The
Agricultural Education
Magazine

May, 1982
Volume 54
Number 11

THEME: Just for Teachers

Introducing the National Opinion Poll On Vocational-Technical Education in Agriculture

THE
AGRICULTURAL EDUCATION
MAGAZINE

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ARTICLE SUBMISSION

Articles and photographs should be submitted to the Editor, Regional Editors, or Special Editors. Items to be considered for publication should be submitted at least 90 days prior to the date of issue intended for the article or photograph. All submissions will be acknowledged by the Editor. No items are returned unless accompanied by a written request. Articles should be typed, double-spaced, and include information about the author(s). Two copies of articles should be submitted. A recent photograph should accompany an article unless one is on file with the Editor.

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EDITOR'S PAGE

Who Holds the Key?

Vocational-technical agricultural education has the mission of helping to insure a supply of competent workers for agricultural industry. This mission is achieved through a three-component program: classroom-laboratory instruction, supervised occupational experience, and student organization activities. Individuals who are responsible for the program must be — to name a few — managers, directors of learning, counselors, and public relations specialists. Only vo-ag teachers are so talented as to be capable of all these things. They hold the key to the success of programs in vocational-technical agriculture!

The theme for this issue of THE MAGAZINE is "Just for Teachers." It could have easily been "the key holders." The success or failure of vocational-technical education in agriculture is in the hands of the teachers. Supervisors and teacher educators are important to the success of the programs but not to the same extent as the local teachers.

JASPER S. LEE, EDITOR
(The Editor also serves as Professor and Head, Department of Agricultural and Extension Education, Mississippi State University.)

This issue of THE MAGAZINE was prepared around the theme of "Just for Teachers." Robert McBride of Ohio served as Theme Editor. His assistance in obtaining articles "just for teachers" is appreciated. Our thanks go to him for getting the articles teachers like to read!

Larry E. Miller, an Outstanding Professional

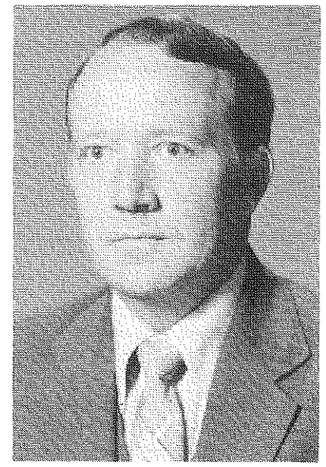
Editor-Elect Announced by Editing-Managing Board

The Editing-Managing Board of THE AGRICULTURAL EDUCATION MAGAZINE has selected Dr. Larry E. Miller as Editor-Elect. Miller, a Professor in the Department of Agricultural Education at The Ohio State University, will assume responsibilities as Editor with the January, 1983, issue.

The Editor-Elect has served on teacher training staffs at the University of Missouri-Columbia and Virginia Polytechnic Institute and State University. He holds a B.S. degree in Agricultural Education from the University of Missouri-Columbia, an M.S. from Northwest Missouri State University (NWMSU), and a Ph.D from Purdue University. He taught vocational agriculture for five years in Missouri and one year in the Agriculture Department at NWMSU, Maryville, Missouri, before beginning his doctoral studies.

Dr. Miller, a life member of NVATA and AVA, has been active in both the Southern and Central Regions of the AATEA. Nationally, he served as Editor of THE JOURNAL OF THE AMERICAN ASSOCIATION OF TEACHER EDUCATORS IN AGRICULTURE and on numerous committees. He is the author of SELLING IN AGRIBUSINESS, which is published by McGraw-Hill Book Company for vocational agriculture students. He is also the author of numerous articles in refereed and popular publications and has written several monographs and curriculum guides. He has previously served as a Regional Editor of THE AGRICULTURAL EDUCATION MAGAZINE.

Dr. Miller notes that he is particularly interested in seeing THE MAGAZINE address issues facing our teachers, their programs, and the total profession. His most immediate concern is encouraging a rapid growth in the number of subscriptions.



Individuals who wish to correspond with the Editor-Elect can write him as follows:

Dr. Larry E. Miller, Professor
Department of Agricultural Education
The Ohio State University
208 Agricultural Administration Building
2120 Fyffe Road
Columbus, Ohio 43210

Just For Teachers

The theme topic of "Just for Teachers" is exciting to me. Having served on the Editing-Managing Board of THE AGRICULTURAL EDUCATION MAGAZINE representing the vocational agriculture teachers, I remembered the critical remarks I gave to the Board about the contents of this magazine. I believed most of the articles were for the college educators or supervisors, and not for teachers. The Board and editors listened and, in my opinion, THE MAGAZINE is much improved with more articles being practical for classroom teachers.

The opportunity as Theme Editor to obtain articles of a practical nature for teachers was a real challenge. I quickly learned that you may know teachers who have had excellent success and have ideas that should be shared, but to get them to write an article for THE MAGAZINE is quite difficult. The most often given response is, "I don't do anything different than many other teachers."

This assumption may or may not be true. My own experience has taught me that I have had few innovative ideas of my own. However, I have been able to use the illustrations, techniques, and ideas of others for improved teaching of the students in my classes. Most of the ideas were those some other teachers believed was common place, but I had never conceived the idea until I personally saw or heard about it. We do need to share our successful techniques!

THE AGRICULTURAL EDUCATION MAGAZINE could not exist if teachers did not subscribe. Because of this, the MAGAZINE should present articles that are of interest and useable by teachers. Many magazines have a letter to the editor or question column with answers written by the experts in the field. Would such an addition in THE AGRICULTURAL EDUCATION MAGAZINE improve its utility?

This MAGAZINE is our magazine. No outside publisher makes a profit or writes an article. As a teacher I am convinced we need a professional magazine. Each of us should concern ouselves with the success of the MAGAZINE. First, we should subscribe. The dollars are a must for the MAGAZINE to exist. Second, we should realize that the MAGAZINE is written for agriculture educators, and for this reason we need to critique the MAGAZINE by informing the Editor of our desires. Third, we should promote the MAGAZINE and its purposes to our fellow professionals.

As a former NVATA officer, I had the opportunity to speak to numerous vocational agriculture groups. Many of my speeches contained a poem which came from the file of my own vo-ag teacher, Mr. L.D. Rader. The author is unknown. With the increased emphasis nationwide on SOE programs and because I have been asked by so many for a copy of this poem, I present it as a part of this issue, "Just for Teachers." It is done as a tribute to my vo-ag teacher, a professional who inspired so many of his students to further their interests in agriculture through education beyond high school and understood so well the meaning of this poem.

BY ROBERT MCBRIDE, THEME EDITOR

(Editor's Note: Mr. McBride has taught vocational agriculture for 21 years at Hardin Northern School in Dola, Ohio. His address is Route 4, Kenton, Ohio 43326. He has held numerous leadership positions, including Vice-President, Region IV, NVATA.)

First Boy

I left my dad, his farm, his plow
Because my calf became his cow;
I left my dad — T'was wrong, of course,
Because my colt became his horse.
I left my dad to sow and reap
Because my lamb became his sheep;
I dropped my hoe and stuck my fork
Because my pig became his pork;
The garden truck I made to grow
Was his to sell and mine to hoe.

Second Boy

With dad and me it's half and half
The cow I own was once his calf;
No town for mine; I will not bolt,
Because my horse was once his colt.
I'm going to stick right where I am
Because my sheep was once his lamb.
I'll stay with dad, he gets my vote.
Because my hog was once his shoat.
It's fifty-fifty with dad and me
A profit sharing company.

The Cover

Teachers know the value of firsthand experience. The cover photograph shows students and soil scientists evaluating crops and soil type. (Photograph courtesy of Steve Forsythe, Assistant Professor of Agriculture and Experimental Farm Coordinator, Mid-America Nazarene College, P.O. Box 1776, Olathe, Kansas 66061.)

What's Your Opinion?

Add your two bits! Fill out and mail the opinionnaire on vocational-technical agricultural education presented on pages 21-22. Please do so by May 30, 1982.

The findings will be reported in three different issues of THE MAGAZINE. The September issue will report on program administration. The October issue will report on the curricula. The November issue will report on professionalism.

Just for Teachers . . .

Professionalism

BY DAN ACHESON

(Editor's Note: Mr. Acheson is vocational agriculture teacher at Kimball, Nebraska 69145. He is a native of Wyoming and has Honorary State and American Farmer Degrees.)

Searching through many volumes of research materials has done little to alleviate my apprehensions of writing on professionalism.

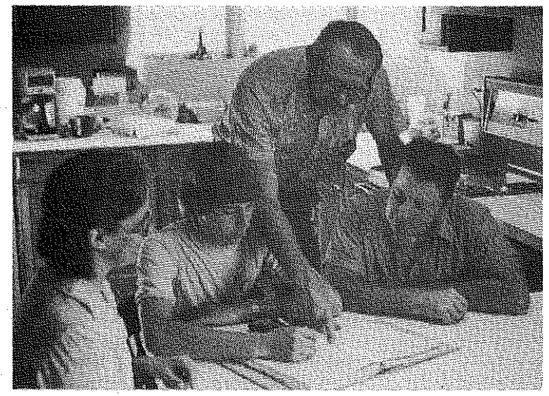
Professionalism means something different to each individual in every profession. It is a choice each person must make as he/she enters his/her chosen field of work.

The professional teacher of vocational agriculture is no different than all of the millions of other professionals working in the world except for a few minute details.

At no time in the history of vocational education, especially that of vocational agriculture education, has it been more important than it is today for each of us to practice professionalism. The choices are great, the dilemma seems insurmountable, and the continued pressures at times seem unbearable.

