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**THEME: Staying Current —
Agribusiness and Farm Management**

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Table of Contents

	Page
Editor's Page	
About the Business of Agriculture Blannie E. Bowen	3
Theme: Staying Current — Agribusiness and Farm Management	
The Cost of Obsolescence Edgar Persons	4
Honing Management Skills: Keeping Ahead of the Pack Vic Richardson	5
Staying Current with Computer Technology for Farm Management Instruction Pat Harrington	7
Keeping Technically Competent in the Face of Changing Technology LaVar Godfrey	10
Staying Current in Agribusiness John H. Avery	11
Keeping Staff Current in Agribusiness Swede Johnson	13
Serving Agriculture and Agribusiness Through Post-Secondary Education Roland L. Peterson	16
Staying Abreast of Political and Leadership Activity in Agriculture and Agribusiness F.B. Daniel	17
Teaching Tips	19
Recognizing Excellence in Agribusiness Education George Wardlow	20
Agribusiness, Employment and You Marlin Seeman	21
These Teachers are Technically Up-To-Date William Williams and Samuel C. Curtis	22
Book Reviews	23
Stories in Pictures	24

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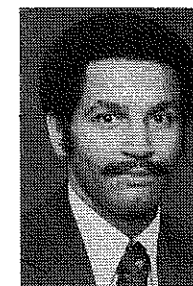
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About the Business of Agriculture



By BLANNIE E. BOWEN, EDITOR

(Dr. Bowen is an Associate Professor in the Department of Agricultural Education at The Ohio State University.)

Few segments of American society have received as much attention as has the agriculture community the past few years. Programs of various types, including the infamous Farm Aid Concert, have been tried to solve the ills of American agriculture. Charges and counter-charges have been levied by farmers, agribusiness persons, politicians, homeowners, educators, bankers, and just about everyone else as to what the major problems are and who is to blame for their birth.

Various incidents depict the sad state of affairs facing agriculture in this country. Farm foreclosures and agribusiness bankruptcies dot the landscape from the Atlantic to the Pacific and from the Canadian border to Mexico. Farmers who are old enough to have lived through the Great Depression indicate that the 1986 agriculture scene is amazingly similar to what happened during the late 1920s and the early 1930s. One major difference must be noted, however. Although many farm families went bankrupt during the Depression era, quite a number of these families were able to later regain control of the farmstead. This scenario does not appear likely in 1986.

Today's Economy

Today's economic climate is indeed very much different from that of the early 1930s. During the Great Depression, virtually all industries, including agriculture, had pneumonia, the plague, and various other terminal illnesses. In 1986, agriculture appears to have pneumonia, the heavy industries have a bad cold, and several other industries have a slight cough or perhaps a running nose. The automobile industry appears to be weathering the tidal wave caused by foreign competition. Other industries are floating equally as well.

One example that appears to be walking on water is the computer-driven high technology industries. These light information-oriented industries are doing quite well not only in the U.S. but around the globe. Why then are some U.S. industries doing so well while agriculture appears to be on Noah's Ark? Such questions were posed to America's leadership during the Agricultural Communicator's Congress held June, 1984, in Washington, D.C. The world's best agricultural journalists put these questions before President Ronald Reagan, then Secretary of Agriculture John Block, former Secretary of the Treasury Donald Regan, U.S. Trade Envoy Bill Brock, Senator Bob Dole of Kansas, and a host of other major leaders. Their responses were quite lengthy and intriguing, but quite a bit short in the way of potential solutions.

The most prominent solution was that farmers must produce more and become better farm managers. Several noted economists indicated that a major part of the farmers' problems could be traced to over-production. Are U.S. farmers just too effective in producing food and fiber for this nation and the world? Several elements in our

society support this contention because they believe that the supply of farmers far exceeds the demand. By allowing the least efficient farm units to perish, the number of farmers will be reduced, thus, part of the agriculture problem will be solved. This solution must be carefully studied to see what impact its implementation will have on both the corporate as well as the farm families of this nation.

Solutions

Of more immediate concern is what impact the economic plight of agriculture is having and will continue to have upon agricultural education. Is it possible for agricultural education to respond with positive solutions that can have a lasting influence? Before an answer is given, the profession must demonstrate that it is willing to abandon a few sacred cows while loosening the shackles of tradition. The production agriculture mentality that dominates agricultural education deserves careful scrutiny. In view of the 1986 agriculture situation, should production agriculture be so predominant in terms of classroom and laboratory teaching, supervised occupational experiences for students, adult instructional programs, and the FFA?

The answer is yes if the profession wishes to wither on the vine. A no answer suggests that the mainstream of American life is still possible for the profession. Several steps are being taken by the profession to integrate more business into the business of agriculture. Richard Weening, the President of AgriData Resources, Inc. and a major sponsor of The Ag Ed Computer Network, indicated in his keynote address during the 1984 Computers in Agriculture Conference in Washington, D.C., that vocational agriculture and the FFA must become more business oriented and less of a way of life.

Weening's thoughts have been translated into almost 500 lessons about the business, economic, and management phases of agriculture. The lessons are available through The Ag Ed Network, a cooperative venture involving the FFA and AgriData Resources. This collaboration suggests that other such ventures involving vocational agriculture and agribusinesses are indeed possible. The survival of the profession depends on such arrangements because the days

(Continued on Page 4)

About the Business of Agriculture

(Continued from Page 3)

when cows, plows, and sows can dominate the thinking of agricultural educators appear numbered. This is a bitter pill to swallow for this writer and others who used plows and sows to acquire occupational experiences and FFA degrees through vocational agriculture.

Challenges

Reality suggests that few vocational agriculture students

are able to rise with the sun to till the soil that produces that infamous ear of corn. Opportunities abound, however, for such students to be involved with agribusinesses and like George Washington, they can keep records carefully and accurately so they will know when it is time to change enterprises or to modify their present enterprise.

Dr. Edgar Persons and the authors in this issue are committed to quality instructional programs in agribusiness and farm management. They share their ideas with the profession on ways to stay current in this emerging area of agriculture.

THEME

The Cost of Obsolescence

Nobody likes to be out of date. Obsolescence in thought, ideas, skills, and technology is costly. It is costly to ourselves. It is costly to our students and clients. There is a certain negative aura that surrounds one in the teaching profession who is thought by others to have failed to keep pace. Yet marching in the parade of change is a tiresome task. It consumes our time, our talent and energy, and in some instances has been hard on our financial resources. For some the task is too arduous — they stop to rest. A few drop out. But many thousands of teachers each year continue to march in the never ending battle to keep up to date.

For some the incentive for continual updating and upgrading of skills and knowledge is the financial reward that schools provide for advanced study. For many, however, reward is not as important as the realization of the costs of obsolescence. While the personal costs in the loss of self esteem are high, the costs to students and clients are extreme.

No one would argue that agricultural education, particularly at the secondary level, is for the sole purpose of transferring modern, up to date technical information. That is not the purpose of vocational agriculture. But the other broader goals that are part of the aspiration - helping students grow, exploring careers, developing leadership quality, and a host of other non-technical aims cannot be accomplished well if students, parents, administrators and others view the technical component as obsolete. The non-technical goals are dependent upon a solid core of state of the art technical knowledge, skills, and principles.

Technical and Management Skills

But for some, the technical and management aspects of agriculture and agribusiness are the dominant components of the program. Here the costs of obsolescence are beyond measure. Post secondary teachers who work with youth preparing to enter a farm or agricultural business have little choice. They cannot equip tomorrow's workers with yesterday's knowledge. Teachers of adults have even less leeway. Today's knowledge may be applied today. Failure



BY EDGAR PERSONS, THEME EDITOR

(Dr. Persons is a Professor and Head of the Division of Agricultural Education, University of Minnesota, St. Paul, Minnesota 55108.)

to provide the very best may result in financial ruin for the client.

Those invited in this issue to share their insights on staying current in farm management and agribusiness each offers ideas about how to minimize obsolescence. The common thread is the motivation to keep marching in the parade. Certainly the techniques they follow or suggest are not unique, but rather illustrate how each has devised a personal plan and program for self improvement drawing upon the resources at hand. When formal opportunities did not exist, they learned on their own by whatever means were possible. Their efforts and accomplishments remind all of us that obsolescence occurs only when we let it.

Obsolescence is Costly

There are areas of concern where we have not kept pace. We have let obsolescence creep in. F.B. Daniel reminds us of our role, our responsibility, and our shortcomings. Take heed. The scenario he verbally paints is not a pleasant one. Yet, it is a common one. We should be familiar with it. We should acknowledge that staying current goes beyond technology and extends to the community through conscious and conscientious leadership. Agriculture - farming and agribusiness - is a people business and that's the business we are in.

Obsolescence is expensive. Good managers try to minimize costs. Let's be good managers of agricultural education by staying current in farm management and agribusiness skills, ideas, knowledge, and technology.

THEME

Honing Management Skills: Keeping Ahead of the Pack



By VIC RICHARDSON

(Mr. Richardson is a Farm Business Management Instructor for Owatonna Public Schools, Owatonna, Minnesota 55060.)

A craftsperson is only as efficient as the tools being used. This person knows that the most efficient tool and safest tool to use is one that is sharp. For this reason, much time is spent keeping the tools in shape and honing when necessary.

An agribusiness or farm management instructor is only as efficient and effective as the knowledge used. There is much to know in the field of agriculture, mandating a systemized approach in its assimilation and use. For this reason, much time should be spent honing management skills to permit the individual instructor to be efficient and effective.

Managing the Office

The office of the instructor is of utmost importance to the success and well-being of the program being conducted. This is the place where all actions begin and end. It is the base of the functioning of the program. As such, it is crucial to be sure the office is managed in a manner that enhances the thrust of the efforts exerted for the successful program.

The proper management of the office can be viewed from a variety of perspectives. The major areas of concern are as follows:

1. The desk should be large enough to accommodate the work to be done and maintained in an uncluttered manner.
2. Individual and group conferences are an integral part of the program. As such, an area for such conferences should be provided.
3. Bulletin boards should be present and used in timely, educational ways.
4. Many resources are needed to keep one current and knowledgeable. The office should serve as a resource center:
 - a. Adequate filing space should be available and a good filing system adopted to permit quick retrieval of information. Such a system is exemplified with Agdex. Files containing confidential information should be lockable.
 - b. Book shelves should be available and material arranged in a logical fashion. The material should consist of textbooks, workbooks, and notebooks.
 - c. Numerous subscriptions to agricultural publications should be maintained and periodically scanned for useful articles or updated information. This material can then be saved and appropriately filed for later use.
 - d. Extension bulletins should be continually updated and filed so the most current information can be retrieved as needed.

