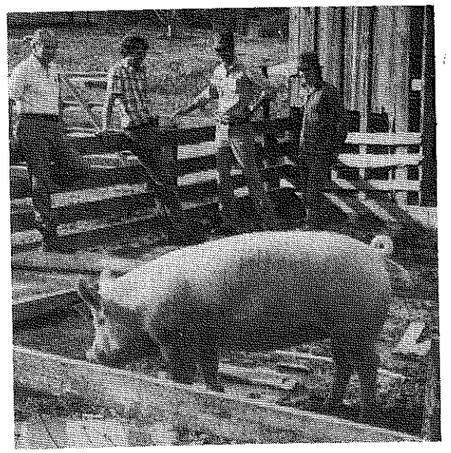
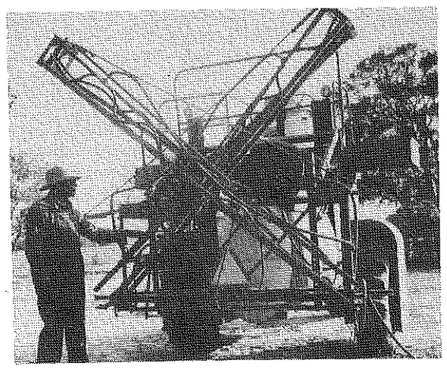
STORIES IN PICTURES

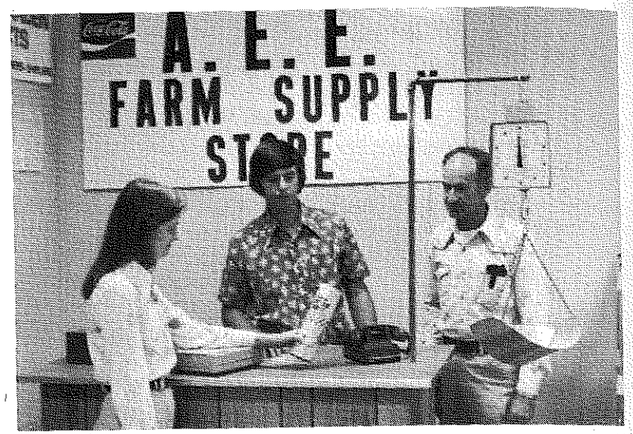
by
Joe
Sabol



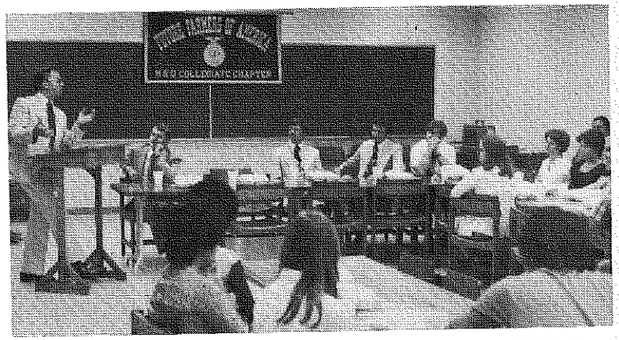
Supervision of the student's Occupational Experience Program gives Mr. Paul Holley (left), District Supervisor and Mr. Joe Scarborough (left center), Vo-Ag teacher, an opportunity to discuss the swine program as well as career goals with a student and his father. (Photo courtesy of Jim Johndrow, Auburn University.)



This Hi-Boy was recently purchased to facilitate spraying soybeans and peanuts. Albert Lampkin keeps his equipment in good operating condition, according to principles taught in Adult Education classes in Dodge County, Georgia. (Photo courtesy of Dr. Ira Hicks, The Fort Valley State College, Fort Valley, Georgia.)



AGRI-BUSINESS SIMULATION IN GRADUATE EDUCATION — Graduate students in the Department of Agricultural and Extension Education, Mississippi State University, practice using the agri-business mini-laboratory established in the Department. The mini-laboratory is used to develop technical competencies in agri-business and to study appropriate techniques and methods of teaching agri-business. The students are (from left to right): Pattie Miller, Larry Martin, and William Patterson. (Photograph by Jasper S. Lee, Mississippi State University)



NOON LUNCHEONS POPULAR WITH MSU GRADUATE STUDENTS — William L. Bost, Director of the Mississippi Cooperative Extension Service, is shown speaking to graduate students and faculty members during a box luncheon. The catered box-lunch seminars have been well received by students and faculty in the Department of Agricultural and Extension Education, Mississippi State University. (Photograph by Jasper S. Lee, Mississippi State University)

Dr. Edgar Persons, University of Minnesota, gets an idea across by utilizing a field trip to a farm. Vo-Ag teachers enrolled in his Adult Farm Mgt. course can readily adapt to Dr. Person's technique. (Photo by Mr. Sung Soo Kim, University of Minnesota.)

AGRICULTURAL EDUCATION

Volume 52 Number 6

December 1979

FEATURING

NEW EDITOR
INTERIOR PLANTSCAPING
HORTITHERAPY
INTERNATIONAL EMPLOYMENT?
FFA SALUTES LEGISLATURE
TRACTOR SELECTION
GRANDFATHER'S COLLECTION

Theme — Horticultural Occupations — Learning to Beautify

December 1979 Volume 52 Number 6

AGRICULTURAL EDUCATION

THEME — Horticultural Occupations — Learning to Beautify

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COVER PHOTOS

Top Photo — Lea Early, a senior student at Pulaski County High School, Dublin, VA, is practicing her sales techniques on a customer shopping in the school nursery. (Photo courtesy of Elissa Steeves, Vocational Horticulture Instructor at Pulaksi County High School.)

Center Photo — Judy Yoffy, Special Education Teacher of Horticulture in Richmond, VA, uses the school grounds as a learning laboratory for her students. Michael and Roy are two of her students preparing a flower bed in front of their school, Amelia Street School. (Photo courtesy of Judy Yoffy, Instructor, Amelia Street School, Richmond, VA)

Bottom Photo — Martha Pfeifer uses a Yazoo YR-60 to mow around the greenhouses and lath house at North County Technical School. Students learn how to operate and maintain this Yazoo, a Jacobsen 60, and a Heckendorn Riding Mower. (Photo courtesy of Wayne Gurley, Instructor, N.C.T.S., Florissant, MO)

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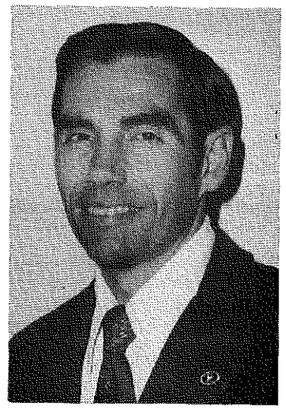
FROM YOUR EDITOR



James P. Key

THANKS!

HORTICULTURE — IMPORTANT!

Horticulture occupations are becoming more numerous every day in our economy. We become especially aware of them in December as we see poinsettas and other Christmas floral arrangements. More and more ag programs include horticulture as a part of the program, whether it be just a small undertaking with a student-made greenhouse, or an entire program with a full-time horticulture teacher in a multiple teacher situation, or some other variation. Horticulture, with its many facets, such as landscape design, greenhouse operation, floral design and many others, has become a multimillion dollar business and there is great demand for graduates from our horticulture programs. The articles in this issue will give you an idea of the diversity of programs there are around and perhaps will give you some ideas for your program.

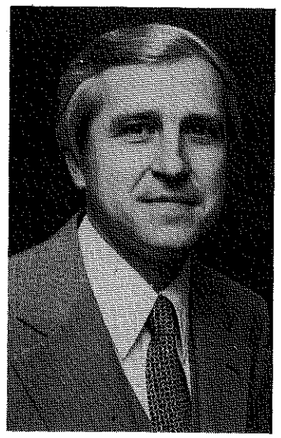
THANKS FOR ALL THE SUPPORT

I want to personally thank each of you contributors and readers of the Agricultural Education Magazine for your fine support during the past three years. You have supplied me with excellent articles; so many good ones in fact, that it was extremely difficult to choose which articles I would publish and which I would have to reject or hold. I wish I could have published all of them.

I requested ideas from you at different meetings, from the NVATA Convention to state conferences. You gave me good ones which resulted in the "center-pages feature," the "This Worked for Me" section, the "Grandfather's Collection" column, and other special features. These ideas, along with the good pictures you supplied, helped spice up the Magazine and make it more attractive.

(Concluded on Page 124)

INTRODUCING — THE NEW EDITOR



Jasper S. Lee

Jasper S. Lee will become editor of the Agricultural Education Magazine, beginning with the January 1, 1980, issue.

Lee, a native of Mississippi, is currently Head of the Department of Agricultural and Extension Education at Mississippi State University. His background includes baccalaureate and masters degrees from Mississippi State University and the doctorate from the University of Illinois. He has previously taught vocational agriculture in Mississippi and has been a member of the faculty in Agricultural Education at Virginia Polytechnic Institute and State University.

The new editor has been an author and editor of numerous publications. These include authoring books published by the Gregg Division, McGraw-Hill Book Company, and the Interstate Printers and Publishers; serving as consulting editor of agribusiness for the Gregg Division of McGraw-Hill; and editing ***The Journal of the American Association of Teacher Educators in Agriculture*** for a three-year term.

According to Lee, the format and editorial management of the Magazine will remain essentially the same. One change will be the appointment of a theme editor for each issue. The purpose of this change is to ensure adequate and systematic treatment of each theme.

Suggestions about the Magazine and articles should be sent to:

Jasper S. Lee
P.O. Drawer AV
Mississippi State, MS 39762

CONTINUED

THANKS!

We had a few problems along the way, such as reduced numbers of subscriptions and costs exceeding income. The first problem was tackled by a couple of excellent business managers with the help of many state supervisors and state teacher associations. The trend in subscriptions is now upward, but we will need continued support in this area. Encouragement of new subscribers from post-secondary ag programs can give us a boost in this area.

M & D Printing Company helped us meet the cost-income squeeze by publishing the Magazine for almost half the former printing cost and giving us an excellent quality publication too. Many thanks to Moby and Dick Finfgeld and all their people for their help in this area.

One highlight of my term as editor was the production of the January, 1979, 50th Anniversary Issue. The tremendous support from former editors was evidenced by a contribution by every single living former editor. Looking back through the issues published down through the years impressed me with our rich heritage in Agricultural Education as reflected by the Magazine.

I would not have been able to do this job without the fine support of the regional and special editors. They did a tremendous job of contacting people to write articles, supply pictures and encourage subscriptions. A great big "Thanks" to all of you who gave me excellent support in these ways, and made the Magazine possible.

