STORIES IN PICTURES

by Paul W. Newlin

A student in the landscaping course at the Rockland Co., NY, Vocational Education Center operates spring equipment. The course instructor is Gordon White. (Photo courtesy Art Becker, Cornell)

Floyd Young, Vocational Agriculture/Agricultural Teacher at Zachary High School, Zachary, LA, instructs students in the identification of Ornamental Hortsic plants. The instructional program is emphasized to students to prepare them to work in the field. (Photo courtesy J. C. Tewes, Zachary, LA; Related story p. 130)

Students at Beth County High School, Owego, KY, score a grand total of 16,300 points for their team in a national competition. (Photo courtesy Beth Co. H.S.; Related story p. 45)

This student practises pruning skills as part of the instruction in landscape management at the Milwaukee Technical College, WI. (Photo courtesy Glenn Pickett, Instructor; Related story p. 128)

Out-of-school youth and adults learn adult Muscat skills during an evening session at the Muscat Co., NY, Board of Educational Services area. (Photo courtesy Art Becker, Cornell)

AGRICULTURAL EDUCATION

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Agricultural Supplies

And Services—We Need Them More Than Ever!

By Daryl E. Foster
Department Chairman
Book Educational Center
Elmira, New York

Because everybody depends on agricultural supplies
all who eat, all who wear clothes, and all who live in
State. Farmers and ranchers produce it, industries process
and distribute it. Many services are needed: storage, staging,
transportation, refrigeration, credit, financing, and insurance.
Hundreds of farmers and ranchers offer us the
supplies and equipment they need to produce and
process our crops. Our government inspects and grades
the products to ensure quality and safety for the
Consumer.

We, the people of America, must constantly be
aware of the importance of our nation and the
world. Today, it offers excellent career opportunities
for well-trained men and women.

In Agricultural Education should constantly be
made the primary need of our nation and continue to
provide a meaningful curriculum to train agriculture stu-
dents for their future careers. I teach in an Occupational
Center where my 50 students are given the opportunity to study
various agricultural subjects: Agricultural Mechanics,
Forestry, Horticulture, Conservation, Agricultural Supplies
and Services, and Production Agriculture. Only a small
percentage of these students ever pursue full-time farming
as a career. Agriculture employs most of these young
people to process and distribute products and to provide
services for farmers. The labor statistics indicate that ap-
proximately 60-80 percent of our labor force enters jobs in
Agri-Supplies and Services. These estimations of
employment for agriculture should impress and encourage
all of us to further challenge our students to enter careers in
agri-business.

In recent years, job opportunities in agriculture have
expanded in our nation, and I think the following are im-
portant reasons for this growth:

• Increased population in the U.S. and the world
• Consumer demands for more convenient foods
• Expanding agriculture technology—improved farm
equipment and pesticides
• More agricultural commodities are primary human
needs.

The opportunities and services available in agricul-
ture vary from state to state, but most jobs fall into one of
these categories:

• Manufacturing and processing
• Distribution—wholesaling, warehousing, and reta-

• Services—commercial, professional, and scientific

• Government services

To fully appreciate the significance of agri-business, one
must only reflect a few minutes. If you take a simple
breakfast, for example, the orange juice you drank probably
came from Florida or California after being processed and
distributed over hundreds of miles and passing through many
points. Next, there is the cereal which was made from the
corn or wheat produced in the midwest. The milk probably
came from the nearby dairy farm after refrigeration,
pasteurization, and delivery to the supermarket. The exemp-
tles could go on and on.

We all depend on agri-business, and the nation, in turn,
depends on us in education to supply the trained personnel
to fill the many career opportunities available in Agricultural
Supplies and Services.

I
Supplementing and servicing agricultural industry is an
awesone task, as was so ably pointed out by some of the
fine articles in this issue. Not only does this involve supplying
and servicing the important production segment of agriculture,
but also the processors, mechanics and others in the broad
field of agribusiness. This involves a tremendous
transportation and distribution system and provides a great
number and wide array of jobs. These jobs require a variety
of skills and knowledge with one common core—a
background and knowledge of agriculture. What one person
is in the most unique position to help provide this background
and knowledge? You guessed it—the agriculture teacher.

Where does the ag teacher find resources to teach for
occupations in the agricultural supplies and services area?
How does he go about teaching this area? Several good books
have been written in this area and more are coming out every
calendaryear. Commercial companies are making resources available.
Anag teacher hasto have knowledge about commercial companies. 
Teaching the fairly new area of agriculture supply and
services might seem like an easy task to the teacher who called on to establish a new program, but I believe it
would seem much less formidable if that teacher considered the weight of resources available, the need to
organize these resources and knowledge, and the variety of
people available to help. The articles in this issue have given
some specific ideas. Check with personnel in your state to find more
specifics.

SUPPLYING
AND
SERVICING

James P. Kay
Subject Matter Specialist
Agri-Business Education
Auburn, AL

FROM YOUR
EDITOR

Selling the farmer and rancher with all the necessities
and services that are in a vast area is a vast
undertaking. Over six million workers have jobs filling
the demands of this market.

To get a better idea of the importance of farm supplies,
U.S. farmers use the following amounts of supplies in an
average year:

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fertilizer</td>
<td>15 billion pounds</td>
</tr>
<tr>
<td>Sprinklers</td>
<td>32 billion kilowatt hours</td>
</tr>
<tr>
<td>Equipment</td>
<td>7 million tons</td>
</tr>
<tr>
<td>Feed</td>
<td>4,000 million tons</td>
</tr>
<tr>
<td>Fuel</td>
<td>277,000 tons</td>
</tr>
<tr>
<td>Fertilizer</td>
<td>14 million tons</td>
</tr>
<tr>
<td>Feed</td>
<td>800 million tons</td>
</tr>
</tbody>
</table>

These are just a small sample of the supplies used in
farm operations. Teachers of agriculture supply and services
should emphasize the importance of these supplies in
monetary value and in their role in the production of food and
fiber. FFA students should be given the opportunity to
understand the importance of these supplies and the role
they play in the production of food and fiber.

