

September-  
October  
1999  
volume 72  
issue 2

*The Agricultural*  
**EDUCATION**  
M A G A Z I N E



**Is Public School Adult Education in  
Agriculture Needed in the 21st Century?**

# And the Answer is...

## Yes, But...

By Jerry Migler

It has been my experience that most people associate agricultural education in public schools with high schools. Certainly this is understandable. It is in our middle schools and junior and senior high schools that the largest numbers of formal agricultural education programs exist. Consequently, they generate the most visibility regarding such issues as enrollment, curriculum, student organizations, and general publicity. So, perhaps not surprisingly, much less attention seems to be directed at adult agricultural education programs. Adult agriculture programs in our country are extremely diverse – perhaps more diverse in terms of structure and organization than programs in the K-12 educational system. They are generally found in community colleges, junior colleges, and technical colleges or schools as well as local public school systems. They can range from short courses lasting several hours to one- and two-year college curriculums to structured farm management programs that last six to seven years. However, a common theme of adult programs is the development of specific technical skills, whether to enter an occupation or to progress in it. Adult agricultural educators take this charge very seriously and thus it is appropriate to examine what the future holds. (Note: Given the occupational nature of most adult programs, it was determined that baccalaureate agriculture programs would not be part of the focus for this issue of the Magazine.)

As you read the articles in this issue, you will find that the authors

believe that a solid future does exist for adult agricultural education in the public sector. While this future builds on past successes, previous practices will not guarantee future growth or survival. Keys to the future include factors such as flexibility, accountability, assessment, responsiveness, partnerships, certification, and student work experiences.

Franklin and White and Zidon provide perspectives regarding adult education as a component of secondary agriculture programs. They identify topics and issues that must be considered if we expect our secondary agriculture programs to play a significant role in adult education.

Riley, Sponaugle, and Torgerson address the future from the point of view of farm business management education. Riley, with assistance from a group of adult agriculture instructors, provides a set of assumptions and perceptions that will need to be considered by adult educators as they position their programs for the future. Sponaugle shares a scenario for combining adult agricultural education responsibilities within the larger context of community adult education. Torgerson tackles the question of how we provide policy makers with evidence that their investment in farm business management education is worthwhile and shares a strategy that was used in his state.

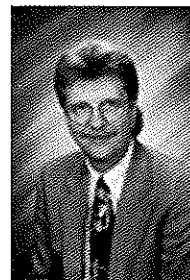
From the community and two-year college perspective, there are articles by Bolton and Claycomb. Bolton describes how changes in the agriculture industry are causing new developments at the postsecondary

level, particularly in the areas of delivery methods and diversity of programming. Claycomb identifies the criteria that must be met, from an administrative view, to insure effective and efficient postsecondary agriculture programs. He especially notes the importance of assessment and accreditation in this discussion.

Business and industry partnerships with postsecondary educational institutions are receiving considerable publicity these days. An interesting template for business and industry collaboration with postsecondary agriculture programs is the model provided by the John Deere Career Partnership programs. Murray provides a thorough overview of how John Deere Company's partnership programs are organized and operating across the United States and Canada.

The conclusion reached by the authors is that yes, there is a strong future for public school adult education in agriculture...but only with continual and purposeful change.

*Jerry Migler is Dean of the Technologies and Services Division at the North Dakota State College of Science at Wahpeton, ND.*



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## Regional Editors

Southern Region.....Bradley Leger, Midland H. S., 735 S. Crocker St., Midland, LA 70559-1943  
Eastern Region.....Betsy Foote, Hartford Central School, P.O. Box 79, Hartford, NY 12838  
Western Region.....Marc Beitia, 715 Stevens, American Falls, ID 83211  
Central Region.....Linda Rist, 404 E. Park Avenue, Viborg, SD 57070