Finally thanks must go to the fine secretaries, who so diligently typed correspondence, filed, sorted, edited and proofed. Judy Grosh, Betty McDaniel, and Ruth McCoy deserve special thanks. Also, thanks should go to my colleagues in the department for carrying part of my load, and to the Department Chairman and Deans for allowing me the time to carry out this duty. A great big thanks to my family for putting up with those late nights and weekends required, or the work on vacations and trips. They were very understanding. Thanks to all of you for helping make the **Agricultural Education Magazine** a success and a contribution to the profession this past three years.

BOOK REVIEWS

ESSENTIALS OF FORESTRY PRACTICE, by Charles H. Stoddard. New York, New York: John Wiley and Sons, 1978, 3rd Edition, 387 pp., $12.95.

This book provides an excellent overview of the major aspects of American forestry and serves as an important source of information concerning the industry.

An examination is made of career opportunities in forestry, requirements for a forestry career, and training opportunities for acquiring the technical skills. That and a synoposis of the author's perspective of forestry — yesterday, today, and tomorrow — set the stage for the more technical aspects of the book.

Help is given on characteristics and growth requirements of forest trees and on the composition and distribution of forests. The importance of applying silvicultural systems to create the desired kinds of forests in shorter periods — the heart of the practice of forestry — is stressed.

Many of the chapters in the book are helpful in giving specific directions in the conduct of various forestry measures in the field. Illustrative of these are chapters dealing with "Measuring the Forest," "Forest Management and Timber Production Finance," "Logging and Measuring Forest Products," "Protecting Forests from Fire, Insects, and Diseases," and "Processing and Marketing Forest Products."

The book is well illustrated with pictures, tables, charts, figures, and sketches.

Mr. Stoddard, the author, is a Natural Resources Consultant and Tree Farmer. He previously acted as Director of the Secretary of the Interior's Planning Staff, and Director of the Bureau of Land Management. He is a graduate of the University of Michigan, has served with the United States Forest Service and as a research associate for Resources for the Future, and is a long time member of the Society of American Foresters.

The book is suitable as a textbook for introductory forestry courses at the technical institute or college level. It would be a very valuable reference book for the vocational agriculture teacher and students at the high school level. Professional foresters and individual forest owners would find it useful.

Joseph R. Clary
North Carolina State University
Raleigh, North Carolina

SEND ALL ARTICLES TO THE NEW EDITOR — DR. JASPER S. LEE
Head, Agricultural and Extension Education Department,
P.O. Drawer AV, Mississippi State, MS 39762

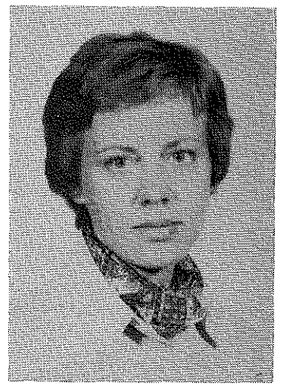
COMING ISSUES COMING ISSUES COMING ISSUES COMING ISSUES

(Please submit 2 copies of your article, 2½ months in advance of Theme to allow publication time.)

JANUARY — The New Decade
FEBRUARY — Funding the Local Program
MARCH — Making Vo-Ag Relevant to the Needs of Agricultural Industry
APRIL — Basic Competency Programs
MAY — Experiential Programs
JUNE — Summer Programs
JULY — Technology in Agricultural Industry
AUGUST — Using Realia in Instruction
SEPTEMBER — Safety Education
OCTOBER — Programs in Animal Agriculture
NOVEMBER — Programs for Exceptional Students
DECEMBER — Facilities

Beautifying The Community Through Interior Plantscaping

by
*Antoinette W. Welch**
Graduate Research Associate
Dept. of Agricultural Education
Ohio State University



Antoinette W. Welch

Professional plant care and plant leasing is a profitable service in metropolitan areas. Plant care firms sell or rent plants to customers, and in addition, may provide routine maintenance chores and replacement guarantees, relieving the customer of all responsibility. Short-term plant renting for special shows, seasonal displays, or social events is also a common practice.

The use of plants indoors is not only fashionable; it is a psychological necessity. In a barren and uninspiring business environment foliage plants serve many purposes. Lush green plants function as economical decorative elements which make the indoors more pleasant. They add an air of warmth and hospitality to even the dullest of rooms. Many business organizations have discovered that indoor gardens are an effective form of public relations.

STUDENTS TEND PLANTS

Students in the sophomore horticulture program of Westland High School gained first-hand experience in the lucrative interior plantscaping business by supplying the community's post office, library, nursing homes, etc., with a multitude of foliage plants. Flowering plants were added on occasional holidays. The school building itself was a primary target in this activity. Large rectangular planters in the school office were kept filled with assorted greenery; the principal's office and each departmental office were graced with a softening touch such as a vine trailing from a bookcase, or a flowering plant to brighten the corner of a crowded desk. A 20-foot fig tree (*Ficus benjamina*) provided a living sculpture for the library.

When the plants became too overgrown, or began to decline in appearance, they were returned to the greenhouse and replaced with new ones. Most smaller plants used in this project were grown by students in the school greenhouse. Some larger materials were donated by local horticulture firms.

Students managed this project from beginning to end, often making the initial contact with an individual or business to arrange for the placement of plants. Students selected and placed plants, and cared for them on a regular basis. Periodically throughout the term, students were evaluated on how well the plant care service was provided. The teacher visited each site at various times to discuss problems and inspect plants. Individuals with whom plants were placed rated the students' performance, reliability, and attitude.

Horticulture student, Dareyl Stark, grooms overgrown interior plants at the community post office.

Students themselves were given the opportunity to discuss how well they had achieved the goal of maintaining healthy plants and happy customers. They related problems in dealing with either the plants or clients. Many of their people problems became topics for classroom discussions on human relations. Problems with plants led to discussions of cultural requirements and pest control. If problems became too numerous or unavoidable, the student was given a chance to resign from the project, or change to another location. There were few transfers; most students continued the activity for the entire year. The attitudes of students, and people of the community toward this activity were, in general, quite favorable.

PROJECT BENEFITS

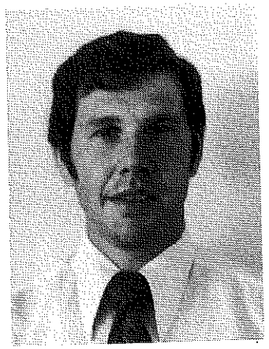
Planned benefits from the project were abundant. Students learned how to select plants for a given interior situation. They learned that certain plants require particular environments to thrive, and that others will survive in even the least favorable of conditions. They discovered anew that in addition to light, the growing medium, temperature, and type of container all played a part in the frequency of watering and amount of fertilizer needed. They acquired skill at recognizing the early symptoms of cultural problems or insect infestation. In addition, they became more keenly aware of the aesthetic qualities of plants, and of ways plants can be used to add richness and vitality to the indoor environment.

Unexpected benefits of the project were also obvious. The community became a teaching laboratory. Students developed an increased awareness and pride in their community and the environment. They were meticulous in removing trash and litter from around their plants. The community certainly became much more aware of the horticulture program.

(Concluded on Page 127)

*Former Instructor, Vocational Horticulture, Westland High School, Galloway, Ohio.

Developing A Horticulture Program in the Metropolitan Area



Everett R. Tittsworth

by
Everett R. Tittsworth
Horticulture Instructor
Occupational Education Center
Dunwoody, Georgia

When the Occupational Education Center opened in the fall of 1973, horticulture was one of fifteen programs offered to the students of DeKalb County, one of several school systems in the metropolitan area of Atlanta, Georgia. There were basically three areas that had to be considered in planning the program: curriculum, supervised occupational experience program, and the FFA.

First, a description of the facility is in order. The Occupational Center is an area vocational school serving thirteen DeKalb county high schools. Students are provided transportation to the center for two and one-half hour classes either in the morning or afternoon. The other portion of their school day is spent taking courses required for graduation from high school. Six quarters are required to complete the horticulture courses offered. Students may elect to attend O.E.C. in the tenth, eleventh, and/or twelfth grades.

CURRICULUM

The curriculum was basically outlined for the program by the Georgia Horticulture Curriculum Guide, however, some changes were necessary since a course taught in a metropolitan area is different than one taught in a rural area. To help decide these changes, a survey of the local horticulture business community was conducted to determine the projected employment, and an advisory committee was established. As a result of the survey, certain areas of the curriculum were identified as having more potential for employment. The advisory committee was able to help determine future trends and suggest certain areas to emphasize. In the final analysis, the following areas were included:

I — Landscape Establishment and Maintenance
II — Turf Establishment and Management
III — Nursery Production and Management
IV — Greenhouse Production and Management
V — Floral Design
VI — Vegetable Gardening

The survey indicated that the landscaping businesses would provide more jobs than the other areas. Therefore, when the plans for the program were completed, landscaping was a part of four of the six quarters. The topics were scheduled according to the season as much as possible to provide laboratory work with the classroom instruction.

In the fall when school opens, landscape establishment is taught, and one major project is conducted on an area of the school grounds. The students learn to use the equipment as they prepare and sow an area of the lawn. In addition to sowing the lawn, they plant several varieties and sizes of trees and shrubs. Also, during the fall they propagate nursery plants in the greenhouse and prepare the other nursery plants for the winter.

As the weather changes around Thanksgiving, we move into greenhouse production and floral design for the winter quarter. Many small projects are completed before the holiday season. Each student makes a terrarium, wreath, centerpiece, and wraps a potted plant. The techniques and skills involved are numerous, but they work diligently. As a reward, they are offered the finished product for the cost of the materials, which are very reasonable when compared to the retail value. The compliments and requests received from other students, teachers, and parents simply add to the excitement and pride. This has proved to be a very enjoyable and educational time.

When the third quarter begins, the season is close to another change. We finish our pruning and spring landscape maintenance projects. The students, also, finish a crop of vegetable and bedding plants. Many of these are used in the vegetable garden and landscape projects for the spring quarter. This is one of our sources for plants to use in the chapter's "Building Our American Communities" project. By this time the chapter will have selected a subdivision or another public project to assist one of our local garden clubs. Of course, this is completed by the students on their own time, usually on Saturdays.

By the end of spring quarter, the students usually have their summers planned. Some use their time to get practical experience and earn money working for local businesses, while others continue their home projects.

SUPERVISED OCCUPATIONAL EXPERIENCE PROGRAMS

The supervised experience programs are necessarily different in the metropolitan area. Many of the students live in apartments or rented homes with little or no land available. In order for the students to receive full benefit of the training at the Occupational Center, some type of project had to be developed. Some of the students took the responsibility and found jobs at local garden centers, landscape companies and florists; however, others did not want to work or could not obtain transportation for a job. Many of these students found that they had a

(Concluded on the Next Page)

CONTINUED

METROPOLITAN AREA

built-in project with the landscape surrounding their home.