While the English, math, and history teachers are asked to be professional teachers and the trade and industry instructors are asked to join in with the ranks of the teachers and vocational teachers as well; the teacher of vocational agriculture is asked not only to be a professional teacher and vocational teacher, but also to be an active viable professional in agriculture as well. He/she is, and rightfully so, in demand to belong to, to participate in, and to assume roles of leadership in every agricultural organization in the community as well as in the teachers organizations.

What is the answer? When do you stop? How much is too much? The answers to all of the questions must be found by each individual depending on his/her situation, his interest, and desires to promote, support, and sell education, vocational education, agricultural education, and, probably, agriculture itself.



Home visits have traditionally been used to enhance the instructional program. Don Shuppert, vo-ag teacher at Plymouth High School, Plymouth, Indiana, is shown working with a student and his parents on record keeping in the kitchen of the family's home. (Photograph courtesy of Don Shuppert, Plymouth, Indiana)

Education and agriculture today are faced with more cutting blades than at anytime, we are faced in agriculture with the sharp edge of inflation, the razor of interest rates, and the wild slicing of government. All of those involved in agriculture, regardless of the extent of involvement, must stand up and be counted. Likewise, in education, we are faced with many of the same problems. We must also face lid bills of all kinds on educational spending. We are faced with a demand for more and better education. We are to accomplish this with fewer people and less money each year.

The decision to be made about professionalism is, "How much do we need?" Professionalism is more than paying dues to professional organizations. It involves having backbone to stand up and be counted even when you may be standing alone. It involves carrying out our programs so well that there is a lasting influence on the community.

When do you stop? You don't until a task is accomplished, an issue won, or another goal reached. You don't stop until you feel as a professional teacher of vocational agriculture you have accomplished what your own goals in vocational agriculture have been. The real question here is, "Does anyone of us ever accomplish all of our goals?" The true professional sets new goals each day. It is easy to and we have all been guilty from time to time of becoming complacent in our attitudes, work, and professionalism.

Professionalism is more than paying your dues; it is more than attending a meeting or two each year. Professionalism is the active and continuing involvement in those organizations that pertain to the profession.

The real key to professionalism for teachers of vocational agriculture is stated in the very first sentence of our creed, "I am a teacher of vocational agriculture by choice and not by chance." This one very short, simple, and concise statement sets the vocational agriculture teacher apart. He or she is not better or worse or more or less professional, only an individual who has chosen to dedicate a

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Professionalism

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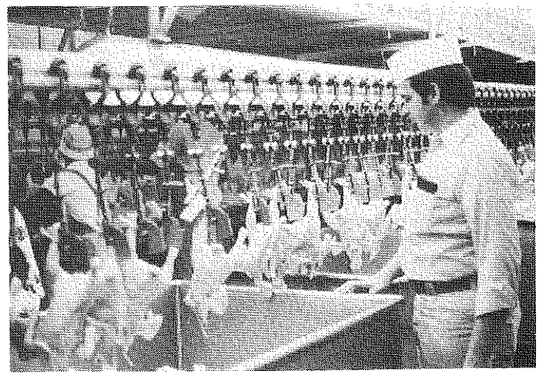
lifetime to vo-ag. The term of dedication in itself reveals and supports a professionalism seldom found in any field.

We are all well aware that a 100% truly professional organization is something that will not come about. However, as we strive to be better and more professional teachers, we enhance the professionalism of other vocational agriculture teachers. Teachers of vocational agriculture are no different than physicians, lawyers, farmers, or any other group. We have good teachers, bad teachers, and a large number in between the two points. Through professionalism and professional growth, we can lift ourselves above where we presently are and become better teachers and ambassadors for our profession.

The last paragraph of our professional creed best summarizes what each of us should be striving for in our individual programs as we teach, travel, visit, and practice our professionalism. "My love for rural people will spur me on to impart something from my life that will help make for each of my students a full and happy future." If each one of us can consistently feel that we have accomplished what this statement says, there is little doubt that we are all following the lines of professionalism. It is only through dedication, personal growth, and involvement that we can continue to pass on positive attitudes to our students.



Professional includes being technically competent. Monte Ladner, vo-ag teacher at Carthage, Mississippi, is shown gaining firsthand experience in a poultry processing plant. (Photograph by the Editor)

THEME

Just for Teachers . . .

Teaching Vocational Agriculture in the Suburbs

By Robert DeLauder

(Editor's Note: Mr. DeLauder is Vocational Agriculture Teacher at Damascus High School, Damascus, Maryland. The Damascus FFA Chapter is a National Gold Emblem Chapter.)

To the average person and probably the average vocational agriculture instructor, the thought of an agriculture program in the suburbs is unusual. It is often difficult to see the purpose and value of instruction in vocational agriculture in suburban areas, especially when agriculture is considered to be only farming. Indeed, if only farming is to be taught, then there is little place for vocational agriculture instruction in a suburban setting. However, when agriculture in its fullest sense is considered, the potential for a successful program in an area where students have relatively little firsthand experience with farming is almost unlimited.

Damascus, Maryland, is a mix of housing developments, including townhouses, many homes on quarter acre lots or less, and a few farms of various sizes. A few larger dairy and cash grain farms are also located within the drawing area of the school. Most of the agribusiness in the area is related to service to the homeowner and horticulture.

Of the approximately 100 students in the agriculture/horticulture program at Damascus High School, less than a half dozen actually live on family farms and only about 10 or 12 work in agriculture-related businesses.

Teaching agriculture in a suburban area such as Damascus (approximately 35 miles from Washington, D.C.) calls for a good deal of variation from the traditional Ag I, II, III, and IV system. Students with little or no firsthand agriculture experience are seldom willing to make a four year commitment to a program that many believe will only lead to farming as a career. As a result, every course offering is independent of every other course and there are no prerequisites.

Constant reminders to students, the school, and to the community in general that agriculture is more than farming is an absolute necessity. To emphasize the wide range of career opportunities in agriculture, career education is a part of every course offering and included in nearly every unit taught. Special emphasis is put on careers that are locally available with students visiting areas of interest and reporting back to class.

The Curriculum

Courses taught at Damascus include three years of horticulture, two years of animal science, farm business management, and agricultural mechanics. In spite of course titles, the program is aimed towards the interests and abilities of the students taking the courses offered. A continual effort is made to assess the interest of students and to gear material toward those interests. As a result, animal science classes emphasize horses and horsemanship and care of small animals. Meats, genetics, and nutrition are also important parts of the animal science program and would be appropriate regardless of the background and career objectives of the student clientele.

Farm business management classes cover business principles that would be appropriate for any audience and include interest and depreciation, credit, money management, labor management, marketing, and taxes.

In the agricultural mechanics class, students are taught small gas engine repair, chainsaw repair, welding, and much general repair work. A good deal of repair work is also done on the many small tractors owned by area suburbanites. The agriculture mechanics laboratory is one of the best community relations tools in the Damascus agriculture program as many community residents bring their lawn mowers and chainsaws to the school for repair.

The horticulture program is patterned after the predominant horticulture enterprises in the area and stresses commercial production, retail flower shop management, and turfgrass and nursery production. Vegetable gardening is also included.

Supervised Occupational Experience

Supervised occupational experience programs present a special challenge in a suburban area and cannot be required as per county school policy. Many students have limited or no facilities for a production-type project larger than a flower box or a small garden plot or possibly a cat or dog. While agribusiness type jobs are available in the area, many of them hold little of the glamour of the many government type jobs available.

Students are strongly encouraged to have supervised occupational experience programs whenever possible and a special effort is made to locate facilities for small production-type projects and to provide placement in agribusiness. Close cooperation with the school career center and the several work experience coordinators in the school makes this task much easier.

For those students who have no opportunity for a supervised occupational experience program at home, a small school farm is maintained with several steers, two beef cows, some rabbits, 125 caged laying hens, and 100 broilers. Veal calves are raised from time to time as well as other farm animals. All class members assist in the feeding, care, and management of the animals under the direction of a supervised farming committee. Eggs (approximately 1800 dozen per year) are sold to school faculty members. The students are completely in charge of all aspects of the operation including delivery schedule, billing, record keeping, and pricing.

Students keep records of all parts of the farming operation. Livestock projects must stay in the black in order to be continued from year to year.

The vocational agricultue program has two greenhouses (26' x 42' and 10' x 32') that are run by students as near to commercial operations as possible. Students are responsible for all phases of the greenhouse operations including planting and care of plants, pricing, sales, and marketing of the plants grown. Close ties are maintained with local greenhouse operators to help insure that misunderstandings do not develop in regards to competition.

Student Organization

The FFA is a major part of the vocational agriculture program at Damascus, with 100 per cent membership. State and national dues are paid by the chapter. The FFA provides the incentive for many students to enroll in vo-ag classes and offers a wide range of activities. FFA offers many students the opportunity to develop social and leadership skills that are just not available elsewhere in the school.

To encourage participation in production agriculture type contests (dairy, livestock, poultry, etc.), special emphasis must be placed on the leadership and character development aspects of the judging contests, such as oral reasons. Of course, evidence of past successes by judging teams (a classroom full of plaques, banners, and trophies) and the knowledge that winning teams take trips doesn't hurt at all!

Although information related to FFA judging contests is discussed in class, actual training of judging teams takes place outside of school hours. FFA Alumni members provide invaluable assistance in training teams and in selling

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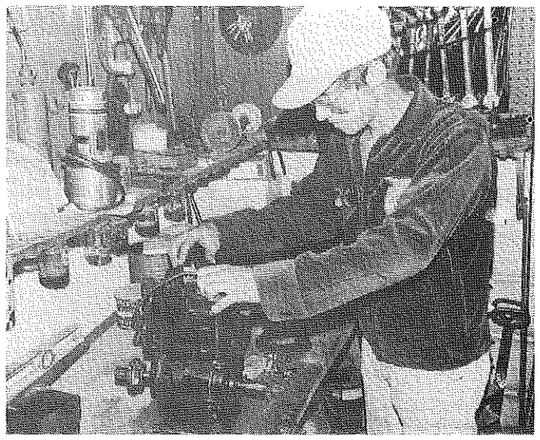

Practicing safety is a necessary competency to learn in small gas engine repair. (Photograph courtesy of Walkersville (Maryland) FFA Chapter and Maryland Department of Education.)