5. Specialized tools and equipment are often used for various aspects of the instructional program. A place to conveniently store these items allows for quick utilization when needed. The storage cabinets for keeping the necessary tools and equipment should be lockable to be certain the items are there when desired.

6. The office should contain a telephone with a direct line, a computer, a calculator, and a copier. The telephone should be convenient to use with a modem coupled to the computer.

7. Regular office hours should be maintained so students and/or cooperators know when they can reach the instructor or see this individual. The time can also be used for planning, research, evaluation, preparation, coordination, and scheduling.

8. A schedule of the instructor's time use should be available to other staff so location is known. This also creates an awareness of job involvement which otherwise may be unknown.

The well managed office is organized, accommodating, and effective in serving the needs of the people who are enrolled. It is the hub or center from which the entire educational program revolves and is indicative of the quality of the program.

Managing Self

The agricultural instructor is and always has been a very busy individual because of the number of people served and the ever changing levels of agricultural technology. The nature of the profession also lends itself well to involvement in a variety of activities. Often times the result is an overworked, frustrated individual with discontented family members or an agricultural program that does not meet the needs and expectations of the community. To conquer these problems and be an effective and efficient individual, the factors involved in time management must be employed.

Agricultural instructors, like others, should learn to
(Continued on Page 6)

Honing Management Skills: Keeping Ahead of the Pack

(Continued from Page 5)

work smarter, not harder, with the end result being more time for themselves, their families, and their friends, or time to undertake the dreams they have been putting off because they "haven't had the time." Nationally-known management consultant Christopher Hegarty says the average person wastes 35% of the available time on low octane work that counts little toward achieving life's goals.

The individual in the agricultural world of work soon recognizes the tremendous amount of work to be accomplished and the limited amount of time in which to do it. One may easily be tempted to accuse the work of being responsible for our frustrations. However, a close examination of our responsibilities and our associated activities reveals the causative factor to be poor planning or management of time.

Time management cannot be discussed without looking at the role and value of setting goals. Definite goals or objectives are necessary if one is to be a wise user of time. Management consultant Thomas H. Lawrence says that happiness is wanting what you get; success is getting what you want. It is a generally accepted fact that success depends on having a goal for your life. Goal-setting is as natural as breathing yet few people know how to achieve their goals. Teachers of agriculture should certainly hold an advantage here. Most have stressed the importance of goal-setting to the people they work with. Unfortunately, very few "practice what they preach."

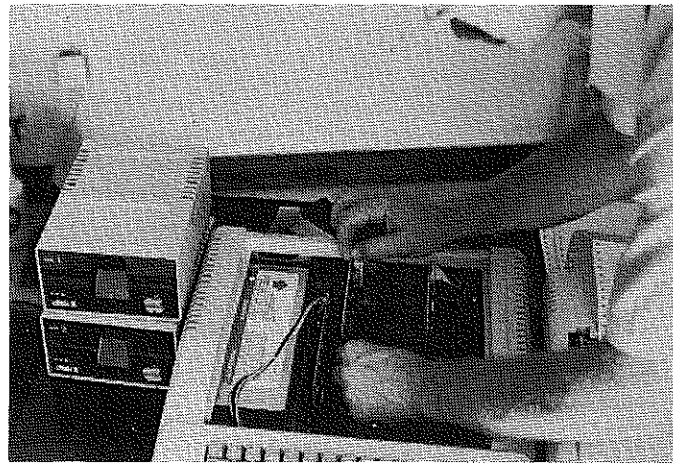
There is a big gap between knowing and doing. Most of us know how to set goals and benefit from them, but how many of us ever sit down and do it? If you have, are your goals still pertinent or should they be revised? The establishment and use of goals will make you a more efficient user of time.

Individuals who fail to have goals in life fail to accomplish their hopes and their dreams. Their energies are used to take them in a direction that may or may not be closer to their desires. They are guilty of wheel spinning.

How many agricultural instructors are spinning their wheels? How many agricultural instructors have not only established goals of a personal and family nature, but have also set goals for their programs? How many agricultural instructors are only passengers of their occupational boat as it drifts across the sea of life rather than observant captains who chart their course?

Set Goals

Each of us can differentiate between short-range and long-range goals. Our day-to-day activities usually are of the short-range nature. These desired daily activities should be listed on a sheet of paper at the start of each day. This list then becomes the "to do" list. Agricultural instructors accomplishing the most and those accomplishing the least both may know about "to do" lists, but the difference between them is that those accomplishing the most use a "to do" list every single day to make the best use of their time; those frustrated individuals accomplishing the least know about this tool but don't use it effectively.



Getting to know the capability of management tools is an important step to efficient use.

The making of the "to do" list is evidence of thoughtful planning. Many people have difficulty planning because they regard it only as "thinking." It is much better to think of planning as "writing" than as "thinking." Daily planning of your time in writing increases the likelihood of accomplishing your goals. No matter how busy you are, you should always take the time to plan. The less time you feel you have to spare, the more important is it to plan your time carefully.

Everyone, especially agricultural instructors, is guilty of procrastination. It seems we become bogged down with a never ending list of things to do and activities in which to participate. Numerous activities are continually postponed with no regard as to how they affect our goals. Procrastination is one of the major stumbling blocks in trying to achieve both short-range and long-range goals.

Dale Carnegie, talking about procrastination said, "One of the most tragic things I know about human nature is that all of us tend to put off living. We are all dreaming of some magical rose garden over the horizon - instead of enjoying the roses that are blooming outside our windows today." Teachers of agriculture have many roses blooming outside their windows today. The challenge is to recognize them and then enjoy them.

The most successful agricultural instructors are well-organized. They take the time for a quiet hour each day to plan. They keep well-organized records and up-dated resource files. They constantly hone their management skills by spending their time doing what they can do best or profit from the most. They read a lot and attend seminars, workshops, clinics, and field days to upgrade their knowledge and to keep current. Underlying it all is self-discipline.

Another way to be an efficient user of time is to be computer literate. The agribusiness and farm management instructor can use the computer in accessing networks containing unlimited current information. They can also use the computer to run some of the many decision aids available which are useful when working with adult clientele. Being sharp with the use of a computer in agriculture is a necessity for honing management skills.

(Continued on Page 7)

Summary

Agriculture instructors, especially farm management instructors, continually strive to teach the importance of good management. The value of the establishment and use of goals is a central theme. Students and cooperators are urged to set and use goals to help them become better managers. Unfortunately, very few instructors "practice what they preach."

The key to honing our management skills is to concentrate on managing our office and managing ourself. Our

office is a reflection of us. We can stay ahead of the pack if we decide to keep our management skills sharp.

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THEME

Staying Current With Computer Technology for Farm Management Instruction

I drove by some old farm machinery the other day; it's interesting to look at but not very useful for most agricultural businesses these days. The times have changed very rapidly. One hundred years ago, the horse and other draft animals provided the muscle to turn the soil, plant crops, and bring in the harvest. Farmers quickly adapted to the age of the "horseless carriage." Old horse-drawn equipment rests on farms and in museums as a witness to progress. The present and the future belong to those who keep their agricultural equipment updated.

Agricultural education made major contributions during the developmental stages of power farm equipment. Many of the innovations which caused the sun to set on old farm equipment were developed or improved by agricultural education programs. Today, the agricultural industry relies on high school, community college, and university programs to prepare young Americans to design, build, operate, and repair agricultural equipment.

Farms and ranches are businesses which use labor, machinery, raw materials, and natural resources to produce the food and fiber for our country and the world. The introduction of the Farm Business Management curriculum enhanced and complemented the existing agricultural education programs. The initial tools of management instruction consisted of pencil and paper. The early mainframe computers became agricultural business tools through the efforts of management instructors who realized the need for more detailed farm and ranch business analysis. This process involves the collection of data from the farm and ranches; checking and validating; submission to an analysis center; and finally, an educational session with each farmer or rancher after the analysis has been completed. Calculators increased the ability of the management instructors to teach their cooperators methods of timely mini-analyses in order to improve the decision making process. Today, it is possible for farm and ranch operators to own a microcomputer with more



By PAT HARRINGTON

(Mr. Harrington is a Professor of Farm Business Management, Central Arizona College, Coolidge, Arizona 85228.)

memory capabilities than the early mainframe computer. This can enable them to keep and analyze information on a day-to-day basis.

New Technology

Less than 15 years ago agricultural students used slide rules at universities and colleges. Now they carry small calculators far more powerful than the slide rules because

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The sun has set on old farm equipment.

Staying Current With Computer Technology for Farm Management Instruction

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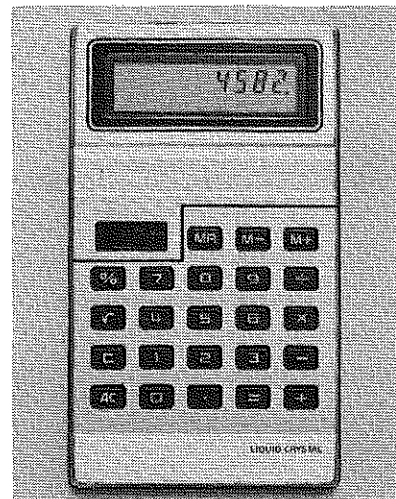
of the ability to store figures which can be used later. The memory capabilities of microcomputers and calculators are the key to their usefulness. Staying current with computer technology for management instruction begins with an understanding of the computer equipment's ability to store, retrieve, and easily revise figures.

Most agriculture students and instructors own small calculators which fit into the pocket of a shirt. How many have taken the time to read the small instruction manual provided with the calculator? Does your calculator have memory keys? Have you learned to use the memory capabilities of your calculator? Do you teach your students how to use a calculator for management calculations? Do you teach them to use the memory keys? Your \$10 calculator is a computer. This is a fine place to begin if you or the participants in your program do not have a microcomputer system.

Much of the need to stay current with farm computer technology involves staying current with software development. The packages useful for management instruction have gone through a history similar to early farm equipment. In the beginning, many computer groups in farming communities shared good, small programs which performed a set series of operations very well but did not allow the individualized applications required by the management instructors or the farm users. Today's software is more powerful and more flexible than the software marketed three years ago. Some of this software will operate on microcomputers three or four years old. Other software packages have memory and storage requirements which necessitate the purchase of recently developed microcomputer systems.

Update Your Software

Updating your current software packages involves a combination of evaluation and learning. The decision to purchase a computer system or to update your spreadsheet, farm accounting package, or management aids in-



Have you learned to use the memory capabilities of your calculator?

volves more than reading a sales ad or a 15 minute visit to the local computer store. Take advantage of the many resources available to study and judge the management applications of the current computer systems and software. These resources include: University seminars, Cooperative Extension workshops, fellow management instructors, agricultural computer magazines, and farm businesses, just to mention a few.