## Subscriptions

Subscription prices for *The Agricultural Education Magazine* are \$10.00 per year. Foreign subscriptions are \$20.00 (U.S. currency) per year for surface mail, and \$40 (U.S. currency) foreign airmail (except Canada). Single copies and back issues less than 10 years old are available at \$2 each (\$3.00 foreign mail). All back issues are available on microfilm from UMI University Microfilms, 300 North Zeeb Road, Ann Arbor, MI 48106. UMI University Microfilms telephone number is (313) 761-4700. In submitting a subscription, designate new or renewal and provide mailing address including ZIP code. Send all subscriptions and requests for hard copy back issues to the Business Manager: Rosco Vaughn, Business Manager, National Council for Agricultural Education, 1410 King Street suite 400, Alexandria, VA 22314, Phone 800-772-0939.

## Article Submission

Articles and photographs should be submitted to the editor, regional editors or theme editors. Items to be considered for publication should be submitted at least 90 days prior to the date of issue intended for the article or photograph. All submissions will be acknowledged by the Editor. No items are returned unless accompanied by a written request. Articles should be typed double-spaced, and include information about the author(s). One hard copy and one electronic copy of articles should be submitted. A recent photograph should accompany the article unless one is on file with the editor. Articles in the magazine may be reproduced without permission.

## Editor

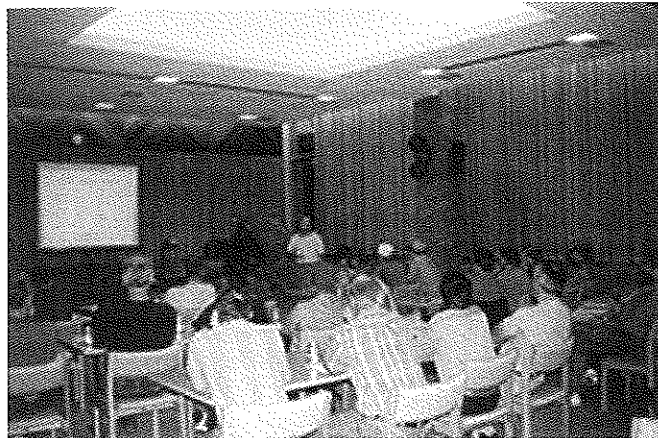
Gary E. Moore  
Department of Agricultural and Extension Education, North Carolina State University, Box 7607, Raleigh, NC 27695-7607, Phone (919) 515-1756, FAX: (919) 515-9060. E-mail: gary\_moore@ncsu.edu  
Design and Layout: Linda M. Judge

## Publication Information

*The Agricultural Education Magazine* (ISSN 073224677) is the bi-monthly professional journal of agricultural education. The journal is published by the Agricultural Education Magazine, Inc. and is printed at M&D Printing, 616 Second Street, Henry, IL 61537.

Periodicals postage paid at Mechanicsville, VA 23116; additional entry at Henry, IL 61537.

POSTMASTERS: Send Form 3579 to Rosco Vaughn, Business Manager, 1410 King Street Suite 400, Alexandria, VA 22314, Phone (800)-772-0939.



## Does Farm Business Management Education Pay?

By Keith Torgerson

Each year, farmers face new challenges, frustrations, and changes in managing information and technology. The needs and problems of farm operators have expanded to a degree much greater than the physical size of the business unit or the capital investment it represents. Closer margins between costs of production and selling price have made it essential for operators to know more about their businesses. Operators must pay more attention to production, market, and financial details if they expect to compete in today's agriculture. In this changing environment, an unprecedented set of management skills is required. A public adult agriculture education program that assists farmers in developing these skills is the Farm Business Management program.

### Farm Business Management Programs

Farm Business Management is a systematic and planned instruction program that deals with several concerns including the following items, through both individualized and group meetings.