Others invented projects. An example of this is the student who contacted a few of the local garden centers to determine what was done with their unmarketable plants. He found that he could pick-up the plants free and nurse them back to health under fluorescent light that he set-up in the basement. He would also treat them for insects and diseases. It worked out as a nice profit and a first place state proficiency award for Jeff.

Still, other students did not find projects. This was where the Center's facilities came into play. The one acre land laboratory was used as a landscape and vegetable garden facility. If this did not appeal, the school also had a greenhouse (12 x 24) and another greenhouse (26 x 80) was added this last year. As a result, there were opportunities for either home projects, on-the-job projects, or school-operated projects.

FFA

In 1973, when the program started, very few if any of the students had heard of the FFA. The club was simply called "The Horticulture Club," however, FFA activities were mentioned. By the end of the school year, an interest had developed since they were not able to participate in events such as the State Horticulture Contest. The chapter was organized the next year and 100% membership has been maintained for the last two years.

Much has been said in the past few years about FFA membership, especially horticulture students membership. It may be more difficult to have good membership in an urban area than in a rural area. On the other hand, the potential for involvement may be greater. Many urban students do have the time and leadership ability.

Our chapter's efforts are centered around our curriculum guide. Every contest and event does not fit into our program; so we select activities that are in our curriculum. To quote a supervisor, "It's like a menu — you select those items that satisfy your needs." Below are several activities that have worked well in our program:

1. State Horticulture Contest
2. Building Our American Communities
3. Home Improvement Proficiency
4. Landscape and Turf Proficiency
5. Nursery Proficiency
6. Floriculture Proficiency
7. Soil Judging Contest
8. FFA Quiz Contest
9. Tractor Driving Contest
10. National Chapter Award Program
11. Chapter Safety Award Program

SUMMARY

The horticulture program at the Occupational Education Center is constantly changing to keep the program up-to-date. The curriculum, supervised experience program, and the FFA are three essential parts to any vo-ag program.

CONTINUED

INTERIOR PLANTSCAPING

Because many of the plants were placed in the offices or businesses of students' parents, the school/parent relationship also benefited. Students acquired skills in human relations by dealing with individuals who were, in some cases, quite fussy about their plants; and they learned the necessity of providing reliable and regular service. In the initial stages of the project, more than one plant was lost because someone forgot to water it. Students began to see more relevance to what they were learning in the classroom because they could actually put their newly developed skill and knowledge into immediate use. Several students acquire full-time positions in interior plantscaping after graduation.

Mark Dilley, former horticulture student at Westland High School, is now an assistant store manager involved with both interior and exterior landscaping.

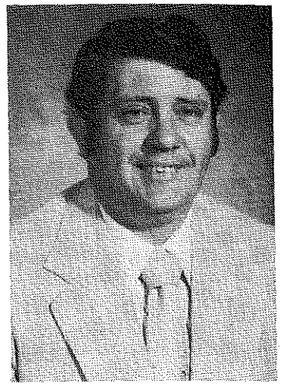
Everyone responds to the natural beauty of live plants. Interior plantscaping is one way students can learn to beautify and enrich their environment. As a field of study, interior planting and commercial design is highly specialized. Experience and knowledge are needed by the student who hopes to find employment in this area. Field experience within the school and community can provide foundations, training, and practical know-how to facilitate later employment. More information about interior plantscaping may be obtained by writing The Interior Plantscaping Association, 1601 Washington Plaza, Suite 14, Reston, Virginia 22090.

Reference: Gaines, Richard L., Interior Plantscaping, New York Architectural Record Books, 1977.

VOCATIONAL AGRICULTURE STUDENTS DEVELOP A NATURE TRAIL

by
John D. Todd
Chairman, Agricultural Education
University of Tennessee, Knoxville
and
John H. Hardin
Vocational Agriculture Teacher
Unaka High School, Elizabethton

John D. Todd



John Hardin

Unaka High School in Carter County, Tennessee, is an unusual school because of its location in the foothills of East Tennessee. Included in the school property is an eighteen-acre wooded area. The school was built twelve years ago, and the surrounding wooded section was not altered by construction or mechanization. An ideal situation existed in which to design and develop a nature trail that would preserve the ecological features of the land in its natural state.

The vocational agriculture students in the school undertook the building of a nature trail as a project. The trail is intended to be an outdoor museum for teaching ecological features to forestry, ornamental horticulture, wildlife conservation, and biology classes. It is to serve as a teaching laboratory for vocational and academic students, and for amateur enthusiasts. It is intended for use by other groups such as garden clubs, Boy Scouts, Girl Scouts, 4-H clubs, church groups, and other community organizations in addition to its use by high school students. The Unaka Future Farmers of America Chapter assisted with the undertaking as a community service project which had much educational value for high school teaching.

Two resource persons were used in developing the nature trail, the State Forester for Carter County, and the Soil Conservation Forester for the State of Tennessee. The project was directed by the vocational agriculture teacher.

FEATURES OF THE TRAIL

The following features were included in the project:

1. A loop-type trail was constructed which passed as many points of interest as possible. The length of the trail permitted a class to move leisurely through it during a one-hour class period.

2. The trail was cleared of obstacles and debris to an average width of about four feet. A layer of wood chips or crushed stone was used as surfacing material to cover the trail.

3. To prevent "dirt trail" bike riders from using the trail, a few small trees were felled across the path. Persons walking the trail can step over the felled logs, but motor bikes cannot cross them. A gate was also constructed at the entrance to deter the riders.

4. An outdoor amphitheater was constructed about midway on the trail. It is a rustic facility, built of natural rock found in the area, and will seat about 150 persons. The amphitheater is used for group meetings on tours, or for outdoor classes where nature can be studied in a natural environment.

5. Secondary trails were constructed leading from the main trail to points of interest.

6. A main entrance sign, stating the name of the trail and points of interest along the route, was constructed.

7. Trees to be studied were numbered using flourescent paint. The numbering facilitates the use of a booklet developed for studying the trees. Also, it was cheaper than making signs for each tree.

8. The trail was not limited to the biological aspects of the environment, but special geological features were also noted.

9. Bird houses, bird feeders, and squirrel nesting boxes were placed at suitable locations within the area to increase animal population and to add interest to the area.

STUDENT INVOLVEMENT

The project was carried out primarily by vocational agriculture students at Unaka High School. They cleared the underbrush and projecting limbs from the trail, and placed a covering material along the route. In some cases, trees were removed, cut and sawed into lumber and used in the project. Rocks and other obstructions were removed from the trail, but as many as possible of the natural obstructions were saved to preserve the original setting and topography.

The students built the amphitheater with little outside assistance. The cement and sand were furnished by the Carter County Board of Education.

The next step in the project was to identify the trees along the trails. This became an undertaking for the forestry class. They researched the trees that had been numbered for study along the trail. With the assis-

(Concluded on Page 131)

Horticulture Therapy: An Occupation Which Teaches the Art of Living

by
Jim Ethridge and Paul Hemp
Teacher Educators
University of Illinois
Urbana, Illinois

The vocational agriculture teacher shortage has caused most teacher educators to concentrate their efforts on the preparation of an increased supply of secondary teachers. In so doing, other areas of teacher education and emerging occupations within agricultural education may be overlooked or neglected. One of these areas is horticultural therapy.

WHAT IS HORTICULTURAL THERAPY?

Horticultural therapy is the process of understanding or improving one's mental and physical well being through gardening and plant-related activities. Specific goals toward which a horticultural therapy program is directed may differ distinctly from one institution to another and from one population of handicapped individuals to another; however, the ultimate goal of the therapy program is the improved physical and mental health of the individual. The benefits may be seen in four areas — intellectual, social, emotional and physical development.

The intellectual benefits include the attainment of new skills, improved vocabulary and communication skills, an aroused sense of curiosity, increased powers of observation, vocational training and the stimulation of sensory perception. Social benefits include interaction with group activities as well as non-group activities.

Emotional growth includes improved self-confidence and esteem; opportunities to receive aggressive drives in a socially acceptable manner; activities which promote interest and enthusiasm for the future; and opportunities for the satisfaction of creative drives. Finally, the physical benefits aid in the development and improvement of basic motor skills and increased outdoor activities.

Horticultural therapy helps people achieve a better understanding of themselves and the world around them through the media of horticultural activities. Gratification, a feeling of accomplishment, and release of tensions are some of the end products. Horticultural activities help people in psychological, educational, social and physical adjustment by offering a needed relationship with living plants and nature. Through horticulture, people find relaxation and enjoyment. Activities with plant material provide important outlets for individual development and expression.

Horticulture therapy is recognized as an important part of treatment and rehabilitation of mental, medical, handicapped, and geriatric patients, and as an aid to the mental and physical well-being of all age groups. It incorporates the responsibility of caring for a form of plant life, an opportunity to develop an object of visual beauty, and the expression of self through plant science. Therapy activities can range from the simple to the complex. They might involve caring for a single plant in the patient's room, or planting and upkeep of flowers in the landscape, or even gaining enough experience about horticulture to secure a vocation. Horticulture therapy programs can operate in four basic ways: group therapy, individual therapy, grounds beautification, and work adjustment.

WHO GETS INVOLVED WITH HORTICULTURE THERAPY?

At present there are two distinct approaches to the use of horticulture as therapy. One encompasses the rather extensive volunteer work done by garden clubs, whose members spend short periods of time with a program. The second approach is the vocational use of horticulture therapy. Professional therapists work full-time as members of a treatment team. They often work with the same individuals for long periods of time.

In the past, educational programs specifically designed to prepare students for teaching and using horticultural therapy have not been available. Curricula now available combine vocational education, horticulture, and training in special education as well as internships of supervised clinical study and experience under qualified therapy programs. A student finishing this curriculum would be able to accept with confidence a job at any institution to develop a horticultural therapy program.

Horticultural therapists are professionals who work as part of a treatment team within institutions or on planning boards for community-based programs. They are recognized by medical staff, psychiatrists, educators, horticulturalists, and other professionals. Therapists make use of greenhouses, landscape nurseries, vegetable gardens, fruit orchards, and flower/crafts in the therapy, habilitation/rehabilitation, or leisure-time activities of special population groups. They use specialized methods to make gardening and plant activities a stimulating and rewarding experience.

WHAT ARE THE QUALIFICATIONS FOR BECOMING A HORTICULTURAL THERAPIST?