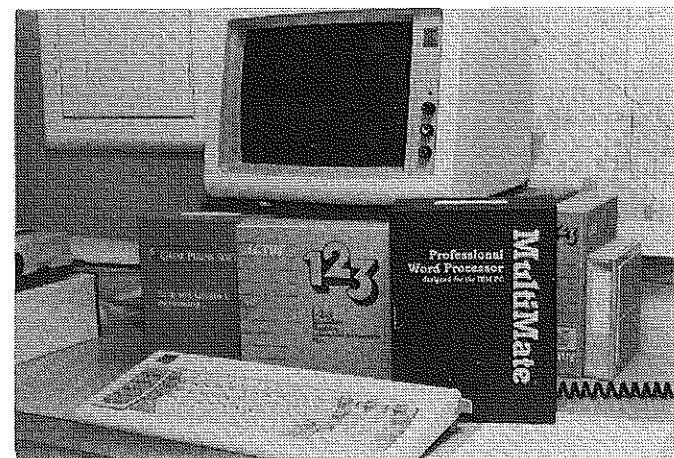
We have just entered the age of the agricultural computer. Agricultural management education quickly accepted the task of developing programs to teach future farmers and those currently engaged in farming and ranching how to operate the microcomputer. I commend the agricultural instructors who have spent time during the summer months and evenings learning about the computer and concentrating on agricultural applications. By comparison, the change-over from horse-drawn implements to power equipment gave the agricultural instructors and the farmers plenty of time to learn and adapt.

But, be conscious of the pitfalls and avoid them. It is all too easy to equate "new" with "necessary." If the computer system you are currently using allows you to provide quality management instruction, more memory or more storage or faster execution should be viewed as nice but not necessary. Before you junk the old system, investigate software that performs similar to the first choice. You may be able to operate such software by adding memory or storage to your current system. No good farmer buys a new tractor just to have fancy controls and a plush seat.

Teaching with Computers

Whatever you do — do not equate your role of management instructor with computer instructor. The teaching of computer use to your cooperators should be an improvement of their farm management skills and not preparation to become a computer programmer! Choose seminars and workshops which enhance and improve your current management curriculum. In most cases, you will be learning software and operations which your cooperators can adapt and use on their own as a result of your instruction.

Staying current with computer technology for management instruction can be compared to using new equipment during planting or harvest — you don't have the time to read the complete manual and take advantage of the full capabilities of the machine — or software — during the

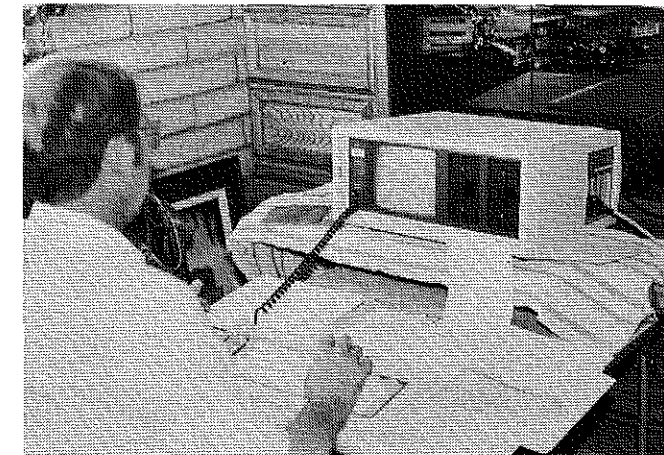


A microcomputer system enables analysis on a day-to-day basis.

first season. If you are just beginning, choose an application which is an important part of your curriculum but does not involve excessive amounts of calculations. Use the resources available to perform this current hand method on a computer. Make sure that you are comfortable with and understand the computer version before you add the microcomputer instruction to your class. Keep the initial lessons simple and build your successes.

The microcomputer has emerged as the newest and possibly most valuable farm implement. The sun has already set on some of the early computer systems and software. New computer equipment and software enters the market daily. How can we keep current with computer technology for farm management instruction? Simply stated, computer use in agricultural management instruction cannot be left up to others. Whether you have recently entered the profession or are planning for your retirement, take advantage of the computer technology available to enhance your management instruction.

If you are a veteran instructor, you will have to step back in time and relive some of your first classroom experiences. Teaching your farmers to use current technology will require new lesson plans based on their management needs. The new instructor will have to start from scratch preparing both the management concepts and computer technology solutions. As you build, prioritize your new computer uses. Keep the needs of your students as your number one priority. Many of the applications



Much of the need to stay current with farm computer technology involves staying current with software development.

that "can be done" with computers these days may only confuse students until they have grown into the need for the more powerful abilities of today's microcomputers and software.

Summary

A microcomputer system is only as good as the software. The software allows you to visualize the figures that you've stored in the memory of a calculator. A microcomputer without software is like a tractor without implements — good for tractor pulls, but not much else. A Farm Business Management program is only as good as its ability to meet the needs of today's farmers and ranchers. Keep yourself and your program current. The old farm equipment I saw had no choice as to whether or not the sun would set on it. Management instructors have a choice — keep their program current or let the sun set.



Whatever you do — do not equate your role of management instructor with computer instructor.

The Cover

An instructor visits a graduate who now manages a fertilizer plant to stay current with this area of agriculture. (Photo courtesy of Swede Johnson).

Coming in April

Staying Current in Crop and Food Production

Keeping Technically Competent In the Face of Changing Technology

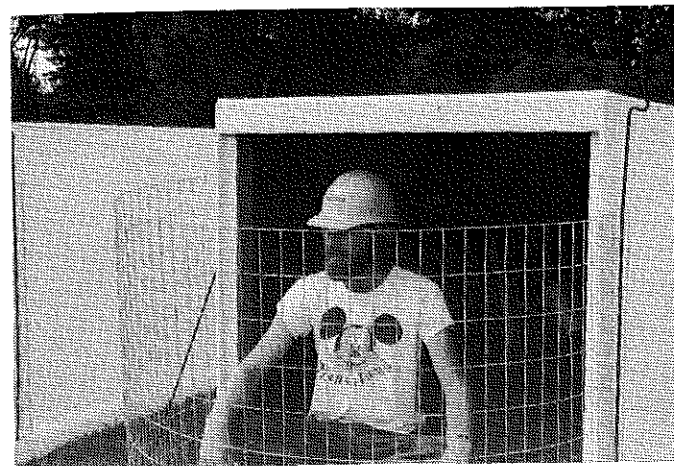
As I joined the ranks of vocational agriculture teachers thirty-five years ago, I felt that I was both scientifically and technically prepared to do a good job with the all-day students, their parents, and adults in the community where I was employed. It did not take long to realize that I did not have all the answers, and I would need to study to keep technically competent.

At times, the stress to keep up with and adopt new technology has been intense. Both experienced and inexperienced teachers have had to lengthen their stride to adapt to the use of computer technology. Increased motivation, enthusiasm, excitement, and creativity have come into the vocational agriculture scene.

There is no longer a need for generalists in agriculture. A basic understanding of the industry is mandatory for anyone pursuing a career in agriculture. Job specific skills are required. The rapid advancements in science and technology dictate that the vocational agriculture teacher be prepared and equipped to teach current and advanced technology. Teachers must take additional training to keep themselves abreast of new developments to be able to pass knowledge on to students of all ages.

Many of the agricultural community marvel that vocational agriculture teachers are knowledgeable in such an array of scientific and high tech fields. In a rapidly changing industry, keeping up to date is a dilemma of the vocational agriculture teacher and one of the greatest challenges in agricultural education.

If students perceive that the teacher knows his or her field, a satisfactory rapport will be established. Through our one-on-one supervisory visits, confidence can be developed. As rapport is established, students recognize that our objective is to help them become successful. With



Taking a human view of animal technology. The newness of technology is relevant. What may be old technology in one place may be new to another.

BY LAVAR GODFREY

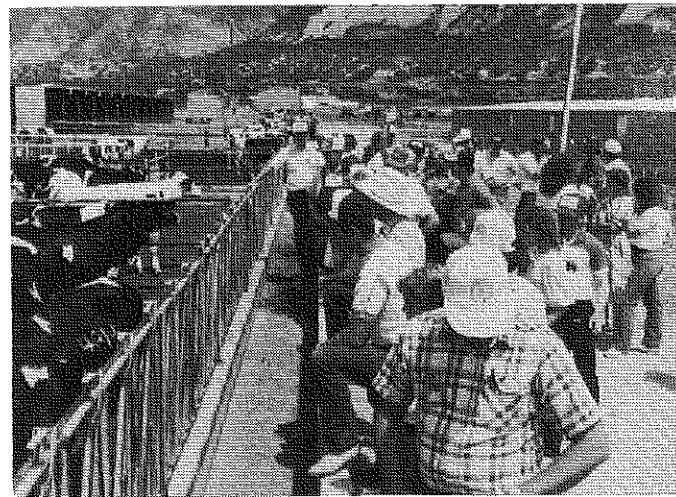
(Mr. Godfrey is the Farm and Ranch Business Management Instructor at Davis Area Vocational Center, Kaysville, Utah 84037.)

such a relationship, students will then call for professional assistance and training from a teacher they respect. Whenever we do not have the answers, we should readily admit it. We should say, "I don't know, but I will find an answer." A teacher who tries to bluff is soon found out and loses the confidence of all concerned.

Inservice Training

Technical competency to stay abreast must be from scientific knowledge and practical hands-on experience. During my many years of teaching I have taken advantage of both types of training in a number of learning situations. Whenever university credit has been offered, I have registered for credit. Through the years I have logged 70 credits over my master's degree. My contracts have been at the highest salary level offered except for the doctoral degree lane. More important, I have been able to maintain a reasonable level of competency.

When it comes to taking time away from the job in the summer to enroll in classes, I have been fortunate to have administrative support. Most summers I have been able to program at least one week and sometimes more to participate in university classes, workshops, or other types of inservice training. The efforts of the agricultural education staff at Utah State University in surveying teacher needs, planning and implementing workshops and classes have



Farm tours — a way to see new technology applied. (Photograph courtesy of Fred Christensen, Vo-Ag Teacher, Bear River High School, Tremonton, Utah 84337.)

made it easy to take advantage of opportunities to keep technically current.

Technical Competence Tips

The following sources have been utilized to help maintain my technical competence:

1. Formal classes at universities — I have had opportunities to study at Utah State University, Washington State University, the University of Minnesota, and California Polytechnic State University at Pomona. Study at out of state institutions has added an additional dimension to my technical competence.

