THEME
SOEP: ADULTS
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EDITOR'S PAGE

Adults Want You

By LARRY E. MILLER, Editor
(Dr. Miller is a Professor in the Department of Agricultural Education at The Ohio State University.)

This is also an excellent opportunity to familiarize those unacquainted with the purposes of vocational agriculture and the adult program.

Encouragement

Everyone needs stroke! Vocational agriculture teachers have used this fact to improve their effectiveness with many types of students. It cannot be ignored with adults. Supervisory visits provide an ideal forum for providing praise. Praising a single attainment as a correct step toward a goal, praising the application of a recommendation from previous instruction, or praising individual accomplishments each serves to instill pride in the individual. Adults may be particularly appreciative that supervisory visit may result in criticisms. Providing positive reinforcement can successfully alleviate potential insecurities.

Teaching

Teaching is the primary duty associated with our role; why we draw a paycheck. We may conduct supervisory visits to teach, or some specific skill. Many skills are best taught in this manner. We may also be providing technical knowledge to our students through supervisory visits.

Some teachers may be apprehensive about conducting supervisory visits to adults because they are afraid they will be teaching to which they know nothing. Adults typically do not expect the teacher to be a walking encyclopedia that provides all the answers—in fact they may suspect a person with too many "pat answers" but appreciate someone willing to help them find answers. Being willing to say "I don't know" may actually aid one's credibility.

The decision making process also presents a troublesome area for teachers. There is a distinction which should be made between providing information and making decisions. The teacher should help provide information for the decision making process and not make the decisions for students. The consequences of making an incorrect decision for a student can be rather severe. For example, one might readily provide information on recommended seed corn varieties, but not tell the student that plant variety XYZ. If variety XYZ produces well, little would result; but...
Adults Want You
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if it produced poorly or resulted in a crop failure, then the repercussions could be highly negative.

Student Commitment
Students, if adequately coached, can also greatly aid the teaching that occurs during a supervisory visit. They may be able to make advance preparation for the visit by updating recordbooks, getting materials together for a demonstration, etc. Students should be alerted to the need to inform the teacher if the visit is inconvenient for any reason. They need to provide time for the visit and share any problems they want addressed during the visit. They should also be made aware of the schedule of the teacher.

Teacher Commitment
The success of supervisor visit depends upon the teacher’s preparation as well as that of the student. Visitations require certain courtesy formalities as teachers are essentially guests of the student. The procedures are not unlike a SOEP visit to any other group but are worthy of considering once again.

Freddy Waltz and Thomas Curry tell us how to use tours to provide on-site instruction. Norman Kohnhach and Bob Chapman talk about the role of records in on-site farm visits. and Greg Notting provides tips in working with adult students through SOEP.

Supporting Adults
In each of our communities, adults are employed in the field of agriculture. If they are to continue, either employed by someone else or self-employed, they must be able to earn a living from the industry. When thinking about agricultural workers we need to remind ourselves of the old story:

A person asking a farmer, “How much milk does your cow give?”

“She doesn’t give any,” the farmer replied, “whatever I get I must take.”

Dollars are not given to individuals in agriculture. Agricultural workers must know how to take them. Our adult programs can provide support to assist workers in being more effective at earning or taking dollars in line with each respective worker’s potential. Will we assist workers by providing support through adult education or will we let them sit back on their heels and do the best they can without our support?

It is milking time. Don’t forget the stool.

Cover drawing courtesy of Crystal Dietiker, Graphic Artist, Instructional Materials Laboratory, University of Missouri, Columbia, Missouri 65211.

Preparing Teachers For On-Farm Adult Instruction

By Lex Cole

(Edward’s Note: Dr. Cole is in the Department of Agricultural Education at Oregon State University, Corvallis, Oregon 97331.)

If on-farm adult supervision is to be done by a vocational agriculture teacher, the teacher must be well prepared in technical agriculture. This preparation must take the form of both scientific knowledge and hands-on practical experience. This statement is true whether a vocational agriculture teacher is working with adults or high school students.

Practical, hands-on experience, skill and expertise in agriculture are demonstrated during on-farm supervision to an extent that would be difficult to duplicate in the classroom. For example, while doing on-farm supervision vocational agriculture production teachers are frequently confronted with such everyday, practical activities as dehorning, ear marking, castrating, worming, diagnosing sicknesses, sharpening tools, cutting with oxygen-acetylene equipment, repair welding, or helping with records.

A vocational agriculture teacher must function well in these cases of practical experience or they suffer loss of credibility in the community. Vocational agriculture teachers, therefore, need a unique blend of scientific knowledge and practical skill and experience in order to be successful.

Potential vocational agriculture teachers usually have some agricultural background. However, with specialization in agriculture came people who had a narrow scope of preparation. Therefore, agricultural education majors who have extensive agricultural background need preparation in the full breadth of agriculture. A second major group of agricultural education majors have had little experience in agriculture. These people need the full breadth of agricultural preparation plus work experience to gain additional expertise and confidence in production agriculture and agricultibusiness.

Given the previously identified starting place, how might a vocational agriculture teacher best be prepared so that scientific knowledge and practical experiences are gained?

Most vocational agriculture teachers graduate from land-grant universities. These universities are very proficient at research in agriculture. However, many technical agriculture courses do not provide opportunities for students to gain personal hands-on practical skills. These practical skills must be provided for vocational agriculture teachers so that the potential for success, particularly in the on-farm supervision phase of the program, can be increased.

There has been much said recently regarding the decreased emphasis by many vocational agriculture teachers on the SOEP part of the total vocational agriculture program. Could it be that vocational agriculture teachers who do not possess hands-on practical skills avoid going places where the lack of confidence and skill may be discovered? On-farm supervision would be one such place. Again, vocational agriculture teachers must be provided these hands-on practical skills in order to enhance the potential for success.

THE COVER: It’s Milking Time

THEME

PREPARING TEACHERS FOR ON-FARM ADULT INSTRUCTION

THEME

By Donald M. Claycomb

THEME EDITOR

(Excerpt’s Note: Dr. Claycomb is Executive Director of the Missouri Advisory Council on Vocational Education, P.O. Box 565, Jefferson City, Missouri 65102.)

The prospect of teaching adults through hands-on Supervised Occupational Experience is rather scary, isn’t it? After all, a person could get kicked doing that and a well placed or even a baphazard kick could upset our stool. It is bad enough to think about teaching adults let alone get in their barn (SOEP) and deal with actual problems.