Students choosing to specialize or receive advanced
training in the area of Agricultural Supplies and Services
should have access to on-the-job experience in a farm supply
business. This training should be a cooperative venture
between the school and the business. All persons involved,
including the student, parents, teacher(s), advisors and
cooperating business, should understand the intent and
the extent of the work experience program. If necessary, signed
agreements should be obtained from all persons concerned.

Students who are enrolled and receive training in the
area of Agricultural Supplies and Services have an
opportunity to participate in an FFA proficiency awards program
tailor-made for them. This award program is known as
Agricultural Sales and/or Service. The purpose of this award
is to encourage entrance into sales and service occupations,
such as farm supply stores, farm equipment dealers and
produce centers.

The new FFA Handbook of the Future Farmers of America (FFA)
suggested that the following criteria be met
for entry into this awards program:

1. Have a specific training plan that gives a variety of
supervised work experience in an agricultural
sales and/or service occupation.
2. Develop at least ten agricultural sales and/or service
skills as a result of training in vocational agriculture
and/or Supervised Agricultural Occupational
Experience Program.
3. Have a Supervised Agricultural Occupational
Experience Program involving agricultural sales and/or
service skills, (Employment in feed and other farm
supply stores, agricultural equipment dealers,
retail store assistant, dairy store, garden centers, etc.)
4. Keep an accurate record of all agricultural sales
and/or service related income, expenses and skills
acquired.

Agricultural supplies and service careers are all based on
a basic understanding and love for farming and other
agricultural activities. Students, especially those enrolled in
firstand second year vocational agriculture (agribusiness),
should be given a sound, basic program of instruction to
better prepare them for advanced training in such areas as
Agricultural Supplies and Services.

(Continued on page 151)
OUR FINISHED PRODUCT – INDUSTRY'S RAW PRODUCT

by L. Myron Johnson
Agri-Business Instructor
Lake Area Vocational Technical Institute
Watertown, South Dakota

When I was asked to write an article with the theme Agricultural Supplies and Services, Supplying and Serving the Nation, I bluntly knew where to start. I think one can easily relate some thoughts because ag supplies and services are so critical in the lives of millions of people.

My involvement in this area is as an instructor in the Agri-Business Sales and Service course at Lake Area Vocational Technical Institute, Watertown, S.D. Many students come to us who would like to stay near agriculture. These students in most cases are from farms which are not large enough to enable them to stay on with their fathers. This, one might say, is our raw product.

THE RAW PRODUCT

Every industry has its raw products. Ours are normally pretty green when we pick them. Yet, just like the farmer picking replacements for his herd, we pretty well know the type of students coming into ag-business. These students seem to be the bright lights in the Mid-West, most in the state of South Dakota. Most are from farm families or from small towns where their families are very closely related to farming. They know how to work, and they have a real positive attitude about life. They understand the farmer's way of life and have ideas of what supplies and services the farmers want and expects.

It may appear that our raw products just need marketing. Yet, most of these young people need filling, education, and exposure to the ag supplies, sales, and service industry. Most have never traveled in town, let alone dealt with a farmer behind the counter.

SUPERVISED EXPERIENCE

We start their preparation for the ag supply and service industry with basic courses in soil science, crop production, seed and grain technology, etc., always feeding them ideas related to the supply and service industry. After six months of classroom preparation, we place the students in ag-business for five months. This period is their supervised occupational experience (S.O.E.). During this time the students are closely supervised by instructors as well as employers. The employers are given a chance to be the instructors with our supervision, and most like the opportunity.

There are usually three ag-business per student so the process of choosing a training site can be quite selective. Training sites are selected by the students. The instructor then screen the students and, in cases where one business is chosen by several students, the choice is made by the instructor as to who gets that site. Having worked with the students very closely for six months, and knowing the ag-business and training sites, the instructor can tell pretty well where the student will fit. The student must at this point arrange and go for an interview with the manager of the selected site who has chosen. This is a formality, yet excellent experience, as the managers give them a strong formative base.

Throughout the S.O.E. period, our raw product begins to ripen, mature, and get the taste of agriculture from the supply and service side of the industry. We have found that retail ag-business in the training sites. At this level the students get to one-on-one basis with the farmers. If problems should occur during this time, the student is supervised close enough that the problem can be resolved quickly. During the S.O.E., the students are given the business so as all areas are explored. The student receives a grade for his S.O.E. work. The grades are established by monthly reports by S.O.E., supervisors and instructor visits to the establishments.

MATURITY

After six months of S.O.E. on the products return. The income they gain from the experience is unbelievable. One can readily see the green farm boy and developing into a young business person. At this time they are anxious to gain more knowledge. Interest runs high in the business aspects. This is why our second year curriculum centers around course such as Sales, Merchandising, Advertising, Business Management, Accounting, etc.

After working in a business, the student can easily relate what is taught in S.O.E. training site. Time passes quickly and, before you have what has happened, you're knocking on our door. You have been through the great industry experience which we have prepared them for as ag supply and service industry. Our men and ladies with exposure to the type of experience they will be teaching during the next year.

To satisfy the varied tastes of the participants, we have had to maintain a high degree of flexibility with participating businesses. Some businesses seem as though every participant wants to go to a greenhouse. In this case, we follow on the call of greenhouse operations to fill the need, while at the same time informing other businesses that they will not be used this year. Through good communication, we are able to maintain a good relationship with the cooperating businesses, whether they are used that year or not.

(Concluded on page 355)

WORK EXPERIENCE PROGRAM FOR TEACHERS

by Dennis C. Scanlon
Graduate Student
Agricultural Education
The Ohio State University
Columbus, Ohio

PLANNING IS A NECESSITY

Early in April information bulletins are mailed to all prospective participants, and those who are urged to select one of six areas in which they would like to work. They may choose to work at a landscape nursery, a golf course, a flower shop, a commercial greenhouse operation, an arboretum, or a garden center.