2. Inservice classes have utilized the expertise of university and Extension specialists in keeping up to date on varieties, weed control, insect control, plant diseases, fertilization, irrigation, animal health, and tractor maintenance.

3. Workshops sponsored by industry have proven invaluable in the areas of farm power, small engines, welding, animal health products, fertilization, and pesticides.

4. Various conventions attended have always proven helpful through expert speakers and trade shows.

5. Farm tours where new technology has been adopted have provided many ideas that can be taught to students and adults.

6. Field trials and test plots are other ways of seeing results firsthand that can be passed on to our learners.

7. Farmers are excellent resources in keeping current.

The innovators and early adopters usually have something new that can be picked up only from them.

8. Self-teaching offers a way to get technical information not secured in the previously listed methods. Reading magazines, journals, and other educational materials can fill the gap if sufficient time is expended.

The past five years I have been involved in implementing a Farm and Ranch Business Management Education Program in Utah. As the only teacher in this pursuit in the state, it has been necessary to do considerable self-teaching to understand and digest the wealth of data available from the yearly business analysis. Application of the analysis has involved learning computer technology and applying the information from the data base to both livestock and crop production management decisions.

Conclusion

Inservice education is essential for teachers to keep current in the face of changing technology. Teacher educators and state supervisors play a vital role in determining teacher needs and arranging classes and workshops. University and Extension specialists from technical departments along with industry representatives will need to be involved with inservice programs. Ways to teach new technologies are also critical topics for inservice programs.

Industry sponsored workshops, conventions, meetings, farm tours, field trials, test plots, and innovative farmers can all be used to keep technically competent. Self-teaching can fill the void not covered in any other way.

Staying Current in Agribusiness

Agribusiness deals with a global complex which supplies inputs or produces products for the food and fiber industries. The decentralized control of agricultural production and the world wide competition for products by consumers encourages innovation and change unlike few other industries. This change is supported by researchers working in both public and private facilities. Much of this research is focused on sustaining a safe and wholesome supply of food and fiber products at a price people are willing to pay. All of these activities contribute to continuous change in the knowledge and practices required of those being prepared to work in agribusiness.

The Challenge

Agribusiness educators are challenged to stay current in this multidisciplinary field. The challenge can be effectively accomplished by maintaining an inquisitive mind and the innovative involvement of students and professionals in the agribusiness system. These participants can sift information, maintain alertness for new developments, and share in the dissemination process. Some of these participants are time proven resources while others are less well known.



BY JOHN H. AVERY

(Dr. Avery is Chairman of the Agribusiness Department at Delaware Valley College of Science and Agriculture, Doylestown, Pennsylvania 18901.)

Advisory committee members have provided additional eyes and ears for agricultural educators for generations. In a period when change is more rapid and more technical, an even greater use of advisory committees is suggested. A well structured advisory committee will have participating members from a good cross section of the economy. These specialists are further multiplied by their knowledge of individuals, resources, and practices related to their area of specialization. Following a recent advisory committee meeting one member contacted three other firms and requested their assistance in advancing specific areas of the agribusiness program. Another provided information on

(Continued on Page 12)

Staying Current in Agribusiness

(Continued from Page 11)

Hybrix (TM), a wheat hybridizing agent from Rohm and Haas. A third committee member sent a new film list from John Deere. These were in addition to the lively participation in discussion during the following the meeting.

Agribusiness firms benefit from well informed consumers. Many entrepreneurs and most firms are pleased to have key personnel serve on advisory committees when their contributions are wanted, appreciated, and implemented where possible.

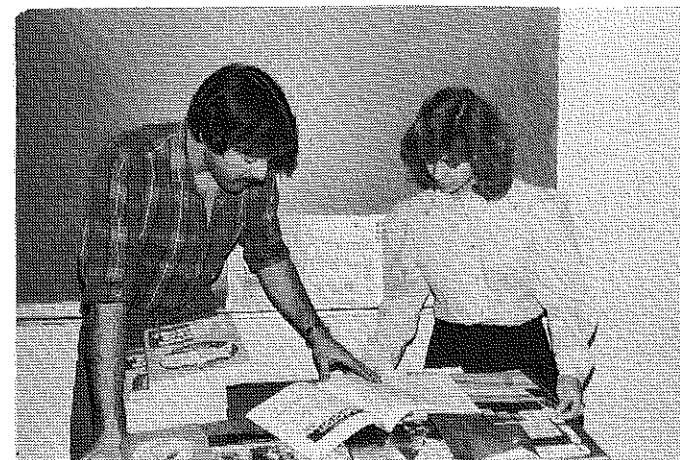
Use Resources

Motivated and guided students benefit themselves and the instructor when they become part of the effort to keep current. Students must be prepared for dramatic change during their working careers. They will be confronted by changes in technology, economics, government, and their personal goals. They can be prepared for change and improve their communications skills by seeking information, being exposed to resource people, and by participating in well planned field trips. As students participate, they seek the newer practices or techniques. In the field they observe that most equipment and processes grow obsolete. They see a contrast between the levels of productivity and efficiency when newer technology is applied.

Significant contributions have been made to our program by students who contact governmental agencies and agribusinesses. Most firms respond favorably to students who make reasonable requests in a clear and effective manner. Recent results have included current marketing, processing, and distribution practices. On a facility tour, the students saw adaptations of facilities from the obsolete method of handling meat on the rail to the current boxed meat system. They also observed the integration of modes of transportation, heard cost factors discussed, and noted problem solving strategies.

Student Experiences

Effective supervised occupational experience programs keep involved instructors current. While planning the goals and activities of the experience, both the student and the instructor may become aware of new products, pro-



Agribusiness students studying product catalogs. (Photo courtesy of John Avery.)

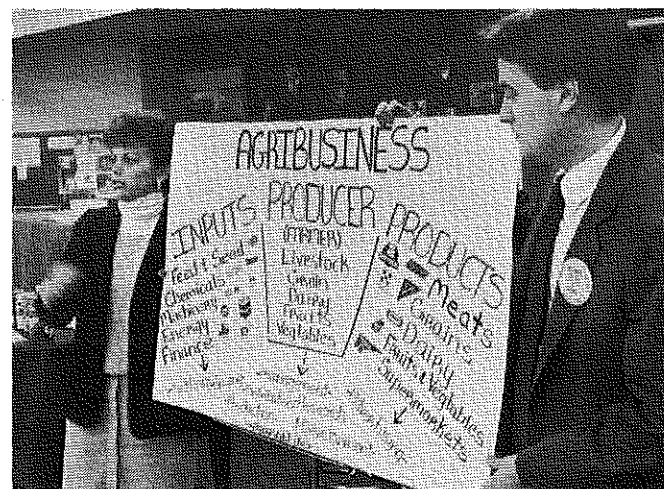
cesses, or procedures. This awareness develops into more complete understanding during follow-up visits or at the time of evaluating the experience. While many positions involve routine operations, students should be encouraged by their supervisor and sponsoring institution to seek ways to identify and integrate practices which will improve efficiencies.

An integrated approach by shippers, government agencies, support services, and labor resulted in significant cost reductions, improved product quality for the consumer, and marketing efficiencies on produce being imported through the Port of Philadelphia. Two students working for the USDA - Plant Inspection Service, as part of a team, netted themselves citations for exceptional performance. Most employers want students to be active participants in change as well as responsible workers.

The National Agri-Marketing Association (NAMA)¹ is an organization with 2,500 members in 29 regional chapters. The members are agribusiness and marketing professionals from all executive levels and facets of marketing. They sponsor 30 student NAMA Chapters in leading agricultural colleges and universities. The purpose of NAMA is to:

- Promote the highest standards of agricultural advertising, communications and marketing.
- Encourage the study and better understanding of agricultural advertising, marketing and selling.
- Provide an exchange of ideas among the professionals.
- Promote better public understanding of farming's role in our economy.
- Encourage young people to pursue agriculturally related careers.
- Provide professional and personal industry contacts for students through their student chapter, internships and coop programs.
- Offer continuing professional education to those in agri-business who market supplies and service.²

This organization provides opportunity for valuable personal contacts and working relationships with many agribusiness firms.



Senior agribusiness students addressing other students on food products (Photo courtesy of The Intelligence/Record, Doylestown, PA).

Corporate Support

The annual report of Monsanto proclaims, "Becoming the best in what we do is a promise being kept."³ Current attitudes and values of the agribusiness industry are also important to educators and their students. In a period when some students may be suspicious of or uninformed about the profit driven agribusiness economy, it is refreshing to observe the genuine commitment of firms to the highest principles of business integrity. The H.J. Heinz Company credits its growth to . . . "a set of highly effective principles and guidelines, firmly in place and sternly enforced."⁴

Corporate annual reports are an effective resource in picking up on current management strategies, products being introduced, the competitive environment, and international activities of agribusiness firms. While these reports are targeted for investors and executives, they clearly convey the direction of the corporation. One example is, "Monsanto is working to implement agricultural policies which will build stable and profitable farming operations." This corporation has developed an experimental protein hormone, methionyl bovine somatotropin, which stimulates milk production in dairy cows. This product of biotechnology could be on the market within a few years.

Corporate annual reports are sometimes available in libraries, from stockholders, or often by request to a publicly owned corporation.

Publications are also a continuing source of information

for keeping current. Several hours a month browsing through agribusiness publications and journals will expose educators to many current developments. Many have their favorite journals. It may be worthwhile to review what is developing in other areas of agribusiness. A new publication, *AGRIBUSINESS*, is beginning its second year of service.⁵ In its first year it has provided excellent information for professionals and students.

Summary

Keeping current in agribusiness is a challenge due to the many factors which contribute to change. An inquisitive mind and effective use of resources will help professional educators keep current. Resources that have proven effective include advisory committee members, students, SOE cooperators, The National Agri-Marketing Association, corporate annual reports, and publications. Effective use of these and other resources will keep us current and richly rewarded.

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THEME

Keeping Staff Current in Agribusiness

There are many challenges facing teachers of vocational agriculture today. At the post-secondary level of agricultural education, one of the more important challenges is how our staff can keep current with what is going on in agribusiness today. A major objective of our program at Willmar AVTI is to have the employers who hire our graduates be satisfied with the job performance of those graduates. In order to achieve that objective, it is imperative for our teaching staff to be current with activities of agribusiness. At Willmar AVTI, we certainly have no set guidelines as to how to achieve "currentness" in our agricultural staff; however, in this article I will share with you some of the activities that do go on in our department which allow us to keep current.

