Riverside Drive, New York, New York 10027.

They were! Nearly 500 packages of garden seeds had been distributed. Additional training was given to each of the volunteers during January with each volunteer going back to his own community. Visits that permitted help with the real problems they were encountering. A similar schedule was planned for the teaching of poultry management during the month of February. During each one day workshop the volunteers were instructed how to make a simple chicken coop from local materials and how to feed and manage the chickens. They were urged to show the people of their villages the need to guard their coops, to show the need to feed the chickens a suggested ration, and to return one dozen hatchable eggs to the extension agents who in turn will use them to start other projects. Any chickens that did receive the 10 per cent feeding of egg will be given to orphanages or other charitable institutions.

**ADDITIONAL TRAINING**

During the month of January a one day workshop was held for the extension volunteers. This workshop's instruction was given in how to plan and manage each of the fifty five vegetable gardens planned for the packages of seeds.

At this stage of the training it was important to find out if the extension agents had become change agents. Were they able to convince the people of their villages to farm an area for a garden?
Preparing for Work as an Agricultural Missionary

JOHN L. STEVA and WILLARD WOLF
The Ohio State University

Students enrolled in colleges of agriculture or in high school vocational agriculture programs who are interested in agricultural mission service frequently need help in preparing for this work. Teachers likewise need to know how to best advise and help these students to reach their vocational objective.

Agricultural missionaries preparing to serve overseas need competence in technical agriculture as applied to the country where they will work. In addition, they should be familiar with the customs and needs of other nations. They need to know how to get along with the rural people, fellow workers, and personnel with other agencies.

PREPARATION FOR WORK AS AN AGRICULTURAL MISSIONARY

Agricultural missionaries recommended that agricultural education should be strongly considered as a basis for the potential agricultural missionary because of the latitude allowed in selecting courses and the importance of extension and education in mission work. It has been found that extension education is an effective agricultural education program in missions due primarily to the individual nature of the teaching and work among the adult farm population in helping them learn productive and efficient farming.

In an effort to learn more about the preparation needed for work as an agricultural missionary, questionnaires were sent to 197 agricultural missionaries and rural development workers in twenty-one African countries south of the Sahara Desert. The major findings of this investigation are reported in this article.

SKILLS AND UNDERSTANDING NEEDED

From a list of twenty, agricultural missionaries listed the following as the five most important skills and understandings for pre-service education of missionaries:

- Learning the native language (especially after being assigned to a country).
- Developing local leadership.
- Adjusting to local beliefs, customs, and living conditions.
- Improving local crops, seeds, tools, animals, and controlling plant and animal diseases.
- Co-operating with government agencies.

After one term of service as a missionary, the agricultural missionaries indicated the most important skills and understandings were developing local leadership and improving local crops, tools, animals, control of plant and animal diseases. Almost all of the agricultural missionaries' wives were involved in activities in addition to homemaking. The most common role was directing or helping with women's work.

SOME GUIDELINES

The following guidelines should provide direction to those preparing for agricultural missionary service. But as one missionary warned, they do not insure success.

- Have an understanding attitude toward other people's customs.
- Learn the language as quickly as possible. Effective communication will help with the work.
- Develop leadership ability to help people determine their needs and to help themselves meet these needs. Recognize the natives' intelligence, even though some are illiterate. An outsider should not be a dictator; some but not all of his ideas will work. The local farmers know when the rains come, what plants grow best, and local conditions.
- Learn to involve local people in decision making; they are more likely to accept new ideas when they participate in decision making.
- Be able to use a variety of methods in teaching. If funds are low, train volunteer farmers in teaching methods to multiply the total teaching effort.
- Develop an understanding of improved tropical agricultural practices including soil conservation.
- Have an understanding of the geography and the history in the country.

(Continued on page 69)
Meeting Special Needs of Students Through Vocational-Centered Learning Laboratory

ROBERT W. WALKER, Teacher Education, University of Illinois

Future accomplishment is based upon past success. Most people will accept that statement, yet many schools continue to permit students to enter and remain in programs destined to have no impact because they are destined to have a series of unsuccessful experiences. For these students the school and the school environment are frequently such that they cannot be accepted as they are. Unfortunately, the plight of the student who may not come to the attention of the school until he identifies himself as a slow learner, an underachiever, or a potential dropout. How could any student who is not involved in a program to meet his needs ever hope to be a rapid learner, a high achiever, or a happy student?