By mid June housing arrangements have been made with a small private college in the Philadelphia area, all the Philadelphia maps have been mastered, and participants are notified of the business at which they will be working.

The criteria that determine the success or failure of any work experience program are: the quality of the experienced instructors, the enthusiasm of the business providing the work experience, and the quality of the experience itself. In the Philadelphia workshop, the workshops are selected for the varied experiences that they can provide. Participating businesses are asked to let the teacher become a part of the work force, and participate in the practical "hands-on" experiences that they will be teaching during the school year.

To satisfy the varied requests of the participants, we have had to adapt an intensive program for the graduate credits of the workshop. Supervisors are asked to enroll in the workshop for eight participations and four work stations; that is, they are to attend the workshop every two weeks. The workshop is sponsored by the Department of Agricultural Education, Pennsylvania State University, each August and the greater Philadelphia area. The participants are invited to enrol in the workshop, the tour of greenhouse operations to fill the need, while at the same time informing other businesses that they will not be used this year.

Through good communication, we are able to maintain a good relationship with the cooperating businesses, whether they are used that year or not.

(Concluded on page 152)

SUPERVISING KEEPS THE EXPERIENCE EDUCATIONAL

Although geography and traffic make supervision difficult, each participating business receives a daily visit from the workshop supervisor, to assure that everything is going smoothly, and that the participants are getting the type of experiences they want and need. In the event that the teachers and the business are not well matched, the supervisor must tactfully alter the situation to provide the "worker" with good experiences, while being careful not to alienate the participating businesses.

In addition to their daily work schedules, each participant is requested to attend evening discussion sessions which have been arranged by the workshop supervisor. These evening programs are two hours in length and are held Monday through Thursday of the workshop week. During the evening sessions, the participants are given the opportunity to see other work areas in the educational program with the owners some of the problems involved in managing their operation. Teachers who understand the problems associated with a particular business can provide better instruction in problems areas directly related to that field. A well planned and carefully structured evening program can do much to enrich and improve the educational benefits of the workshop experience.

The AGRICULTURAL EDUCATION MAGAZINE

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The AGRICULTURAL SUPPLIES & SERVICES department provides a vast array of products and services essential to the agricultural community. Whether you need supplies for your farm, equipment for your business, or educational materials for your classroom, AGRICULTURAL SUPPLIES & SERVICES has got you covered. From seeds and fertilizers to computers and software, we offer a comprehensive range of products to meet your needs.

**SHOP SKILLS CAN BE LIFE SKILLS**

Cape Starbrough
Teacher Educator
Auburn University
Auburn, AL

Lewis Ellsoll
Agri-Business Teacher
Rehobeth High School
Dothan, AL

The idea that vocational agriculture should include a well-equipped shop as a laboratory for learning mechanical skills has been an important part of the vocational agriculture programs from the beginning of the Vocational Agriculture Act. The shop program is often looked upon as the best part of vocational agriculture. Many adult programs have also included work in the shop. Small farmers have found some of the equipment most useful in their own home gardens. Many programs have found that the shop has been a major influencing factor in the vocational agricultural program.

The purpose of this article is to give the student an idea of what is involved in this part of vocational agricultural education. The article is designed to help those interested in developing a shop for their school or for home and community groups.

**ATTITUDE IMPORTANT**

The basic attitude of the teacher and the student is the key to the success of the program as well as the solution to the problem of drug addiction. We must face the fact that many of the people who are addicts are in our high schools. It is important that we as educators have an understanding of the problems that these individuals face.

In order to be successful, we must be prepared to handle these situations effectively. The teacher should be knowledgeable about the various methods that can be used to help these students. The classroom should be set up in such a way that it is conducive to learning. The teacher should be patient and understanding and should be able to relate to the students on an individual basis.

**VALUES AND MORAL DEVELOPMENT**

From the same national report comes this statement: "Not only is there a definite need in our society for formal vocational education, but the responsibility for setting standards and teaching values rests with the schools." (Concluded on page 157)
ADVISORY COMMITTEES FOR VOCATIONAL AGRICULTURE

by Larry S. Jassal
Graduate Assistant
Agricultural Education
University of Missouri, Columbia

Vocational education is unquestionably the fastest growing component, in terms of student enrollment, of today's public education system. This is due to the concepts and demands being adopted by and placed upon school systems from state and federal legislation. Demands for functional and accountable vocational programs are echoing throughout the nation. As a result of these legislation, we in the field of agricultural education are one of the facets of vocational education that is feeling increased pressures from the demands for the expansion of vocational education programs.

Educational legislation, though one of the oldest vocational education programs, is experiencing a variety of changes in order to attempt to meet the demands being carried on it by the legislators and the public in general. Different states and localities are adopting their programs in agriculture in the manner that they think, but there seems to be a national trend of expanding vocations and a general trend of instructional into specific options or courses.

One of the most positive effects that has been realized is the increased interest and enrollment in agriculture courses. The state of Missouri, for example, has seen a dramatic increase in the number of students enrolled in agricultural programs. This growth is attributed to the increased awareness of the benefits of agricultural education and the demand for skilled workers in the agriculture industry.

The agricultural education program is challenged with the responsibility of ensuring that the students are provided with the necessary knowledge and skills to succeed in their future careers. The program must be updated regularly to meet the demands of the ever-changing agricultural industry.

The agricultural education program is also challenged with the responsibility of ensuring that the students are provided with the necessary knowledge and skills to succeed in their future careers. The program must be updated regularly to meet the demands of the ever-changing agricultural industry.