Some of the qualifications that a horticultural therapist should have are:

- *Compassion and a desire to work with special populations of people.*
- *Patience to work with others.*

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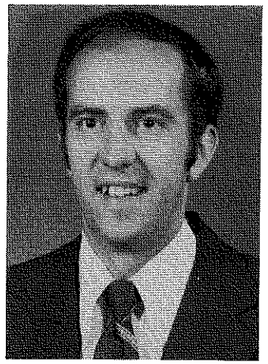
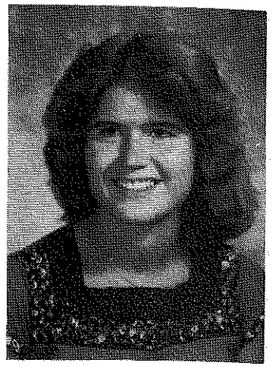


James W. Legacy

Is FFA the Appropriate Youth Group for Horticulture Students?

by
James W. Legacy
Teacher Educator, and
Amy Swigart, Researcher
Southern Illinois University
Carbondale, Illinois



Amy Swigart

Horticulture is a relatively new area of agriculture. The Future Farmers of America (FFA) is designed for students in all areas of agriculture. These areas include agricultural production, agricultural mechanics, agricultural supplies and services, agricultural products, horticulture, forestry, agricultural resources, and other types of agriculture. However, it is common for students to classify FFA as an organization only for farmers. Horticulture students often feel FFA has nothing to offer them.

IMPORTANCE

Vocational youth groups are an important part of the whole vocational curriculum. "Student vocational organization activities are designed to be part of the vocational curriculum and will assist with the personal growth of the student" (Establish A Student Vocational Organization, Module H-2, 1977, p. 7). "Vocational youth organizations are tools of instruction which reinforce through activities what the student learns in the classroom and/or on the job. Integrated chapter activities improve the effectiveness of every vocational program and help students become more employable" (Illinois Vocational Youth Organizations Handbook, p. 1). Since vocational youth organizations are a necessary part of the vocational curriculum, horticulture students need to be given the chance to participate in an effective youth organization.

Following is a list of three alternative strategies which horticulture instructors have used in response to the question, "Is FFA the appropriate youth group for horticulture students?"

1. Develop a horticulture youth group for your own class. This youth group would be responsive to the needs of the individual students; however, it would be time consuming and difficult to organize. Its activities and competition would be limited to the local level.

2. Evaluate and integrate FFA into your horticulture classroom. FFA has activities and competition at the local, state, and national level. The FFA activities are well established and the organization is recognized throughout the United States. However, the FFA has a "farmer" image, and therefore may not be responsive to the needs of the individual horticulture student.

3. Omit youth groups from the horticulture curriculum. Students will not have the opportunity to participate in a youth group, but the school will save money and the instructor will save time.

CONSIDERATIONS OF FFA AS THE HORTICULTURE CLUB

There are several advantages to the teacher who integrates FFA into the horticulture classroom. Horticulture students can become involved in an existing youth group. FFA is well established and organized. It develops members' leadership and meets criteria which facilitate their personal growth. However, the FFA may be lacking in the number and kind of horticulture activities. Also, horticulture students may not realize what FFA has to offer them and other agriculture students may question why horticulture students are members.

EVALUATING FFA AS POSSIBLE HORTICULTURE YOUTH GROUP

"When integrating student organization activities into the instructional plan, attention should be given to the areas of personal growth. Eight common goals are as follows:

Leadership and Followship
Citizen Responsibilities
Character Development
Social Development
Occupational Knowledge
Recognition
Communication Skills
Cooperation" (Harris, p. 67)

FFA provides opportunities to develop leadership through participation in its projects and activities. FFA uses many offices and committees in order to achieve maximum participation from its members. There are four degrees of membership which allow for varying degrees of leadership and recognition.

Building Our American Communities (BOAC) is a program which can aid in the development of citizenship. It is also a program which provides opportunities for horticulture students to exhibit their skills and knowledge.

FFA helps develop character through its opening and closing ceremonies. Members also learn parliamentary procedure and develop pride in themselves.

(Concluded on the Next Page)

Social activities are an important part of FFA. Through these activities members are able to meet with others freely and easily. They also become aware of the responsibilities that future citizens have to society.

Through FFA, members are given the opportunity to display and advance their occupational knowledge. Proficiency awards are available in floriculture, fruit and/or vegetable production, nursery operations, turf and landscape management, and home and farmstead improvement. Achievement awards are also available in horticulture. This award rewards individuals for accomplishing goals which the individual has set for himself, instead of rewarding competition with others. A national horticulture contest includes a nursery section and floriculture section. This includes identification, judging, and a general knowledge examination.

FFA members can be recognized in many ways. There are opportunities to be officers and committee chairpersons. Competition and achievement awards provide opportunity for recognition.

Through public speaking activities and meetings, students develop their communication skills. Cooperation is developed when students work with each other towards common goals.

A DOZEN IDEAS FOR INTEGRATING FFA INTO YOUR HORTICULTURE CLASSROOM

1. Gain interest among the key students. Urge students to become familiar with FFA. Interested students should form a "committee to organize." Existing horticulture chapters should be contacted and visited. The possibility of developing a chapter only for horticulture students should be considered.

2. "Committees to Organize" should become active. They should publicize the opportunities for horticulture students in FFA. An organizational meeting should be planned. The conduct of the first elections should also be planned.

3. Hold an organizational meeting. This is an opportunity to stress what FFA can offer horticulture students. Organizing a strictly horticulture chapter can be discussed.

4. Become involved in a membership campaign.

5. Conduct elections.

6. Hold an organizational meeting with the new officers.

7. Appoint or elect committees.

8. Be sure every chapter member is functioning as a committee chairperson or member.

9. Develop more horticulture activities at the chapter level.

10. Work with the FFA state office to develop more horticulture activities.

11. Consider having a chapter for horticulture students only.

12. Change the image of FFA with activities and publicity.

MATERIALS AND RESOURCES FOR FORMING A NEW CHAPTER

Chapter Guide to FFA Activities
FFA Advisors' Handbook
FFA Activity Handbook
Nearby successful horticulture FFA chapters
The state FFA association office

WHAT CAN THE PROGRAM DO FOR THE MEMBER?

Successful leadership by a group organizer requires the organizer provide something in the program for each member. Group organizers or advisors should provide 1) participation, 2) individual goals, 3) recognition, and 4) an open organizational structure.

TAKE THE FIRST STEP — VISIT A YOUTH CLUB ACTIVITY

A strong vocational youth organization is an important element in thousands of successful agriculture programs. Just as the teacher of several years considers the FFA chapter an important part of vocational agriculture, new program areas and teachers without high school youth group program backgrounds have trouble identifying the need for a youth club. The need for a vocational youth club can be quickly recognized by attending an FFA awards night banquet or other major event which is sponsored, organized, and conducted by club members. If you are a horticulture teacher who is planning to start a youth club or one who questions the real need for a youth club in your classes, take the first step — visit a neighboring youth club activity.

The ability of young men and women to organize and conduct a major community event will demonstrate the leadership skills which your students should have the opportunity to learn.

CONTINUED

NATURE TRAIL

tance of resource persons, they identified the trees and listed the common and scientific name of each. They also obtained descriptive and cultural information about the trees and included this information along with the names that correspond to the numbers on the trees in a booklet. The booklet was duplicated for use by the various groups studying the trees.

SUMMARY

Even though the trail is completed and being used for nature study, there are plans for improvements. More secondary trails are needed. More trees and other features should be identified for study. Wild flowers along the trail need to be identified and a booklet developed for use in studying the flowers. Trees and other plants native to the region, but not found along the trail, should be planted and allowed to grow.

The trail as it is now constructed is being used by classes and groups to study ecological features of the environment. It is an asset to the community. The undeveloped area surrounding Unaka High School has been developed into a usable school laboratory which contributes to the educational program of the school and community.

FEATURING:

LANDSCAPE PROGRAMS AT POSTSECONDARY LEVELS

by
Jack E. Ingels, Chairman
Department of Plant Science
State University of New York
Agricultural and Technical College
Cobleskill, New York

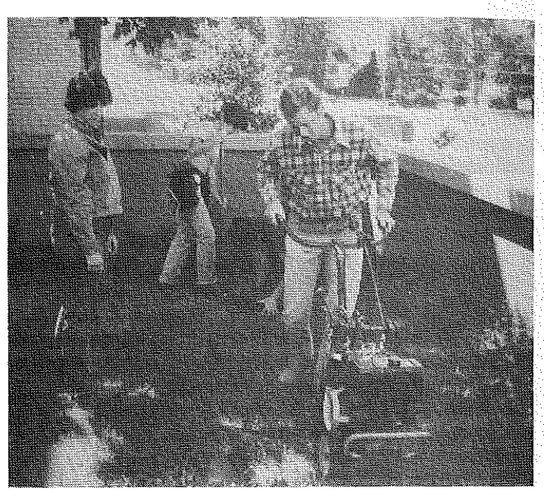
Postsecondary programs in landscaping are highly diversified throughout the Nation and thus reflect the broad spectrum of skills and interests that collectively comprise the landscape profession. The landscape industry can employ individuals highly trained and specialized as landscape architects and landscape contractors, while still offering opportunities to the man or woman with a pick-up truck, a few hand tools and a desire to work with plants. While one end of the employment spectrum eyes the other end suspiciously, each believing himself to personify what landscaping is about, educators must strive to serve both extremes as well as the complex industry within which they work.

Aside from the professional schools of landscape architecture, most landscaping programs in America are offered at two-year colleges and four-year universities, often as part of a larger program in horticulture and/or agriculture. My experiences have been at the two-year college level where my freshman course in landscape design has grown from 27 students in 1969 to 120 students in 1979.

For a successful postsecondary landscaping program to succeed, there must be several factors at work:

(1) good facilities and an adequate budget to allow for the provision of a program that simulates industry realistically.
(2) highly motivated students
(3) experienced faculty
(4) a working partnership with the industry
(5) successful placement

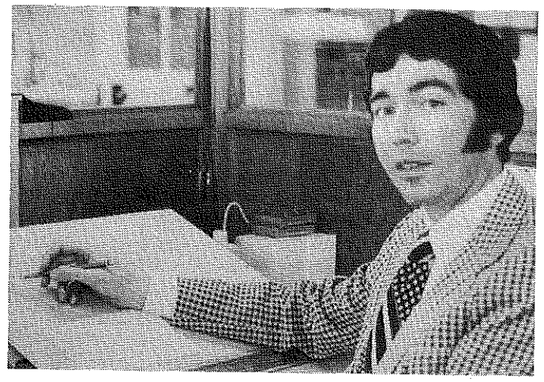
The campus is a laboratory facility. Students design and actually landscape the campus.