A Look at the Problem

The situation at the University of Illinois, Community Schools and the teacher of agricultural occupations in the school becomes important because of the needs of some students who were entering the agricultural occupations curriculum. The student was benefiting to some extent from the instructional programs, but they were not receiving the special attention that their needs demanded. The students lacked skills in reading, writing, and arithmetic. Their attitudes towards school work were poor. Something needed to be done to help these students with special needs.

A Cooperative Effort

To Solve the Problem

A request for assistance to the Division of Agricultural Education, University of Illinois, lead to the finding of an experimental project by the Illinois Research Coordinating Unit. The project is a cooperative effort between the Illinois schools and the University of Illinois in the area of general, their attitude toward the school and their teachers was poor.

An attractive four-room rural school building located on a hilltop of ground which is next to a 14-acre woodlot was chosen to serve as the laboratory. The four of the rooms in the basement. The building is located approximately four miles from the high school campus. The Mississinewa River, a beckoning stream in the countryside, is just across the road from the laboratory. The woodlot is high on high ground permitting a spectacular view of the valley.

Three staff members are involved in the part-time: the director of the project who is an agricultural occupation teacher at Warrase High School, a second agricultural occupations teacher, and an English teacher. In addition, the guidance counselor and a reading specialist assist as a part of their regular duties.

The Curriculum

Instruction is offered in the following areas:

- Applied biological science and agriculture: animal science, horticulture, forestry, forest conservation, recreation, and FFA.
- Mathematics and finance control: computational skills and problem solving.
- Communication: listening, speaking, writing, reading, and human relations.
- Physical education.
- Social studies.

Twelve boys were selected to participate in the program in 1967-68. The project was named "The New Opportunities Program." It was anticipated that without a name the class would be labeled by students and faculty members. With the use of Walker's Agricultural Interest Inventory, interest in animals, plants, mechanization, and outdoor activities was determined for all boys. All of the boys were identified by the guidance counselor and were assigned to the special education class. Many of the boys had a history of poor attendance. In
countered in a traditional program. The key to adjustment of our own, is an enjoyable and powerful activity that facilitates accomplishment and the desire on the part of the students to continue additional activities.

Learning activities center around the rabbits, chickens, brood sow and litter, and groundskeeping in the basement of the school. Flowers are grown in the classroom. Bee study is studied in an observation hive. Nature trails have been located in the woods and the students here are guided by elementary children who help to explain interesting land form and show off their plot of native prairie grass. Practical techniques are taught in the shop to learn basic skills.

There is time for fishing in the Mississippi. The fish are prepared and served in the laboratory kitchen. All students enrolled are members of the FFA, and participate in its leadership activities.

What Are the Results?

Now we come to the most important questions. How are the boys progressing? Are they learning rapidly, achieving at an acceptable rate and changing their attitude toward school, teachers, and learning activity? They are and the changes taking place are very significant to the boys. First, the students come to school. Their attendance record is exceptional which indicates that they want to come to school. Second, they enjoy the program in which they are actively engaged. They understand the reason for performing each activity, and they work at their highest level of capability. Each student participates and feels that he is making a worthwhile contribution. He wants to cooperate. Third, he enjoys school. He likes his new teachers because he likes him. He readily accepts and responds to the attention showered upon him.

All persons involved in the project are encouraged with the progress made by each student. Each student is anxious to continue into the second year of the two-year project; and if the behavioral changes continue to take place, there is no doubt that they will be ready to enter a vocational-technical program designed to develop further knowledge and skills that will qualify them to enter the world of work and become good citizens.

Preparing for Work as an Agricultural Missionary

(Continued from page 67)

Recognizes the importance in community development of maintaining clean air, water, and recreation areas. Be able to prepare crop varieties that the people have an ample supply of good, nutritious food with concern also to yields, disease resistance and storage.