Teaching Vocational Agriculture in the Suburbs

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FFA to prospective vocational agriculture students.

The many other activities that have helped Damascus FFA to be one of the top chapters in Maryland for many years would be appropriate for any FFA chapter no matter where its members live.

Major Differences

The major differences between teaching agriculture in a suburban area as opposed to teaching in a rural area are: (1) more "selling" of the program is required, (2) more emphasis on career possibilities is necessary, (3) additional planning is often required in order for students to have SOE, and (4) FFA activities need to be geared toward the background and needs of the students.

A Special Issue . . . An Invitation to Professionals

This issue of THE MAGAZINE is being mailed to all secondary and postsecondary programs of vocational-technical education in agriculture in the United States. The mailing lists of subscribers and programs were consolidated so that subscribers would receive only one copy. About 13,000 copies of THE MAGAZINE were mailed this month.

If you do not now subscribe, a subscription form is presented on page 23. You will enhance yourself and your profession by subscribing.

Articles and photographs are also invited. Submit these well in advance of the date of intended publication. The photographs should be quality, 5 x 7, black and white, action shots depicting vocational technical agricultural education.

Be a professional! Subscribe and contribute to THE AGRICULTURAL EDUCATION MAGAZINE.

THEME

Just for Teachers . . .

The Maryland Story: Internships for Vo-Ag Teachers

BY DAVID MILLER AND IVAR HOLMBERG

(Editor's Note: Mr. Miller is Specialist in Agriculture, Division of Vocational-Technical Education, Maryland State Department of Education, Baltimore, Maryland 21201. Dr. Holmberg is Assistant Professor of Agricultural Education at the University of Maryland Eastern Shore, Princess Anne, Maryland 21853.)

During the summer Maryland vocational agriculture teachers may be found working on a dairy farm, in a flower shop, at a milk processing plant, at the department of wildlife or parks and recreation, or at a meat processing plant. The list could go on. This "hands on" approach is a method of providing inservice education for teachers in a program entitled "Internship in Agriculture/Business/Industry/Education" (IABIE).

In a small state like Maryland, which has 125 teachers in 80 programs of agriculture/agribusiness and natural resources, identifying enough teachers for a class who have inservice needs in the same area can be a problem. So a few years ago the Joint Agricultural Education Staff which is made up of representatives from state supervisory staff, teacher education, vo-ag teachers, postsecondary and adult education, FFA alumni, and other leaders in agricultural education addressed this issue. A committee of state staff and teacher educators was found to seek ways in which the inservice needs of vo-ag teachers could be met.

Following an extensive needs assessment of teachers inservice needs, a 5 year inservice master plan was developed indicating titles of courses to be taught, who would teach them, and where and when they would be taught. This plan worked well where a group of teachers had similar inservice needs. In a small state with programs as diverse as those in Maryland, sometimes only one or two teachers needed a given class. This was not enough to justify offering a class, so something innovative had to be developed.

A grant from the Maryland Department of Education was used to develop a program to serve the inservice needs of individuals or small groups of teachers. This is when the Internship in Agriculture/Business/Industry/Education program was started. Through the cooperative efforts of teacher educators at the University of Maryland, Eastern Shore, and the University of Maryland, College Park, vo-ag teachers who were graduate students at both campuses were invited to participate.

Procedures

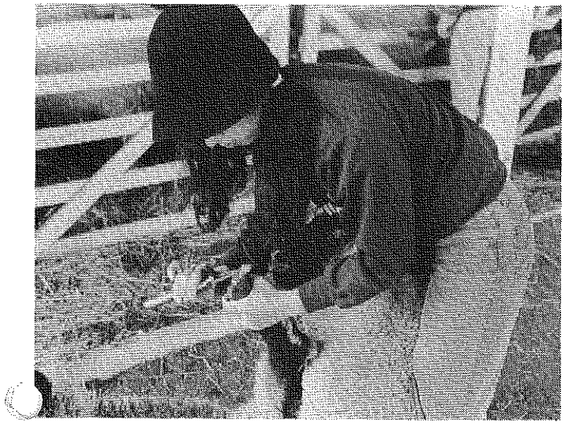
IABIE, now moving into its third year, has become a popular one week workshop. It is one thing to discuss trade skills in the classroom and another to learn under actual working conditions! Too often teachers of agriculture have the background in theory, but lack the practical experience of actually working in the industry. As a result, the students they train have a limited perception of what the industry needs and how they can fit in. IABIE helps tie the theory and practice together.

Early in the school year, in addition to reviewing the "Five Year Inservice Plan for Vo-Ag Teachers," teachers are asked to identify the types of skills or competencies they would like to develop as part of the internship. At this point, a central location is identified in the State that will be convenient to the majority of the participants in the program and also a location that has the types of businesses/industries that can provide technical experiences to meet the needs of teachers.

After registration for the IABIE program, teachers are matched with training stations. This is an important aspect of the program. After a station has been identified, much planning is needed in order for the teacher to gain experience in the areas needed. The IABIE coordinator, the teacher, and the supervisor where the teacher will work meet to discuss what is expected of each and plan a week-long program of work for the teacher that will best help serve his/her needs.

A program of work may include:

1. competencies to be learned,
2. activities for learning the competencies, and
3. performance standards for evaluating each teacher's development of these competencies.



A student trims hoof of her sheep as part of supervised occupational experience program. (Photo courtesy Linganore (Maryland) FFA Chapter and Maryland State Department of Education.)

At the internship site, teachers work the normal working hours of the business/industry for one week under the direction of the station supervisor. The project coordinator (teacher educator) visits each teacher each day at their work station to help assure that inservice needs are being met. During the day, the teacher works along side other employees in order to develop his/her skills and to get a true indication of the job area. Also, the teacher takes pictures and develops a set of slides with script showing the kinds of skills needed in order to work in this type of business. The teachers further identify and/or verify competencies that vo-ag students should learn in order to be employable in that area. Later, products are reproduced and distributed for use statewide.

At the end of each work day, participants are hosted at one of the internship sites for a two-hour seminar. During this time the manager/owner of the business gives an interview of the particular business, a tour of the facilities, and a question and answer period. Employers share much information with participants about employment needs, competencies that students should be taught, and how the school, community, and business might work cooperatively. Time is also set aside during this two-hour session to address special problems the teachers may have encountered during the day at their own work station. This group activity is excellent from the standpoint that teachers: learn about more than one job area, have the opportunity to meet with several employers, discuss concerns daily with the project coordinator, and have informal conferences with fellow teachers.

During the last day of the internship, all participants and employers meet at lunch to summarize accomplishments and discuss ways to improve cooperation between vocational education and the work force. The meeting may also include central office personnel, principals, and members of craft or local advisory committees. A written evaluation is also conducted.

Outcomes

After each internship is completed the teachers' learnings are evaluated. Teachers discuss how they will apply these learnings in the classroom. A format for sharing the information with other teachers is also developed.

Teachers completing the internship will not only improve personal knowledge and classroom skills, but will also make available instructional materials to other agricultural teachers at the secondary/postsecondary and adult levels. These materials include teaching aids, instruments, and other instructional materials. All items are also available at cost to out-of-state vocational personnel.

In summary, the IABIE program is a five day, on-the-job experience with a business firm engaged in a phase of agriculture/business/education. All vocational teachers presently teaching or those planning to teach any phase of agriculture/agribusiness and renewable natural resources are eligible to participate. Internships are offered in all phases of agriculture, including production, sales and service, processing, horticulture, forestry, agricultural mechanics, and others. Teachers are eligible to participate in the workshops more than one year without repeating the same material. One who worked in the area of feed this year

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The Maryland Story: Internships for Vo-Ag Teachers

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may come back next year and take tractor mechanics.

At the conclusion of the week evaluations are complete. Teachers present a 2,000 word paper on the application of their experience in their own vocational agriculture program. They also identify and validate competencies that students should have in order to be employable. A needs assessment for employment is conducted at each internship site.

Since vo-ag teachers receive a limited amount of "hands on" experiences in order to develop their technical skills during their formal education, the IABIE inservice program is one way of developing and improving skills of teachers in technical areas. This program has been enthusiastically accepted by vocational agriculture teachers and is an outstanding means of serving a variety of inservice needs.

THEME

Just For Teachers . . .

Secrets to a Successful Program

By William Diley

(Editor's Note: Mr. Diley has taught vocational agriculture for 15 years at Miami Trace High School, 3722 State Route 41NW, Washington C.H., Ohio 43160.)

The vocational agriculture teacher is often thought of as the director of agriculture education in the community. It becomes the task of the teacher to put together a program "which makes things happen" for the community. A successful vocational agriculture program must:

1. Be based on the needs for it in the community
2. Have adequate facilities, both classroom and laboratory
3. Attract and serve quality students
4. Have supportive parents
5. Have a dedicated teacher

These five areas are like links in a chain. The chain (the agricultural education program) is only as strong as the weakest link in the chain. The program is only as successful as the least successful part of the agricultural education program. Each part of the program must be constantly evaluated and developed to continue to be successful.