After landscaping the campus, students find maintenance is very necessary.

FACILITIES

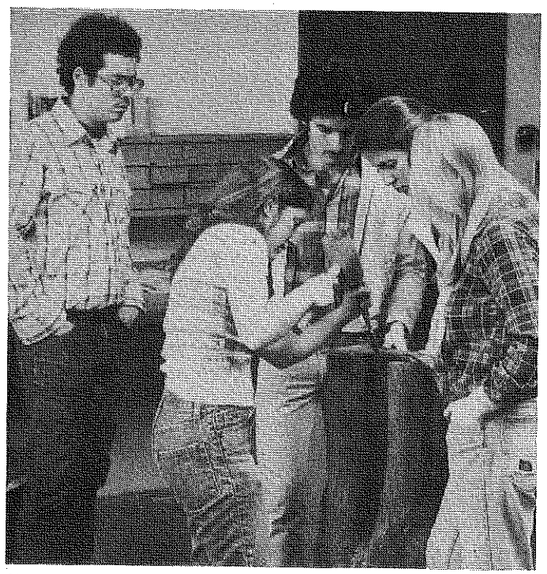
Facilities are important and sometimes the most obvious are over-looked by educators who equate facilities with buildings. The best landscape projects are those that fire the students' imaginations and gain their acceptance. As such, whenever possible landscape projects should utilize areas on or near the school grounds. At Cobleskill we use our 350-acre campus as a working laboratory facility. The students design the land around the classroom and dormitory buildings in their landscape design courses. The design problem may include planting plans, elevations, perspective views and/or cost estimates. Through courses in plant installation, landscape construction and agriculture, the students are provided the opportunity to learn their chosen profession while having a positive impact on the appearance of their campus. The landscape program at Cobleskill has been given responsibility for the campus grounds and the resulting opportunities are endless. Such an arrangement also helps reduce student vandalism to the campus landscape that often results when a grounds crew detached from the students are the caretakers. Most schools have grounds of some type, even if the acreage is small. Those grounds can become your most valuable facility.



Jack E. Ingels

BUDGET

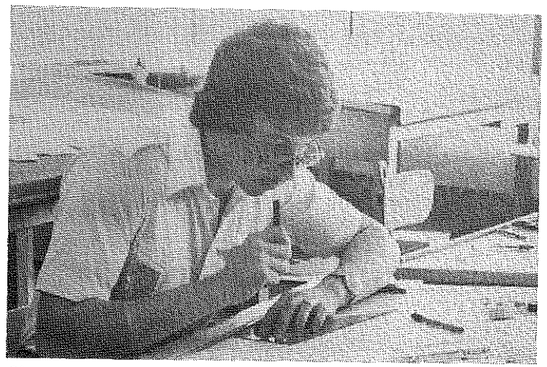
The budget cannot be overlooked as it directly controls what the faculty can do. At Cobleskill, we are always under financed compared to what we would like, yet I suspect we are more fortunate than many. Our campus nursery provides the plants we need and our floriculture program furnished large quantities of bedding plants to fill the campus flower beds. We have also enjoyed good support for the purchase of modern grounds equipment and tools. It is my belief that the trend among some colleges to offer landscaping programs before they have facilities, budget and curriculum diversity adequate to the task is an unfortunate one that can only hurt the national postsecondary effort. A lawn mower and six pairs of hand pruners do not mean that a school should promote itself as a training center for landscape professionals.



Hands-on training can also take place in the classroom, such as this tree surgery practice.

STUDENT MOTIVATION

Student motivation is a key factor in the success of any academic program and landscaping is no different. At Cobleskill we supplement the hands-on training with field trips to private and public gardens, offices of landscape architects, and landscape nursery operations. We also invite professionals to visit with our students at the campus and later to interview potential job applicants. Another program that has been well received by our students is to invite back to the campus Cobleskill alumni who have been out of school from 2 to 10 years. By relating their experiences to our present seniors, the students develop some believable impressions of what they may anticipate in a comparable number of years after graduation. Student questions usually range from, "Can I hope to start my own business as soon as I finish school?" to "Should I get married as soon as I'm out or wait a few years?" During their dialogue, I generally just sit back and listen. I learn as much as the students.



Site analysis, drawing, and presentation to the client make advanced landscape design courses the "real thing."

Motivation also results from projects that the students find believable. In the advanced landscape design courses, senior students are assigned an actual residential client, selected from a list of volunteers who live in the town. The project is the most important one of the semester for them and they must satisfy the client, not necessarily the instructor, to attain a good grade. From the site analysis through the working drawing and finally to the in-home presentation of their plans and cost estimates, the students are expected to behave and perform professionally. When it is over, they are usually very excited about it, especially if the client was favorably impressed.

At Cobleskill, we also believe that students must be pressured if they are to get a true picture of the landscape industry. The time allowed them to accomplish a project is never as much as they want. While the first semester begins at a comparatively slow pace while they are learning the basic techniques, each semester thereafter accelerates the pace. The result is usually a student capable of both qualitative and quantitative work.

(Concluded on Page 137)

ASSESSMENT OF YOUR POTENTIAL FOR INTERNATIONAL EMPLOYMENT

by
Donald E. McCreight
Teacher Educator
University of Rhode Island
Currently, Project Leader
Institute University of Azores

As a teacher of agriculture or teacher educator, have you ever made an assessment of your potential for part-time or full-time employment in an international agricultural education program?

SCOPE AND TRENDS IN INTERNATIONAL AGRICULTURAL EDUCATION PROGRAMS

In 1976, twenty major multilateral, private and bilateral organizations provided 6.37 billion dollars of financial, technical assistance, or training in agriculture for one hundred forty-four developing nations.[1] Indications are that assistance will continually increase to assist the more than one hundred Less Developed Countries (LDC's). The LDC's contain seventy-five per cent of the world population and are identified as countries with a per capita Gross National Product of less than $450.[2]

In recent years increased emphasis has been placed on technical assistance and training related to improved and appropriate methods for the transfer of technology. Training emphasis has also shifted to more people-oriented programs. With these changes in emphasis, agricultural education must assume a key responsibility for training extensionists and teachers of agriculture for roles in international programs.

Teacher education in agriculture must provide leadership to develop and implement programs to train personnel for new international agricultural programs. These new programs should more effectively provide transfer of technology in an acceptable and adoptable manner.

Employment opportunities for agricultural education personnel exist with projects funded by the major agricultural assistance organizations such as Food and Agricultural Organization (FAO), World Bank, Ford Foundation and Rockefeller Foundation, and United States Agency for International Development (AID). These organizations employ personnel engaged in consultant and administrative roles.

Agricultural education consultants are needed to work in positions in the United States and developing countries. Consultant positions can utilize teacher education training specialists, teachers of agriculture and extensionists.

If it is assumed that increased foreign agricultural assistance will create additional employment opportunities in international agricultural education programs, it must be recognized that only a small percentage of teachers and teacher educators can qualify for employment. With this in mind, let us examine the most desirable and essential characteristics that I have been able to identify during my personal experience in international employment.

DESIRABLE CHARACTERISTICS FOR INTERNATIONAL EMPLOYMENT

Travel: One may possess a great desire for domestic travel, but may not possess the abilities to cope with the difficulties associated with international travel. An example of a travel difficulty could be motion sickness related to either long distance air or water travel. Since international employment often requires much air and sea travel, one must consider the ability to travel as an important characteristic that is needed for international employment.

People: Most teachers and teacher educators are already involved in people-oriented programs and possess the necessary skills to relate well with people. In an international setting, one must be able to make minor adjustments and work effectively with people-oriented programs.

Donald E. McCreight

Empathy: International agricultural assistance programs are geared for the improvement of the socio-economic level of rural people. It is extremely important that one has experienced living and working with this segment of the population in order to understand and appreciate their problems.

Culture and Language: Have you experienced living in another culture? Can you speak, write and read another language? Understanding cultural differences and not forcing one's own culture on others is an important aspect of international employment. Use of the native language in a foreign country is important to understand cultural differences and to communicate effectively.

Flexibility and Adaptability: Flexibility and adaptability are key individual characteristics to any international assignment. One must be able to change plans and adapt to the situation as it exists on a day to day basis.

Patience: If you don't possess this virtue, don't even consider international employment. Many situations such as traveling, arrangements for meetings, ability to secure materials, etc., in an international setting test your patience on a regular basis.

Family: Last, but of most importance, is consideration of the attitude of your spouse and/or family members toward international employment. Many international

(Concluded on Page 135)

EMPLOYMENT AND BEAUTY

by
Cecil Sharpe
Public Information Officer
Clover Park Vo-Tech Institute
Tacoma, Washington

Combine skills learned in two career courses at Clover Park Vocational-Technical Institute and "the world becomes a place of beauty!"

Students in the Landscape Construction/Equipment Operator course and the Greenhouse & Nursery Operator course deal in beauty . . . the beauty of growing things and the beauty of arrangement and display.

These two agri-related programs are designed to train students to accept entry-level positions. Both courses are among the 71 career options offered at Clover Park V-TI, Washington State's largest voc-tech institute, located eight miles southwest of Tacoma in suburban Pierce county.

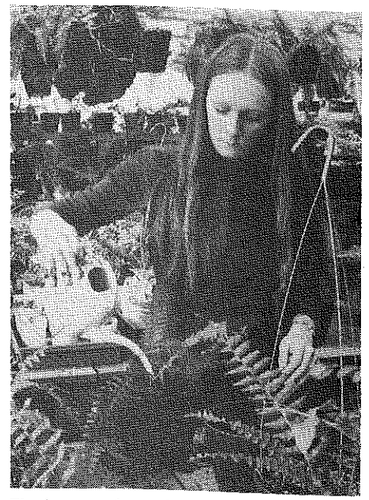
LANDSCAPE CONSTRUCTION/ EQUIPMENT OPERATOR

Landscape Construction/Equipment Operator is an 11-month course with students in training from 8 a.m. to 3:30 p.m. Monday through Friday.

In addition to learning to operate and maintain heavy construction equipment, students learn: landscape plant material, plant culture, soils, fertilizers, pest and weed control, landscape design, sprinkler system design and construction techniques.

Realistic training is a basic part of the course as students gain practical experience by designing and installing landscapes on the school campus and in the community by special arrangement.

Employment possibilities are excellent. Graduates have the opportunity for self-employment or

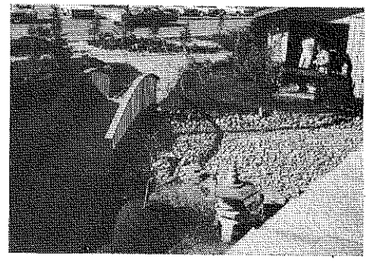


The beauty of growing things, arrangement, and display in the greenhouse.

accepting a position with landscape contractors, public institutions, cemeteries, golf courses, industrial and business firms, public parks, urban renewal projects, real estate developers or others.