As teachers, maybe we are often so busy with more important things that we do not have time to teach adults. Really, it is much less threatening to think about fruit sales or expanding the teaching of agriculture into the elementary school. After all, we do not require much in the way of agricultural skills and knowledge. If we do, as a total profession, do we think that we will need skills we would not look like sharp and live agriculturalists either.

For those of you wanting to prove that you do not have time for adult work, go back to sorting oranges and bagging popcorn at ballgames. For those of you wanting to get involved in the agricultural world where the worker must grab a hold, take a good look at the theme articles in this issue. When we decide to get involved in adult vocational education in agriculture, we may recognize three components: SOEP, classroom/laboratory, and leadership. This issue concerns the SOEP. We know one of the characteristics of adult education is that students bring their job-related experiences into the classroom.

The authors of the theme articles are each advocating that the vocational agriculture instructor also take instruction to the job.

Theme Articles
Lee Cole issues a challenge to teacher education by stating that "preparation must take the form of both scientific knowledge and hands-on practical experience." "It is time that all young/adult instructors go beyond the cookies and pop routine of instruction and move into the real world of on-farm-site instruction," says Laverner Barrett.

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THE AGRICULTURAL EDUCATION VISION MAGAZINE
Preparing Teachers For On-Farm Adult Instruction

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How can an agricultural education department prepare vocational agriculture teachers for success?

First, the agricultural education department can encourage other departments in the college of agriculture to provide both scientific knowledge and practical skills and experiences in their courses. Not all departments will have the resources necessary to accomplish this task, so practical courses could be taught within the agricultural education department. The Agricultural Education Department at Oregon State University is currently teaching Beef, Sheep, and Swine practicums which focus on calving, marking, vaccinating, showing and fitting, animal handling, and all the little things that are frequently overlooked in other classes. These classes are hosted by local livestock producers. Agricultural education majors are involved with field trip planning and execution. Methods of teaching livestock skills are emphasized at the site as well as the learning of the actual, hands-on technical skill.

In addition, the Agricultural Education Department is teaching an advanced livestock evaluation course which allows the students to prepare for, and participate on a university-level livestock judging team. This refines animal selection and oral reasons skills while adding confidence for those who participate.

These accomplishments are but a minor part of a comprehensive plan which includes an instructional farm under the direction of the Agricultural Education Department. The development of the instructional farm would not only allow for such activities, but would also allow for a comprehensive instructional package.

This comprehensive instructional package would have potential vocational agriculture teachers responsible for every major farm activity. They would prepare, plant, fertilize, cultivate, spray and harvest crops. They would be responsible for each major species of livestock (care of animals, transport, parturition, nutrition, breeding decisions, sanitation and health, etc.) There would be a show string of livestock and each student would be required to choose and show all species of livestock. If a student had never shown livestock in competition, they would take a show string to county and state fairs. All management decisions at the farm would be made by students. Micro-computers would contain all records and students would enter records and make decisions from computer output.

With a firm foundation in crops, soils, animal science, agricultural machinery, and production management, occupational internships could be established in agribusiness. Agribusiness is an extremely important area within which vocational agriculture teachers must have background. It is an area that has little meaning to people if they do not have a firm foundation in production agriculture. For example, it is difficult for pesticide salespeople to have success unless they understand the problems confronted by the producer.

Summary

Quality preparation for vocational agriculture teachers who are to do on-farm instruction for adults or for high school students depends upon identifying the skills and competencies needed by such teachers. A program must then be developed which addresses all aspects of the preparation of the potential teacher. A total package approach is needed to assure coverage of all needed competencies. Whatever the composition of the total package approach, the goal of equipping the teacher to do quality instructional work for both scientific knowledge and practical, hands-on skill must be the focal point.

In a time when the public is being made aware of, and openly concerned about, the lack of quality in public education; it is important to focus on quality teacher preparation as a starting point for improving the quality of vocational agriculture programs. It may be that a five-year teacher preparation program would be more appropriate than the current four-year program in order to meet this goal. If that is the case, effort should be made to move in that direction with appropriate compensation made to teachers for the additional time and expense involved in teacher preparation.

Using The Farm Site In Teaching Adults

By Lawrence A. Barrett

Teaching young adult farmers and ranchers can be one of the most rewarding aspects of the agricultural education profession. Few teachers have the opportunity to see what they have taught put to practical use as quickly as the young adult farmers and ranchers. Because adult learning has an almost immediate pay back, adult students are highly motivated to learn more.

Beyond Cookies and Pop

Some young adult farmer meetings are nothing more than a glorified social club, where neighbors and friends get together to exchange the latest gossip. Obviously, the social dimensions of young adult meetings are very important, but formal instruction and learning must have the highest priority. How can a climate for learning be created?

Instructors are the professional leaders in the young adult farmer and rancher organization. It is their responsibility to establish the learning environment. This can be accomplished in several ways. One way is to plan as many

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Using The Farm Site In Teaching Adults

(Continued from Page 7)

instructional meetings as possible in the real world, on-the- farm or in an agribusiness. It is in this setting where the following adage comes true: "what I hear I forget, what I read I remember, but what I do I understand." It is time that all young/adult instructors move away from the cookie and pop routine of instruction and move into the real world of on-farm site instruction.

Places For Instruction

The community as a learning place is a viable alternative to the 4-H and FFA meetings. A community may vary from the demonstration plot to an agribusiness. How does one make community sites more valuable for instruction?

Site selection is an important step in making real world instruction a success. However, several questions need to be asked in planning activities. Does the site represent an "ideal" setting for the concept being taught? Sometimes on- farm sites are selected because they are on the home farm of a member, but they may not represent a good teaching model. Some sites have so many unattractive aspects that they detract from the lesson being taught. If the site is meant to depict a demonstration of an innovative idea, has it been correctly designed? Too often demonstrations have been conducted that did not have adequate control, and as a result farmers may draw erroneous conclusions from what they see. Instructors might be wise to consult their extension service representative to help them design their demonstrations to reduce costly mistakes.

Using Contests

Competition in the form of contests is another way the farm site may be used. Some farmers and ranchers can be encouraged to learn through the contest experience. The need for this form of learning can be witnessed by observing adults at county fairs competing through their children.