Understand the importance of marketing, processing facilities, and storage.

Know the agencies from whom one may receive help; for example, highly trained specialists for irrigation projects and building dams.

Use caution when establishing coopera-This is an important aspect of the project of special education programs, and it is essential that the special education programs be attached to work developed in the program, towns or cities, that require the services of highly trained specialists for Irrigation projects and building dams. They should also keep a very close affiliation with the organization that sent them. They should enter the service with serious professional thought.

The land labor and groundskeeping in the basement of the laboratory. The students here are guided by elementary children who help to explain interesting land form and show off their plot of native prairie grass. Practical techniques are taught in the shop to learn basic skills.

There is time for fishing in the Mississippi. The fish are prepared and served in the laboratory kitchen. All students enrolled are members of the FFA, and participate in its leadership activities.

What Are the Results?

Now we come to the most important questions. How are the boys progressing? Are they learning rapidly, achieving at an acceptable rate and changing their attitude toward school, teachers, and learning activity? They are and the changes taking place are very significant to the boys. First, the students come to school. Their attendance record is exceptional which indicates that they want to come to school. Second, they enjoy the program in which they are actively engaged. They understand the reason for performing each activity, and they work at their highest level of capability. Each student participates and feels that he is making a worthwhile contribution. He wants to cooperate. Third, he enjoys school. He likes his new teachers because he likes him. He readily ac-
Vocational Agriculture Helps Meet the Needs of Homeless Boys

GUY W. FINSTAD, Teacher of Agriculture
Cal Farley's Boys Ranch, Texas

When Cal Farley began his home for homeless boys twenty-three years ago, agriculture was not the same as it is today. As the field of agriculture has changed, Cal Farley's Boys Ranch has grown and expanded. It now has with half a dozen and 100 acres of land; now there are 350 boys and over 4,500 acres of land. Agriculture has become an important part of the program. Not only does it provide a working-learning situation for the boys, it provides food for the table. These boys learn where the food on the table comes from and what has to be done to get it there.

Learning by Working

They have had the opportunity to start from the beginning as they have recently cleared the melic and sage brush from the sandy hillsides, leveled the area, and worked the soil into a suitable condition for planting. Irrigation wells have been dug and they are learning the importance of water and fertilizers at the appropriate time. Grain sorghum is the main crop. There are also 70 acres of alfalfa and 35 acres of Bermuda grass.

All of the feed the boys are able to raise is fed to the livestock. It takes all they raise and more to maintain a herd of 55 Holstein dairy animals, 300 beef cattle, 400 steers, 700 broilers, and 60 horses.

The beef is slaughtered in our slaughter house by the boys. The fresh pork and broilers are also butchered here, but the cured pork is sent to town for processing. The boys also cut the meat and cook it for consumption in the dining hall, which serves an average of 1,200 meals each day. To keep the dining hall supplied, it takes 100 gallons of milk per day, three beef animals per week, and 40 hogs per month. With newly acquired land we hope to develop a program of raising vegetables and just in a canery. A limited amount of vegetables was planted on an experimental basis this spring. Boys raised about six and a half in the crops for the livestock. There are fifteen different varieties. Over 100,000 pounds of grain sorghum are used in these races each month.

A Job for Each Boy

Each boy has a job in helping to maintain the successful operation of the home and farm. Each is assigned a specific job for which he is responsible. As the size and ability of the boy increases, so does the job. The boys are given an opportunity to change jobs frequently thereby enabling them to learn a variety of jobs. Each boy receives a small salary for his work and has a bank account. He purchases his own clothing, school supplies, and personal needs.

Boys from Many States

The boys living at Cal Farley's Boys Ranch come from broken homes across the United States. We have boys from 37 different states. Most of them have lived in cities and have not had the opportunity to experience the joys and disappointments of farm life. They have been there and done that with nothing to do but now they never have to try to find something to do as there is always plenty of activity.

There is time for recreation also. There is always a baseball game, horse-riding, fishing, and other activities for the boys to enjoy. However, the boys learn there is enjoyment in accomplishment and they are willing to work hard to receive recognition and praise.