- ◆ Business and family goals
- ◆ The farm business accounting system
- ◆ The farm production methods and practices
- ◆ Marketing plans and objectives
- ◆ Understanding tax planning
- ◆ The use of business tools such as cash flow planning, income tax statements, balance sheets, enterprise analysis, and whole farm business analysis
- ◆ Understanding and interpreting FSA Programs
- ◆ Special topics, including such items as computer usage, estate planning, and other unique issues dictated by time and conditions

This model of adult agricultural education for farm families (or a similar one) is used in such states as Arizona, Colorado, Idaho, Minnesota, Missouri, Nebraska, North Dakota, Oklahoma, Oregon, South Dakota, Washington, and Wisconsin, as well as in Alberta, Canada. Typically, a community college or high school will hire an instructor to coordinate and instruct the local program. Instructors typically work with 40 to 60 farm families on a continuing basis. Typical costs paid by the farm family for this program range from \$200 to \$600 per year. The remaining costs are subsidized by state and local funding sources.

### Is the Investment Worthwhile?

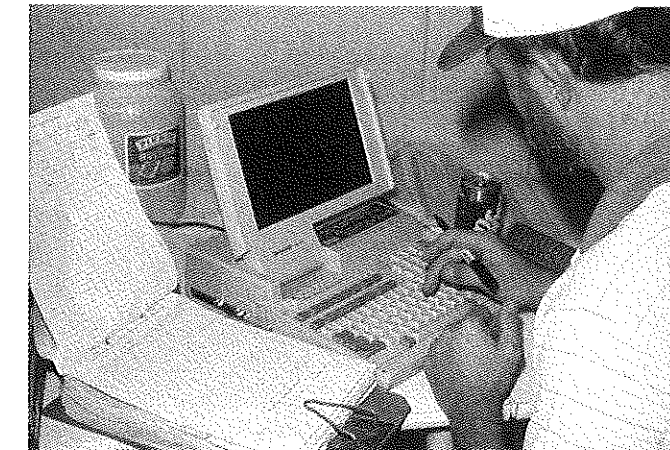
Given the fact that most Farm Business Management Programs use public funds, policy makers often ask if the state or community's investment pays. To answer this question in North Dakota, the state's Farm Business Management teachers requested that North Dakota State University (NDSU) at Fargo do a study of the annual analysis data collected by Farm Business Management programs. Johnson and Swenson of the Department of Agricultural Economics at NDSU analyzed this data for the years 1989-1995 (Johnson and Swenson, 1996). The study was limited to farms averaging between \$30,000 and \$630,000 of gross farm income. The study used net farm income as a percent of the benchmark group's median net farm income to evaluate a farmer's performance for each year of participation. The study results showed that North Dakota farmers in the Farm Business Management Education Program increased their net farm income at a greater rate than

did similar farmers in a benchmark group. This increase in net farm income occurred from a combination of improved efficiency, increased size, and increased owner equity. Interestingly, these increases in net farm income also trended upward with years of participation in the Farm Business Education Program.

### Summary

To be successful, a modern adult education program must meet the needs of the individuals participating in the program. The tremendous changes in agriculture point to the need for an instructional program in farm management that is complete and thorough. Instruction must first aim at the business entity, and secondly at the sub-systems and enterprises which comprise the business entity.

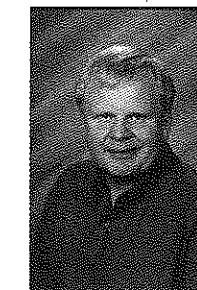
However, these programs are costly and continue to be under scrutiny. We have found evidence that the investment in these programs does pay in our state. Such evidence provides further proof that there is a future in adult agricultural education. Programs such as Farm Business Management Education have, and will continue to have, an important role in the dynamic and ever changing agriculture industry.



### References

Johnson, R.G. and Swenson, A.L. (1996). Evaluation of North Dakota Farm Business Management Education Program (Agricultural Economics Report No. 367). Fargo, ND: North Dakota State University, Department of Agricultural Economics, Agricultural Experiment Station.