Contests in the area of crops and livestock can be a valuable educational tool but several precautions should be observed. First, anytime there is competition there will be both winners and losers. Make sure that the reasons for the contest is not just to determine winners, but to learn and share information among all participants. After a contest has concluded, conduct an educational follow-up meeting at the farm of the winning contestant and thoroughly discuss the results. The topic of the meeting can be chosen from a wide variety of subjects that has been illustrated through the contest. This method of concluding the contest experience can end in a real educational experience rather than just ending with a winner.

Social Gatherings

Earlier, this article cautioned against over emphasizing the social aspect of young adult programs at the expense of instruction. However, meetings or classes held at the farm or ranch have a natural social benefit that should not be ignored. The need for time to meet and share information is vital to a rural population where social interaction is infrequent. Observing the interaction at the weekly livestock auction or farm sale, one can conclude that many people are there not to buy, but to socialize.

Even though meetings and classes held at the farm provide an ideal medium for social exchange, this time should be planned just as carefully as any class. This can be done by providing time for refreshments at the end of the program. Members will discuss ideas learned from the program, as well as many other bits of helpful information. This is an ideal time for the young/adult instructor to move about the group and assess the impact of the meeting, identifying possible needs among members for future follow-up or individual on farm instructional visits. It is important for instructors to remember to encourage spouse participation. Some chapters miss a great community resource by excluding spouses.

Conclusion

The experienced young/adult instructor knows very well the value of meetings held at farm sites. The higher attendance by farmers and ranchers at these meetings is testimony that this type of learning is preferred over sitting in the classroom and listening to lectures.

Instructors also know that if conceived on-site meetings can lead to reduced interest. Spend as much time in planning on-site meetings as you do teaching an in-school class and good results will occur. Using community resources as a teaching laboratory will increase adult learning and participants will increase their appreciation for the young/adult farmer and rancher program in your school.
Strengthening Adult SOE Programs (Continued from Page 9)

production budgeting and financial and budgeting, doing tax planning or tax preparation, completing production analysis or financial analysis, or making regular checks of records for accuracy and adequacy. The list could go on.

The important part, though, is that both financial and production records play a vital role in every one of these activities. Without records, the usefulness and importance of an on-site visit becomes nil rather quickly. Those who have worked with adults in core group (FBMA) instruction involving on-site visits have long recognized that fact. After all, how much tax planning can be done in November if the records are only up-to-date through July? How much enterprise analysis can be done if accurate production records have not been kept? The importance of good records in on-site instruction cannot be overstated. Records are the basis of our core group adult instructional programs and without them, we are handicapped in what we can accomplish.

**Instructional Visit Activities**

There are three things which should be accomplished with records in an on-site visit. These include regular activities that take place on each visit, timely activities that are important because of the time of year, and activities that evolve or grow out of the classroom instructional process. Let us examine each of the three in more detail.

**Regular Activities.** On each visit, the records should be checked for accuracy and completeness. Financial records should be checked first and then production and enterprise analysis information should be updated. Many times, especially with adults just getting started, help might be needed in checking monthly totals and in getting all information needed for later analysis. The job of the teacher is to be sure that the necessary records are being maintained so that when the end of the year comes, the record information is complete enough to meet the goals of the students.

The cash flow budget should be compared with the actual monthly and year-to-date totals to help determine financial position and make mid-year adjustments as necessary. The teacher might want to copy the year-to-date totals to a cash flow to keep in the student's folder for use in preparation for future visits.

**Timely Activities.** After completing the regular records check, there are other activities occurring nearly every month that need to be completed because of the time of year. The most obvious of these are tax planning and preparation. In addition, other activities occur at or around the first of the year such as setting deadlines for financial statements and cash flow plans, etc. These timely activities will vary from teacher to teacher or program to program, but the following monthly schedule of timely activities is a general guideline that has been used by teachers in the past.

Jan.-Feb. — Cash Flow Planning
Feb. — Gathering tax information for preparation
March — Work on Marketing Plan, Enter-
prise Analysis, etc.
April — Mid-year Cash Flow Check
Oct.-Nov. — Tax Management/Planning
December — Summarize and complete records for analysis

Again, this is only a guideline, but these timely activities are an important part, and many times become the core of an on-site visit.

Activities Growing Out of Instruction. Adult students involved in a total farm Business Management Analysis Program are involved in regular classroom instruction in a variety of topics. Each classroom session should contain information and activities that relate to the on-farm's farms

THEME

On-Farm Instruction For Farm Families

The Vocational Agriculture Farm Business Management Educational Program is a proven, effective way of providing instruction in the principles of farm and ranch management to rural families. Through the use of a stan-

And the successful farm management instructor must create an awareness, in the families with which s/he works, of new ideas and concepts in each phase of farming. Success-

A program of farm management built solely on the keeping of good records, without moving into the analysis and interpretation of what these records indicate, is of little value to a family. Records are only a tool for computing basic facts about the farm business. These facts must be interpreted in view of the family's goals, abilities, attitudes and the capabilities of the farm and other related factors. This is the primary goal of on-farm site instruc-

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**Family Emphasis**

A systemized approach to farm management instruction with the individual farm family is necessary in any farm business management program. A regularly scheduled consultation visit, with a planned purpose, to each
gathering and contemplating by the family. All new ideas and practices will not prove successful on every farm. The farm management instructor must assist the family to evaluate the usefulness and adaptability of any practice in light of their own particular situation.

Successful farm management instructors must be aware of many resource materials. Much of their task, when working with families, will be to provide sources of management information that can be used to formulate the most profitable plans. This may range all the way from determining the best crop rotation to deciding on the most satisfactory method of ventilating the dairy barn. Organized research results, information, and data are among the basic tools of the experienced farm management specialist.

Another area of concern for the farm management instructor is in developing the ability of the farm family to view their business as a whole. To be extremely concerned with crop yields, yet to fail to realize that good yields through inefficient livestock does not provide the soundest approach to top earnings. Each phase of the farm business must be viewed in relationship to maximizing returns for the total operation if greatest returns are to be experienced.

A fundamental requirement of any farm management instructor is sincerity. How much their relationship with a farm family must be built on mutual confidence if it is to succeed and endure. A strong advance buildup of a farm management program without adequate individual follow-through in practice can only result in failure on the entire program over a period of time.

While individual on-site consultation visits must be well planned, scheduled, and correlated to classroom instruction; they must also be extremely flexible. Each family business presents its own set of problems, unique only to that particular business and family. While many of these problems are basically the same for many families, they must be evaluated and adapted to each particular situation.