The boys particularly enjoy their project animals. They may buy a calf or pig with a loan from the bank. For many of them this is the first opportunity they have had to own anything of value. They are very proud of these animals and look forward to the competition in local and statewide livestock shows.

Vocational Agriculture Program

Training in the vocational agriculture shop is another phase of the program that has proven valuable to the boys in getting a job after graduation from high school. They are taught welding, woodwork, concrete, and mechanics. All the upkeep and repair on the farm machinery is done in the shop.

The FFA program is another phase of the program that creates a lot of enthusiasm and interest among the boys. The competition among the boys to do a better job of a job in the judging team is very keen. Through this training a boy receives instruction in leadership, citizenship, and cooperation that is very important in teaching him to become a good citizen.

Our Ranch has its own twelve-grade state school system. Vocational agriculture is one of the main courses offered. The boys receive the same type training in the classroom as they would in any school in the nation. But they have the advantage of their home being a supervised laboratory where the opportunities for learning are endless.

The purpose in providing a home for boys who have no home is not only to feed, clothe, and care for them, but to help them prepare for the future.

Greenhouse and Nursery Program for the Mentally Retarded

EDWARD ORTIZ, Supervisor Greenhouse Program
Vocational Training Center and Workshop
Hampton, New York

In 1963 the Vocational Training Center and Sheltered Workshop of the Nassau County (New York) Chapter of the Association for the Help of Retarded Children initiated the Greenhouse and Nursery Program as an additional vocational training area.

The Program

The grounds of the Educational Center in Brookville, Long Island, consist of approximately two acres of land and a three-hundred-foot greenhouse. We have established a vegetable garden and nursery, built a bath house, and replanted our flower beds. Our garden produces vegetables, flowers, and shrubs that are used in the school. We have also started a flower business, and we are planning a new greenhouse in the future.

For those who can sustain competitive jobs, selective placement efforts are made by contacting local business and industry, and we are planning to expand our program in the future.

A Challenge

When I started my position with this Association five years ago, I knew I would be confronted with a great challenge—teaching the mentally retarded to perform efficiently. While it is true that much effort, trial and error, and planning and re-planning were necessary, I learned much from the experience and more from my handicapped clients. From them I learned that our disabled population, just as with any other individual, take pride in accomplishment, desire success and work hard to achieve it, and are capable of taking their rightful place in our society. It is knowledge that they are responsible, capable, and self-respecting participants.
Encouraging the Disadvantaged

PHILIP EDGECOMB, Teacher Education
University of Massachusetts

What are the best approaches to help disadvantaged youth attain suitable employment? How do we make education desirable for youth who drop out of school? The approaches may differ, but the need is real. Greater emphasis is needed to help these young people acquire the knowledge, skills, and attitudes for obtaining and holding productive jobs.

Some of these students have waited at the doors of crowded vocational education facilities hoping to be admitted. Others are interned into regular vocational education programs. Many of these youth require special programs in order to overcome their handicaps. Disadvantaged youth have a high risk potential for success when they enter school. Unfortunately, many of these youth continue with the high risk potential when they enter the world of work. Social, economic and cultural differences have contributed to their classification as students with special needs. Perhaps they should be classified as youth with unmet needs.

SELECTION OF STUDENTS

Schools have accepted a selection system of differentiating between the high risk and the low risk potential of students. In the past, such a system has been thought to be based on intellectual ability. Research has shown, however, that many of our high risk students are not utilizing their intellectual ability. They lack the cultural advantages and attitudes desired in middle-class schools. Studies have shown that students achieve less when little is expected of them. Chronic dropouts increases when teacher expectations increase. The challenge of succeeding with these students was one of the reasons 1969's helpful educational vocational education achieve a position of prestige in our society today.

We are sometimes questioned concerning our desire to accept the challenge of educating students with special needs. When vocational education facilities become overcrowded to the point where we have to reject some students, do we reject students with a high or low potential for success in school? Do we tell the youth how the most disadvantaged are that we are sorry that we do not have more room? When counseling students, do we encourage disadvantaged youth or their more success-oriented classmates to enroll in our courses? Are we afraid that our image will be tarnished if we enthusiastically encourage education for the disadvantaged? Honest answers to these questions may provide some understanding of why it has become necessary to establish special programs for disadvantaged youth.