GREENHOUSE AND NURSERY OPERATOR

Students in the Greenhouse & Nursery Operator career course receive training in how to grow, propagate and sell plants, flowers, shrubs, trees, bulbs, fertilizers, and chemicals.



The beauty of growing things, arrangement, and display in landscape.

Subjects taught include botany, plant identification, soils, fertilizers, greenhouse and nursery structures and environmental controls, plant propagation, nursery and greenhouse production, pest control, business management for greenhouse and nursery, public relations, employment seeking, turf fundamentals and introduction to landscape design.

Upon graduation, student are qualified for entry-level posts in greenhouse or nursery sales, growing and crop production, propagation, garden store, purchasing, pricing and pesticide application.

Training at Clover Park V-TI also includes practical experience in the student-operated retail nursery and greenhouse which is open to the general public from 10 a.m. to 3 p.m. Monday through Friday during the school term.

The Greenhouse & Nursery Operator course is 10½ months in length with students in training from 8:15 a.m. to 2:30 p.m. Monday through Friday.

As with all career training courses at Clover Park V-TI, the goal for each student is employment. But, with these two courses, the added ingredient is "beauty."

CONTINUED

INTERNATIONAL EMPLOYMENT

assignments require extended absence from family members of up to two months or more.

In summary, to succeed in international employment, it is necessary to be:

- interested in international travel
- people oriented
- empathetic toward rural poor people
- appreciative of other cultures and languages
- flexible and adaptable
- patient
- able to be separated from family members for periods of at least two months.

If you possess these desirable characteristics for international employment and you are in good health, you certainly should look further into one of the many part-time or full-time employment opportunities in international agricultural education programs.

REFERENCES

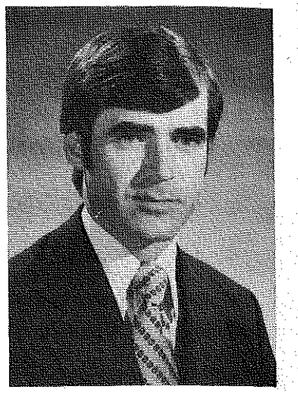
[1]International Agricultural Development Service, "Agricultural Assistance Sources," 1978.

[2]World Bank Report for 1976, based on 1974 data.

FFA SALUTES THE OHIO LEGISLATURE

James E. Dougan

by
*James E. Dougan**
Assistant Director
Vocational Education
Ohio Department of Education
and
Kirby Barrick, Jr.
Area Supervisor
Agricultural Education Service
Ohio Department of Education



Kirby Barrick, Jr.

Telling the Agricultural Education story, as a part of the total vocational education program, is the goal of the Ohio FFA Leadership-Citizenship Day, held at the beginning of each biennium of the Ohio General Assembly. As a kick-off to Ohio Agriculture Day, the FFA salutes the Ohio General Assembly during a breakfast in downtown Columbus.

PREPARATION

Preparations for the breakfast start in the preceding September when FFA chapters volunteer to host the legislator from their home areas. As soon as the November elections are completed, the host chapters and advisors are confirmed. Each host chapter is contacted by the public information committee of the Ohio Vocational Agriculture Teachers Association, and the chapter sends an invitation to the legislator with a follow-up personal contact in December.

**This article was in the hopper when the Agricultural Education Profession lost the services of Jim Dougan. It is simply another example of Jim's fine contribution to the profession.*

House Speaker Vernal G. Riffe, Jr., dons his official FFA jacket during the "Ohio FFA Salutes the Legislature" breakfast, assisted by State FFA officers Rick Metzger, Susie Barrett, Terri Hidy, and Tim Wood.

Reservations for the breakfast are submitted by the chapters in January. Cost includes breakfast for the member, advisor, and legislator, plus three pictures of the group which are returned for use in local newspapers. Information is distributed to the chapters to make the students aware of the legislative process, suggest topics for discussion during breakfast, and explain the day's activities.

THE PROGRAM

State FFA officers conduct the breakfast program. One highlight is the presentation entitled — "Agriculture — A Large and Vital Industry in Ohio," followed by a 10-minute slide/sound presentation, "The Agricultural Education Story." Legislators are given facts concerning the importance of agriculture, and how the vocational agriculture programs are training young people and adults for employment in Ohio's largest industry.

During the 1979 breakfast, Lt. Governor George V. Voinovich, State Superintendent of Public Instruction Dr. Franklin B. Walter, Executive Director of Vocational Education Dr. Byrl R. Shoemaker, and Agricultural Education Director Mr. James E. Dougan appeared on the program. Special recognition was given to the Honorable Oliver Ocasek, President of the Ohio Senate, and the Honorable Vernal G. Riffe, Jr., Speaker of the Ohio House of Representatives. A citation, presented on behalf of the Ohio Agricultural Education Service, Ohio FFA, Ohio YFA, and OVATA, was given to each of them by the State FFA Officers. Both Riffe and Ocasek wore official FFA jackets presented to them at the 1977 breakfast.

To commemorate the occasion each of the 133 legislators and 55 special guests was given a red carnation boutonniere or corsage (the state flower) and every person in attendance wore blue and gold buttons proclaiming "FFA Salutes the Ohio Legislature."

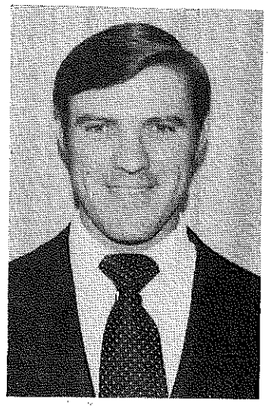
The FFA members and advisors spent the remainder of the day touring the Capitol and attending hearings and sessions in both houses. The FFA was

(Concluded on Page 141)

★ ★ ★ THIS WORKED FOR ME! ★ ★ ★

COMMUNITY SERVICE SPRAYING

by
James M. Garrison
Horticulture Instructor
Scottsboro, Alabama



James M. Garrison

I teach ornamental horticulture to students in the basically urban area of Scottsboro, Alabama. I have students in grades 9-12 in my classes. One of the main projects we began this year is a community service project of spraying shrubs and trees for insects and disease problems in our area.

HOW IT'S DONE

We have people call the horticulture/agribusiness department, we take their names and addresses, and visit them as soon as possible. We are in a relatively small urban situation, and as a result there is not a service of this nature available to the community. The students are very enthused about the project and enjoy occasional field trips to learn insect and disease identification as well as prevention and treatment.

RESULTS

This program not only will help build community support, but will serve as a good teaching aid as well. In order for a student to be able to go out and spray a customer's shrubbery, he/she must first know what that insect or disease problem looks like. Therefore, as a part of our spray program, I can use "hands-on" experience in teaching identification and control of various insects and diseases.

SAFETY

Of course safety is a most important aspect of the program. With the use of dangerous pesticides, we have to be sure we are using each pesticide safely. This again is an excellent teaching tool.

BUILDING OUR AMERICAN COMMUNITIES

This endeavor is also our BOAC project in our FFA chapter this year. It remains to be seen how well we achieve in the competition, but we are optimistic that it will help us to be a Gold Emblem FFA Chapter.

CONTINUED

POSTSECONDARY LANDSCAPE PROGRAMS

FACULTY EXPERIENCES

The experiences that faculty bring to their classes are vital to their acceptance by the students. Projects must be perceived as job-like and relevant if the teacher is to be believable to the students. Each project should be explained in terms of why it is being done, what the student can expect to do with the knowledge gained and how it fits into the total industry picture. Needless to say, it is important that the teacher have more than a hobbyist's familiarity with the subject. The use of vacation periods and sabbatical leaves to work in the industry is a major means of staying up-to-date in the field.

INDUSTRY ACCEPTANCE

The acceptance of the academic effort by local industry professionals is critical to the long range success of the program. Industry members refer students to the program, advise in curriculum development, serve as guest speakers and field trip hosts, and ultimately employ the graduates. Any landscape program would be well advised to court the good will and participation of local and statewide industry people.

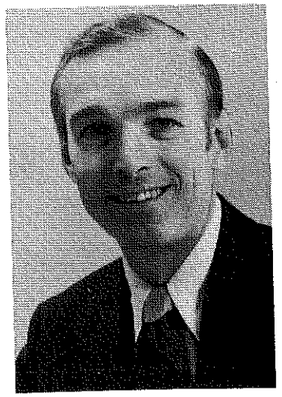
PLACEMENT RECORD

Finally, the placement record of a program is perhaps the greatest testimonial to its success or failure. At Cobleskill, the faculty works hard at placing the graduates and even advises alumni who wish to relocate. Attendance at selected trade shows and conferences is expected of each faculty member in the program and they willingly comply. Many job offerings result from those contacts, directed to students both during the shows and in the months after. Also the department solicits jobs by means of a mailing that goes out to nearly 500 potential employers each January. In addition, the reputation of the program generates dozens of new and unsolicited employment offerings each year. Contrary to what some teachers may believe, placement does not take care of itself and cannot be delegated to a placement office somewhere else on the campus. It necessitates a strong faculty effort and commitment.

The landscape industry is a growth industry throughout the nation. It seems to have avoided the economic pitfalls that have affected other small businesses. Thus the future of the profession and postsecondary programs that service it seems secure.

A Comparison of Use of Time By First Year Teachers and Experienced Teachers of Vocational Agriculture

by
Roy D. Dillon
Teacher Education
University of Nebraska-Lincoln



Roy D. Dillon

In a recent study of time utilization by teachers of vocational agriculture with two or more years of experience in Nebraska, it was found that they recorded an average of 2652 hours of work per year. When compared to a group of eight first-year teachers who recorded their time in the same duty categories, the first year teachers worked an average of 2556 hours per year, or 96 less hours than the experienced teachers. The range for the experienced teachers was from 1986 to 4046 hours, while for the beginning teachers it was from 1763 hours to 3379 hours.

Table 1 shows the average hours in each duty category for the two groups of teachers.