A very large share of the visits made to member families should be scheduled ahead of time. This may be done by sending a calendared schedule to each family at regular intervals. The date and time for each individual appointment should be indicated. Some form of a newsletter or tip sheet could accompany the monthly visit schedule. Current tips and information items, plus a calendar of upcoming meetings, could be a part of this mailing.

The practice of dropping in on a family when in the neighborhood should be kept to a minimum. If a major portion of the farm visits are of this type, this is what the family comes to expect. Very little consultation of a serious and helpful nature can take place talking out of a car window or leaning against the barn door.

A few such drop-in visits to each family are valuable and necessary. The drop-in visit can be the step to check on weed or insect control or to see how construction is progressing on the new livestock unit, grain storage structure or home can be very helpful. This is especially true if on a previous scheduled visit the instructor has helped to formulate the plans for such activities. Such visits show interest and can be helpful in catching an on-the-spot error or adjustment.

A scheduled visit allows the family some time for preparation. They have an opportunity to up-date their record system (many get behind during busy seasons) and to assemble questions and facts on areas where they desire assistance. They also have an opportunity to arrange their work schedule in order to give their full attention to the problems at hand.

A calendar of visits also suggests the arrangement of the instructor’s schedule to each family. If they find the schedule filled for the next three weeks, they may be hesitant to ask for a postponement that will transfer them to the bottom of the list. A visit calendar can also prove valuable as an aid in explaining the program to administrators, business people, civic leaders and other individuals. They become aware of the continuity and scope of the program.

**Instructional Content**

The following is a brief outline of a planned program of on-the-farm consultation for families enrolled in a traditional agriculture farm business management program. Most consultation visits involve two facets. Although a portion of each visit may deal with the farm records and their analysis, other management aspects should also be included. Many of the topics in Farm Management I, II, and III will require more than one visit. Many of these consultations will require the use of a microcomputer, agricultural software and/or well organized worksheets to complete the suggested activities.

**Farm Management I**

1. Contact the farm family
2. Explain the farm business management program; Discuss soil & feed sampling procedures.
3. Setting up good farm records; Planning a fertility program; Projecting livestock rations.
4. Beginning accurate, complete farm records; Projecting cash flow.
5. Crop production projections; Assistance in record keeping.
6. Up-dating feed records; Projecting possible returns; Discuss computer software programs.
7. The mid-year feed check, Observing crop progress; Comparison of cash flow. (Projected vs. Actual).
8. Recording crop data. Soil analysis; Feed analysis.
9. Completing crop data; Planning livestock rations.
10. Making an income tax estimate; Checking the completeness of the Farm Record System.

**Farm Management II**

11. Completing the farm records for analysis; Organizing the records for tax filing.
12. Projecting cash flow; Planning fertilizer, weed and insect control program; Evaluating credit structure.
13. Beginning the interpretation of the annual analysis report. (Efficiency & effectiveness of production, size, earnings, financial structure.)
14. Using the analysis to evaluate crop costs and returns. Plotting farm experimental trials, Projecting current crop costs; Marketing Alternatives.

15. Using the analysis to evaluate livestock enterprises; Observing growing crops.
16. Analyzing overhead costs, Determining progress on the yearly cash flow; Checking completeness of the record system.
17. Income tax estimate; Planning the livestock program; Planning machinery purchases.
18. Completing the farm accounts; Income tax management.

**Advanced Farm Management**

19. Projecting cash flow. Evaluating the net worth structure; Planning a credit program; Planning most effective use of labor.
20. Long-range crop and fertilizer plans; Development of a program of land drainage or irrigation.
21. Evaluating the farm business; Developing a marketing plan.
22. Studying trends, Determining strengths and weaknesses; Planning facility needs.
23. Analyzing crop costs and returns; Feed values; New crop practices.
24. Evaluating the livestock program; Planning improvement programs.
25. Closing the farm records for analysis; Income tax management.

**Joint family learning activities are common in the Blooming Prairie School District in Southeastern Minnesota.**

Good forage quality and its use in the ration for high producing dairy cows is stressed.

**THE AGRICULTURAL EDUCATION MAGAZINE**

Checking corn fields for corn borers will allow application of control measures before the crop is damaged.

NOVEMBER, 1984
On-The-Job Instruction With Adults

One day during my tenure as a vocational agricultural instructor several years ago, I was approached by a farmer — an adult student — who said he wanted to make a rather sizable capital purchase. He knew what he wanted and why he wanted it; however, he did not know whether he could justify the purchase.

Thinking I would be working with an almost routine textbook situation, I cheerfully said I would help him reach a decision. It was obvious to me that he was highly motivated to succeed in farming and he saw this purchase as a valuable tool to increase his income.

Inadequate Records

The reason he could not reach a decision, it became all too clear, was that he had almost no records of his operations, and he had only a rudimentary idea of how much the farm enterprises cost. We eventually reached our decision by using state averages and some educated “guestimates”, but I learned some valuable pointers from that and other similar encounters.

First, most adults who take part in vocational agriculture courses are highly motivated to succeed because they have specific goals and they understand that knowledge is a valuable tool.

Second, although record-keeping is as much a part of farming as it is working the soil or tending livestock, it is seldom handled effectively or economically because most farmers dislike paperwork.

As my teaching career advanced and I came in contact with more farmers and young people with farming as a career objective, I grew progressively concerned with the quality of record-keeping by farmers. There was no doubt that farmers understood the importance of record-keeping and were very good data collectors. But after a hard day in the field, shuffling papers, file folders and notebooks to get all their data into one usable location was not the favorite choice of most farmers. As a result, record-keeping suffered and, consequently, the only certain way to make sound management decisions suffered.

When I decided to direct my career toward helping farmers understand the importance of record-keeping, I realized that computers were the obvious answer to the farmer’s need for quick, concise information that could be maintained easily. It is in the context of my work today as training director of a company that produces a computer management system designed specifically for farm applications that I address the topic of working with adults in on-the-job instruction.

Planning Instruction

For the purpose of my job, I divide the adult students I work with into two distinct groups: farmers and salespeople, and it is my task to provide sufficient information to each group about a product we call the Agri-KEY™ Dairy Herd Management System — to show my students that a computerized management system is effective, economical, and necessary.

A teacher in another company once told me he preferred not to teach salespeople. He felt they were simply out to take the farmer’s dollar. I believe that this type of individual is in the minority, and such knowledge does not stop me from giving special attention to salespeople. Here’s why.

When we teach farmers to use computers as a business tool, we reach not just individuals but total families as they make decisions about what will affect their lives more dramatically than possibly any other piece of equipment they now use.