To begin with, each of us would like to be able to spend more time in industry either working or as an observer as part of our regular teaching contract. However, budget constraints do not allow that to happen. As a result, we must take advantage of other ongoing activities that are a part of our regular teaching program which give the added benefit of keeping up with agribusiness. This is not meant to be assumed that this is the serendipity effect of our activities; it is a concerted effort on the part of our staff to



By SWEDE JOHNSON

(Mr. Johnson is Head of the Agribusiness Department at Willmar VoTech. Institute, Willmar, Minnesota 56201.)

gain information as to current activities in agribusiness while we are conducting our regular teaching program.

Advisory Committees

An activity at our school that is common to all schools is advisory committees and advisory committee meetings. At our meetings, we rarely have an agenda item discussing "what's new in agriculture." Rather, this topic is often brought up during discussion of other agenda items. More commonly, however, this information is learned from committee members during a coffee break of our meeting or during the noon lunch while visiting with them one-on-one and discussing their particular business or industry.

(Continued on Page 14)

Keeping Staff Current in Agribusiness

(Continued from Page 13)

An attempt is made to keep in touch with our advisory committee members at times during the year other than committee meetings. During our conversations with these people, we are constantly attempting to update ourselves as to what is currently happening in their particular business.

Since most of our graduates find employment in the farm supply business, our committee members are selected to represent all facets of the farm supply business. One of the objectives of each of our advisory committees is for them to make sure we are teaching material to our students that is actually current and up to date. With that in mind, they are very willing to provide us with new information.

Field Trips

In most schools, the "aggies" are accused of spending more time on field trips than time spent in the classroom. We know that statement isn't true, but we admit we go on a number of field trips during the school year. We don't need to defend the value of field trips in this article because you are well aware of their value.

The main purpose of these field trips is to educate students; but along with that, the instructors who are also in attendance gain knowledge and experience about that industry. Our category of field trips not only includes trips to industry but also attendance at trade shows and at the University of Minnesota Experiment Station field days.

Classroom Activities

A common occurrence in many of our classes is to have a representative from industry speak to the students. There are many reasons for having a guest speaker in your class. One of the foremost reasons is to update students and staff on new things that are happening in that individual's business or industry.

A seminar course in our Agri-Business program has the primary purpose of providing to its members speakers and/or representatives from industry. These speakers share with the students what it is really like in the world of



Agribusiness instructor visits program graduate and current Co-op manager to learn about a new on-the-go fertilizer blender. (Photo courtesy of Swede Johnson).

business and industry. All of our guest speakers are invited to stay and have lunch with us in our cafeteria. At that time, it is not uncommon for several staff members to join the guest for lunch. It seems as though we are discussing the business of agriculture at every opportunity we have with representatives from business and industry.

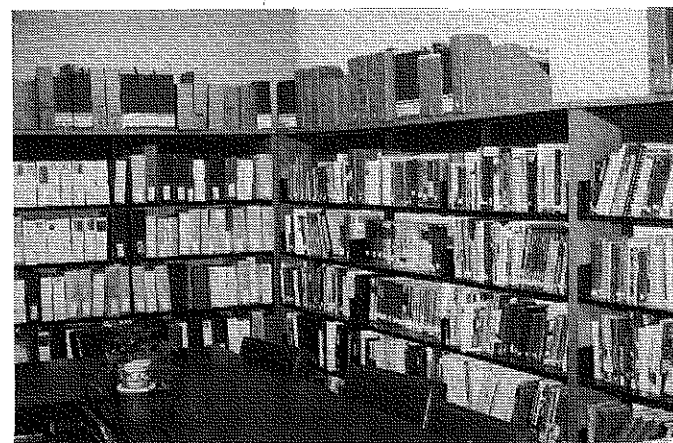
In the area of equipment that is used and needed for agriculture department courses, our basic philosophy is this: If it is possible to rent the equipment rather than purchase the equipment, rent it. Our equipment needs and usage are not a major concern in keeping current with agribusiness because our rental philosophy allows us to rent the newest, latest equipment that we may need for the instruction of our students.

The SOE Experience

One requirement of our program is a 12 week supervised occupational experience (SOE). The benefits of SOE to the students are obvious and well-known. The benefits to the staff, however, are what they make them. At our school it is very important that the supervisory visits to the students on the job are made by all of our teaching staff. At Willmar AVTI, although it is my responsibility to place the students on the job, the responsibility of the supervisory visits falls on everyone's shoulders. For example, a student who is placed in a fertilizer plant will be visited by our fertilizer instructor. That same student is probably also working with herbicides and probably doing some spraying. Another supervisory visit will be made by the instructor who teaches our agricultural chemical courses. This is as close as we come to actually working in industry. And even though it is not quite the same, it does give us some good experiences and obviously much current information.

Job Placement

A major objective of our program at Willmar AVTI is successful placement of our graduates. We have an excellent placement office and placement director, but placement in agribusiness requires more than just one person working on placement. We feel placement is the responsibility of every instructor on our staff. How does that keep us current in agribusiness? Here is an example. If your feed person finds an opening in the feed industry, you can rest assured that this instructor is going to make sure that a



Many resources are needed to keep one current and knowledgeable. The office should serve as a resource center.

graduate who will be recommended for that opening will have the necessary training to make a successful employee for that employer. This will only happen if the instruction by that instructor has been kept up to date.

Staff Professionalism

A significant factor to keeping current in agribusiness is subscribing to and reading trade journals and agricultural magazines. In our agriculture department, we subscribe to over 100 trade journals and magazines. These journals are read by staff members involved in that instructional area and then routed to other staff. Following that, they are made available for student usage in our media library. These publications are not the final answer in keeping staff current in agribusiness, but in many cases they do plant the seed. By reading about a new product, a new idea, or a new concept, follow-up can be made on these ideas by contacting the people or the companies that are directly involved in these new topics. Without reading these publications, we may never know about some of the new things that are happening in agribusiness.

Our staff is encouraged to join and become involved in professional organizations related to their subject area of teaching. As a department, we also hold associate or affiliate membership in many trade organizations. The contacts made by becoming involved in these trade organizations are invaluable to each staff member as well as to the overall agriculture department.

In Willmar we have a rather unique organization called the West Central Ag Sales Association. Its membership is made up of agricultural educators, media persons, salespeople in agriculture, agricultural lenders, and others who have an interest in promoting agriculture. The primary purpose of this Association is to promote agriculture and to increase our awareness of what is happening in agriculture today. At our monthly meetings, we may hear an outside speaker share a problem or concern or update us on a new idea or topic. We may even spend the meeting time discussing areas of mutual concern. This Association not only helps us to keep current in agriculture, but it provides a ready supply of speakers who are willing to come and talk to our students about their particular industry.



New equipment rented for class use. (Photo courtesy of Swede Johnson).

Utilizing Graduates

A group of people who have a significant impact on our staff and our program is our graduates. We have a very active alumni association with members who are more than willing to give of their time and efforts to help us in the education of our present students. As I was preparing this article, a graduate of 10 years ago who is a seed representative for a regional cooperative called and offered to come to our school and share with us some new information. He suggested he would like to meet with our agronomy instructor and spend some time with him going over the new ideas that they have and give us copies of their latest literature.

Another example of how we use our graduates to help us remain current involves a local cooperative. A new, on-the-go fertilizer blender and spreader that uses infra-red photography, soil maps, soil tests, and computers to change blends every time the soil changes is being field tested at a local cooperative. The manager of that cooperative is a Willmar graduate. He has shared firsthand information on that unit with our staff.

These examples are not rare occurrences since we have graduates either calling or stopping to see us very regularly. I don't believe this happens by chance. I believe the reason we have many of our graduates sharing their information with us is because we have worked hard to make that happen. We keep a current list of all of our graduates showing where each is working and for whom. We attempt to keep in touch with them as often as possible either through the mail, by a telephone call, or by asking them to serve on advisory committees. These people are very loyal to their school and are more than willing to share their time and talents with us if we just ask and give them the opportunity to do so.

Each year during the first week of June we hold a Spring Roundup. This is a two-day event where agricultural instructors from secondary and adult farm management programs as well as other AVTIs are invited to Willmar AVTI for two days of upgrading and retraining. Some of this training is provided by our agricultural staff, some provided by industry representatives, and some is a joint effort of a staff member and an industry representative. It is obvious that if our staff is going to upgrade secondary and adult farm management instructors, it becomes essential to upgrade ourselves prior to our teaching to other teachers. Consequently, this two-day session forces us to keep in mind the new things happening that other teachers might be interested in learning, and then to provide that kind of training to these teachers.

Conclusion

As you analyze the activities that have been described in this article which we believe are useful to us in keeping current in agribusiness, it is fairly obvious that the most important aspect of this is people relationships. We are fortunate in the fact that we have a mature staff. Because of this, we have made a lot of contacts over the years and are quite familiar with personnel in the industry for which we are educating. We have found that industry personnel, whether they be graduates of our program or employers of our graduates, are more than willing to share their information with us. The real secret is knowing who to ask, how to ask, and when to ask.

Serving Agriculture and Agribusiness Through Post-Secondary Education

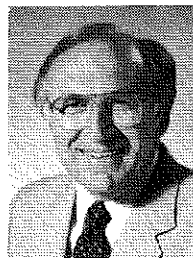
Farm foreclosures, low prices, high costs, forced sales, agribusiness failures, small town businesses going out of business, and protesters challenging law enforcement officials are typical news headlines across the country today. There is a great deal of bad news. Despite abundant harvests, the agriculture situation is depressing. With problems facing all segments of agriculture, are changes being made in the delivery of agricultural education so they reach out to serve the needs of farmers and agribusiness personnel?

For more than 30 years Minnesota has had a unique system of post-secondary vocational technical institutes scattered around the state. Three underlying purposes have served to guide the educational programs, namely (1) preparation for job entry, (2) retraining for a new job, and (3) upgrading skills for present jobs. These multiple educational purposes have often been identified as separate and distinct programs within a system. There has been little or no coordination between offerings. Upgrading skills are often addressed in short-term course offerings during evening hours. Job entry and retraining programs are frequently long term (12-24 months) daytime offerings for full-time students. There has been little attention given to organizing the offerings so those students less than full-time can attend these courses. Times are changing. While students recently graduating from high school still contribute the majority of membership in post-secondary technical education agriculture programs, there is an increasing proportion whose itinerary has included many years of work prior to post-secondary schooling. Of this group, fitting into a regular day schedule is difficult due to family and employment responsibilities. Farmers and agribusiness operators and employees often fit this category.

Post-secondary institutions have an excellent staff of technically competent teachers. It is unfortunate that scheduling has denied students (farmers and agribusiness personnel) access to these quality programs simply because they did not fit the typical six-hour day.