TABLE 1
Average Hours Worked By 39 Experienced and 8 First Year Teachers of Vocational Agriculture In Nebraska, by Duty Category

Duty Category	Average Hours Per Year 39 Exp. Teachers	8 First Year Teachers
1. Plan & teach day agriculture classes	1050.05	1041.16
2. Plan & teach non-agriculture day classes	73.79	68.78
3. Plan & conduct young farmer classes	7.02	5.25
4. Plan & conduct adult classes	19.76*	4.75*
5. Conferences with students	55.51*	101.91*
6. Supervise study halls	57.28*	19.13*
7. Supervise occupational experience programs	158.74	166.06
8. Scheduling & upkeep of facilities	117.56*	134.97*
9. Advising & supervising FFA activities	308.05	296.03
10. Training judging teams	93.00*	59.00*
11. Completing official reports	22.71	32.41
12. Other school responsibilities	67.87	60.50
13. Budgeting, requisitioning & inventoring	48.56*	31.09*
14. Public Relation for the department	46.12	46.32
15. Participation in community activities and responsibilities	59.93*	28.81*
16. Participation in state, regional or national professional organizations	62.28*	46.91*
17. Recruitment for the department	14.23	22.75
18. Curriculum planning	101.79	91.66
19. Completing award applications	29.76	37.25
20. Preparing for and participation in fairs	77.69	58.50
21. Organizing and using advisory committees	10.53	12.19
22. Attending local school teacher staff meetings	26.60	25.00
23. Teaching & supervision in post-high agriculture vocational programs	4.46*	37.00*
24. Participation in young farmer association activities	2.64*	7.81*
25. Class sponsor	7.61	4.88
26. Participation in other agriculture organizations	25.25	37.19
27. Other activities conducted on a regular basis	102.93	78.94
Total Annual Hours	**2657.87**	**2556.41**

* = Significant at .05 level

*Published as Paper Number 5864, Nebraska Agricultural Experiment Station

When a one-way analysis of variance test was run between means for average hours worked in each of the 27 duty categories for the two groups of teachers, the results showed that:

1. Beginning teachers worked significantly more hours per year than experienced teachers in the duty categories of:
   a. Conference with students.
   b. Scheduling and upkeep of facilities
   c. Teaching and supervision in post-high school agriculture programs.
   d. Participation in young farmer association activities.
2. Experienced teachers worked significantly more hours per year than beginning teachers in the duty categories of:
   a. Plan and conduct adult classes.
   b. Supervise study halls.
   c. Training judging teams.
   d. Budgeting, requisitioning, and inventorying.
   e. Participation in community activities and responsibilities.
   f. Participation in state, regional, and national professional associations.
3. For the remaining 17 duty categories there was no significant difference in average hours worked per year.

IMPLICATIONS FOR TEACHER EDUCATION

Undergraduate professional preparation programs should adequately prepare new teachers to work effectively in one-on-one conferences with students.

Further research needs to be conducted to determine whether the causes for more hours of time used for scheduling and upkeep of facilities by first year teachers is due to inefficient use of time, compared to experienced teachers, or to more activities undertaken. In addition, more information is needed on the specific type of activities related to teaching and supervision in post-high programs. At present in Nebraska, this involves an agreement with the local school and a nearby technical community college, for

(Concluded on Page 141)

Leader In Agricultural Education

NORMAN K. QUARLES

by
*Thomas A. Quarles**

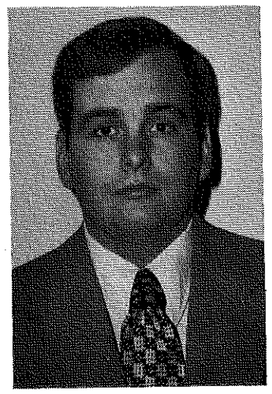
In the past forty years, Dr. Norman K. Quarles has left a distinguished path from the East Texas piney woods to the blacklands of North Texas. During his career, Dr. Quarles dedicated himself to the development and improvement of agricultural education and has long established himself as a true leader in the educational field.

Dr. Quarles was known as the teacher's friend because of the countless hours he spent providing assistance to vocational agriculture teachers. He was often recognized for the emphasis he placed on professionalism in the teaching profession. Dr. Quarles believed strongly in, and will always be remembered for, the importance he put on having an outstanding and well-rounded vocational agriculture program. He felt a well-rounded program was one in which equal emphasis was placed on all major areas of the program. This included doing an outstanding job of teaching in the classroom and laboratory, having a viable FFA chapter that actively participates in FFA activities, and conducting a strong adult education program.

Dr. Quarles was born and reared in Slocum, Texas, where he graduated from high school with honors. Upon his graduation, he attended Texas A&M University where he received his Bachelor of Science and Master of Education degrees. He received his Doctor of Education degree from the University of Houston and has done additional work at Sam Houston State University, Stephen F. Austin University, Texas Tech University, and East Texas State University.

Dr. Quarles began his career in agricultural education as a vocational agriculture teacher at Norwood High School in San Augustine County, Texas, in 1939. In 1941, he moved to Broaddus, Texas, where he taught vocational agriculture until he entered the armed forces in 1943. During World War II, he served with both the Seabees and the Hospital Corps of the Navy.

After being discharged from the Navy in 1945, Dr. Quarles moved to Nacogdoches, Texas, where he taught vocational agriculture for sixteen years. During his tenure at Nacogdoches High School, the students under his leadership consistently received state and national honors. Eleven of his FFA members were awarded the coveted American Farmer Degree, while sixty-one received the State Farmer Degree. Also, during the same period of time, the Nacogdoches FFA Chapter received numerous Gold and Silver Emblem Awards, and two state FFA leadership records were set that were never broken or equaled during his tenure there.



Thomas A. Quarles

In 1961, Dr. Quarles joined the faculty of the Department of Agriculture at East Texas State University. He began his tenure as an instructor in agricultural education, but was quickly promoted to assistant professor in 1962, associate professor in 1964, and full professor in 1972. During his eighteen years at East Texas State, he placed extreme emphasis on teaching and educational research. Dr. Quarles has had several articles published in various magazines and journals, and he supervised the writing of seven handbooks on cooperative training in vocational agriculture which have received national distribution.

At East Texas State, Dr. Quarles firmly believed that his most important responsibility as a teacher educator was to expound every ounce of energy he had in training and preparing vocational agriculture teachers to his utmost ability. He recognized that providing a thorough preservice education program was essential if young teachers were to be adequately trained and ultimately successful in their teaching careers.

During his career, Dr. Quarles has received many honors and awards. Among the most prestigious awards

(Concluded on Page 142)

**Director of Vocational Education*
Grand Prairie, Texas

Teaching Tractor Selection — An Easy Practical Approach

by
Robert L. Wolff
Teacher Educator
Ag Education & Mechanization
Southern Illinois University
Carbondale, Illinois

Much of the instruction related to agricultural tractors is basic at the high school level. Units in tractor driving, maintenance, adjustments and repair are probably most common. This instruction is basic and important to students preparing for farming or employment in the farm machinery industry. With tractor prices often exceeding $200 per horsepower, the initial cost of a modern farm tractor becomes a sizable investment. There is little basis for debate that those students preparing for a role in agriculture or the agricultural machinery industry could benefit from a unit of instruction in tractor selection at the high school level.

The approach does not need to be as complex as in some University machinery management courses, or as complex as the experts make the problem with the aid of a computer. A logical-common sense approach should be used at the secondary level that is accurate enough to match the tractor or tractors that are available on the market, with local farming conditions and requirements. In addition to high school students, young farmer and established farmer groups in farming areas may find this to be a very interesting and profitable topic.

There is little doubt that too many tractors are bought by the farmer on a personal preference basis. As farm management skills become more critical to success in farming, personal preference should be only a minor factor in the decision-making process. An accurate analysis should be made of the farm in question, the facts defined, and a logical approach should be used in the selection process., Consider the following approach that uses nine selection factors that need to be clearly defined followed by five basic computations to determine the power requirements for a given farm:

SELECTION FACTORS TO DEFINE

1. Acreage of Primary Tillage

The largest consumer of power in most crop farming operations is the primary tillage operation. The primary tillage operation may include one or a combination of: (a) plowing, (b) subsoiling, (c) chisel plowing, (d) field cultivating, and/or (e) disking. The acreage and type of primary tillage operations performed serves as a basis for tractor selection.

2. Soil Type

The type of soil influences the power requirements rather significantly. Generally, heavy clay type soils have large draft requirements than do lighter sandy soils. The draft characteristics of various types of soil can be found in most farm machinery text books or may be available from your local extension service.

3. Tillage Practices

Every farmer has a strategy in the types of tillage operation and when they are to be performed. For example, a farmer may be desirous of chisel plowing a certain acreage in the fall after harvest. Moldboard plowing may be done in the fall or spring. The farmer is, however, desirous of disking all land before planting. Whatever procedures or plan is to be followed, it must be clearly defined.

4. Days Available to Perform Tillage Operation

Local weather data is essential in determining the number of days which can be used for primary tillage. Days the farmers does not plan on working and/or days used for completing farming requirements which have higher priorities than the tillage operation must be subtracted from the total days available in the fall-spring to establish a reasonably accurate time to perform the primary tillage operation.

5. Speed of Tillage Operation

Tillage operations are normally performed at 4 to 5 m.p.h. Slower speeds result in greater fuel efficiency, but often result in overloading power units. The advantages of 4 to 5 m.p.h. speeds normally overshadow the savings realized at lower speeds.

6. Number of People Who Can or Are Available to Operate a Tractor

The number of people that will or can operate a tractor must be considered. If only one operator is available, the power unit selected should be large enough to complete the tillage job before planting. With more than one operator available, it gives the farming operation more flexibility. One may start the tillage operation while the other is still preparing the seed bed. It should be remembered that two 50 h.p. tractors will probably be able to perform more work than one, 100 h.p. tractor because of the added flexibility on time overlap of seed bed preparation and planting. With two tractor operators, it is possible to select both a large power unit and a smaller power unit that is capable of pulling the planter. This combination allows more primary tillage to be completed in the fall of the year, when the larger tractor is involved in harvesting. Considering the time overlap in the fall and spring, this may be a good selection combination.

7. Cost and Efficiency of Tractor

When comparing the cost and performance of different types of tractors, a common basis of comparison should be used. Dollars, horsepower, and horsepower hours of work performed, gallons or pounds of fuel used are standard units of cost comparison in the tractor selection process.

8. Availability of (a) Tractor, (b) Parts and (c) Service

The availability of the desired tractor must be considered. The tractor dealership should be in reasonable proximity of the farming operation. The availability of parts and service must be considered. There is an old fable that says for the lack of a nail, a shoe was lost, and for the lack of a horse a battle and kingdom were lost. Likewise, for that lack of a part or competent mechanic, a tractor was lost, and for the lack of a tractor, a crop was not planted, and for the lack of a crop, a farm was lost.

9. Personal Preference

Personal preference is probably one of the major factors currently used to select tractors. Some like red tractors, some prefer green tractors, yet other insist orange tractors are the best. The fact is that most all tractors sold by reputable companies are reliable. Some farmers insist that a power shift is better than a standard transmission for his farming operation. Others insist that the tractor be a four-wheel drive because they are better and in style. Personal preference should not be completely disgarded; yet, it should only be one of the minor factors used in the selection process.