The program must be updated regularly to meet the demands of the ever-changing agricultural industry.
SUPERVISED
OCCUPATIONAL EXPERIENCE

by

David L. Williams
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Iowa State University
Ames, IA

Vocational agriculture teachers have a continuous challenge to assist students in planning and conducting supervised occupational experience (SOE) programs. Increased enrollment in vocational agriculture, diverse interests and background among students enrolled, and the dynamics of the agricultural industry magnify this challenge. Teachers need to know the program and environmental factors that they can employ to help students develop SOE programs. Research conducted at Iowa State University identified factors that students felt were important in planning and conducting their SOE programs (1,2). The information presented below is based on responses from 103 Iowa vocational agriculture students who were high school seniors in 1975-76. Forty-five of the students had supervised farming programs, seventy-three had cooperative agriculture-business or farm placement programs, and sixty-five had laboratory or exploratory experience programs as their final SOE in vocational agriculture ($).

FACTORS IMPORTANT IN DEVELOPING SOE

Students were asked to indicate how important they felt 10 selected factors were in planning and conducting their SOE programs using a nine-point scale. The factors are shown in Table 1 with the rank order for each group based on the mean importance ratings.

Students perceived their teachers and their vocational agriculture classes as the two most important factors in developing their vocational agriculture SOE programs. Students with different types of SOE programs recognized their vocational agriculture teacher as an important factor, also. Vocational agriculture classes provide an opportunity for the teacher to develop a program that will help beginning vocational agriculture students select and plan their SOE programs. Interaction that will help students conduct and expand their SOE programs should also be included in the vocational agriculture curriculum. Activities that keep parents informed and actively involved in helping their sons-daughters select, plan, and conduct their SOE programs should be featured in teaching such units.

Monetary rewards from SOE programs were an important factor in developing SOE programs. Students indicated that the rank order of "The Wages and/or Profits Earned from SOE" for students with supervised farming programs and students with cooperative farm or agri-business placement programs.

The rank order of experience, plans, goals, evaluation activities, and agreements in developing SOE programs are goals that these factors have not been fully utilized in developing supervised farming programs. Setting goals and the development of plans and agreements for student SOE programs should be leading activities included in the instructional programs. Procedures for evaluating an SOE program should be used to help students assess their program and plan their SOE programs for maximum development.

Ranking of nine or higher were observed for (all groups for four people factors; (1) parent support and cooperation, (2) farmers (excluding parents and relatives), and (3) parents (excluding parents); and (4) county extension and/or 4-H personnel. However, these people may be very important in developing nine types of SOE programs.

SUMMARY

According to student perceptions, there are some commonalities in factors which lead to the development of supervised farming programs, cooperative farm or agri-business placement programs, and laboratory or exploratory experience programs for vocational agriculture students. Table 1 provides a priority listing of factors that students perceived to be important in developing various types of SOE programs. It is the responsibility of teachers to activate these supportive factors. These factors should be considered in the development of instructional materials for use in teaching students to select, plan, and conduct SOE programs.

REFERENCES


CONTINUED
SHOP SKILLS

...the shop is an excellent laboratory for developing skills having to do with values.

The approach being used by many SOE programs is referred to as "Value Clarification. In vocational education, perhaps home economics teachers have implemented this approach more readily than vocational agriculture teachers. Some career guidance programs include clarification and development of values as part of the process of making decisions about careers. An important part of this clarification is seeing "why I do it."

Another approach is to help students develop values when they are in terms of their qualifications for, job or vocation. The ranks of the values of moral development can be identified by noting the actions of an individual in dealing with a problem situation. These levels are as follows:

Lower Level: People believe as they do in response to the power of authority over them, the fear of punishment or the promise of reward, or the expectation that by doing someone favor the favor will be returned.

Middle Level: People believe according to the expectations of those around them, the family or social group, in conformity with the norms of the existing social order.

Higher Level: People behave according to principles independent of the norms of society. One's own behavior is judged by ethical standards that transcend the social order. The satisfaction comes from behaving on the basis of principles rather than for conformity or advantage.

This is a difficult area of teaching, partly because our own learning has been limited in this area, partly because values and ideas on what's "right" differ greatly. But to do no one's advantage, it's important that we believe that teachers should tackle the areas of values and moral development as areas of learning for the individual student, the same as other areas. Furthermore, these are essential areas of learning for a vocational program designed to help develop skills for success in an agricultural occupation. How we teach the things we teach is as important as whether or not graduates who had superior shop skills but could not be trusted with materials and equipment? There's much research on the fact that success in an occupation is often dependent upon abilities in the areas of values and ethics as well as technical skills. That is why we include these personal skills along with technical skills in our teaching, helping young people find their way to productive lives in our society today. Let's think in terms of Life Skills.

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The material in this book could not be used by any speaker. However, since this book is based on a speech given by the American Farm Bureau Federation, the book author has many times in his long experience at the Bureau in an attempt to help him make a wide ranging and adaptable speech, the author has taken the time to explain the effects of this book to the public in speaking experiences throughout the country. The author has written a book that contains information interesting and helpful material for anyone doing any public speaking. The material in this book could not be used by any speaker since it is based on a speech given by the American Farm Bureau Federation, the book author has made many times in his long experience at the Bureau in an attempt to help him make a wide ranging and adaptable speech, the author has taken the time to explain the effects of this book to the public in speaking experiences throughout his life. The author has written a book that contains information interesting and helpful material for anyone doing any public speaking.
EMERGENCY CERTIFICATION PROGRAM

by

David L. Williams and Gary Braas
Agricultural Education Department
Iowa State University

In May, 1976, it became evident that Iowa was going to experience another shortage of fully certified personnel for vocational agriculture during the 1976-77 school year. Therefore, a decision was made to initiate an emergency certification program to identify and prepare a supplemental supply of vocational agriculture teachers. A pro-

gram that had been successful in this type of endeavor in 1975 was followed. The program featured selection criteria used to identify prospective images and procedures for leading the teach-

ers to full certification. In addition to describing briefly the program design, the program results are summarized in terms of experiences of the teachers during their first year of teaching.