On the other hand, when we instruct salespeople, we are passing on our knowledge to individuals who subsequently will expand our influence in geometric proportions because of all the lines that they will touch — most of which we would never have a chance to reach through our own classroom teaching. These are the people who begin the information and educational process on many farms by motivating others to learn more about new technology, new concepts, and new techniques.

Thus, I find that while it is both satisfying and important to directly instruct farmers, it is equally satisfying, and equally important, to work with salespeople. These are the men and women who will be going out to farms to identify individual problems, to present farmers with record maintenance opportunities, and to bring about acceptance of new technology.

Regardless of the motivation each student brings to a classroom, a number of basic instructional guidelines apply to all adults. Constraints of space allow me to present what I consider the four most important guidelines to be considered when working with adults in on-the-job training: a) Determine the motivation of your students and react to their needs rather than follow a rigid curriculum, b) Develop a rapport with each class as soon as possible, preferably during the first session, c) Inspire confidence in the ability of your students to achieve their career goals, and d) Present the material in such a manner that students will exert themselves but will not feel awkwardly pressured.

What Motivates Adults?

Both farmers and salespeople are motivated by a desire to succeed. Since success is a subjective function of the mind, we as teachers must sort out which of our adult students consider success to be achievement of knowledge for the sake of knowledge, which believe that success means only the ability to improve one’s financial or social standing, and which students have other, more narrow definitions of success.

Farmers and their families are motivated by practical, cost-saving, efficient, and effective products and services. They are cautious in what they accept, but when they are convinced, they become staunch defenders of the person, product, service or concept they have accepted.

Teaching these students in a classroom setting is less desirable than taking material to their farms. Working with adult students on a farm as often as possible to give them hands-on training in your subject area can be a motivating factor in their problem solving activities. We have found, for instance, that we are better off taking the Agri-Key system to a farm than attempting to put on a demonstration away from the site where the system ultimately will be used.

In the security and comfort of their home, farmers have the ability to experiment with the computer to suit their particular circumstances, and they may see, firsthand, how the system will help make decisions such as culling cows, tracking milk production, preparing herd health reports, and reducing calving intervals.

Developing Rapport

Developing rapport usually presents few problems with adult students because everyone is on an adult level. Rapport comes naturally if the students perceive that you know your field and your objective is to help them become successful. As we all know, students do not need a buddy for a teacher; they need professional assistance and training from a teacher they respect.

Teaching style and attitude are conveyed through lecturing or what I call problem solving. Consider a meeting between you and a farmer in regard to a cow that has developed mastitis. If you lecture to the farmer, you will stand on one side of the cow, the farmer will stand on the other side. You will describe the problem and the solution. The farmer will accept or reject your instruction without comment, and you may never know if your teaching made an impact.

If you problem-solve with the farmer, you will stand together on the same side of the cow. Together you look at the problem (the mastitis), and together you will review solutions, with a good deal of discussion. You and your (Continued on Page 16)
On-The-Job Instruction With Adults

(Continued from Page 13)

student will have a mutual concern and your student probably will react more favorably because the solution was reached through mutual interest and involvement. Reporting individual progress by our students that we are on the same side; that we are counseling because of genuine concern rather than lecturing because that is our paid profession.

Complete understanding between us the teachers and our salespeople is also necessary to develop rapport. They must perceive that we are aware of their professional objectives, that we accept those objectives, and that we will help them reach their goals.

Inspiring Confidence

Confidence is as much a state of mind as it is a result of learning. There is no better way to teach adult students practical applications of subject material than by using hands-on training on-the-farm where knowledge eventually will be employed.

Generally, farmers have a great deal of confidence in their ability to succeed. But give them a new tool or operating concept and they will approach its use cautiously and with apprehension that they may not be able to use it correctly. During early stages of learning, they often prefer to work without being observed by others who might judge their ability to grasp new concepts and techniques.

But once they have gained confidence in applying a new tool or concept, they will not hesitate to share knowledge, experience, and problems. One reason for conducting as many field exercises as possible, particularly in the beginning of a class, until their students are more relaxed and self-confident.

In a classroom setting, confidence building is more difficult unless the students believe they are not judged. Psychologically, they are afraid of not being accepted even though they are in the learning mode. With carefully directed questions, this can be achieved easily.

Sales-oriented students generally are more preparatory and outgoing. Whatever fears they have, they have either minimal or well masked from view. They often will generate their own confidence and they need only a word of praise from time to time. They know their objectives, they are determined to produce sales, and they are not shy about admitting what they are hearing. Learning problems because they recognize such problems as stumbling blocks to career advancement.

Presenting Material

I have noted that some instructors begin discussions of potentially difficult or controversial issues with the statement: "We have many people who are interested in this topic. Some of these people are currently living in a state of ignorance, interest, and confusion about this topic. Others have some understanding of a subject to further a career that they have already selected. Thus, their attention is pre-focused for you.

Adults usually constitute a voluntary audience. They come to listen because they have a desire to learn. No state law compels them to be your students. Normally, you exploit their desire to learn from your experience and academic background.

Adults have different study habits. Because they often must combine full-time jobs with their studies, they must study at irregular times and in unusual places. Most of them also must re-learn old study habits or acquire new ones. Therefore, it is helpful if we are able to accommodate adult students according to their abilities to study and their abilities to grasp particular subjects. Given that motivation to achieve success is not a problem, if we press too hard on an adult student's time and learning capabilities, we are in danger of breaking down the natural motivation as stress builds.

The challenge is to learn the capabilities of your adult students and press them to achieve more rapidly than they believed possible but without turning off their creative lamp to study material.

Instructors will allow students to prepare themselves based on their native intelligence and ability to grasp whatever is taught to them. Outstanding instructors will cherish their students like seeds from different countries. They will recognize that each has a growing cycle which is unique to itself, and each will flourish best when nurtured and encouraged to develop as a rapid but individual pace.

RESOURCES

Cooperative or "co-op" education has proven to be one of the most beneficial delivery systems for occupational education at the secondary or postsecondary level. Cooperative Education, by Jack T. Humble, Westvaco, Inc., and Carl A. Woloszyn, Michigan State University, takes a close look at the pivotal roles, activities, and legislation involved in cooperative education.

Special attention is given to the role of the program coordinator, whose tasks include administration, coordination, guidance, professional development, and public relations. A framework for step-by-step program planning and implementation is also included. The monograph looks at the many benefits that accrue both to students and employers participating in co-op programs, and makes recommendations for improving cooperative education in the future.