*Keith Torgerson is a Farm Business Management Instructor at the North Dakota State College of Science in Wahpeton, ND.*



## Adult Agriculture Education:

# Not a Matter of Need, But Who Will Provide It?

By Jim Riley

Collaborating Authors: Jeff Case, Craig Evans, Cheri Guthals,  
Doug Lynn, Ron Parsons, Gale Schafer, Lanny L. Seebeck, Scott B. Selberg

As the "movers and shakers" of the world combine to plan for the 21<sup>st</sup> century, it is interesting to note how education seems to become an unknown factor. Agriculture education is being asked to justify the need for each major part of the program. The role of adult education in agriculture is often confusing. On one hand, we hear that education is on-going and should be available for everyone. While on the other hand, we hear that public schools are K-12, and someone else has the responsibility for adults.

The purpose of this article will not be to challenge the issue, but to point out the need for agricultural education for adults in the 21<sup>st</sup> century. It is our opinion that the public schools' agricultural education programs have the best delivery system to meet those needs.

As a class assignment in a two-week course for adult agriculture instructors, I requested a paper from students describing their views of adult education. We also discussed the future of adult agriculture education as it pertained to Farm Business Management Analysis, farm accounting systems, in-depth production and technology classes, and the Young Farmer organization. As the class discussion evolved and I read the reports, I found their perception of the future of adult agriculture education paralleled my own.

I have condensed and paraphrased the discussion of the class and content of their papers. To provide for intellectual integrity I have alphabetically referenced the class members as collaborating authors. The following perceptions were presented as they related to the need for future adult agriculture education.

1. As long as people farm and people consume agricultural products, agricultural education has a place in the public education system.

2. The Agriculture Education Mission Statement is: "Agricultural education prepares students for successful careers and a lifetime of informed choices in the global agriculture, food, fiber, and natural resources systems." As adult agriculture educators, we have the responsibility to provide up-to-date information, training, and technology for all adults interested in the field of agriculture.

3. Most adults want to continue educational opportunities, but feel limited due to time and money. Agricultural education will need to change to bridge that gap.

4. Adult education has a place in public schools for the following reasons:

- a. to justify/utilize the large capital investment in public school buildings and equipment for all the people in the community.
- b. to provide today's advanced technology and information not only to the agriculture working force, but also the consumers in the local communities.
- c. people perceive the school as a center for education and social activities and one of the most logical places for them to continue their education.

5. Adult agriculture educators will gain recognition as a hub of agricultural information. They will not know or claim to have all the answers, but will serve as a resource to aid in finding specialized niche markets and value-added markets and strategies for implementing the new information and technology into the farms in their communities.

6. Adult agricultural education will have an ever increasing role in consumer education. The farmers'

concerns for family, environment, and stewardship are all priorities which should be promoted through education and cooperation.

7. Many people have the opportunity to continue their education after high school by means of an employer or employee-sponsored classes. Most of those involved in production agriculture are self-employed and don't have built-in continuing education opportunities. It is this group that adult agricultural educators will serve in the 21<sup>st</sup> century.

8. Leadership training and development are major components of the secondary agriculture education program. They are also an essential part of the continuing adult education process. The Young Farmer Organization will be called to partner with adult agricultural educators in providing educational and personal growth opportunities for this sector of adult education.

9. Comparative advantage is the buzz word in agriculture today. It will be a challenge for adult agriculture education to work with farmers to identify and incorporate their comparative advantages into their farm businesses.

10. Along with education and leadership, social activities in adult agricultural education will be important in the 21<sup>st</sup> century. The public school system will continue to serve as the hub of social activities in most rural communities.

Agricultural education has always had its critics. For example, an article in the 1885 Paris Monroe County Appeal stated the following:

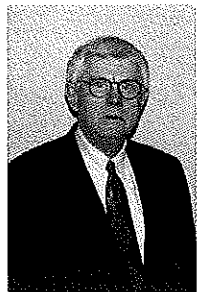
*The legislature failed to appropriate money to the support of that great fraud, the Agricultural College at Columbia, and the Columbians are mad. This is the*

*college with 10 professors and 12 students. Farming can only be learned by actually working on a farm.*

The college referred to in that article has become a premier research, teaching, and extension university.