SELECTION OF TEACHERS

The Iowa State University Agricultural Education Department at Iowa State University selected students identifying candidates for their vocational agriculture teacher positions who met the following criteria:

1. B.S. Degree in a technical agri-

culture field
2. University grade point average of 2.0 or better on a 4.0 scale
3. Desire to teach vocational agri-

culture
4. Willingness to work toward full teacher certification by participating in an emergency certification program.

The procedures followed resulted in fourteen persons being employed to teach vocational agriculture in Iowa during the 1976-77 year. These teachers had a background in technical agriculture, but lacked courses in agricultural education, education, and psychology required for certification. Therefore, these teachers enrolled in an emergency certification program designed to deliver the courses they lacked.

THE EDUCATIONAL PROGRAM

Persons who met the selection cri-

teria presented above were employed to teach vocational agriculture in Iowa secondary schools for the 1976-77 school year. These teachers participated in an emergency certification program sponsored by Iowa State University Department of Agricultural Education and the State of Iowa Department of Public Instruction. The program included plans for the participants to complete courses in vocational agriculture methods, supervised teaching, secondary education methods, and psychology.

Vocational agriculture methods. Courses pertaining to methods of teaching vocational agriculture, planning and conducting FFA and supervised occupational experience programs, and teaching agricultural mechanics were completed by the teachers at Iowa State University during a special three-week seminar sponsored by the FFA and FEA.

Supervised teaching. The teachers completed supervised teaching in their own schools during the school year. Several teachers employed a cooperative teaching method in their schools, with a teacher from the Iowa State University Agricultural Education Department in attendance.

Additional experiences. The teachers were directed to visit other schools to observe vocational agriculture programs and work. They also participated in the first-year vocational teacher program.

Secondary education methods and psychology. General education courses required for certification were completed in a special seminar held following the first year of teaching. The teachers were given individual help in selecting psychology courses which could be completed during their second year of teaching.

PROGRAM RESULTS

Twelve of the fourteen teachers signed contracts to teach vocational agriculture for the second year and participated in the program phase designed to deliver courses pertaining to secondary education methods. During the phase of the program, teachers were assigned duties as activities to add to the degree of importance each activity had in developing the program of vocational agriculture added.

Most important activities. The teachers identified the following activities as those that contributed in the most important ways to developing their vocational agriculture programs during their first year of teaching:

1. Motivating students to work in the program
2. Creating and maintaining a favorable image of the vocational agriculture program
3. Assisting students in identifying subject material under study
4. Establishing rapport with students

It should be noted that four of the ten most difficult activities experienced by the program participants were rated as being among the ten most important activities. The activities that appeared on both priority listings were: (1) motivating students to want to learn, (2) providing a safe working environment in the shop area of the department, (3) determining individual needs of students, and (4) assisting students in analyzing and using their occupational experience program records.

Other activities among the ten most difficult included activities related to program planning, supervised occupational experience programs and records, student respect for facilities and equipment, maintaining student learning activities, and preparing students for contests.

CONCLUSION

The 1976 Iowa Vocational Agriculture Emergency Certification Program identified a supplemental supply of persons who desired to enter the profession of teaching vocational agriculture. An educational program was provided whereby these teachers could acquire full teacher certification by the end of their third year of teaching. Experiences were included early in the educational phase to help the teachers with professional skills in the area of classroom and laboratory teaching.

All teachers in the program received continuous support and help from agricultural educators during their first year of teaching.

The program described herein may serve as a model for other states to generate a supplemental supply of vocational agriculture teachers. The experiences of the Iowa teachers with vocational agriculture program activities suggest content that may be included in pre-service or in-service vocational agriculture teacher emergency certification programs.


Chapter review. This book generally describes farm management as defined by farm management experts, as well as the general principles that are applied to it. The major topics that are included in this book include: (1) a discussion of the various types of farm management systems; (2) farm management systems in the context of the farm family; and (3) farm management systems in the context of the requirements of the farm family. The authors of this book have done an excellent job in covering these major topics. The book is well-illustrated with abundant examples, tables, and figures.

The authors are Professor of Farm Management at the University of Illinois.

To be continued to serve as a test for a beginning course in farm management at the college level. This textbook is appropriate for either the junior college or senior college student. It covers the basic principles of farm production in a logical and clear manner.

The final two chapters deal with the making of decisions about using credit, the major sources of credit and information, and the cost of credit, and the preparation of budgets for the farm. These topics are well-illustrated with abundant examples, tables, and figures.
UYLIZING AND PRIORITYIZING THE VO-AG TEACHER'S TIME

Recognizing that the vocational agriculture teacher has more professional duties than he can ever accomplish, each instructor must prioritize the utilization of his time. Lackwood's (Ag Ed, May, 1976) report on teacher's priorities indicate that teaching classes, supervising work experience programs, and FFA activities are the top three professional priorities for vocational agriculture teachers. In spite of these, in his listing of priorities, Dillon (Ag Ed, Nov., 76) reports that Nebraska teachers spend only approximately 66% of their time supervising work experience programs.

Most educational evaluators agree that the demands of teaching, the analysis of test results, the planning and programming of priorities and time utilization, too often too much time is spent on a low priority activity to the neglect of an activity of greater importance, bringing frustration, discouragement and reduced effectiveness.

TEACHER SURVEY

During the Oregon Vocational Agriculture Teachers' summer conference, June 12-17, 1976, teacher time utilization and priorities were analyzed. Teachers were asked to report, first, the average hours per week they spent on sixteen professional responsibilities for the regular school year and for the summer program. Second, they were asked to prioritize the same sixteen responsibilities for both the summer program and the regular school year.

Surprisingly, Oregon vocational agriculture teachers reported that they work two hours less per week during the regular school year than they do during the summer program (57 hours per week and 55 hours per week). This may be due to the averaging of the long hours required during county fairs.