ADVOCACY COUNCIL RECOMMENDATIONS

The Advisory Council on Vocational Education underscored the needs of the disadvantaged in their 1988 report. The Council expressed the need to demonstrate that the needs of many disadvantaged youth can be provided in regular vocational education programs. The Advisory Council recognized that all vocational education programs will have a disadvantaged program component.

Two of the Council's twenty-one recommendations pertain to special programs for the disadvantaged. They recommended that funds and permanent authority be provided to develop and operate expanded vocational education programs specifically designed for persons who have academic, social, or other handicaps. Also, the Council recommended that a Learning Center be established on a pilot basis for economically disadvantaged youth, particularly inner-city youth. The Advisory Council emphasized that more financial support is needed for both regular and special programs in vocational education.

SPECIAL PROGRAMS IN VOCATIONAL AGRICULTURE

Vocational agriculture has received significant contributions to both graduates and dropouts in veterans' training programs, youth farmer programs, adult farmer programs, and manpower development training programs. Now is the time to select successful programs and develop new practices that will interest potential drop-outs while they are in school.

Many vocational agriculture programs accept new students on the basis of the student's interest in agriculture. This has been a successful practice in the past. However, this practice assumes that every student has a sincere interest in some vocational area, and interest at this age may be based on previous environmental experience. A verbal presentation of these opportunities to each student in an eighth-grade class may not be enough.

The practice of career orientation classes that have utilized successfully in some schools should be extended to students who do not enroll in a separate class in vocational agriculture. Agricultural experiences could be integrated into the curriculum of other classes that interest students with interests in industry courses in some schools. Orientation classes conducted cooperatively by a number of vocational areas might provide for the needs in other schools.

Cooperative education programs can provide the reality of the world of work and basic educational needs for some of our youth. Some students may learn more from this experience than they would in a completely school-oriented situation.

School laboratory programs provide unlimited opportunities for programs in agricultural economics. Educational experiences for the disadvantaged. Some students may not have gained an understanding of cooperative placement programs or regular supervised occupational experience programs. Placement concepts based on school facilities can help bridge the gap between regular school experience and work experiences. One school has envisioned a public golf course that would be developed, maintained, and operated by vocational agriculture students. Development and management of farming facilities might be another possibility in addition to the many animal and plant science laboratory programs that we have had in the past. Projects at public institutions other than schools have many possibilities. These concepts are not unique for disadvantaged youth in regular or special vocational agriculture programs.

Shared-time programs offer opportunities for vocational agriculture departments that are located in separate schools, but we should also provide special programs for those who cannot or will not profit from regular programs. Flexi-

New programs. The student options will help the teacher of agriculture to increase his contributions to the public school system.


A refreshing addition to the reference library of a garden club member or anyone interested in flower arranging. In the Tone Easy Lessons. The author of this book is a widely known blue-ribbon winner in state and international flower shows as well as a national accredited life show judge.

The author, in ten lessons, guides the novice in floral arranging through the basic principles of space and governs. In simple language Mrs. Shields describes the basic principles of design and color harmony, the proper selection and hardening of plant material, the choosing of suitable containers, and the matching of the theme to the occasion and decor of the room.

After each lesson there is a listing of definitions which the student can enter into his permanent file reference and an assignment for the student who wishes to progress previously into the techniques of flower arranging.

Photographs through the book illustrate the various styles of arranging and the principles employed in their creation. This is an excellent book for any school library in which floral arranging for the home is included in the curriculum.

Mrs. Alice Drye
Dakville Junior College
(illinois)

PLANNING MACHINERY PRO-
TECTION by American Association for Agricultural Engineering and Vocational Agriculture. Athens, Georgia: Agricultural Engineering Center, 1968, 40 pp. $1.40

This is a revision of an earlier publication entitled "Planning a Machinery Storage Layout." This new title is more representative of the content of the bulletin. Planning Machinery Protection is well illustrated with pictures, sketches, charts, tables, diagrams which is typical of the work of the American Association for Agricultural Engineering and Vocational Agriculture.