You may order COOPERATIVE EDUCATION (IN 283 - $5.75), 66 pages from The National Center for Research in Vocational Education, The Ohio State University, The Ohio State University, 1720 Marion, Columbus, Ohio 43210: 614-466-3655 or toll-free outside Ohio at 800/848-4615.

Using Tours To Teach Adults

Tours are a popular, time tested method of providing learning experiences. The nature of these events and the purpose to which they are directed are varied, but they have proved to be a valuable instructional method. The future utilization of tours in teaching adult and young farmers seems assured. This prediction is based partly on a common characteristic of people; their shyness about doing something new or trying something new is considered by many of them. Although some people are aggressive enough to do their own investigation, many people will go to places only when they are invited. The inherent tendency of people to go to where they are welcomed is affirmed by the well advertised tourist attractions. Therefore, what is happening at a specific place, locally or elsewhere, may be of great interest to many people, but most of them will not visit it unless asked and encouraged to do so.

Definition

For clarity and consistency, we will use the term "tour" to refer to activities that involve participants in on-site observations, demonstrations and/or evaluations of particular techniques, products, or processes. While there is some dispute as to the difference between field trips, field days, and tours, we will make no differentiation.

Tour Procedures

A successful tour for adults is dependent on careful and complete planning, organizing, conducting, evaluating and processing. We will present some ideas and thoughts about these processes.

The objectives for any tour should be clear. If no clear objectives for the tour can be determined, then the value of the tour is questionable. The needs of the audience should be the major consideration in determining the objectives.

For example, a group of farmers recognized that the efficiency of producing corn, soybeans, and small grains could be improved by increasing the soil moisture supply during critical growing periods. This particular need provided the basis for a tour devoted to irrigation systems.

A common mistake made by vocational agriculture teachers and other agricultural tour planners is to determine the objectives for a tour based on perceptions of the farmers' needs. These perceptions are often biased or poorly substantiated. If the farmers did not believe they could increase their crop yields by providing adequate moisture conditions during critical growing periods, any educational effort relative to irrigation would have a great probability of failure. Once specific objectives are developed, the planner has the basis for determining activities for a tour.

In planning the tour to meet the objectives, all resources should be considered. A committee can help determine and even contact possible persons, agencies, or businesses to help with the tour. A committee comprised of individuals who represent a broad spectrum of agricultural interests in a community might be able to identify a number of different.

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November, 1984

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THEME

Using Tours To Teach Adults

By Frederick C. Waltz and Thomas L. Curby

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Using Tours To Teach Adults

Tours are a popular, time tested method of providing learning experiences. The nature of these events and the purpose to which they are directed are varied, but they have proved to be a valuable instructional method. The future utilization of tours in teaching adult and young farmers seems assured. This prediction is based partly on a common characteristic of people; their shyness about doing something new or trying something new is considered by many of them. Although some people are aggressive enough to do their own investigation, many people will go to places only when they are invited. The inherent tendency of people to go to where they are welcomed is affirmed by the well advertised tourist attractions. Therefore, what is happening at a specific place, locally or elsewhere, may be of great interest to many people, but most of them will not visit it unless asked and encouraged to do so.

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Using Tours To Teach Adults

(Continued from Page 17)

Ferent and valuable sites, resource people, and techniques to include in a tour. For example, a committee to assist the vocational agriculture teaching staff of each of the county extension agent who has contacts with irrigation specialists at the state's land grant university; an agribusinessperson who deals with irrigation equipment and supply companies who promote new equipment and techniques; a soil and water conservation service representative who is familiar with water and soil characteristics in the area, a local farm credit representative who can help identify economic considerations of irrigation systems, and a local farmer who is considered an opinion leader by the other farmers may know of innovative irrigation systems being used at other farms. A common mistake in developing agricultural tours is to utilize just one source for activities and resource persons. A tour that combines activities or observations at a university, state agencies, and private industry or business gives the participants a much more complete perspective of a particular activity than just touring one type of site. The tour planning committee may be pleasantly surprised at how well a particular organization, agency, or business is to help.

After the objectives and a clear need for the tour are determined, the action can begin. Since the planned activity is educational and being planned as part of the adult instructional program, the local school administration should be informed of impending plans. The teacher should clearly outline the objectives of the tour to the administrator and present the idea in a positive, organized, and enthusiastic manner. Also, the administrator should be made aware of any opportunities that may be brought to, and to advise on procedural matters that relate to school board policies. Solicit administrators support for the activity.

Once the tour planning committee has identified a number of possible sites and activities for a tour, some specific criteria may have to be used to determine which one would be most valuable to the target audience. An on-site instructional activity for teaching adults should:

1. allow the participant to observe something which he/she has the potential and resources to apply in his/her own situation.
2. emphasize the "what should be done" rather than the "what not to do" aspects of a technique.
3. be conducted in an informal and relaxed atmosphere in which participants feel free to ask questions of the resource person, participant, and socialize with and visit with other participants.
4. be arranged to allow for family participation, if appropriate (as is often the case with tours beyond the local level).
5. be located within reasonable distance of other sites.
6. be free of major safety and health hazards.
7. have knowledgeable persons at the site willing and able to explain and/or demonstrate techniques, equipment, and practices to be observed.

Once the committee has prioritized the potential sites and/or activities, a tentative agenda may be drawn up. Geographic locations of and facilities at the sites need to be a prime consideration in determining when they are included in the agenda. It is suggested that the excursions end in time for the minimal traveling time between them. The locations relative to eating accommodations is another essential consideration for a successful tour. Identification of good eating establishments can lead to a more satisfied tour participant.

The teacher and/or committee members are then ready to make the initial contact with the person/persons who would host at each site. Certain procedures should be followed. The teacher should:
1. determine whether or not a prospective host would want to be included as part of the tour.
2. explain the objectives of the tour to the prospective host.
3. discuss the dates and time for the tour.
4. obtain a tentative commitment from the prospective host if he/she is available.

The tour coordinator (teacher) should next make preliminary arrangements for: transportation, meals, rest rooms, lodging (if necessary), reservation of meeting rooms, and necessary liability coverage.

The teacher is then ready to advertise the tour to the appropriate audience and seek pre-registration. It may be necessary to publicize the activity through various media sources such as the local radio, newspapers, and agencies of industry newsletters. If possible, the prospective participants should be sent a letter of invitation, registration information, and a tentative agenda along with a pre-addressed, postage paid envelope for return.