FINDINGS

Examination of table 1 and table 2 revealed that the reported allocations of time for the four activities assigned to the sixteen major tasks are relatively harmonious. The four activities which received the highest priority ratings were also the activities reported for the second block of time spent.

The figures of Table I indicate that, during the regular school year, Oregon vocational agriculture teachers spent 46% of their professional time teaching classes, 54% of their time supervising work experience activities, and 8% of their time with the FFA outside of class. During the summer program, the teachers reported 80% of their professional time was spent on project supervision, 15% on County Fairs and 15% with the FFA. It is interesting to note that the agriculture teachers reported spending over half of their professional work time in activities outside of the classroom. These duties which are so often unacknowledged by the public and administrative units would include such things as project supervision development of placement stations, professional organizations, FFA, etc.

Summary

Oregon vocational agriculture teachers are obviously busy. Examination of daily, weekly and monthly plans shows that a time allocation reflective of instructors' priorities, the data for which is reported may provide guidance. When much of his time spent in responsibilities away from school it would seem wise for the vocational agriculture instructor to keep his administrative aware of the time spent off school project activities, placement, etc.

The sage advice of, "Priorities, utilize, plan and go about doing a good turn daily," seems extraneously so vocational agriculture teachers.

<table>
<thead>
<tr>
<th>TABLE 1</th>
<th>TIME SPENT</th>
<th>Oregon Agriculture Teachers</th>
<th>Summer Program</th>
<th>Regular School Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Teaching classes</td>
<td>52.0</td>
<td>57.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Project grading</td>
<td>4.7</td>
<td>4.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Student counsel</td>
<td>3.0</td>
<td>3.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Supervision</td>
<td>2.9</td>
<td>2.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Other school responsibilities</td>
<td>3.0</td>
<td>3.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Homemaking, FFA, etc</td>
<td>1.0</td>
<td>1.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Nutrition Education</td>
<td>0.0</td>
<td>0.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Recreation</td>
<td>3.0</td>
<td>3.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Professional Development</td>
<td>0.0</td>
<td>0.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Other FFA activities</td>
<td>0.0</td>
<td>0.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Supervising FFA activities</td>
<td>55.7</td>
<td>57.1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TABLE 2</th>
<th>PRIORITIES OF PROFESSIONAL RESPONSIBILITIES</th>
<th>Oregon Agricultural Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Teaching classes</td>
<td></td>
<td>52.0</td>
</tr>
<tr>
<td>2. Project grading</td>
<td></td>
<td>4.7</td>
</tr>
<tr>
<td>3. Supervision</td>
<td></td>
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<td>4. Nutrition Education</td>
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<tr>
<td>5. Recreation</td>
<td></td>
<td>1.0</td>
</tr>
<tr>
<td>6. Other school responsibilities</td>
<td></td>
<td>0.0</td>
</tr>
<tr>
<td>7. Homemaking, FFA, etc</td>
<td></td>
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</tr>
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<td>9. Other FFA activities</td>
<td></td>
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</tr>
<tr>
<td>10. Supervising FFA activities</td>
<td></td>
<td>55.7</td>
</tr>
</tbody>
</table>

Here are some essential suggestions in these areas that might save time, problems and nerves:

A. Classroom Instruction
1. Always be prepared — go into every class with a well thought out lesson plan.
2. Diversify your teaching techniques — the lecture system is the least effective approach.

Use:
- Brainstorming
- Group discussions
- Outstanding students to teach and act as teacher aides
- Community resource people
- Field trips
- Audio visual materials

3. Be firm, fair and consistent.
   a. Treat all students the same.
   b. Be consistent with your grading practices and your discipline.

4. Above all, be fair with all students. If students find that you are fair, honest and consistent they will like you and respect you.
   a. Thrown in a full measure of student concern and kindness. Remember — many of your students will pattern their lives after your example.

B. Supervised Occupational Experience
1. Visit your students at home or on the job as often as possible.
2. Set certain specific afternoons from time to time for project visits.
3. Try to visit all students — not just the favorites. Sometimes it pays to visit the problem students first. After you see their home environment, you may be able to do a great deal to help them.
4. Keep records of project visits. File one copy and leave the other copy with the student.
CONTINUED LET'S ESTABLISH OUR PRIORITIES

Winning a state judging contest should not be the goal for a teacher or a student. These activities should be conducted in such a manner that they can achieve their goal, which is successful placement on a job in the area of interest and training.

What things should be considered in selecting FFA activities? Let me make several suggestions to help solve this problem.

- Don't hike off more than you can chew. Select a feasible number of activities and do them well.
- Plan and participate in each of the selected activities so that you, your students, the parents and community can benefit from your efforts.
- Allow students to select and volunteer for those activities that will benefit them the most.
- Encourage the quiet, meek youngsters to become involved — spend a little extra time with these young people.

OFFICE MANAGEMENT

The second priority area is one that many of us often forget. Before we can be effective as an instructor it is essential that we have an organized office or business. It is crucial that we:
- Develop efficient, effective office procedures.
- Keep our files, desk and shelves in order.


COWBOY ECONOMICS provides one with a practitioner's view of the cattle industry in America today. Agriculture and livestock jobs of all kinds are presented via realistic case studies and comparisons which enhance one's understanding and reading enjoyment.

Beginning with the introduction and潮流 throughout the book, General Oppenheimer upon the complex and financial risks involved in striking the balance between profit in the cattle business. Effective management efficiency, strategy and investment are illustrated in the book.

The book is divided into six parts and contains twenty-five chapters. The parts are:
- Part One: Introduction and Definition
- Part II: Field Operations in Huckin
- Part III: The Economics of Land Ownership
- Part IV: Analysis and Management Techniques for Agricultural Owners
- Part VI: Beef Futures

The chairman of the Board of Oppenheimer Enterprises, Inc., America's largest ranch and livestock management concern, General Harold L. Oppenheimer is eminently qualified to do what he does about this segment of the cattle industry. From thirty years of military service, he has developed leadership and management competence essential for success and understanding the underlying principles. Other developments to upgrade the industry.