Adult agriculture education in the 21<sup>st</sup> century will continue to have its critics. Our joint feeling is as long as producers, consumers, and adult agriculture instructors have a willingness to change, adapt, and grow, adult agricultural education will play a positive role in 21<sup>st</sup> century agriculture. We also agree that the most logical delivery system for adult agriculture education will be the public schools in the local communities.

Jim Riley is FBMA Coordinator in Agricultural Education at University of Missouri at Columbia, MO.





# Adult Education in Agriculture: An Old Timer's Dream?

By Mark Zidon

## *That Was Then*

You might be an old-timer if you can remember when all high school agriculture teachers taught at least some adult classes. Such was the case twenty to thirty years ago when I began teaching. The welding class that a few farmers encouraged me to teach was not a part of a systematic curriculum. It simply met the needs and interests of a handful of farmers. Much has changed from the days of sporadic adult class offerings by high school agriculture teachers.

In the 1980s, I was asked to build a farm management program in my school district. At that time in North Dakota, the state board for vocational education would provide financial assistance as well as curriculum support. The need for such programs was driven by the bleak farm economy. Farm management education accompanied the securing of loans. The felt need, as well as ready-made clients, created enrollments for such programs.

## *This is Now*

But the agricultural economy improved and those farmers that survived did so with an increased knowledge of farm management. Even if the need for such programs still exists, such need is not of the same intensity as it was in the mid-1980s. My move from North Dakota to Wisconsin was met with the realization that adult agriculture programs are mostly confined to post secondary institutions. In Wisconsin, few high school agriculture teachers deal with adult programs.

With an improved economy and more intelligent farmers, should we

continue to offer adult education in agriculture? Were I the devil's advocate, I might contend that such programs do little more than provide tax consulting and a social outlet for clients. This would hardly justify the use of tax dollars in our time of cutbacks in government spending.

## *Does the Need Still Exist?*

As needs change, we must continuously assess current needs. Even though the number of farm foreclosure auctions has decreased, the need for adult education might still exist. And though we should not write off good farm management programs, we should look at what other needs exist. Several factors should be considered. First, consider the aging population, particularly as the baby-boom generation approaches retirement. As farmers retire, the problem of passing on the business will escalate.

As the population moves from rural to urban areas, the services provided for rural residents diminish. Health care for aging farm families will create hardships for self-employed farmers who cannot afford the rising cost of insurance. Environmental concerns will continue to create restrictions on the way farmers live and produce food and fiber. Technological changes, such as electronic communications and biotechnology, create a wealth of new knowledge at an ever-increasing rate. A more rapid rate of career changes demands retraining for new jobs. The agribusiness industry requires new skills of employees as technology and management changes. These are but a few

examples illustrating that the need for education of adults does exist. Perhaps it exists not in the way we have been accustomed, but nonetheless, it does exist.

## *Who Should Meet the Needs?*

Education in agriculture has traditionally been thought to be the responsibility of high school agriculture programs, post secondary technical colleges, or universities. Where I have taught, the post secondary institutions have taken the lead role in educating adults. Remember, though, that this was when our clients were primarily farmers seeking improved farm management practices. Can we continue to meet a wider variety of needs through the same institutions?

Again, let us consider some options. The Internet has brought vast quantities of information into our homes in the last decade. Industry has always trained its workers to some extent and continues to do so. Agencies, such as the Department of Natural Resources, can provide education to specific clients as well as the public in general. Local institutions or business, such as hospitals, banks, or cooperatives, can educate its patrons. Individuals with specific needs can seek their own information and pursue a self-study approach. And, of course, formal education institutions previously mentioned are still an option.

My thought box often limits education to the formal channels. Could other institutions or agencies meet adults needs as well? Businesses are best at selling goods or services, are they not? Agencies

## *Partnerships between trained educators, industry, and other institutions will best meet the needs of our clients*

have their own agenda. And self-directed education is only as good as the pursuant. On the other hand, businesses, agencies, and self-directed individuals often identify and resolve needs more directly than formal educators. Then again, formal educators have the ability to more clearly identify learning objectives and teaching strategies.