This text would be ideal as a reference in high school, area vocational, technical, or adult education classes in agriculture. It could be used either in a course in machinery management or a course in agricultural business management.

Chapter titles are: What Protective Measures Appear? What Type of Machinery Storage to Build? Where to Locate the Machinery Storage? How to Determine Space Requirements for Machinery? Equipment for Mechanically Protecting Size: Where to Locate Entrances; and What Electrical Installations to Make.

Curtis R. Weston
University of Missouri

BOOK REVIEWS

CORRECTIVE READING by Miles V. Ziant, Dubuque, Iowa: Wm. C. Brown Co., 1966, 380 pp. $6.50

This book presents corrective reading as a remedial reading practice applied by the regular classroom teacher within the framework of the daily instruction.

Agricultural education in the high schools has a commendable record for meeting the needs of pupils who have specialized interests in Agriculture. The writer has found this book provides valuable information regarding the work in which pupils who have reading problems may be identified, means for analyzing the reading problems, and ideas for helping each pupil overcome his or her problems.

While the book is directed toward the elementary school teacher, most teachers of agriculture will recognize: all they face many of the same problems in their classes. Any teacher who is seriously interested in meeting the special reading needs of individual pupils will find parts of this book useful. It provides practical ideas for a centered approach to both improved classroom instruction and a school-wide program for special reading needs.

George P. Fuller
University of Illinois

THE AGRICULTURAL EDUCATION MAGAZINE

SEPTEMBER, 1968
Guidelines for Developing Vocational Agriculture Programs for Youth with Special Needs

JAMES B. HAMILTON, Teacher Educator
University of Arizona

We often associate youth with special needs with the large metropolitan areas, the inner-city, with specific deprived areas of the nation, or with various cultural segments of the population. Yet we know that rural, agricultural education consider youth with special needs to be an important consideration for the conduct of programs in vocational agriculture.

Rural Youth

There are, however, substantial numbers of youth with special needs in rural areas. In the non-metropolitan area of Ohio, one of every six boys in the ninth grade were identified as youth with special needs. This amounts to over 5,000 rural, ninth-grade youth with special needs in one state alone.

Serving the educational needs of rural youth with special needs is a problem of considerable magnitude. While the responsibility for meeting the educational needs of these students does not automatically fall to vocational agriculture, vocational agriculture must assume a share of this responsibility by providing programs that are designed to prepare these students for employment in agriculture. It is our duty to develop vocational agriculture programs that are designed to prepare these students for employment in agriculture where there is a need for them to be student interest and ability commensurate with the occupation.

Characteristics of Students

Recommendations concerning vocational education programs to serve youth with special needs must take into consideration the characteristics and background of these students.

When compared with other ninth-grade students, those ninth-grade students who were identified as youth with special needs were found to have the following characteristics:

- They were nearly a year older.
- They were from larger families.
- Their parents had completed fewer years of school.
- Their parents’ level of occupation was lower.
- They were more likely to be living with only one parent.
- The head of their household was frequently not working.
- Their occupational and educational aspirations were much lower than those of other students.

When compared with other ninth-grade students, the ninth-grade student identified as youth with special needs were found to have the following educational experiences:

- Their reading level was two grades lower.
- Their intelligence quotient was lower.
- Their grades averaged one grade lower.
- They were absent from school twice as much.
- They participated in fewer school activities.
- They were usually enrolled in general or vocational curriculums.

Suggested Guidelines

The following guidelines are suggested for developing and conducting vocational agriculture programs for youth with special needs:

1. "Identify the potential students early before they enter high school. If the program is to be effective it must reach the youth with special needs before they drop out of school. The largest percentage of high school drop-outs occur at the tenth and twelfth grade levels. Therefore, if vocational agriculture is to prepare these students for employment, we must be prepared to begin no later than when they enter high school. Youth with special needs can be identified early in school with a fair degree of accuracy. Although several sets of criteria have been developed for the identification of the potential dropout, teachers, guidance counselors, and principals know best which students will not likely achieve success in the regular school program.