SUMMARY

How can I set up reasonable, yet realistic, goals for the coming year? Do I have to make them up by myself? I hope that you don't set your priorities alone. Remember in addition to items listed earlier — you probably have a family, a church, local service club and other community interests. It seems logical that you might want to consider the following before setting your priorities:
- Wife and family
- Other members of your staff (multi-person departments)
- Short-term priorities (to be followed in regular weekly meetings)
- Programs involving all of the agriculture staff in that school.

- Agricultural Advisory Committee
- School administration
- Students (i.e., FFA Executive Committee)

In conclusion, it seems apparent that you, as a teacher, can do much more effective work if you do not do too much too fast. Let's take this time to sit down and establish our priorities so that we can work in the future and enjoy our lives more fully.

LITERATURE AND LAND MANAGEMENT

On the negative side, some books in comparative analysis of cattle for investment purposes, contracts and feed are treated too briefly and commercially. Also, the cost of the book, the operating expenses and cattle prices, all are considered at best inconstant.

COWBOY ECONOMICS will take readers with vocational agriculture or other agricultural enterprises. A young and prospective farmer's book will find the book an excellent reference for explaining financial arrangements characteristic of the cattle industry. At the same time, the book may be justified as a text in vocational agriculture.

LEADER IN AGRICULTURAL EDUCATION:

B E R T L . B R O W N

By C. Oscar Lorenz

Professor Emeritus
Department of Education
Washington State University
Pullman, Washington

1957

that over 100,000 students felt his influence and profited by his leadership during his twenty-five years as head of vocational agriculture in Washington. A significant part of this influence reached students and their teachers through his strong support of the FFA. The number of FFA chapters and members showed a dramatic increase from 1945 to 1970 under the twenty-five year advisheership of Bert Brown. The achievements were many. Eight individuals were awarded the Pacific Regional Star American Farmer Award, Thirty-five individual Future Farmers received either the Pacific Regional or National Award in Farm Proficiency, with the State of Washington the first state association to place a national winner in each of the proficiency award categories.

As state advisor to the FFA, Bert worked closely with twenty-four sets of state officers, a total of 144 young men. Each year as their terms of office progressed, a strong bond developed between him and these state officers. For many years he and Mrs. Brown visited these state officers and his parents in his home.

From 1947 to 1950 Bert served on the National FFA Board of Directors. He was among a select few who were named as the “body corporate” in Public Law 740 which Congress passed in 1950 and which granted the FFA a Federal Charter.

Bert recognized the importance of agricultural fairs and livestock shows. He was instrumental in the establishment of several junior livestock shows and a poultry show in Washington. There is now the opportunity for FFA youth in all parts of Washington to participate. The Governor appointed Bert to the prestigious State Fair Commission in 1969, a post he held until 1975.

He served for many years on the Washington Resources Council and the Washington Farm Safety Council. Bert was one of the first state supervisors to launch a state-wide study to identify the need for agricultural training for farm agricultural employment. His studies in the 1930s, he made clear the need to expand the scope of vocational agriculture in Washington and strengthened the state's position for broadening national vocational education legislation.

After careful study of the need for Washington for a farm management program for adult farmers, a plan for such instruction was launched by Bert in 1966. By 1969 there were over three hundred farmers enrolled, and the program has grown steadily since its inception.

(Concluded on page 166)
NON-AGRICULTURAL EDUCATION MAJORS' TEACHING EFFECTIVENESS

by M. A. Fields
Teacher Educator
Virginia State College
Petersburg, Va.

While many national leaders continue to decry the lack of employment opportunities for our college and university graduates, demand for agricultural education majors far exceeds the supply. The situation prevails in spite of the efforts of teacher education institutions to employ more sophisticated recruitment procedures and to adjust curricula so that certain students, whose major identifications are not in the field of agricultural education, may, through guidance, qualify for either a college teaching certificate or a collegiate certificate. As a result, a limited number of teachers who lack formal training in agricultural education have been employed because of either their special expertise, or because of the need to fill other teaching vacancies. The reactions of the supervisors have failed to reflect a definite change in the effectiveness of these teachers who did not major in agricultural education.

METHOD OF STUDY
A group of teachers in Virginia with less than two years of experience in teaching agricultural education, and who were not agricultural education majors, were asked to participate in a study, which the writer believed to be pertinent and relevant in the present situation. The study was designed to answer the following:
1. What is the teachers' training?
2. Influence of certain factors prior to and during initial employment.
3. Ability to teach each option and/or group.
4. Problems — their causes and resolutions.
6. Influence of the character of the student on teaching efficiency.
7. Effectiveness of budgetary provisions.
8. The extent to which a suggested list of provisions and procedures might serve to strengthen the beginning teacher's efforts.

TEACHERS' TRAINING

A. Agricultural Education 0-04 16.44
B. Other Professional Education 0-04 28.00
C. Technical Agriculture 0-04 13.06
D. Agricultural Mechanics and/or Engineering 6-80 26.40
E. Life Sciences 6-80 26.40

INITIAL EMPLOYMENT
For their current teaching assignments, the respondents indicated that very little difficulty was encountered in securing employment and becoming effectively identified with the program as the need. Learning the organization of the department and determining one's role in the department's program were reported as the major problems during the early stages.

TEACHING OPTIONS
The instructional program encompasses options for the secondary school students and appropriate courses for the young and adult farmer groups. From a list of nine possible teaching options and groups, the teachers were asked to evaluate their abilities to teach each. According to the responses, the respondents were best prepared to teach Agricultural Science and Mechanics I and II and Agricultural Production III, while their greatest deficiencies were expressed in Ornamental Horticulture and Adult Farmer Instruction.