If a registration fee is necessary to cover refreshments, printing costs, or other expenses, it may be helpful to require a portion of that fee during pre-registration. When a person makes an investment (monetary or otherwise) in something, he is more likely to participate in it. Hence, it is part of it. This strategy will help reduce the show-ups which can virtually destroy an otherwise well-planned tour. The committee members should be contacted as early as possible to pre-register for the tour before the teacher finalizes the arrangements. By doing this, the committee members are kept informed and also have the opportunity to make any last suggestions.

After transportation, equipment, and resource persons are secured for the tour, a letter should be sent to those registered explaining the final details and should include any necessary maps, parking permits, etc. While the planning and organization of the tour may seem to be an arduous and time-consuming process, it is the primary key to a successful tour.

The hosts at each site should be informed as to the number and ages of the participants they might expect as well as any other important details. Well organized and prepared tour hosts and well-informed participants make for a valuable educational activity. Give the participants printed itineraries of the tour. Follow the itinerary and allow deviations only under extreme circumstances. The teacher should be the tour leader or designate a member of the planning committee to be the leader. Someone must give the appearance of being in charge.

As soon as the group departs from the different tour site or sites, lead a discussion reinforcing the positive aspects of the innovation, technique, or practice observed. It is important that the opinions of the participants be shared for maximum benefit to be gained from the tour. If participants are reluctant to share opinions, some questions must be prompted to their interest. For example, can you use this idea, innovation, practice in your operation? How could the observed idea, innovation, or practice benefit you? What feature of this idea, innovation, or practice interested you the most? Try to involve as many of the participants in the discussion as possible and try not to let one person dominate the flow of opinions. After adequate discussion, the tour leader should summarize the opinions of the group and prepare the group for the next stop or make departing comments as the tour reaches its end.

Conduct follow-up activities after the tour. Obtain evaluation materials, write thank you letters to tour hosts and sponsors, write a news article reporting the successes and highlights of the tour, and send an evaluative summary of the activity to the school administration, planning committee and advisory council.

BOOK REVIEW


This comprehensive text addresses the problem solving approach to teaching agriculture at both the youth and adult levels. Fourteen chapters are systematically ordered to lead the reader from theoretical aspects and implications to the practical applications and specific applications in various educational settings and agricultural subject areas. Drawing conclusions by narrative are used throughout the book to illustrate content. In addition, figures within the text and review exercises provide a series of problems and exercises to help the reader visualize details and descriptions given in the main text.

The focus of the book contents is on how to use the problem solving teaching method in teaching agriculture, but includes a brief introduction to the range of teaching techniques. A comprehensive discussion is given to writing a teaching plan using the problem solving approach, teaching the plan in the classroom and adapting problem solving to various situations. The authors offer specific recommendations for motivating students and controlling discipline by using problem solving. Chapters are also devoted to conducting effective laboratory programs, teaching adults and evaluate teaching and learning activities. The concluding chapter highlights the teacher as the key to successful teaching.

A major strength of this book is the practical examples provided. The problem solving teaching plans can be readily adapted and transferred to any agricultural subject area. Step-by-step instructions are given for building a course of study. Helpful hints for teaching agriculture provide ideas for improving the curriculum. The blend of a practical and theoretical treatment of the problem solving approach makes this book an excellent choice for reference or a class text.

The text is useful to teachers, teacher educators, supervisors and administrators who have responsibilities for instructional programs. Beginning and experienced teachers will find the book useful as a reference, particularly to those who lack experience with the problem solving approach or need a change-of-place in their teaching. The text is appropriate as a required or supplemental text for agriculture teacher education programs and/or adult education courses. Teacher educators in related vocational disciplines may also find the book useful. Supervisors and administrators can make use of the text to assist teachers in improving their instructional program.

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NOVEMBER, 1984

THE AGRICULTURAL EDUCATION MAGAZINE
On-Site Instruction For Adults

By R. Kirby Barrick

Guidelines

Why did we think adult education was so terrible? Probably because of the fear of the unknown. "Had I known what a help adult farmers could be," is the preamble to the advice many seasoned veterans have passed along to the younger members of the profession. Here are some tips that may help a teacher overcome the fear of the unknown in conducting on-site instructional visits.

First, there are a lot of similarities between high school students and adults when it comes to on-site instruction, as well as high school teachers and adult educators. If you cannot write down one reason for going, go somewhere else. No agricultural or farmer wants to be bothered by idle chatter. Know your purpose; have a goal. Perhaps you want to follow up on a recent adult education session. Or you may have been invited out to see something new or help with a problem. Or maybe you are recruiting participants for the educational program or special-recordkeeping program. Second, be prepared. Just as you would for students, have basic materials with you. Those may be boots and coveralls for farms, hard hats and goggles for agribusinesses. Have your visitation records with you and don’t forget special materials, booklets, references that may be needed for that teachable moment.

Next, make an appointment. Sure, there are times when you will just stop by, but that should be the exception, not the rule. No one enjoys being caught off-guard. Everyone will be more at ease if you call ahead, even if it is not too far in advance. That call is a good time to share your purpose with the people you are to meet, to let them get their thoughts and materials in order. Advanced preparation leads to efficiency in the use of time.

Now that you have committed yourself, the job is half over. After all, if you never plan to do something, you will probably never do it.

Arrive at the site on time. On-site instruction is the most important part of the total agricultural education program in your school. In fact, making those on-site visits to agribusinesses and farmers in the school district are not so bad after all. We could even go so far as to say that one of the reasons we have stayed in the profession is our contact with the real world of agriculture, the adults in the community.

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TREACHING TIPS

Tree and Shrub Contest (Hunt)

A tree and shrub identification unit many times is not the most interesting one for students. If you have had the problem of obtaining and maintaining student interest in this type of unit, you may want to try the interest approach suggested by Barbara Lemmer of Anamusa, Iowa. This activity is set up like a contest and can be adapted for your particular situation.

Directions for Use

A. Make arrangements to attend a nursery for the first two days of a tree and shrub identification unit.
B. Contest identify classes. Examples of classes may be as follows:

- Young Prettiest leafed tree
- Longest needles tree
- Sharpest needles tree
- Smallest flower tree

C. On the first day of the unit go to the nursery where they have needled and broadleafed trees and shrubs and begin your tree and shrub "hunting contest." (Classes may be changed and expanded to fit your needs.)

D. Each student shall enter 4-6 classes in the contest. Students will be given the class period "to hunt" for trees and shrubs they feel will best fit the class they have entered.