(Concluded on the Next Page)

CONTINUED

TEACHING TRACTOR SELECTION

COMPUTATIONS NECESSARY TO SELECT TRACTOR OR TRACTORS

After the previous nine variables have been clearly defined and quantified, a tractor or tractors may be selected on the basis of draw bar (DB) or power take off (PTO) horsepower by following the following six steps.

Step 1. — Determine the number of acres per hour that need to be tilled in the time available.
formula:

$$\text{Ac/hr} = \frac{\text{Total Acres}}{\text{Number of days x work hrs. per day}}$$

Step 2. — Determine the width (ft) of tillage implement (s) to use.
formula:

$$\text{Ft.} = \frac{10 \times \text{Ac/hr to cover}}{\text{Field Speed (mph)}}$$

(Note: The above formula assumes a 82.5% field efficiency.)

Step 3. — Compute the Total draft (lbs) required for the tillage requirements.
formula: Total lbs. = implement width (ft) x draft per foot.

Step 4. — Calculate the H.P. required to do the job.
formula:

$$\text{DBHP} = \frac{\text{Total Draft (lbs) x Speed}}{375}$$

Step 5. — The PTO Horsepower can be determined if selection is to be made on PTO HP basis by multiplying the DB Horsepower by:
(1) 1.35 for firm soil operations
(2) 1.40 if working in tilled soil or
(3) 1.50 for soft soil

Step 6. — After the total HP requirement has been determined, it may be necessary to make adjustments to match machines to tractors for time overlaps, for field operation overlaps with more than one operation and competing demands on time in diversified farming operations.

The author believes the proposed approach to tractor selection is highly relevant and teachable to high school students as well as to young and established farmer groups. The management aspects of machinery selection is a weak spot in the agricultural mechanization program and should be upgraded.

A more detailed lesson plan and example problems may be obtained from the author upon request.

CONTINUED

FFA SALUTES . . .

formally recognized by a proclamation in both the Senate and the House. The President of the Senate and the Speaker of the House wore their official blue and gold jackets as they conducted their respective sessions.

THE STORY

The entire event requires hours of careful planning and cooperation among all members of Ohio's Agricultural Education family, the state staff, state FFA officers, teachers, and young farmers. When legislation about vocational education and agriculture is a part of the General Assembly's agenda, the legislators have heard the story of success.

CONTINUED

COMPARISON OF TIME USE

the local teacher to conduct a class for adults at the local school site. Six of the eight first year teachers were involved in this type of instruction to some extent, while only two actually conducted young farmer or adult classes in agriculture sponsored by their local school.

Teachers in the study indicated a desire for a formal workshop on time management, and the opportunity to discuss ways of conducting a more efficient and effective local program. Vocational agriculture teachers who are conducting a full-day school program, complemented with FFA and supervised occupational experience phases, must be efficient managers of time in order to serve all students.

CONTINUED

HORTICULTURE THERAPY

- *Knowledge of the skills and practices of modern horticulture.*
- *Ability to transmit knowledge and teach skills.*
- *Resourcefulness in developing new approaches and innovative projects involving horticultural plants and people.*
- *Self-knowledge and confidence.*
- *The ability to maintain a professional and objective attitude toward another's problems.*
- *The ability to work closely with other staff members toward a common goal of the recovery for the patient.*

Students in horticultural therapy need a broad background in horticulture and vocational education techniques, supported by a good background in psychology, sociology, and special education. In order to use horticulture as a tool in establishing a therapeutic relationship, the horticulture therapist should be comfortably competent in working with plants. Experience in volunteer programs is desirable to orient the horticulture therapy student to hospital or institutional processes. Prospective horticulture therapists must be willing to develop their own programs, and to be innovative and determined to pursue their goals. A student completing such a program may select to work as a horticultural therapist with specialization in activity therapy, occupational therapy, physical therapy, or special education.

WHERE ARE HORTICULTURE THERAPISTS NEEDED?

A horticulture therapist generally works with physically or mentally handicapped individuals, patients in nursing homes and mental institutions, or with individuals having special educational needs. Whether a horticulture therapist works with children or senior citizens, the continuing challenge is to move persons into a process that allows them to re-enter society or overcome a mental, emotional or physical illness.

WHAT IS THE NCTRH?

NCTRH is The National Council for Therapy and Rehabilitation Through Horticulture. It was founded in 1973 and has established a registration procedure based on the educational background and/or experience of the horticultural therapist, and is recognized by other professional groups. Three levels of registration exist, including (1) Horticultural Therapy Technician for graduates of Associate of Arts (2-year programs) or volunteer workers; (2) Registered Horticultural Therapists for graduates of approved 4-year programs and completion of a 6-month internship, and (3) Master Horticultural Therapist for those professionals with advanced degrees and at least six years of experience.

CONCLUSION

Hortitherapy and horticulture can be seen as very valuable aids to the treatment program for special needs individuals. Individuals can learn how to respond to others, become aware of their position or role with others, and re-evaluate their idea of social position through relationships with the hortitherapy group. The growth of plants can be seen as an activity which will help the individual develop self-confidence and self-respect in a social situation. Horticulture may lead to a full-time occupation or have carry-over value from the institution to the home and to resumption of leisure activities.

The horticulture therapist is a professional, non-traditional educator who needs at least a baccalaureate degree with expertise in horticulture, special education and vocational education. Agricultural educators should share in the development and conduct of horticultural therapy programs since these programs usually include a professional education component.

CONTINUED

AGRICULTURAL LEADER . . .

that he received was the Southern Region Distinguished Service Award in Agricultural Education. He was also named to Who's Who in American Education in 1967 and has received the Honorary American Farmer Degree, the Honorary State Farmer Degree, the Texas Forestry Association Award, and the Certificate of Merit from the Thor Research Center for Better Farm Living.

Throughout his life, Dr. Quarles has been active in many professional and civic organizations. He is a member of Phi Delta Kappa, the American Vocational Association, the Vocational Agriculture Teachers' Association of Texas, the Texas Vocational Association, and the American Association of Teacher Educators in Agriculture. He is also a 32 degree Scottish Rite Mason and a member of the Hella Temple Shrine.

Aside from the positive impact that he has made on the agricultural education profession, Dr. Quarles has always remained devoted to his family. He is the father of two sons and one daughter. His positive influence coupled with the examples that he has set is a reflection of his personal and professional philosophy. He has always felt that the most important responsibility in his life was to provide a home in which his children could develop mentally, physically, and spiritually.

Dr. Quarles retired from his full-time teaching position at East Texas State University on December 31, 1978. He is currently teaching one graduate course each semester and plans to remain at his home in Commerce, Texas.

As a vocational agriculture teacher and a teacher educator in agriculture, Dr. Quarles has influenced the lives of many young people. He has often said that the key to success is maintaining a positive attitude and striving to be the best at whatever one does. Dr. Quarles has indeed devoted his life to the betterment of agricultural education, and yes, he has earned the reputation of being a leader in the field.

GRANDFATHER'S COLLECTION

By Lee Pitts

In the early years of his life, Grandpa took whatever jobs came along wherever he could find them. He was recalling the other day a problem that popped up at one place he was staying during a three month stint in the hay fields. It seems this old sow kept trying to get into his rented room. One day he asked the family he was staying with, "Do you think she has taken a fancy to me?" Everyone shrugged in an innocent manner. A day or two later little Billie answered a lot of questions when he whispered to Grandpa, "That's her room during the winter."

* * * * *

From the Cowboy Dictionary: "Government" . . . A miraculous machine which enables twelve men to do the work of one.

* * * * *

A farmer from Missouri named Hicks went to New York to get a farm loan from a large banking institution. After a two hour delay Hicks was led into the banker's office. As he entered he noticed the banker's name in gold letters on the door: B.D. Cobbs. The banker appeared to have little time for the farmer and he got right into filling out the loan application. "Your name?" queried the banker. "Hicks," replied the farmer, his temper flaring because of the long wait and the curt nature of the banker. At this, the banker reared back in his chair with laughter. "Do you know what we do with Hicks in New York?" The ruralist replied just as sarcastically, "No, but I know what we do with Cobs in Missouri."

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* * * * *

Speaking of bankers . . . A rancher long known for his bouts with bankruptcy became depressed with the current market conditions and decided to end it all. In his death note were these instructions: "I hereby name the following six bankers to be my pallbearers. Since they carried me most of my life, they might as well finish the job now."

* * * * *

Time for Thought: When a man is building something solid, he doesn't worry about what idlers may scribble on the scaffolding.

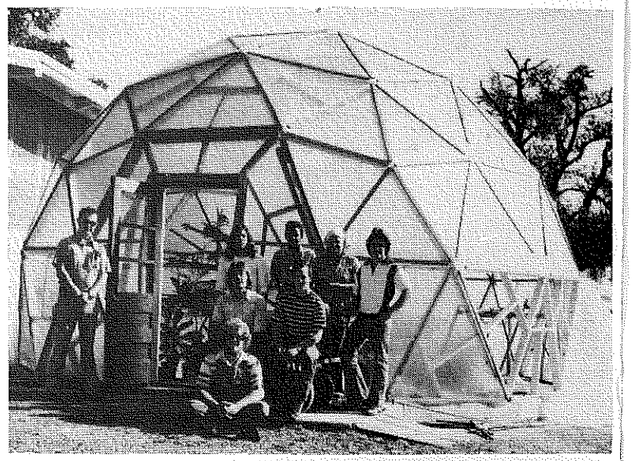
Until next time . . .
Keep up the good work

STORIES IN PICTURES

by Joe Sabol

Tree climbing is an important skill in the gardening program at Sandhills Community College, N.C. (Photo courtesy of Leone H. Koster)

Mr. Mattern, Head of Grounds Maintenance is demonstrating to John Oehring how to apply iron to a pin oak. (Photo courtesy of James B. Anderson of the Nichols Career Center, Jefferson City, MO)



Instructor Alvin Patterson (left) poses with a group of proud floriculture and ornamental horticulture students in front of a newly constructed greenhouse. (Photo courtesy of Carla Everett, TSTI-Waco, TX)

Routine watering is essential to many ornamental horticulture occupations. This student is watering the bedding plants in the Amelia Street School Greenhouse, a special education school in the city of Richmond, VA. (Photo courtesy of Judy Yoffy, Instructor, Amelia Street School, Richmond, VA)

Beautiful flower beds are a part of the Landscaping Gardening course at Sandhills Community College, Southern Pines, N.C. (Photo courtesy of Leone H. Koster)