New Clientele

In Minnesota, a major attempt is being made to adjust the way vocational technical institutes are offering educational opportunities so that farmers and agribusiness personnel can have access to programs. In times of an agricultural crisis, declining enrollments and a distinct need for sound educational programs so that persons engaged in agriculture are able to make more informed decisions, this program is reorganizing the course offerings so that they become accessible to a generally unserved clientele. A project involving the post-secondary agriculture programs at Austin, Willmar, Pine City, and Detroit



BY ROLAND L. PETERSON

(Dr. Peterson is a Professor in the Division of Agricultural Education at the University of Minnesota, St. Paul, Minnesota 55108.)

Lakes was developed to explore ways to serve this new clientele. The principal focus of this project is to reorganize the curriculum so that the three groups are molded together. This restructuring is designed not to increase staff or place additional financial burdens on these institutions. The net result expected is to fully utilize the excellent vocational-technical staff by increasing the average daily membership in agriculture programs.

Program Packaging

To enable schools to study and examine the feasibility and ways and means of restructuring their programs, a study was initiated (1) to determine the interests and needs of farmers and agribusiness personnel, (2) to engage the teaching staff in reorganizing the curriculum to accommodate the identified needs and interests of farmers and agribusiness personnel, and (3) to review with the vocational institute administrators both statewide and school policies so that part-time clients could be served. During the summer of 1985, the agriculture teaching staff of four pilot institutes studied the interests and needs of farmers and agribusiness personnel within a 50 mile radius of their schools. They found farmers and agribusiness personnel willing to attend courses once a week, drive up to 30 miles, and preferred class sessions on weekdays in the early afternoon or evenings during the months of January, February, and March. As an example, they also found farmer interest high in subject areas such as varietal performance, pest management and marketing of corn, soil testing, and calibration and operation of harvest machinery. This type of interest has caused revisions of existing courses to meet these expressed needs. New courses have been developed which constitute 20 clock hours of instruction. These 20 clock hour courses have been pulled from existing courses. Consequently, when these courses are being taught both regular day school students and part-time students (farmers and agribusiness personnel) will attend the same courses. This has caused a need to reschedule and reorganize the vocational technical institutes' agriculture program offerings.

The second major task facing the staff is to market these

programs to farmers and agribusiness personnel. It is one thing to determine needs and quite another to actually get new clientele to enroll in courses. The course marketing strategies were developed by each staff. Among the strategies being used within a 50 mile radius of each school are personal contacts (free morning coffee and donuts) in local small town cafes while staff members talk to farmers and agribusiness personnel, a media blitz, announcements inserted into milk check envelopes, and support from various credit agencies.

Conclusion

The results are unknown but the presence of farmers, agribusiness personnel, and regular day school students in the same courses provides new opportunities and intriguing challenges for teachers. The co-mingling impact of youth and adults in class discussions should have a positive and refreshing influence on all participants. Quality agricultural education can make a difference in troubled times if the leaders of programs are willing to take some risks and new approaches in the delivery of programs.

Staying Abreast of Political and Leadership Activity in Agriculture and Agribusiness

BY F.B. DANIEL

(Mr. Daniel is a member of the Minnesota State Board for Vocational and Technical Education and is employed by the Minnesota Farmers Union, 1717 University Avenue W., St. Paul, Minnesota 55108.)

Agriculture in America has never been more severely tried than it is today. Agricultural education, as an integral part of that industry, is equally challenged. There has never been a time when probing, projecting, and leading on the part of agricultural educators was more necessary than in the years 1985 and 1986, because "business as usual" right now could insure that we will not be around as agricultural educators in the 1990s.

Ours is a nation founded on family agriculture, entrepreneurship, and community life. Current public policy (or lack thereof) has brought the very future of each of those fine qualities into serious question. Small rural towns have slowly withered and died over the past 40 years, partially because they were founded to accommodate foot and horse travel, hence they were numerous and in relatively close proximity. But automated travel and technological change reduced the need for the same number of "trade centers" while the need for water, sewer, lights, and improved streets meant the trade centers would be fewer and bigger. This has been an ongoing process.

It is important, however, to recognize that until the early 1970s, entrepreneurship and community life continued to be served in the process. This is no longer the case; not because of any decline in technology, but because we have failed to balance technology with practicality, and with our very future as individual entrepreneurs and as community.

Family Farms

Proof is with us in abundance. Government, universities, independent economists, and policy advisors notwithstanding — bigger is not always better — for the individual, nor for the common good. Rural America and all that it stands for is people driven, not technology driven.

The cities and towns throughout rural America are sustained precisely by the number of **operating** farms in each trade area, not by the number of producing acres or

animals. This nation now has fewer farms than at any time since the Civil War and it is losing its remaining farms to foreclosure, bankruptcy, and forced sale at an escalating pace. Rural America is being dismantled!

If we did not realize it before, we surely know now that we can no longer dismiss that shocking fact by continuing to acknowledge that, "It has been going on for years." Even though it truly has — for too many years. It is a fact that one more place on main street is boarded up each time six farms cease operating, for whatever reason.

As family farming goes, so will go rural America — its cities and its towns, its main streets and its job opportunities, its community life and its vitality. There too will go our own profession. For no matter how attached or proud we are of agricultural education, we will have neither the dollars nor the participants to maintain it as a viable profession without a rural America as we have known it. The uncertainty of rural America's future strongly suggests we have not, to date, really stayed abreast.

Challenges

Among our principal challenges as agricultural educators (and we would include administrators, supervisors, counselors and advisory committees as well) are these:

1. Defining or redefining and understanding our real mission.
2. Keeping programs relevant.

(Continued on Page 18)

Staying Abreast of Political and Leadership Activity in Agriculture and Agribusiness

(Continued from Page 17)

3. Resisting the inclination to take past achievements for granted.
4. Recognizing and responding to political reality.

Surely agricultural educators (and their students) are products of and participants in "community" life. Community is a vital thread in our mission if we have any expectation of helping our "students" (age notwithstanding) to attain and enjoy life and success in farming; if we indeed understand and respect the terms quality of life, husbandry, stewardship, and conservation. Have we come to accept a less than realistic definition of our mission?

This writer believes the philosophy of a good agricultural educator was stated rather eloquently by Dr. A.M. Fields, former Head of Agricultural Education at the University of Minnesota. To paraphrase, he said the purpose should be, "to take the person from where he/she is, to where they ought to be in life." That surely cannot mean dropping them from the rolls of agricultural education upon graduation from high school.

Changes Needed

Because we live in an ever changing world, our program needs change as do our personal needs. Our challenge now more than ever is to anticipate change, influence it where possible and desirable, and to the best of our ability, prepare those entrusted to us to meet the change.

We have neither license nor obligation to accept the shopworn premise that "high-tech" is the way of the future, the source of employment and the answer to almost any problem, particularly from advocates who still cannot agree upon a definition of "high-tech," and when at least some of them have argued that it has no application to agriculture or to vocational education. We have a heavy responsibility to do our own thinking — and speaking — in light of what we believe farming and rural America to be. If we don't, we surely will not stay abreast.

Achievement is good for and necessary to all who strive. But the satisfaction that comes with achievement can become a feeling of "having arrived," and thus an invitation to mediocrity and even decline. Quality in education is relative. It is comparable, perhaps, to climbing stairs. Each step is, in a sense, an accomplishment — along the way — but if viewed as an end, would obviously preclude the real goal of reaching the higher level. We are aiming at a moving target — ever better educational programs. And the temptation to be content and thereby to miss opportunities could well occur precisely when we have achieved in good measure. Taking for granted is winless.

Politics and Agricultural Education

Education, and more specifically the future of education, is far more dependent upon day to day political decision than most educators realize or even want to admit. Partisan political activity is not our focus, but clearly, education is continually impacted by partisan political debate and decision. Education does not and cannot exist

in a political vacuum. The political process will serve agricultural education to the degree that the agricultural education community is represented and felt in that process and not one bit more.

Our concern here is with the broader definition, meaning those day-to-day decisions, on policy or whatever, which frankly are made on the basis of what appears to be popular at the moment rather than on how they will impact education or affect its future. These are political decisions.

The best illustration we know has been played out again and again in rural (agricultural educators') districts in recent years. Revenues are short or delayed and the school district has a budget squeeze. As a result secondary and/or adult agriculture programs are cut or closed out. Competitive sports call for a significant part of the budget in most schools today, but no thought is given to reductions in competitive sports while agriculture programs are being pared.

This writer does not have an anti-sports bias. But he challenges boards and administrators in each of these districts, and in any district facing similar choices, to set some common sense priorities. In this case, review the list of graduates from this rural school to determine how many of them ever went on to make their livelihood in competitive sports compared to agriculture. What is necessary to the continuation of quality education in that community — and to future of the community itself?

Do we have the courage (and diplomacy) to cause this kind of evaluation to be brought into this political decision? We suggest doing so might be essential to our being here tomorrow to make that ongoing effort to keep us abreast in education in farming and agribusiness.

It is even more difficult for this writer to understand how in an agricultural state, an entity of education — be it university, Extension, post-secondary or secondary — can assume continuation of funding or enrollment while it ignores the depopulation of rural America which is continuing today at an escalating pace. There is an ever growing list of rural communities which are at or below minimum population for sustaining community life. From there on it is all down hill. Budget problems escalate, enrollment plummets, and campus closings supplant program cuts. Where then, is access to education?

And what then becomes of the billions upon billions of dollars of public and private investment in highways and streets and utilities, in stores and shops and services, in schools and hospitals and clinics, and in homes throughout rural America? Together with our farms, they represent our taxbase — the very roots of our economy. These investments, however dear or costly, will have neither purpose nor value without people.

Problems

Let us not make the fatal mistake of assuming there is not a problem until statistics confirm that the change has taken place. Agricultural educators have traditionally been close to most people in rural communities. We think their appreciation for education and their understanding of the implications of what is happening are compelling reasons for them to communicate well with the people they know so well, on the farm and on main street.

Because most people in rural America — including educators — have not elected to be involved with resolving the bigger problem, let us note the most likely reasons for their reluctance and the fallacy of each.

First, most people still do not see this as "their" problem. If they are not a farmer who has delinquent mortgage payments or has been denied operating funds, this really doesn't seem to be their problem. In truth, we must face the fact that not five percent of us, farm and nonfarm, will be unaffected if the rural economy continues to go down. It's a matter of time and of increasing odds.

Second, there is an expectation that somehow, something will happen or be done to resolve the problem. Many remember that we somehow came out of the dark days of the Great Depression. In reality the implications of today's problems are so severe and the hour so late, that expectation is completely unfounded. Any teacher, farmer, or city resident who is not now willing to assist in seeking a solution is automatically part of the problem.

Implications

The implications of what is happening today exceed what happened in the dark ages of the Great Depression for at least three reasons.