The secret of our FFA chapter's success is found in the importance that we place on our classroom instruction. I was hired to teach in the classroom and agricultural mechanics laboratory. The majority (85%) of our FFA activities and practice for contests are after school. In this article I want to share some of my thoughts on developing a successful FFA chapter.

Students are shown planting soybeans on the chapter farm.

The Curriculum

Since it is an elective, vocational agriculture classes must offer the latest in the field of agriculture in order to be attractive to potential students. If not, the student can learn more at home and will select another course. At Miami Trace, we have gone to specialized semester classes. A student must select two courses that are paired, since the high school is not composed of all semester courses. Students must take a complete year of vocational agriculture and not just one semester. The courses are:

Semester I	*Semester II*
Vocational Agriculture I	*Vocational Agriculture I*
Farm Machinery Repair & Maintenance	*Crop Production*
Farm Power	*Farm Management*
Animal Science	*Farm Construction*
Leadership and Nutrition	*Welding and Electricity*

After their freshman year, students may begin to specialize and select the courses that they wish to study. The course selection allows the college preparatory student to schedule around courses that may be offered only at one time in the smaller schools.

The course selection has allowed the teachers to specialize in particular areas and develop their skills. It has also allowed the teachers to have more in-depth study in these areas as the students are in the class because they want to learn more in that particular area. It is easy to relate the course of study to the supervised occupational experience program of students. By relating the class to real life, the classroom becomes more interesting and realistic to the student.

We use the latest textbooks and references that we can find. Some examples are:

John Deere Series Fundamentals of Service and Fundamentals of Operation
National Hog Farmer Swine Information Series
The Shepherds Production Handbook
Dairy Guide, Ohio Cooperative Extension Service
Ohio Beef Industry Handbook
Ohio Pork Industry Handbook
Ohio Agronomy Guide
Farm Builders Handbook
Wiring Simplified
FFA and You

We like to use manuals because they cost less than textbooks and are generally up-to-date. Also, by being written by specialists in the area of study, they have the latest technical information available. Many magazine articles are also used.

Then by utilizing FFA chapter farm projects and the supervised occupational experience programs of the students, the classroom discussions can be more interesting.

The Instruction

When planting crops on the FFA chapter farm, all students are involved in planter calibration and operation. Each student in the crop production class must develop a complete plan of herbicides, fertilization, varieties, etc., for the chapter farm. This makes class study more realistic for each student. The more interesting the class the higher the participation in the classroom and in FFA activities. I believe that the secret to our FFA success is quality classroom and agricultural mechanics instruction. If the classroom teacher stresses classroom teaching first, other parts of the vocational agriculture program will follow. By constantly trying to improve classroom and agricultural mechanics instruction, the teacher sets the example for students in all of their classroom and FFA participation.

Constantly updating classroom teaching to meet the changing needs of students in both the farm and non-farm areas is essential. It is important to know and meet student needs in any vocational agriculture program. We must do this to remain attractive to potential students. The needs of the students are found by examining the occupational experience programs of the students and then teaching accordingly.

The Facilities

A teacher should never be satisfied with the facilities or they will soon be out of date. We must also be aware of the constantly changing field of agriculture around us and where our students are getting jobs. My school is in a rural area and many of our students do go into farming, but we have more students who find jobs in agribusiness.

When selecting equipment we select high quality, industrial rated equipment. This equipment takes the wear much better and does not need to be repaired or replaced as often and as a result is cheaper over a period of time.

Mig and Tig welders have been added to provide additional skills for students in using these machines for the agribusiness world. Many new shop projects can be completed for the farm with these welders. All students are required to have a shop project or they are assigned a project that a resident has asked to be constructed. Shop projects can also be selected when making supervised occupational experience visits. These projects should develop skills that students can use upon graduation.

Facilities do not make a department but they certainly do help. A vocational department must be constantly updated like any other business if it is to stay in the business of education and be attractive to the public. This may not always be the latest up-to-date books and equipment but the latest in knowledge and skills that are needed in agriculture.

The Support of Other People

Working with the school administration and explaining the need and the justification for our purchases, we are constantly updating our library, references, and shop equipment.

The successful college football, basketball, or any other team sport is dependent upon recruiting and retaining talented players. The successful vocational agriculture department is also dependent upon recruiting and retaining quality students. To successfully recruit, a department must have an educational program and an end product that is attractive to the prospective student.

At Miami Trace, selected students visit the junior high schools and show slides of FFA activities, graduates, department activities, and explain the career opportunities in agriculture and the vocational curriculum. Students can relate to students in the 8th grade. This also makes the current students feel that they are partially responsible for the success or failure of the program. The program is also dependent upon securing students who are above average. The "above average" refers to the desires to get ahead and to do things better than they have done in the past. Of course, the more students that you have with this attitude and with above average academic records, the easier it is to develop a program and a FFA chapter.

When working with students we would be wise to remember the FFA Motto:

Learning to do
Doing to learn
Earning to live
Living to serve

The students must have parents who are supportive of the program and of their son or daughter. The production vocational agriculture program encourages the employment of the latest technology in the growing of livestock and crops. Students with parents who allow them to try new developments and evaluate them see more clearly the value of their classroom instruction. The teacher and the parent need to work together in developing the knowledge and skills that the student needs to be successful in the future.

The higher the reputation of the vocational agriculture department with the better farmers in the area, the more respect, cooperation, and support it will have in the community. This is done by teaching the latest technical knowledge and skills and have good supervised occupational experience programs.

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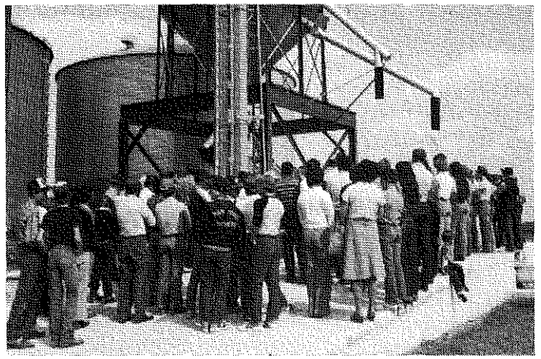
Secrets to a Successful Program

(Continued from Page 11)

The Key to Success

As the director of the agriculture education program the teacher is the key to the success of the program. The dedicated teacher will spend many non-school hours working on departmental business. The teacher must have the dedication, determination, vision, and enthusiasm to guide the department to the goals that have been set. The following summarizes success:



Students are on a tour of community facilities.

The Winner

The man who wins is an average man,
Not built in any particular plan,
Not blessed with any particular luck,
Just steady and earnest and full of pluck.

When asked a question he does not "guess"
He knows and answers "No" or "Yes"
When set a task that the rest can't do,
He buckles down till he's put it through.

So he works and waits till one fine day
There's a better job with better pay
And the men who shirked whenever they could
Are bossed by the man whose work made good.

For the man who wins is the man who worked,
Who neither labor nor trouble shirks:
Who uses his hands, his head, his eyes —
The man who wins is the man who tries.

— Author Unknown

THEME

Just for Teachers . . .

Small Engine Maintenance

By Amon Herd
(Editor's Note: Dr. Herd is Associate Director, Instructional Materials Lab, University of Missouri-Columbia, Missouri 65211.)

Are you in need of self-paced, introductory instructional materials? Do you teach a course in Maintaining Small Engines?

If you anwered "yes" to the above questions, a new series of sixteen packets may be the answer. The materials are competency-based, self-contained, clearly illustrated and provide easy to follow step-by-step procedures. The materials are written and designed:

1) to provide minimum skills for disadvantaged and handicapped students entering the mainstream;

2) to supplement vocational skills of those students already in a regular small engine program; and

3) to provide vocational instructional materials for the modified classroom setting.

Contents

Maintaining Small Engines includes the following units:

Format

The design of the format is innovative. Students have decision making responsibilities and find the materials easy to use because of the simplified behavioral objectives, defined key terms, and easy to follow illustrations. The motivational techniques capitalize on student strengths and reinforce student independence. Students respond to the following statements prior to beginning each unit:

Show What You Can Do.
Check the statement that fits you best.

_____ *I can do all the tasks in this unit and want my instructor to check me through the Practical Exercise Performance Checklist.*

SEE YOUR INSTRUCTOR

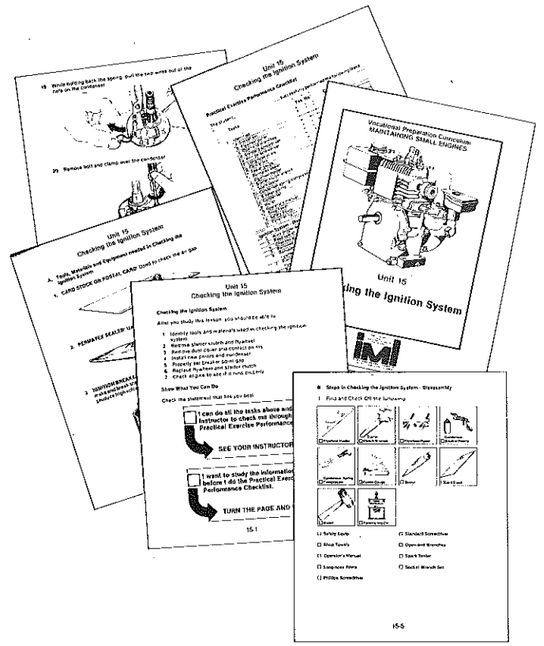
_____ *I want to study the information in this unit before I do the Practical Excercise Performance Checklist.*

TURN THE PAGE AND BEGIN

Each individual response determines the instructional approach. However, each unit begins with an introduction and a description of the specific tools and materials needed. Each step of procedure is well illustrated, and easy to follow instructions are emphasized. At the end of each unit the student completes the Practical Exercise Performance Checklist.