E. Students cannot pick one tree to represent more than one class.

F. The second day of the field trip, walk through the nursery and have each student identify their tree or shrub they plan to represent each class they have entered.

G. The class will tally the entries each class and a vote will be taken with highest percentage winning. A pencil will be given to the winner or winners of each class. (One or more can choose the same tree or shrub; therefore, if your class votes on the tree as the best tree, both students win a pencil.)

I. The following days in class, more indepth discussion can take place.
THEME

Considering The Older Adult
In Agriculture

The shift in age of the population in this country toward an older population is causing an increased need for vocational education among older adults. As our population ages, more older adults will be asked to learn new technologies and skills to fill the ever increasing technological demands of industry and agriculture.

"By 1985, one out of every five Americans will be 55 or older" (Kolbe, 1984 p. 12). Improved health and medical care, life expectancy has increased substantially. "The average life span for people in the United States was less than fifty at the turn of the Century but has increased to more than seventy today" (Knox, 1977 p. 248). The median age of the population today is 30, but by the year 2000, half of the population will be over 50 (Kolbe, 1984).

The results of foreign competition in manufacturing and agriculture has influenced the need for updating of skills of American workers. If we as a country will not become more competitive, many of today's world markets and American jobs will be lost. American workers must become better trained in the methods and abilities to use new technology. This is the challenge for the next generation age along with increased technology brought about by foreign competition is resulting in one of the greatest challenges to education in the century.

Education in Agriculture

Since the Smith-Hughes Act of 1917, federal funding has included adult education in the vocational agriculture program. The major emphasis of early adult education in agriculture was directed toward the young farmer. Many of today's programs are directed at the group of people in the age group of 25 to 55 that are getting young adults off of a good start in farming and/or agriculture.

The emphasis on the young adult in agriculture is important, but a look at the older adult must be considered. Rapid changes in agricultural technology coupled with an increasing agricultural population make adult education in agriculture for older adults (adults above the median age) a necessity.

The farm population has an older age structure and thus a higher median age than the nonfarm population. In 1982, the median age of farm residents was about 35 years compared with 30 years of the nonfarm population (U.S. Bureau of Census, 1983). Over 60 per cent of the farm operators in the country are 50 years older.

Much of today's agricultural employment is outside of farming and employs a younger group than does agricultural production, but the need of the farmer and older adults must be considered when developing adult education in agriculture programs. Careful evaluation of the type of program developed and the age of the population to be served must be conducted. A recent study regarding whether producers in a four county area of northern Ohio who were over 62 percent of the producers were 60 years old or older, with only .37 percent between the ages of 35 and 60 (Finley, 1982). Certainly adult educational programs in wheat production in these four counties should be directed toward the older population.

Teacher Role

Although agriculture teachers are very busy people with all of the responsibilities of teaching high school students, the responsibility of the adult education program is generally assigned to the vocational agriculture teacher. The local school must provide the teacher adequate time to develop a quality adult education program.

Likewise, it is the responsibility of the teacher to make wise use of his or her talents and find time for a quality program. A teacher that is committed to serving the educational needs of a community will conduct an adult education program that is of high quality and receptive to the needs of the community.

Older Adult Characteristics

As previously mentioned, the adults involved in agriculture tend to be older than the average population. This age difference should be carefully considered when developing educational programs and activities since older adults have unique characteristics that affect learning.

It has often been said that "you can't teach an old dog new tricks". This might be true for dogs, but it's not true for adult learners. Although older adults have more experience and may have learned agricultural production skills, the needs of the farmer and older adults must be considered when developing adult education in agriculture programs. Careful evaluation of the type of program developed and the age of the population to be served must be conducted. A recent study regarding whether producers in a four county area of northern Ohio who were over 62 percent of the producers were 60 years old or older, with only .37 percent between the ages of 35 and 60 (Finley, 1982). Certainly adult educational programs in wheat production in these four counties should be directed toward the older population.

These adult characteristics are not important when adults are learning for their own actions and activities and involved in directing their own educational programs. Adults should be encouraged to exchange ideas and experiences through discussion and assist each other in learning.

Learning by adults is generally problem centered, and is most efficient if application of the learning is made before the adult will use the instructional period or in their day to day activities, which will help them to apply what they have learned.

Paper and pencil examinations and the memorization of facts and figures are not important in adult education, and should be avoided as much as possible when developing instructional programs.

Instructors in adult programs should realize that people learn at different rates, and by different methods, and recognize the characteristics of these learners. It is also important to assist slow learners as needed, but care must be taken to guard against threatening their self-respect. Likewise, there is an important that all learners in an adult program be challenged by the instructional activities.

Summary

Adult educational programs for the older adult directed toward the field of agriculture to many areas of agricultural production and agriculture. Care should be taken to develop these programs that are important educational needs are correctly identified and that educational programs are developed to fit the needs and the characteristics of the older adult. Selection of proper instructors and instructional materials is necessary, and instructional materials should be selected with regard to the type of instruction and type of learner in the educational program.

The educational ability of people seems to change as people become generally connected with age. People of any age can be taught if the instructional program is designed properly.

References


One decision vocational agricultural teachers need to make for each lesson is how best to obtain active student participation in a lesson. One vocational agriculture department found a unique way involving each student in one lesson.

Melanie Parks, Ohio State University, and L. G. Berry, 22, Millersburg High School, provided the vocational agriculture students an opportunity to be actively involved when learning about the phenomena of seed germination. Students were asked to place a clean soybean seed in their mouths during a 40-minute class period. By the end of the class period, the students were able to germinate the emerging hypocotyl was clearly visible. The seeds began to germinate and become the primary nutrient for the plant. The human mouth provided the correct moisture, temperature and oxygen levels needed for germination. The students then compared the germination development of their seeds with those soybeans which had been planted in the vocational agriculture department and were grown in the greenhouse.

Straight from the horse's mouth! Not exactly, but here is an idea for a real honest-to-goodness student involvement in the teaching and learning of plant production principles.
Stories in Pictures

Adult Instruction Occurs in Many Places

Classroom: Group

Office: Individualized

On-Site: Large Group

On-Site: Small Group

On-Site: Individualized at the Home

On-Site: Individualized at the Agribusiness

(Photographs courtesy of Greg Nolting; Bob Chapman; Stan Burke, Ohio State; Gene Francis; and Marvin Flatt, Westview High School, Martin, Tennessee.)