First, it was the federal government in the 30s which having recognized the need for corrective action, took the initiative to set the country right. By contrast the federal government today steadfastly denies any responsibility.

Second, unlike in the 30s, there is a growing list of rural communities today which are already at or below minimum population for maintaining community life. Schools and other essential services in every one of these communities are doomed to extinction.

Third, unlike what happened after the Great Depression, farm families who lose their farms this time will not have a chance to buy back. That is a mighty big difference!

The debate goes on over whether or not the public (government) has a responsibility or role in shaping the

future of rural America. We would argue it does have for at least three reasons.

First, because it was our federal government — ignoring the advice of national farm organizations — which called for "fencerow to fencerow" planting to supply foreign demand; and, again without farmer concurrence, declared no fewer than four export embargoes, which disrupted farm markets and the rural economy.

Second, public policy has been and continues to be a major factor in compounding the problem through unbelievably shortsighted international trade negotiations. Government, not farmers, controls international trade of farm products. Government cannot disown responsibility for the farm economy while continuing its prerogative to drastically influence farm markets.

Third, there is no longer room for argument that without realistic public support, the most efficient and productive food production industry in the history of the world will soon be phased out. America will have moved to "investor" farming and our splendid education system will go down with the collapse of rural America. We must get our thinking straight. This is not a "farm problem." It is America's problem! The American way of life (including accessible, quality education) is seriously at risk!

Conclusion

Boeing Corporation, Chrysler Corporation, New York City, Continental Illinois Bank, and numerous banks having troubled loans in developing countries were deemed to be public responsibility. What quaint logic would indicate that rural America, its farms, its main streets, and its job opportunities are less important to this nation?

Some may still argue the relevance of "preserving family farming" to the very necessary task of "staying abreast" in education. This writer is thoroughly persuaded that if we ignore the former, we will not accomplish the latter. Indeed, we may well have precluded any opportunity to retain quality education much less improve it.

TEACHING TIPS

Toys from Scraps

In Phil Miller's vo-ag department in Mead, Neb., the scrap wood pile does not become very large. They have found a use for normally discarded small scraps of wood.

According to Phil, "In my school, freshman vocational agriculture is the first class in which a student receives training in any sort of shop activity. For this reason a very basic wood-working experience is necessary which includes tool identification and purpose, measuring and marking, reading and interpreting plans, and development of skills in using tools.

"As in learning to use any tool, practice is necessary to attain skill. By hav-

ing students practice with tools, I found myself discarding many dollars worth of lumber. Students also lose interest very rapidly in practice and do not improve their skill after a short period of time.

"What I have done to help alleviate this situation is to develop a set of projects which, while the students are practicing, the resulting pieces are saved and assembled into a usable toy. The tools required for the project are identified, demonstrated, and then applied to the construction of the toy. Students quickly learn the value of accurate measuring, squareness, and

careful work. When they are all finished they have something to take home. I have been able to observe their use of a variety of tools, correct their errors, and give them a fair evaluation (each piece of the toy is given a separate grade based upon its measurement, etc.) Toys constructed include wagons, tractors, cars, blocks, trains, and furniture."

"The toys are rugged, safe, and suitable for children to play with. It is rare for a toy to be left at school, but some that are, plus some especially made toys, have been donated to a special education school where they are much appreciated."

Recognizing Excellence in Agribusiness Education

The survival of agricultural education depends on change. Its vitality comes from its ability to overcome adversity. But is agricultural education changing as rapidly as is the industry it attempts to serve? As agricultural education professionals, we must insure that vocational agriculture programs evolve to meet the needs of changing clientele.

Vocational agriculture and FFA contests and awards were designed to support the vocational agriculture curriculum. They were to provide students an opportunity to fine tune those skills that the instructional component of vocational agriculture had taught them and to recognize excellence in teaching and learning. This has happened with a degree of success well beyond the expectations of the original planners. But in addition to intended objectives, contests have themselves become powerful influences in shaping the appearance of the curriculum. Contests have not only become incentives for students to excel in their learning, but they have become strong forces in influencing what is taught in vocational agriculture. But do they best reflect the needs of students who enter agricultural occupations?

The Situation

Agribusiness, that sector of the agricultural economy which supports production agriculture, is emerging as a major area into which students will seek careers and employment. Vocational agriculture has done an excellent job historically of preparing students to enter production-oriented careers. The success stories are well known. However, the profession has been hesitant in many instances to provide the educational opportunities necessary to prepare students to enter non-production agribusiness careers.

Vocational agriculture must move to integrate more non-production oriented agribusiness education into its programs. A recent study found that many state supervisors agreed that this area is important to the vitality of the profession. When they were asked for state curriculum materials or the names of vocational agriculture instructors who were teaching agribusiness skills as components of their programs, the response was much less positive (Wardlow, 1985). It appears that at least some in the profession are not doing what they know needs to be done to make vocational agriculture best fit the needs of students.

It is clearly easier for students to identify agriculture with livestock, crop or horticultural projects. It is clearly easier for instructors to teach the production aspects of agriculture with which they are most familiar. What incentives are required to insure that the curriculum evolves to serve the agribusiness needs of the agricultural industry?



BY GEORGE WARDLOW

(Dr. Wardlow is an Assistant Professor in the Division of Agricultural Education at the University of Minnesota, St. Paul, Minnesota 55108.)

A Proposal

Agreeing that change is inevitable is easy. Even agreeing that something needs to be done is comparatively easy. Getting something done is more difficult. We are creatures of habit. We prefer to continue doing those things which we know well until we have some reason to change. Agreeing that agribusiness education should become more prevalent in vocational agriculture programs is no large task. Getting it there is the real job.

Several months ago a proposal was presented to the Board of Directors of the FFA. This proposal included a brief summary of research on the current status of agribusiness education in vocational agriculture programs. Curriculum materials related to agribusiness had been collected from several states and from individual instructors. Common agribusiness competencies were identified and summarized. Following is a proposed program designed to provide incentives for students to attain necessary skills in agribusiness and for teachers to teach those skills.

A national contest should be added. This contest should be designed to allow students to be recognized both as individuals and as teams. It should be designed so that it is impractical to "coach" only the outstanding students. Teachers would be motivated to provide necessary instruction to all students. As a result, the contest should appeal to the agribusiness industry as something that is worthwhile and worthy of support.

The Agribusiness Skills Contest should include three components much as does the National Agricultural Mechanics Contest. All contestants would complete a written examination on general agribusiness skills. Each team would participate in an agricultural merchandise and sales component, a component to prepare and interview for an agribusiness job, and a component to deal with a customer relations problem. Only one student per team would participate in each event.

Each student would be required to be knowledgeable in all three areas of the contest. The assignment of individuals to one of the three components would be done at random at the beginning of the contest. This would not allow students to specialize in one area in which he/she is par-

THE AGRICULTURAL EDUCATION MAGAZINE

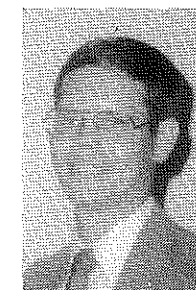
ticularly skilled, but it would force the instruction of all students in all areas. Each student would participate in a written test and a demonstration activity. This would require knowledge of agriculture and agribusiness and also require that students synthesize and apply that knowledge to a situation. Students could be scored as individuals, their scores combined to produce a team score, and they could be recognized as individuals in each component and as teams.

Space does not permit a more detailed explanation here. Further information about the proposed contest structure is available upon request from the author.

If vocational agriculture is to maintain its vitality, it must evolve to meet the needs of agricultural industry. Agribusiness has increasingly become a larger component of the industry, and vocational agriculture must increasingly provide incentives and opportunities in this area.

ARTICLE

Agribusiness, Employment and You



BY MARLIN SEEMAN

(Mr. Seeman is the Vocational Agriculture Instructor for Hampton Public Schools, Box 37, Hampton, Nebraska 68843.)

Wow — my first day on the "job"! Let me explain. I have been teaching vocational agriculture at the Hampton public schools for 14 years, but this was my first experience as a student-trainee. I was to be the trainee for the next week at the Campbells' Nursery and Garden Center in Lincoln, Nebraska. I would have to learn the business operating procedure for my work site.

Like other agriculture instructors, I'd had a busy summer filled with instructional visits, fairs, school activities, and technical workshops. How could I find time to do more? But wait — learning new skills and developing new business contacts could help me in teaching!

The Workshop

How did I, a veteran teacher, come to find myself in this position? It all began when I was contacted by Dr. Roy D. Dillon and Dr. Lloyd Bell of the University of Nebraska about a new EMPLOYMENT IN AGRIBUSINESS CURRICULUM from the Mid-America Vocational Curriculum Consortium. This curriculum had been developed to assist teachers in building strong agribusiness programs to meet the specific needs of students who would not be pursuing careers in production agriculture. The core is a major revision of the MAVCC's AGRICULTURE SALES AND SERVICE publication which updates and expands the information needed to prepare a student for employment in agribusiness. Sixteen units of instruction have been developed including areas of employment information, human relations, business procedures, physical distribution, and merchandising.

Fifty-five assignment sheets and eight job sheets have been included for students to demonstrate their agribusiness skills. In discussion with current agricultural instructors, it was found that most instructors were not well versed in the basics of agribusiness.

This information led Dr. Bell to develop a two-week workshop for Nebraska vocational agriculture teachers on these needed agribusiness skills. The workshop was divided into three parts. The morning of the first week was used to teach information from the core with the afternoons utilized by the teacher-trainees on the job at a local agribusiness center. The teacher-trainees received reading and homework assignments from the core to enhance the learning atmosphere on the job.

The second week the teacher-trainees were exposed to general information such as sales effectiveness training and visitations to area agribusinesses. The workshop utilized local business and professional leaders who developed the themes of the core. Resource people were also used during the classroom sessions to teach "first impressions", "telephone manners", "resume writing and interviewing", "warehousing" and "business procedures."

The Placement

Dr. Bell and I prepared a list of potential agribusinesses in the Lincoln area that might be possible training sites. Each business was contacted to determine interest and willingness to participate. Following this was a personal contact with the business to assess its suitability as a training site. Each cooperating business needed to have supervisors available to devote to instructional time. Plus, the business needed to be willing to open their operational procedures to the teacher-trainee. Each of the sites selected exceeded the minimum standards and provided excellent instruction. This proves once again that when called upon, agribusiness stands ready to address the needs of vocational agricultural education!