This becomes a record of the competencies the student is capable of performing. The instructor grades the student as completing the unit satisfactorily or needed to repeat the unit before starting the next unit.

Additional information may be obtained by writing the Instructional Materials Laboratory, 10 Industrial Education Building, University of Missouri, Columbia, Missouri 65211, Telephone number: 314/882-2883.



THEME

Just for Teachers . . .

Shop Projects For Skill Development

By Fred Lendrum
(Editor's Note: Mr. Lendrum is an instructor in the Agricultural Mechanics Division, Agricultural Technical Institute, Wooster, Ohio 44691.)

Many teachers in the vocational agriculture field have been critical of the project approach to agricultural mechanics skill development in the high school shop. This criticism stems from the fact that many times projects become haphazard repair jobs rather than directed learning experiences. It is my hope that this article will put new life into the project approach to skill development.

Early in my teaching career, like many other beginning teachers, I discovered that it was much easier to motivate students working on projects that would eventually go home, than students striving for additional checks on a skills chart. The only problem was, I also quickly observed, that students like to do what they can do best and as a result most successive projects only serve to further develop the skills the students already possess.

These observations fathered the development of clusters of projects, grouped on the basis of the skills required and the level of competency desired. Requiring students to select projects from each of the cluster groups encourages the mastery of a wider variety of skills and retains the motivating influence of the project approach to skill development.

Developing Project Clusters

Project cluster lists will vary with the local school facilities and community needs, so standardized lists would be of little value. The first step in developing project cluster lists is to determine the skills to be taught during the four years and the year a specific skill will be emphasized. Input should come from the community, students, fellow teachers and materials from the state level, as well as your own observations. Don't try to teach everything. Include only those skills that will be most beneficial to the students and

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Shop Projects for Skill Development

(Continued from Page 13)

strive for a high level of mastery. Next, select and organize projects into clusters that will provide students with the skills to be taught. The following guidelines will help as the project clusters are developed.

1. Choose projects that have utility both from the students and the parents standpoint.
2. Choose projects you have had experience with in previous years.
3. Limit the number of new projects each year and rework plans and construction techniques to ensure ease of construction and quality of workmanship.
4. Choose projects that require many different skills.
5. Choose projects that can be built with the equipment available in the local shop.
6. Select diversified projects to make a better use of shop equipment.
7. Consider shop space available when choosing projects.
8. Choose projects that can be constructed with supplies readily available in your locality.

Abbreviated examples of clusters.

Wood working examples of clusters.
1. Tool box
2. Nail box
3. Extension cord spool

Woodworking with power tools
1. Closed-top sawhorse
2. Auto creeper
3. Dog house

Hot metal projects
1. Cold chisel
2. Hay hook
3. Chipping hammer

Small arc welding and cold metal working projects
1. Jack stand
2. Post driver
3. Mechanics stool

Oxacetylene welding and brazing projects
1. Mailbox stand
2. Windmill (small)
3. Drawing table frame

Sheet metal project
1. Feed scoop
2. Tool box
3. Tote tray

Concrete projects
1. Curbing sections
2. Mailbox post
3. Garden bench

Machining projects
1. Tapered punch
2. Engine head supports
3. Drill press clamp

Advanced arc welding projects
1. Tractor quick hitch
2. Hydraulic press
3. Pickup truck brush bar

After project cluster lists are developed use tactful persuasion to control project selection. The following pointers will increase the success of the project cluster approach to skill development.

1. Develop a file of project plans for each cluster area.
2. Keep a supply of quality materials and fasteners on hand for the projects chosen most within a cluster area.
3. Demonstrate all hand tools, power tools, and construction techniques that a student will be using on specific projects within a cluster area.
4. Advise students with regard to problem areas of construction for specific projects before problems arise.
5. Keep shop and tools clean, neat, up-to-date, inventoried, and in good working order.
6. Justify new tool requests by sighting new skills to be taught and projects to be constructed.
7. Closely supervise all levels of construction and display an interest in the students projects.
8. Help students divide construction into simple, logical steps.
9. Emphasize workmanship by recognizing a quality project and pointing it out to other students, teachers, and the students' parents. Display quality projects at a community fair.
10. Don't accept poor quality, make students re-do mistakes and pay the additional materials cost.
11. Never allow incompleted projects to leave the shop.
12. Discourage repair jobs outside of the skill area being covered.
13. Constantly stress safety in dress and work habits.

Skill Development

Most agricultural mechanics skills can be taught using the shop project approach, if project selection is carefully controlled. This procedure requires organization on the part of the instructor, but much time will be saved as files of plans and construction procedures are developed. Compared to the skills check list approach, students are highly motivated by the lasting feeling of accomplishment that results as a quality project is completed. It should also be noted that for some students this may be the first real feeling of accomplishment ever experienced.

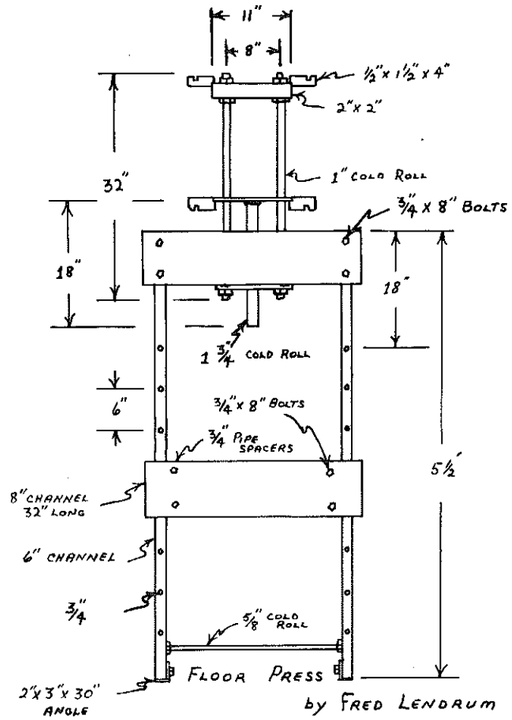
The skills check list should not be completely discarded as it serves as an excellent tool to be used by the teacher for self evaluation, in addition, it must be used in skill areas not applicable to the project approach. Although the shop project is an excellent technique for teaching mechanics skills, from time to time the teacher must emphasize the skills being learned so the students think of agricultural mechanics as more than just a course to build projects. This technique for skill development in agricultural mechanics allows the teacher to use the project to motivate students and still direct the learning experience.

A Sample Project

Plans for constructing a floor press are included with this article as an example of one type of project. Students learn and apply many skills in constructing this project.

PROCEDURAL PLAN FOR BUILDING A FLOOR PRESS

1. Lay out and cut side rails to length.
2. Lay out side rail holes.
3. Drill pilot holes in side rails using a template to maintain proper spacing.
4. Drill 3/4" holes in side rails using a scrap metal back-up to keep the twist drill from drifting in the channel iron flange (drill one side at a time).
5. Cut upper channel rails and table rails to length.
6. Lay out and drill pilot holes in one upper channel rail.
7. Clamp the drilled upper channel rail to each side of the side rails and drill pilot holes using the upper rails as a guide to insure proper alignment.
8. Clamp the two upper rails together and complete the 3/4" holes.
9. Complete the 3/4" upper channel rail holes in the side rails.
10. Cut base supports to length with a 45 degree angle at each end.
11. Drill two pilot holes in each base support.
12. Clamp base supports to side rails and drill pilot holes in the side rails using the base support as a guide to insure alignment.
13. Complete drilling 3/4" holes in the base supports and side rails.
14. Drill a 5/8" hole in each side rail for the lower 5/8" spacer rod.
15. Cut the lower spacer rod to length from 5/8" cold roll and thread ends.
16. Bolt the base supports to the side rails.
17. Bolt the upper rails and side rails together using hardened bolts.
18. Install lower 5/8" spacer.
19. Drill 3/4" holes in table rails for spacer bolts allow for 1/2" clearance between spacers and side rails.
20. Cut four 3/4" pipe spacers 6 1/4" long to allow for table movement.
21. Cut base plate for the jack, upper and lower guide plates to length.
22. Drill pilot holes and 1" holes in the upper and lower guide plates and jack base plate with the three parts clamped together to assure alignment.
23. Cut 1" guides to length and thread both ends.
24. Mark out a 1 3/4" center hole in the lower guide plate for the arbor (it may be necessary to have this hole drilled in a machine shop).
25. Cut the arbor and chamfer the end to be welded.
26. Assemble and square the jack support mechanism.
27. Slide arbor into lower guide, square with jack base plate and weld the arbor to the base plate.
28. Disassemble jack support mechanism, weld the lower guide to the upper rails and reassemble.
29. Cut and notch spring supports.
30. Weld spring supports to upper and lower guides.
31. Cut and weld a short pipe section under the upper guide to hold the jack in position.
32. Cut garage door springs with acetylene torch (spread spring sections with cold chisels to protect the spring while cutting), reinstall clips on the cut ends of the springs.
33. Prepare the press for painting.
34. Spray paint the press masking the guide rods and arbor.
35. Cut and chamfer two 3/4" cold roll table support rods.



Skills to be Taught Using the Floor Press Project

1. Selecting metal and bolts.
2. Reading plans.
3. Measuring and laying out metal.
4. Cutting metal with a metal cutting band saw.
5. Cutting metal with a hand hack saw.
6. Drilling metal using an electric drill.
7. Drilling metal using a drill press.
8. Cutting threads with a die and die stock.
9. Cutting pipe with a pipe cutter.
10. Cutting metal with an oxy-acetylene torch.
11. Welding with E 6011 rods.
12. Grinding metal with a bench grinder.
13. Preparing metal for spray painting.
14. Spray painting.