The solution seems obvious—partnerships between trained educators and industry and other institutions will best meet the needs of our clients. This is not a new idea. We have long used guest speakers and experts to supplement our teaching. And we have gone to such places as banks to identify needs of our clients. Perhaps its time we create more formal ongoing links. Such linkages can help us identify needs, plan and teach curriculum, and evaluate outcomes of our programs. Industry, on the other hand, can benefit from our ability to teach. The result will be mutually beneficial.

When partnering with industry, we must also recognize their needs of time and space. Creative and efficient use of distance education can serve ourselves, our clients, and industry. Much needs to be learned and employed in teaching through this means.

## *So What?*

While I do not consider myself an old-timer, I have seen an evolution of adult education in agriculture. It began with randomly teaching specific content classes upon request of local

adults. It progressed to offering a program or curriculum to meet the needs of the community. As the world shrinks and the community expands, we find ourselves challenged to continue to meet the educational needs of adults in the larger community. To do so, we must consider industry and other institutions as our partners. We must also consider alternate delivery methods that meet the needs of our clients.

Some constants remain. We must still honestly seek the needs of our clients. We must plan education activities that meet those needs. And we must evaluate to determine the extent to which the needs are being met.

In the end, it is not a question whether we should be involved with adult education in agriculture. The challenge is how we best meet the educational needs of agriculturists.

*Mark Zidon is with Agricultural Education at University of Wisconsin, Platteville, WI.*



## Relevant Agricultural Education is Needed at the Two-year College Level in the 21<sup>st</sup> Century

By Don Claycomb

Is agriculture education at the two-year college level needed in the 21<sup>st</sup> century? Without a doubt there is a continued need for people to be employed in the food, fiber, and natural resource industry. There is a need for individuals to be educated for entry-level positions and a need for those employed in agriculture to continue receiving classes, workshops, and other forms of updating. Therefore it would seem the answer to the question is obvious; however, a program in agricultural education at a two-year college must be relevant in order to be needed in the 21<sup>st</sup> century. A program that is not relevant is no longer needed and becomes a luxury to an institution. Agricultural education has always taught students to evaluate enterprises and then to eliminate those that are inefficient or ineffective. The same issue of eliminating inefficient, ineffective programs face administrators of two-year colleges. How do we make certain that the program in agricultural education is effective and efficient?

There are a number of questions that should be addressed in order to ensure the program in agriculture education fits the institution and is providing a service to the agricultural industry by turning out individuals who have the skills, knowledge, and attitude needed in the food, fiber, and natural resources industry. The first question to ask is if the program in question fits the mission of the institution. A program that does not fit the mission of the institution will have difficulty surviving and will continually be at risk while being in a position of having to justify its exist-

ence. If the answer to the first question is yes, then what is the primary need to be addressed by the program or mission that the program will serve. From an administrator's point of view it seems that there are generally two avenues a program in agricultural education at a two-year college can take or two customers the program can serve.

One avenue is to serve the student who intends to transfer to a four-year college of agriculture. The other avenue or potential customer is the agri-industry that is in need of two-year technicians. The reason this is so important is that it will dictate the content of the program at the two-year institution. A program concentrating primarily on serving the student who immediately intends to transfer to the four-year college will have its content determined by those institutions receiving the students. On the other hand a program that is designed to have students "transfer to the workplace" will have its content determined by individuals who are employing graduates of the program.

After determining whom the program will serve, then one needs to look at the make-up of an advisory committee. A program in agriculture or any other area that does not have a highly involved advisory committee made up of individuals from entities who are receiving the students as graduates from the two-year program is not going to be as effective as it should be. The advisory committee has to truly function as an advisory committee as opposed to a rubber stamp process on paper that gets together once a year, eats donuts,

drinks coffee, smiles, and then goes home. This has to be an advisory committee that is asked challenging questions about what the program needs to continue doing that it is presently doing; what it needs to discontinue doing; and what it needs to add to the program in order to make certain that the program is turning out individuals with the skills, knowledge, and attitudes needed by graduates of the program.