The Future

Once the workshop phase was completed, two more activities were still available to the participants. First, all participating teachers were to develop an expanded curriculum offering for their local schools. The curriculum offering was to be based on the EMPLOYMENT IN AGRIBUSINESS CURRICULUM. A list of the specific skills and grade levels to be taught provided a comprehensive junior and senior high school curriculum. These selected skills were to be based

(Continued on Page 22)

Agribusiness, Employment and You

(Continued from Page 21)

upon an area needs assessment with approval by the local vocational advisory council and administration. The final phase was to develop an instructional strategy including extensiveness of units, guest speakers, films, and on-the-job experiences.

Second, the teacher, in cooperation with Dr. Dillon, could make arrangements for a 20 day internship program at selected local agribusinesses. A training plan and agreement would be developed for each cooperating firm. A tentative work schedule was to list the number of days in

each firm, each job position to be explored, and a list of the job tasks that would be learned from that business.

Conclusion

Since we as vocational agriculture instructors are expected to prepare students for prospective agribusiness careers, it is imperative that we are well-qualified to meet that challenge. Through this hands-on-experience, the instructor was given a chance to learn new agribusiness skills and make new job placement contacts for his or her agribusiness program. The vocational curriculum has proven to be relevant to the ever-changing employment demands and possibilities of vocational agriculture!

ARTICLE

These Teachers are Technically Up-to-Date

Joe checked his watch. It was 5:05 p.m. He was pleased—the last hour had been a rewarding one. After school he had driven to the Star Implement dealer where Suzie, one of his senior agricultural mechanics students, was on cooperative work experience. The first half hour he had spent with Suzie and her supervisor, Harry Smith, checking her progress and outlining the tasks she would learn in the next two weeks. She was making excellent progress. The next half hour was even more exciting. Star Implement has just received that morning a new computerized state-of-the-art engine analyzer. And, Harry Smith has just spent half an hour demonstrating to Joe and Suzie how it worked. What's more, Joe received an invitation to come in Saturday morning to learn more about using it. Furthermore, he was invited to bring his entire class in later in the semester.

The above scenario is repeated over and over where agricultural teachers have the opportunity to supervise their own students who are placed on cooperative work experience. Teachers learn the state-of-the-art in their specialty areas from the agricultural industries where their students are placed.

In recent years, the technological competence of vocational teachers has been increasingly suspect. Rapidly changing technology, new occupations, and new technology applications lead the list of conditions associated with potential teacher skill obsolescence. State departments of education revise standards, spend money, and issue decrees to avoid it. Teacher education institutions provide workshops and inservice classes. Exchange programs are engineered with industry. Yet, the problem persists. Vocational teachers in significant numbers are out-of-date all too soon, according to the National Center report, *KEEPING VOCATIONAL/TECHNICAL TEACHERS UP-TO-DATE*, (1983). The National Center report stated that 47 percent of post-secondary teachers and 30 percent of the secondary vocational teachers have a critical or substantial

By WILLIAM WILLIAMS

By SAMUEL M. CURTIS

(Dr. Williams is an Associate Professor of Agricultural Education at The Pennsylvania State University and a partner in a farm machinery dealership. Dr. Curtis is a Professor and Head of the Department of Agricultural and Extension Education. The Pennsylvania State University, University Park, Pennsylvania 16802.)

need for updating. The level of need varied among vocational fields according to this report.

Obsolescence

Obviously, vocational agriculture teacher skill obsolescence is perceived to be a major problem! The National Center report indicates that the problem persists in spite of previous and current efforts to control it. Inservice classes and technical update workshops no doubt have prevented this problem from becoming worse. Exchange programs with industry are excellent for those teachers who have the opportunity. Work experience workshops such as the horticulture workshop program conducted by Richard Stinson of Pennsylvania State University, are valuable to a limited number of teachers. In these workshops teachers work in a horticulture industry for five days and attend industry seminars in the evening. Conducted in suburban Philadelphia, PA, these workshops have assisted 225 teachers in the past fifteen years. All of these programs are important and useful. But, their impact is limited to those few teachers who have the initiative or the incentives to participate.

Fortunately, there is a readily available alternative. Most vocational agriculture programs require a cooperative or supervised work experience component. Many students are placed in the agricultural industry each year for cooperative work experience. Too frequently these students are supervised by persons named as cooperative or industry coordinators. These students should be supervised by their agriculture teachers.

Interact with Industry

A number of years ago, the authors were teachers of vocational agriculture. Part of the responsibility of each was the on-farm instruction of adult students. The young/adult farmers with whom we worked kept us up-to-date with the changing technology of agriculture to a degree we have been unable to duplicate since. Whether it was poultry equipment, herbicides, or management technology, we were at the "top of our game" because of the direct and frequent interaction with the industry.

Unfortunately, in many schools the supervisory role is withheld from the vocational agriculture teacher. The need for a co-op coordinator is well documented. A coordinator is needed to facilitate placement, assure all legal requirements are met, and perhaps to schedule supervision where more than one student is placed in a business or plant. However, it is a mistake for the coordinator to supervise individual students. This job belongs to the student's vocational agriculture instructor.

If agricultural teachers are to be technologically up-to-date, then mechanisms must be provided for this to happen. Incentives for inservice education are required. Industry exchange programs should be expanded. Technical workshops should be encouraged. Teacher supervision of cooperative work experience students must prevail in

every vocational agriculture program. The teacher who supervises the student on-the-job and gains the confidence of the employer will see the latest and newest technology being used.

In a recent nominal group technique study conducted by the Pennsylvania Department of Education and Pennsylvania State University titled, "Soliciting Industries' Opinion of Vocational Education" an industry representative stated: "I would be pleased to take local teachers to trade shows with me and my management staff to see the state-of-the-art in new equipment. Because of the rapid industry changes, the technology I am using now will be out-of-date in five years."

Summary

Instruction (class, shop, laboratory) will improve as the teacher relates subject matter to local industry technology. Guidance will improve as the teacher becomes more familiar with local markets. The point is employers will proudly show vocational teachers what the new equipment or technology can do. Symbiotic relationships will develop that will not only guarantee competent teachers, but relevant curriculum as well. Keeping vocational agriculture teachers up-to-date is not an impossible task. In fact, it is relatively easy. The mechanism is in place. Let's use it.

BOOK REVIEWS

Microcomputer Course Evaluation: Form and Guide For Vocational and Technical Education provides a tool for evaluating and selecting microcomputer instructional programs, or courseware, that is available today. This **FORM AND GUIDE** is especially helpful to vocational and technical educators who are determining the quality of courseware, professional reviewers who conduct and publish reviews of courseware, and developers who seek to produce high-quality courseware for vocational and technical education.

The evaluation form enables the user to describe courseware, apply evaluation criteria, summarize courseware characteristics, and make a final recommendation about the courseware. The form can be removed from the center of the booklet, leaving the guide intact for future reference. This also allows the user to make additional

copies of the form, if needed.

The guide section is complete with nine easy-to-follow steps in how to use the form to evaluate courseware. A glossary of commonly used computer terms and an explanation of each item on the evaluation form further aids the user.

You may order **MICROCOMPUTER COURSEWARE EVALUATION: FORM AND GUIDE FOR VOCATIONAL AND TECHNICAL EDUCATION** (SN 44-\$2.50), 24 pp., 1984, from the National Center for Research in Vocational Education, The Ohio State University, Publications Office, Box N, 1960 Kenny Road, Columbus, OH 43210-1090; 614/486-3655 or toll free in the continental U.S. outside Ohio at 800/848-4815.

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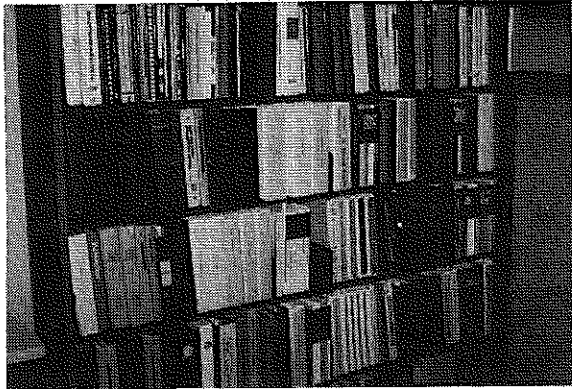
Letters To Our Son, The Ag Teacher by William C. Dudley, Danville, Illinois: The Interstate Printers & Publishers, Inc., 1983, pp. 108, \$8.95.

LETTERS TO OUR SON, THE AG TEACHER is written especially for young teachers but it is a book every teacher, teacher educator, and supervisor will want for his/her professional library. This tightly written and easy-to-read book not only deals with real problems but also highlights the rewards of teaching vocational agriculture and serving as an FFA advisor. The topics are arranged in seasonal sequence with actual happenings used as illustrations. The reader will have the benefit of the author's 45 years in vocational agriculture and his relationship with the founders of the FFA.

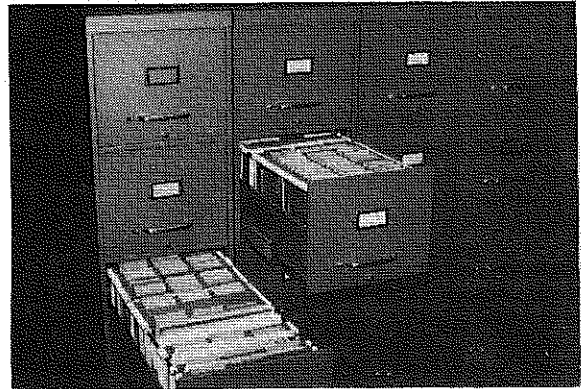
Larry Fannon
Supervisor
Virginia Department
of Education

Stories in Pictures

Resources for Vocational Agriculture Teachers



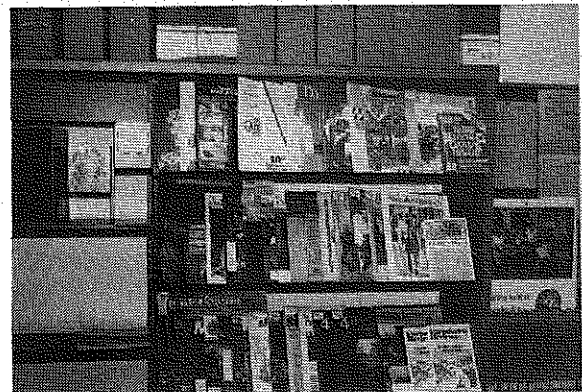
Book shelves should be available and material arranged in a logical fashion. The material should consist of textbooks, workbooks and notebooks.



Adequate filing space should be available and a good filing system, such as Agdex, used to permit quick retrieval of information.



The office should have a desk large enough to accommodate the work to be done, a telephone with a direct line, a computer, a printer, a modem, and a calculator.



Numerous subscriptions to agricultural publications should be maintained and periodically scanned for useful articles or updated information.

(Photographs courtesy of Edgar Persons of the University of Minnesota.)