BOOK REVIEW

ECONOMICS: APPLICATIONS TO AGRICULTURE AND AGRIBUSINESS, by Ewell P. Roy, Floyd L. Corty, and Gene D. Sullivan, Danville, Illinois: The Interstate, 1981, 3rd ed., 569 pages, $18.00.

The book is separated into five parts, each containing from four to eight chapters. Part one contains an introduction to economics and how it relates to agriculture, a brief history of U.S. agriculture, and a description of types of economic systems, types of business organizations, the U.S. monetary system, and the U.S. economy.

In part two, capital and natural and human resources are discussed along with characteristics of U.S. farms. The third part details the principles of supply and demand and how they interact including prices, comparative advantage, diminishing returns, equimarginal returns, and market structures and competition.

Part four considers the economics of the farm supply business, the cost and functions of marketing, types of markets, consumption, and U.S. agricultural policy. The final section deals with foreign trade, economic development, and the Federal Reserve system. It also discusses budgets, balance sheet ratios and analysis, the marginal rate of substitution and several other principles of farm management and agribusiness management.

The book is best suited as a text book for an introductory course in agricultural economics at the college or junior college level.

Dan Countryman
Fairfield Jr.-Sr. High School
Goshen, Indiana

Just for Teachers . . .

The Three C's of Judging Contests

Judging contests have long been a part of the FFA component of the vocational agriculture program. In the early years of vocational agriculture, teachers felt a need to involve students in competitive activities where they could exhibit and practice the skills learned in the classroom. These early contests dealt primarily with the production agriculture areas of crops and livestock.

Today we find a wide range of judging contests covering literally every aspect of agriculture. In Ohio, for example, there are 22 contests available for the students.

Three questions must be answered by vocational agriculture teachers about judging contests: Are contests important enough for teachers to use their time in preparing students? How many contests should a teacher be responsible for? Who should train the students for the contests?

By Ray Griffith
(Editor's Note: Mr. Griffith is Vocational Agriculture Instructor at River View High School in Warsaw, Ohio 43844.)

Importance

The most important question about judging contests is, Are contests important enough for teachers to use their time in preparing students? The importance of contests can be summarized by looking at the three C's of judging contests. Competition, confidence, and careers are the three C's of judging contests and make them an important ingredient in the total vocational agriculture program. Competition has long been a part of the American way of life. If anyone in America needs to be competitive it is the American farmer and agribusiness person. Competition teaches students some basic principles about life.

Principle I: Most of us have more abilities than we use.

Application: Challenge students to think about the fact that they are as capable as other students in the contest. Stimulate students to believe in themselves and their potential.

Principle II: Benefits from an activity are proportionate to what is put into it.

Application: Students need to understand they cannot expect to do well in a contest unless they are willing to study and prepare themselves as best they can. Luck is not the key to successful participation in a contest. Winning comes from being prepared through practice and training.

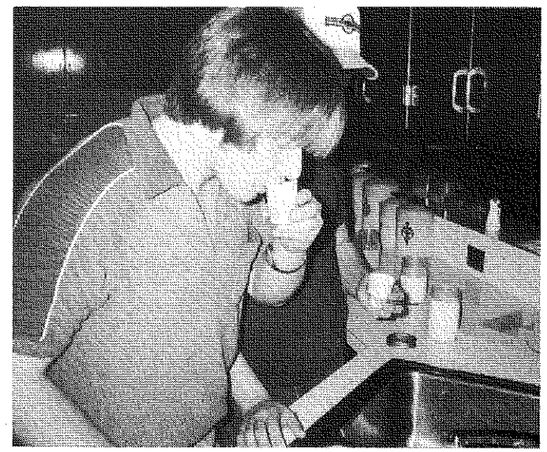
Principle III: People like to be recognized for their accomplishments.

Application: Encourage students to look forward to representing themselves, the chapter, vocational agriculture program, school, and community as they participate in contests. Recognize the accomplishments of students in the school newspaper, local papers, state FFA reports, and magazines.

In competitive activities students have the opportunity to put their talents and skills against other contestants. The idea of competing against other students can be a motivating force for encouraging students to improve themselves in agriculture skills and abilities. Students like to feel a sense of accomplishment. Competition is a means by which students can see the results of their efforts individually or as team members.

Confidence in one's ability is a valuable trait for any person, especially for students of vocational agriculture who are constantly required to make major decisions about agriculture production and business. Students develop confidence as they participate in contests and find they are able to make sound judgments and decisions. Confidence is acquired, not delegated. As students have successful experience in judging contests, they acquire a feeling of self confidence.

When students with proper training take part in judging contests they can be successful. This is not to say they will always win, but they can be successful. The confidence of students will be increased with successful participation in judging. As the students are successful and confidence in their ability increases, you will see them wanting to study and practice for contests.



Participation in milk quality contests helps develop career skills.

Taking home a trophy is a reward for success in judging contests.

The third "C" of judging is careers. Participation in such contests as meats, milk, poultry, soils, and mechanics exposes students to various career opportunities in the field of agriculture. Many students have developed a special agriculture interest while taking part in judging activities. The teachers should discuss career opportunities as they work with students. Resource persons used in training judging teams are good contacts for students wanting career information. Many good students from small or non-farm situations can be helped into agriculture careers through interest developed in contests activities.

Number

How many contests should a teacher supervise? Two main factors that will influence the number of contests a teacher should supervise are available time and teacher experience. Since time is always at a premium for vocational agriculture teachers, each teacher needs to budget time to spend on judging contests. A written schedule or time budget on judging practices allows the teacher and students to keep up with preparations for contests. A schedule also shows the students that the teacher is interested in judging contests.

The background and experience of teachers effects the number of contests the teacher supervises. Teachers will usually prepare judging teams in areas where they feel competent. Beginning teachers are often limited in experience for many judging contests. It would seem advisable for a new teacher to select those contests that can be handled and prepare students so they can be successful. Teachers who want to learn about contests should involve themselves in helping supervise these contests as well as work in grading and scoring.

Teachers can learn about contests by listening to the comments and placings of official judges. When students are involved in contests, the teacher should see that the students are present to hear the reasons and placings by the judges. As students begin to judge, they can learn by listening and observing the contest results. When a teacher takes students to a contest and then leaves before the results and reasons are given, they are losing out on valuable training experiences.

The decision on how many contests to participate in rests with the teacher. The teacher should consider the fact that proper training should precede participation. Having students enter contests with no preparation does little to help them learn or have successful experiences that causes them to want to improve.

The Work

Who should train the students for contests? Basically the participation in contests should be an extension of the classroom teaching. Students who are aware that they can represent their chapter or school may find a deeper interest in what is being taught. However, teachers may need help in some subject areas to get technical information. Resource persons in the school area may include FFA alumni members who were on previous judging teams, livestock breeders, and people actively engaged in the contest areas.

The teacher is responsible for the students and should be involved with the training and supervision. Students will know how important the teacher feels contests are by the level of involvement of the teacher. Also, the teacher who participates in the training of students will enjoy the success of the students since their accomplishments reflect the teachers involvement. Vocational agriculture teachers have the distinct opportunity of seeing their students exhibit their skills and abilities in contests.

In the past 21 years, nearly four-hundred vocational agriculture students have represented our high school on the state level. Forty students have represented our State at National Contests in Kansas City. These students have done something few of their fellow classmates will ever experience. They have represented their school and chapter at State and National competition. Along with developing agriculture skills and abilities they can use in an agricultural career, these students have found satisfaction and personal fulfillment in being successful in a competitive way with other students. I have seen what many call "poor students" become involved in a judging activity and place first on the state level. Contests are tools teachers can use to reach students who may have been turned off by the regular school menu.

Judging contests are only one part of the vocational

(Continued on Page 18)

These students are competing in judging dressed poultry.

The Three C's of Judging Contests

(Continued from Page 17)

agriculture program and should be kept in balance with the other aspects of the program. Teachers who are interested in seeing their students improve in judging contests need to apply PMA (positive mental attitude) to their teaching. Students should set personal goals for themselves, and their team goals should be written and challenging. Encourage the students to fix in their minds what they want to accomplish and then direct them in preparing for their respective contests. The teacher will need to make available resource materials and practice experiences. This attitude toward contests will lead to a successful experience for the teacher and student.

Success in a judging contest is when prepared students participate and learn from their experience. Cooperation between the teacher and students is needed to make judging experiences worthwhile.

IDEAS UNLIMITED

Practical Design, Easy to Build . . .

Solar Food Dryer Construction

In recent years solar food drying has increased in popularity. The sun, as a source of heat, can be successfully used to dry food. The Garden City, Kansas, vocational agriculture department has modified and perfected a useful dryer. Fifteen of these dryers have been constructed and placed in use by Garden City residents. The model shown has 14 square feet of drying area.

Due to the popularity of solar drying, two food dryer workshops were held in the summer, 1981. Performance of the dryers is consistent. A variety of foods have been dried, including tomatoes and hot peppers.