Other areas that must be looked at are the roles work experience or internship and leadership development will play in the curriculum. Both of these components are important parts of the history of agricultural education at all levels and are no less important today. An internship program must be relevant, it must be planned, it must require the student to do more than just go to work. The student should report on those things that are learned and report on those activities that are participated in and an instructor who has the students in at least one class must visit the intern site on a regular basis. From the standpoint of leadership development, as fewer individuals understand the role of agriculture it becomes even more important that individuals in the field be able to effectively communicate their message and provide leadership in a professional capacity, as well as a citizenship capacity. At times those who are in post-secondary agriculture education have failed to realize the importance of leadership development.

Also, when considering curriculum, in order to validate the effectiveness of the program, it is important to consider industry accreditation or certification. Is the program proving that it is effective by turning out individuals who are eligible to sit either prior to graduating or immediately upon graduation for appropriate accreditation or certification exams within the field of agriculture? With-

out these measures it is much harder to prove that the program is truly an effective program. Otherwise the perception of quality is left to judgment and opinion.

An additional important consideration is how the agricultural education program at the two-year college fits into the overall regional accreditation scheme. As we look at accreditation requirements for the institution as a whole does the agricultural education program in question stack up favorably especially in the area of assessment? An agricultural education program that has favorable responses to the above questions and consideration will be able to prove it is following an assessment program that will increase the effectiveness of the program.

In summary, as we return to the original question, is agricultural education needed at the two-year college level? Without a doubt; however, in order to survive it must be relevant. If a respective program in agricultural education at a two-year college is relevant, it will be needed in the 21<sup>st</sup> century.

*Dr. Don Claycomb is the President of Linn State Technical College in Linn, MO.*



## A Paradigm Shift? You Make the Call!

By John Sponaugle

Public schools are to reflect their community and meet the educational needs within the school district's service area. Where does adult education fit? Usually the public school has some of the finest facilities in the local area for public meetings; not to mention tools to teach with such as computers, internet access, and shop equipment. Yet this facility may only be used from 8 a.m. until 4 p.m., five days a week for school related activities, excluding athletics. Can we make more efficient use of these facilities?

### How Can Agricultural Educators Fit in This Scenario?

The Boonville R-1 school district has employed a full-time adult educator for the last ten years, namely me. I have enjoyed filling the position since 1989; working one half time as an Adult Agriculture instructor and one half time as an Adult Education Coordinator.

Our school district, like many others, has made a commitment to provide education not only for the typical young person through high school agricultural education but also for other residents of the community. Local funding for adult education is essentially zero. But, when locally generated fees from students are combined with state funding for adult education there is little, if any, direct cost to the district. As educators, we all know the many benefits a community can derive from a strong school with solid programs. The pluses are only multiplied when the adult population is involved in the learning process. Additionally, this has proven to

be a very effective way for the school to interface positively with the 70% of the voters that do not have school age children. And it doesn't require people to attend a sporting event!

How does it work? First, agriculture must be a part of the adult education program. In Missouri, our state guidelines for Adult Agricultural Education have some flexibility. Adult instructors are to have a Young Farmer group and teach short term adult classes in a subject matter area such as welding, project construction, or horticulture. They work with farm businesses in the Farm Business Management Analysis program and are also able to work the adult agriculture program in varying increments of time, from full-time to 1/6<sup>th</sup> time. The flexibility allows for communities to have an adult agriculture program while allowing time to be spent on additional programs. For instance, in my case this is serving as a half time adult education coordinator.