PROBLEMS
The writer has observed that, if a teacher will engage in meaningful planning, many of the possible classroom and laboratory problems can be either avoided or minimized. The role of a positive attitude toward this activity cannot be over emphasized. It was found that, on the basis of relative importance, planning in terms of developing and maintaining the students' interest, relating classroom techniques to actual job practices, and securing resource materials, were ranked foremost as problems. Making provisions for testing and providing individualized instruction were, in general, regulated to positions of minor importance.

An attempt was made to ascertain the extent to which each of eleven factors could possibly have contributed to the problems which are being encountered. It was found that insufficient time for planning and the lack of adequate resource materials were the prime concerns. The teachers also reported that the philosophies of both the school and the department tended to promote the beginning teacher's successful entrance into the profession and his/her advancement.

INSTRUCTIONAL PROCEDURES
From a list of nine procedures, the teachers indicated that the more frequently employed practices were the use of visual aids and the recording of notes by the students during the classroom and laboratory sessions. Regular use (Concluded on page 166)

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SOILS AND THEIR MANAGEMENT

This book is not like some soils books that relate to soils only. Instead, this book works the study of soils in very closely with plant growth. The first chapter explains quite fully the different courses in soil, which is very informative for high school Vo-Ag students. As the title states, the book is not just dealing with soils, but also management. This is very helpful in the aspect of tillage, tillage, drainage and irrigation. The two chapters on soil judging are also very helpful in high school Vo-Ag classes. The parts of this book that I feel are most helpful are practical are the chapters on soil, water and fertility management, in vegetable, turf, greenslades, orchards and forests. The book also contains very good exercises in terms that should be known by the reader.

The authors have had other good publications, but I feel that their update and adding of new soil management topics in this book has been most helpful. As a high school Vo-Ag instructor, I find this textbook will be a very good reference book in the different soils until the right is taught. This book might be a good one for some high school students, but would be a good text for high school students immediately above the high school level.
CONTINUED LEADER . . .

Bert believed that teacher educators should share in the innovations in order to retain a unified and effective staff of supervision and teacher educators at the state level.

As he gives the last official talk at the Conference of Vo-Ag Teachers, he said, "As I have traveled across this nation, I have been more convinced than ever that agricultural education and the FFA are important. That is what we should do important, and that is what we plan to be important and vital."

When Bert talked, people listened. He was always ready to speak out firmly and with conviction. One knew where he stood on a question. He had a strong influence on decisions reached by delegates and conferences at the state, regional, and national level.

Because of his strong empathy with fellow workers and his strong voice for the voiceless, he was a strong bond existed over the years between the Vo-Ag teachers of the state and Bert.

After his retirement, he continued to work for the betterment of the agricultural profession. He was always ready to speak out firmly and with conviction. One knew where he stood on a question. He had a strong influence on decisions reached by delegates and conferences at the state, regional, and national level.

CONTINUED NON-AGRICULTURAL EDUCATION MAJORS . . .

of approved lesson plans, and the employment of a variety of instructional techniques. In addition, the utilization of these techniques was mentioned frequently.

STUDENT'S CHARACTER

The study further examined the influence which the character of the student had on the difficulties which certain teachers might be having. A lack of interest in the subject matter was mentioned by students. The student's character was found to be the greatest contributor to the teaching difficulties. The study did not view either non-

PROVISIONS FOR IMPROVEMENT

From a list of seven possible improvement provisions and procedures, an attempt was made to ascertain the extent to which each would aid the teachers.

The development of a model of a high school student was presented. The model was based on an analysis of standardized classroom behavior, and the establishment of a program of inter-school visitations, and improved group work sessions were considered as being more effective.

On the other hand, standardizing enrollment procedures and strengthening the first-year teacher program were viewed with favor.

IMPLICATIONS

The findings from this brief study tend to have implications for the following:

1. Establishment of dual majors' programs
2. Advising non-agricultural majors during pre-service programs
3. Appraisal of teacher certification standards
4. Planning and executing the first-year teacher's program
5. Personnel and Follow-up
6. Development of Resource Materials
7. Conduct of a study to compare the non-agricultural majors with the agricultural education majors who are teaching.

We would like to welcome Glenn A. Anderson as the new Business Editor of the Agricultural Education Magazine. Glenn is an Assistant Supervisor of Agricultural Education from Mechan-

icville, New York. He has farmed and taught vocational agriculture in New York State. This fall he became a supervisor in 1974. Since then, he has been responsible for adult programs in Virginia and is teaching and planning for goal agriculture and the development of the State Department. Glenn and his wife, Anne, have three children, Allen—9, Army—6, and Mark—3 years old. We appreciate Glenn taking the job of Managing Editor and will look forward to working with him on his last year providing excellent service on subscriptions and business matters.

The new business manager's address is The State Department, Box 530, Mechanicville, New York 23111.
STORIES IN PICTURES

by
Paul W. Newlin

Tommy Walsh, 12, works for a Rogersville, TN, lime distributor, repairs and replaces a hydraulic cylinder.

Joey Couch learns to manage a greenhouse as part of his agriculture science program in Rogersville, TN.

David Burns, Vocational Agriculture Instructor at Upper Valley Joint Vocational School in Pigeon, Ohio, discusses with student Karen Reuter from Highland-Houston a career made in the school laboratory. Karen is a junior college student. (Photo courtesy David McCracken, Ohio State University)

In Virginia the first state to have a brother and sister teaching agriculture education! Above, J. M. Campbell, State Supervisor, Agricultural Education, chats with and his brother Gary, agriculture instructor in Montgomery County, Shenandoah County. (Photo courtesy W. C. Davis, Aust. State Supervisor, VA)

David Love McNair and school friends fished in addition to growing wheat for the Super Dollar Market at Rogersville, TN, in his business school program. (Above photos courtesy James Walk, Vi. Ag. Teacher, Rogersville, TN)