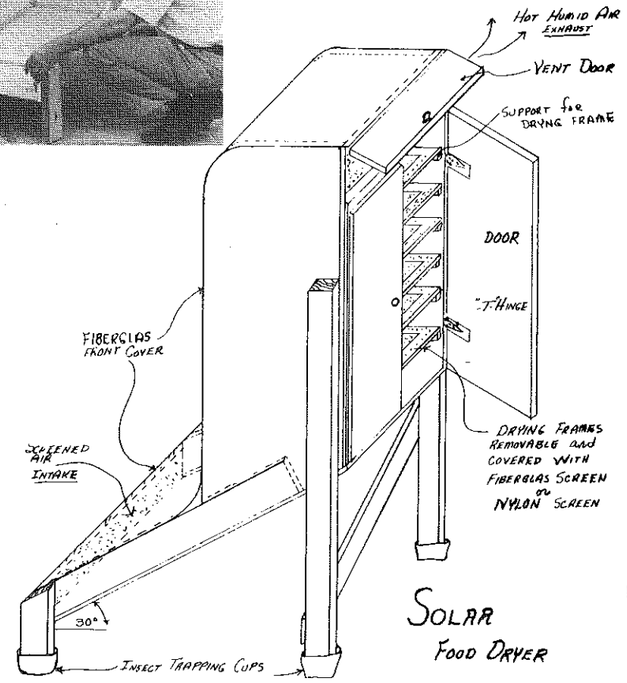
Some suggestions are:

1. Use nylon net or fiberglass screening for the food tray covering.
2. Use knot-free lumber.
3. Cutting and placing of vertical side piece boards is critical.
4. Adjust vent so maximum solar temperature does not exceed 110-115°F.
5. Seal the wood surface with "Cuperinol," inside and outside.
6. Use high temperature flat black oil based paint inside the dryer.
7. Allow at least ½ inch between food and racks for air circulation.
8. Paint exterior chocolate brown or jade green.
9. All hinges and hardware should be brass, aluminum, or galvanized iron.
10. After the dryer is completed, operate empty for two bright sunny days to drive off volatile paint, glue or sealer.

Additional information is available from the author.

By Gerald W. Hundley

(Editor's Note: Mr. Hundley is an instructor at Garden City Community College, Garden City, Kansas. The article is based on his entry in the Ideas Unlimited Contest sponsored by the National Vocational Agriculture Teacher's Association. He may be contacted at 508 Stoeckly, Garden City, Kansas 67846.)



ARTICLE

Bridging the Gap

By Robert Seefeldt and Cameron Dubes

(Editor's Note: Both authors are with the National FFA Center, P.O. Box 15160, Alexandria, Virginia 22309. Mr. Seefeldt is Program Specialist-Awards and Mr. Dubes is Director of Information.)

After 65 years of serving as the backbone of vocational agriculture education, supervised occupational experience (commonly referred to as SOE) is receiving a national thrust in 1982. SOE provides students while in school, experiences to prepare themselves for a career, thus, SOE bridges the gap between education and employment.

The purpose of the national thrust is to again make SOE a high priority in vocational-technical agricultural education.

National SOE Workshop

The renewed emphasis and thrust is the result of a National SOE Committee of professional vocational agriculture education teachers, supervisors, and teacher educators who have been hard at work on SOE for nearly two years. The culmination of the committee's work will be a National SOE Workshop in Washington, D.C., in July, 1982.

Each state will select and send a team of four individuals to be trained to the National SOE Workshop. The intent of the workshop is to act as a catalyst for other workshops. The state representatives will return to their respective states to conduct workshops for individuals at the local level.

SOE Handbook

The National SOE Committee also took on the responsibility of writing a new SOE Handbook. The book was developed to provide individuals with an up-to-date resource guide on SOE.

The SOE Handbook has three parts including a rationale for SOE, program development, and teaching plans.

The Handbook, which was developed by a grant from DeKalb Agricultural Research, Inc., and will be available from the National FFA Supply Service. An order form will be included with the next Supply Service catalog which comes out in August.

SOE Film

"Bridging The Gap" is the title of the new film on SOE which will be premiered at the National SOE Workshop.

The film is designed for use in orienting students and parents to the development of effective SOE programs. Funding for the production was provided by the Agriculture Division of Ciba-Geigy as a special project of the National FFA Foundation.

The film will be available to vocational agriculture instructors across the country starting August 1. The film was produced and will be distributed by Venard Films Ltd. of Peoria, Illinois. The film may also be purchased through the National FFA Supply Service.

The SOE Challenge

The instructional tools have been designed and workshops will be held to instruct individuals on SOE. It will soon be time for you to get involved in the National thrust. Accept the challenge and help your students "bridge the gap."

BOOK REVIEW

Interior Plantscapes, by George H. Manaker, Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1981, 283 pp., $17.95

This book should be valuable to advanced horticulture students preparing to work in specialized urban horticultural enterprises. The book, consisting of 13 chapters, also contains a useful six-page glossary, a list of plant sources, a section on leaf and stem diseases, an index to plants, and a general index.

Installation and maintenance contracts which are discussed in Chapter 13 will be of special interest to those about to enter this field of work. Each chapter is organized in a logical orderly way rather than as a "how-to-do-it" manual. Basic principles of plant growth are given, followed by supporting experimental data and practical applications for the landscaper.

As an example of the book's format, the third chapter on "light" includes the following topics: the role of light, light intensity, light sources, installation of plant lighting, and light duration.

While most of the illustrations in the book are used to acquaint the student with recommended horticultural equipment and growing practices, current research is also presented in tabular, photographic, and graphic forms. This balanced presentation gives the student an understanding of *why* a given procedure is desirable as well as the specifics necessary in using the procedure. The reading level of this book limits its use to advanced students, but the book is clearly written and is a veritable gold mine of information on interior plantscapes.

This book deserves a place as a reference in many vocational horticulture libraries, and will be a valuable text for students in technical schools and colleges. It is a quality production which includes a useful and interesting format, and an excellent compilation of current information on managing interior plantscapes.

Ralph J. Woodin
Professor Emeritus
The Ohio State University
Columbus, Ohio

ARTICLE

Using Bulletin Boards Effectively

By Rick Foster
(Editor's Note: Dr. Foster is Assistant Professor of Agricultural Education at the University of Idaho, Moscow, Idaho 83843. He is also Teaching Tips Special Editor for The Magazine.)

Probably no method of instruction is more neglected than the classroom bulletin board. In virtually every classroom, the bulletin board is placed in a location of prime visibility, yet is relegated to the unsightly posting of announcements of bygone events and poorly prepared notices. Not to use this valuable teaching aid to its fullest benefit is to waste valuable opportunities to provide instruction to our students.

Using bulletin boards effectively is largely just a matter of making up our minds to do so. Agricultural subject matter and FFA activities exist in such quantity that there is never a shortage of material from which to choose. The real shortage exists in time to collect material, plan the display and actually prepare the bulletin board. We must also realize when an organized bulletin board has fulfilled its mission and is in need of change. It's useful life is over!

The effectiveness of classroom bulletin boards could be improved by first accepting that it must be used as an aid in the instructional program and then by following some basic organization and design principles.

Choosing A Topic

The selection of an appropriate topic is of utmost importance. Care should be taken to insure the topic relates to an instructional unit being taught or an FFA event to be carried out. Use the bulletin board to generate interest in a subject or increase participation in an event. The primary criteria for the selection of a topic should be: Is it timely? Is it interesting? Does it contribute to the overall Vo-Ag/FFA program of study?

A bulletin board topic should be simple and straight forward rather than complex or hard to grasp. The observer should be able to look at the display and understand the concept almost immediately.

Gathering Materials

Bulletin boards can include a wide variety of materials. The primary concern is that materials are mounted attractively and that they are timely. An attractive background for a vo-ag bulletin board may be permanently covered with colored burlap fabric or temporarily covered with construction paper. Whatever is used as a background, remember that students react favorably to cleanliness and color. It pays to have a well-maintained bulletin board.

Actual display items may be obtained from current media, i.e., newspapers, farm magazines, or commercial sources. Past FFA calendars are useful for gathering color-action photographs of FFA activities. Of course, some of the best items are those made from the imagination of vo-ag instructors and students. In any case, use display items that are colorful, show action, attract attention and illustrate the concept effectively.

In gathering materials, don't forget to obtain necessary construction equipment such as tape, stapler, glues, and appropriate letters. Many instructors have found it easiest to maintain a file of past bulletin boards so pictures, letters, and other materials may be reused.

Planning the Arrangement

No matter how much trouble you go through to collect the appropriate materials, if the arrangement isn't right, the bulletin board can lose its whole effect. Follow some simple rules of design. The human eye is influenced by:

- — the direction that objects face
- — location of items (usually about ⅔ up and in the center)
- — a sequence or order of events
- — directional lines or arrows
- — use of color
- — use of white space
- — balance of items
- — simplicity of concept
- — real articles
- — motion

Draw the arrangement on paper before attempting to place it on the bulletin board. You may also want to be conscious of lettering and caption size in relation to the overall design.

Getting the Work Done

If bulletin boards are going to provide a contribution to the education of students then they can take an active role in their planning and construction. Students can gain very valuable experiences in constructing such a bulletin board as part of a course requirement.

It is suggested that students be made aware of upcoming curriculum content and be made responsible to prepare an appropriate bulletin board to supplement the unit. Given enough advance notice, students can develop an idea (approved by the instructor), draw a sample arrangement (also okayed by the instructor), gather the materials, and construct the board.

Evaluating the Finished Product

To be really effective, the bulletin board needs to be evaluated. Consider:

- — is the theme easy to comprehend?
- — is it technically accurate?
- — does it attract attention and generate interest?
- — does it fit into the instructional program of vo-ag?

If the bulletin board meets these final criteria, all the instructor needs to do is include its use at the appropriate time in the unit and make sure it is replaced when it has fulfilled its purpose. Be sure to maintain a good file system so materials can be reused or the entire display can be used another year.

The classroom bulletin board need not be an eyesore. It can and should be an attractive addition to the instructional program. With advance planning on the part of the instructor and the cooperation of vo-ag students, it can be instrumental in reinforcing essential classroom concepts.

(cut here)

Mail by May 30, 1982

Opinionnaire
Vocational-Technical Agricultural Education

Be a part of the opinion poll! Indicate your responses to the following items, cut this page from the magazine along the dotted line, and mail to:

The Agricultural Education Magazine
P.O. Drawer AV
Mississippi State, MS 39762

The findings of the poll will be presented in three parts. Part I (Program Administration) will appear in the September issue, with Part II (Curricula) and Part III (Professionalism) appearing in the October and November issues, respectively.