2. Provide vocational guidance and counseling in the junior high school years to assist youth with special needs in making realistic personal and occupational choices. Vocational guidance experiences in an exploratory nature directed toward the discovery and development of interests and abilities should play a vital role in such a guidance program.

3. The vocational program should be designed especially for the type of students to be enrolled. Traditionally programs of vocational agriculture have been designed for the average or above average student who has developed satisfactory communication, computational, and social skills. Youth with special needs show a lack in these characteristics upon which we usually expect to build in the traditional vocational agriculture program.

Direct the program toward preparation for existing agricultural occupations which are realistic within the student’s potential. For some of these students the vocational agricultural program may serve as the catalyst for renewed interest and motivation for greater educational attainment. For most youth with special needs, the vocational agricultural program will provide the vital link between formal education and full-time employment. There are many opportunities for employment in agriculture occupations which do not require high levels of technical knowledge.

Gearing academic courses to the interest and ability level of the student who is enrolled is an important step. School administrators indicated that this might best be accomplished through integration of courses such as English, mathematics, and social studies within the vocational program. That is, teach each of these subjects in relation to and as part of the students’ preparation for earning a living. Operation and maintenance manuals, parts lists, catalogs and tax returns could very well find use as teaching materials in these courses.

Incorporate work for wages as an integral part of the vocational agricultural program. The supervised occupational experience program has long been one of the most valuable aspects of vocational education, for it provides students the opportunity for reinforcement of learning by putting into practice what has been taught in the classroom. Many youth with special needs are not prepared to work without a working father. For those students whose parents are employed, parents have relatively low occupational status. When we consider these characteristics of youth with special needs, then opportunities to earn money, opportunities for growth in responsibility, and opportunities for building self-confidence are also important aspects which should be provided through the occupational experience program.

Three teachers of vocational agriculture have been named National FFA Fellows for 1963-64. The fellowships for the FFA Executive Training Program are provided by Nogarey-Ferguson, Inc., to make it possible for prospective teachers to prepare for positions as state executive secretary and other leadership positions in the FFA. The program includes one year of graduate study in agricultural education at the University of Maryland. Selected teachers are chosen by the National FFA Fellowship Committee. The activities of the National FFA Office in Washington, D.C. The work of the FFA Fellows in the National FFA Office includes becoming acquainted with the responsibilities of that office, the National Future Farmer Magazine, the FFA Supply Service, and other facets of vocational education in the U.S. Office of Education.

News of the Profession

Austin D. Bynum is a 1964 graduate of Oklahoma State University. He is now teaching agriculture at Arnett and Bosser, Oklahoma. Mr. Bynum received the American Farmer Degree while in college. Eleven of his students have received the State Farmer Degree. Mr. Bynum will work toward a Master of Science degree in agricultural education.

Lewis M. Brubaker received his bachelors degree in agriculture from the University of Illinois in 1962. He has taught agriculture at the University of Illinois and the University of Wisconsin, Madison. Mr. Brubaker will work toward the Master of Science degree.

Harry K. Thornton holds B.S. and M. Ed. degrees from Texas A & M Teachers College, Texas. He has taught agriculture at Grist, Texas, since 1963. He was a member of the board of directors and district president of the Texas Vocational Agriculture Teachers Association. Mr. Thornton will be enrolled in the Advanced Graduate Specialist Program.
Stories in Pictures

GILBERT S. GUILER
Ohio State University

Students in a Manpower Development and Training Act program at Bay City, Michigan, learn complete overhaul and trouble shooting on tractor engines. Jack Morrise (right) is making a timing check under the direction of Harvester-Clark's Bruce. (Photo by Edwin St. John, Michigan)

Students enrolled in a Manpower Development and Training Act program in dairy technology at Andrews University, Michigan, receive classroom instruction in artificial insemination. (Photo by Neil O. Snapp, Michigan State University)

Featuring —

AGRICULTURAL EDUCATION IN CITY SCHOOLS