Your Background

A. Age _____

B. Race
( ) White
( ) Nonwhite

C. Sex
( ) Male
( ) Female

D. Number of years as a vocational-technical agricultural educator (all positions combined) _____

E. Position title
( ) Secondary teacher
( ) Postsecondary instructor
( ) Local supervisor
( ) State supervisor
( ) Teacher educator
( ) Other (Specify) _____

F. Highest level of education
( ) Less than a Baccalaureate degree
( ) Baccalaureate degree
( ) Masters degree
( ) Educational specialist or certificate of advanced graduate study
( ) Doctoral degree
( ) Other (Specify) _____

Part I: Program Administration

A. The primary mission of vocational-technical agricultural education at the **high school** level should be to prepare individuals for: (check all that apply)
( ) Employment in farming and ranching
( ) Employment in agribusiness
( ) Advanced study of agriculture at the postsecondary level
( ) Advanced study of agriculture at the baccalaureate level
( ) Other (Specify) _____

B. The primary mission of vocational-technical agricultural education at the **postsecondary** level should be to prepare individuals for: (check all that apply)
( ) Employment in farming and ranching
( ) Employment in agribusiness
( ) Advanced study of agriculture at the baccalaureate level
( ) Other (Specify) _____

C. Vocational-technical agricultural education in the public school system should serve: (check all that apply)
( ) Students in grades K-6
( ) Students in grades 7-8
( ) Students in grades 9-10
( ) Students in grades 11-12
( ) Students in postsecondary programs, including junior or community colleges
( ) Adult/young farmer students
( ) Other (Specify) _____

D. The major problems currently facing vocational-technical agricultural education are: (check all that apply)
( ) Funding for local programs
( ) Lack of student interest
( ) Student discipline
( ) Lack of school administrator support
( ) Excessive job demands on teachers
( ) Providing supervised occupational experience for students
( ) Shortage of teachers
( ) Other (Specify) _____

E. Leadership at the federal government level for vocational-technical education in agriculture is:
( ) Very effective
( ) Effective
( ) Ineffective
( ) Very ineffective

F. At the federal level, vocational-technical agricultural education could best be administered in the: (check one)
( ) U.S. Department of Agriculture
( ) U.S. Department of Education
( ) U.S. Department of Labor
( ) Other (Specify) _____

G. Agricultural teacher education programs should be located in: (check one)
( ) Colleges of education
( ) Colleges of agriculture
( ) Other (Specify) _____

H. State-level supervision of vocational-technical agricultural education programs is: (check one)
( ) Very effective
( ) Effective
( ) Ineffective
( ) Very ineffective

I. The preparation teacher education provides agriculture instructors is: (check one)
( ) Very adequate
( ) Adequate
( ) Inadequate
( ) Very inadequate

J. Teacher certification regulations are: (check one)
( ) Very adequate
( ) Adequate
( ) Inadequate
( ) Very inadequate

K. The best location for secondary vocational-technical agriculture programs is: (check one)
( ) In comprehensive high schools
( ) In area vocational centers
( ) Other (Specify) _____

L. I would grade the current success of vocational-technical agricultural education in the United States as an: (check one, with A the best and F the poorest)
( ) A
( ) B
( ) C
( ) D
( ) F

Part II: Vocational-Technical Agriculture Curricula

A. The following components should be included in vocational-technical agricultural education programs: (check all that apply for secondary level programs)
( ) Classroom/laboratory instruction
( ) Supervised occupational experience
( ) Student organization activities (Ex.: FFA)
( ) Adult/young adult education
( ) Other (Specify) _____

B. Supervised occupational experience programs should: (check one)
( ) Be required of all in-school students
( ) Be optional for students who are interested
( ) Not be a part of vocational-technical agriculture curricula
( ) Other (Specify) _____

C. The kinds of supervised occupational experiences at the secondary level should include: (check all that apply)
( ) Exploration
( ) Ownership
( ) Placement
( ) In-school laboratory (also known as directed laboratory)
( ) Other (Specify) _____

D. Adult/young adult instruction should be offered at the: (check all that apply)
( ) Secondary level
( ) Postsecondary level
( ) University/college level
( ) Other (Specify) _____

E. Instructional materials available for vocational-technical agricultural education are: (check one)
( ) Very adequate
( ) Adequate
( ) Inadequate
( ) Very inadequate

F. How effective are state-adopted core curriculum guides? (check one)
( ) Very effective
( ) Effective
( ) Ineffective
( ) Very ineffective

G. The name of the Future Farmers of America (FFA) should be changed. (check one)
( ) Agree
( ) Disagree
( ) No opinion
( ) If you agree, what name would you suggest? _____

H. FFA membership should be required of all students enrolled in secondary vocational-technical agriculture classes. (check one)
( ) Agree
( ) Disagree
( ) No opinion

I. FFA dues should be paid by: (check one)
( ) Students
( ) The local FFA chapter
( ) The local school
( ) Other (Specify) _____

J. How effective is THE NATIONAL FUTURE FARMER MAGAZINE in meeting the needs of FFA members? (check one)
( ) Very effective
( ) Effective
( ) Ineffective
( ) Very ineffective

Part III: Professionalism

A. The best teachers of vocational-technical agriculture are those who have: (check one)
( ) Extensive industry experience, but no college degree
( ) Extensive industry experience, with college degree
( ) Completed a college degree in an approved agricultural teacher education program
( ) Completed a college degree in some area of agriculture
( ) Other (Specify) _____

B. Were you required to take the National Teachers Examination (NTE) in order to teach?
( ) Yes ( ) No
If yes, how effective is the Examination in assessing the ability of an individual to teach? (check one)
( ) Very effective
( ) Effective
( ) Ineffective
( ) Very ineffective

C. In which of the following organizations do you hold membership? (check all that apply)
( ) AVA (American Vocational Association)
( ) NVATA (National Vocational Agriculture Teachers Association)
( ) NEA (National Education Association)
( ) AFT (American Federation of Teachers)
( ) State vocational association
( ) State vocational agriculture teachers association

D. How effective is the AVA in meeting the needs of vocational-technical agricultural educators? (check one)
( ) Very effective
( ) Effective
( ) Ineffective
( ) Very ineffective

E. How effective is the NVATA in meeting the needs of vocational-technical agricultural educators? (check one)
( ) Very effective
( ) Effective
( ) Ineffective
( ) Very ineffective

F. Do you currently subscribe to THE AGRICULTURAL EDUCATION MAGAZINE?
( ) Yes
( ) No
If no, why? _____

G. Articles in THE AGRICULTURAL EDUCATION MAGAZINE should be written by: (check all that apply)
( ) Vocational-technical agriculture instructors
( ) State supervisors
( ) Teacher educators
( ) Graduate students
( ) Research specialists
( ) Other (Specify) _____

H. What type of articles do you prefer in THE AGRICULTURAL EDUCATION MAGAZINE? (check all that apply)
( ) Reports on research in agriculture
( ) Reports on research in education
( ) General trends and issues in vocational agriculture
( ) Innovative teaching ideas
( ) Descriptions of vocational agriculture programs
( ) Book reviews
( ) Articles on international agriculture
( ) Other (Specify) _____

I. List the names of three leaders of vocational-technical agricultural education in the United States.
_____
_____
_____

(cut here)

TEACHING TIPS

HAND TOOL SAFETY TIPS

Prepared by Hand Tool Institute

WRONG

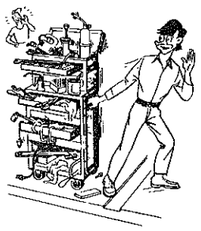
Don't bend heavy bars on light duty vises.

WRONG

Don't use pliers on round shank or handle of screwdrivers for added turning power.

WRONG

Don't use metal sheet cutting snips to cut heavy wire. There are tools for this purpose.



WRONG

Never pull the cabinet; always push. Don't overload drawers. Always close drawers when moving cabinet.

WRONG

Don't stand on a tool box, chest or cabinet.

WRONG

Don't use screwdriver to pry anything apart.

WRONG

Don't use a tool box, chest or cabinet as an anvil or for a similar purpose.

WRONG

Don't use a screwdriver as a punch or chisel.

WRONG

Don't use a screwdriver to test for current.

RIGHT

ALWAYS WEAR SAFETY GOGGLES WHEN USING HAND TOOLS

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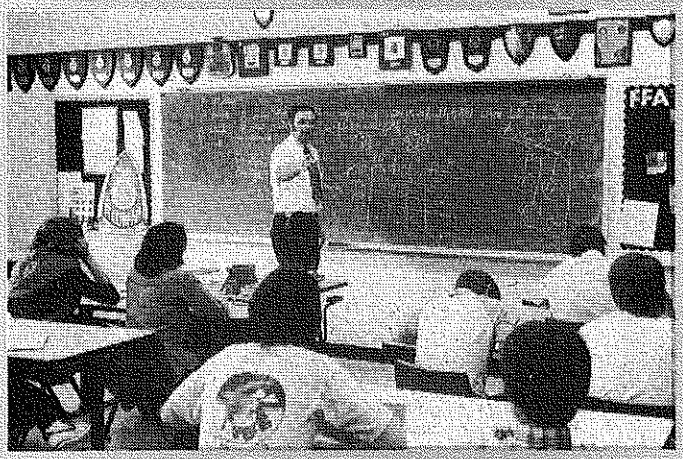

Teaching in the Classroom

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(Top and lower left photographs courtesy of the National FFA Center, Alexandria, Virginia. Lower right photograph by the Editor.)