The adult agriculture side of the assignment has responsibilities which are probably familiar to you (e.g., producers to see, records to keep, analysis and interpretations to make using financial records, marketing plans to develop, and of course hope for favorable weather). The other side of my assignment, adult education coordinator, may need a fuller description. In this role, I utilize skills perfected from my experiences as a teacher, FFA advisor, or adult farm management instructor. Skills particularly needed are the ability to plan ahead and be very thorough and methodical in planning, paying attention to detail, and as often as possible

thinking with some foresight. Probably the most important skill of all is to have good people skills and provide leadership.

### What Will You Do as an Adult Education Coordinator in a Rural Community?

Use the public school as a site for adult and community education. You will, with permission from your school's administration, employ part-time staff to teach classes in such topics as CPR, MS Office, college credit courses through a community college, speed reading, EMT, Adult Basic Education, etc. Typically, over 60 classes are offered each semester to the adult population in our area. We charge a fee to cover the costs for each class and if your prepaid enrollment is not adequate to pay the costs, the class is cancelled and money returned. We have an average enrollment of over 700 people taking classes at our Technical Education Center each semester. This combination of agriculture and adult education works for us and might be a good fit for your community. Such paradigm shifts are an effective means for insuring a place for adult agricultural education well into the future.

*John Sponaugle has been employed at Boonslick Technical Education Center in Missouri since 1977 and since 1989 as a full-time Adult Educator.*



## Change and Diversity: The Real Issues Facing Postsecondary Agricultural Education

By Jerry Bolton

The question, "Is postsecondary agriculture education needed in the future?" is not the issue that postsecondary education is facing. The real challenge we have is determining what a changing industry needs and how we deliver it. Agriculture is experiencing a revolution not seen since tractors replaced horses. This time the changes are not mechanical or biological; they are organizational. How many farms and farmers does America need in the future? Will production of raw food material be the major emphasis or will processing and distribution become our agriculture?

Steven Blank penned an article in the April, 1999 edition of *The Futurist* magazine entitled, "The End of the American Farm?" He opens with the sentence, "Most Americans could not care less if farming and ranching disappear. As long as they get their burgers and fries, America will waddle on." In a country where food producers make up less than 3% of the population, he may be right. The restructuring of American agriculture will leave something different than we have today. It is predicted that the U.S. will lose approximately 39,000 farms a year between 1997 and 2002. Agriculture is an industry where efficiency is decreasing the number of producers. Technology is only adding to agriculture's efficiency. We know that the number of farmers will decline, even as the need for food increases. We also should know that increased demand for food means more jobs in technical support, processing, and distribution.

So where is postsecondary agriculture education today? It is deeply rooted in traditional delivery systems with curriculums based on production. Just as agriculture is having a revolution, so must our community college agriculture departments. Agriculture will need a population of employees and leaders with technical, financial, and social skills that meet the demands of a process-based industry more than it will a production-based industry.

To meet future needs, community colleges will not need to abandon production education, but they will have to diversify curricula and deliver them through non-traditional methods. New programs, such as Agricultural Geographic Information Systems (GIS) Technician, and BioMass Processing Technician are starting to join postsecondary agriculture curriculums. Our old stand-by programs of agri-business and farm and ranch management are being rebuilt to include courses in international trade, niche marketing, and computer skills. Our students are facing a new agriculture, in the farming and ranching business, that has no boundaries and will depend on specialty markets and technology.

Traditional classroom and laboratory instruction within set semester time blocks will continue, but, will have to be complemented with alternative delivery systems and less time constraints. Many of our students will be place-bound by a job while they upgrade their technology skills. They will not be available for set blocks of time. Internet classes

are proliferating from many colleges in the disciplines of general education. It is only a matter of time before agriculture courses will be abundant over the world wide web right in our student's home.

The need for postsecondary agriculture education has never been greater than it is today, but to remain healthy, it needs to diversify and keep pace with a changing industry. No one is better qualified to produce, process, and protect America's food than the people of agriculture do. They have the best agriculture education system in the world to learn from. Let's diversify our agriculture education departments to meet their needs and keep agriculture in America the best in the world.

*Jerry Bolton is Dean of Agricultural Sciences at Kirkwood Community College, Cedar Rapids, IA.*



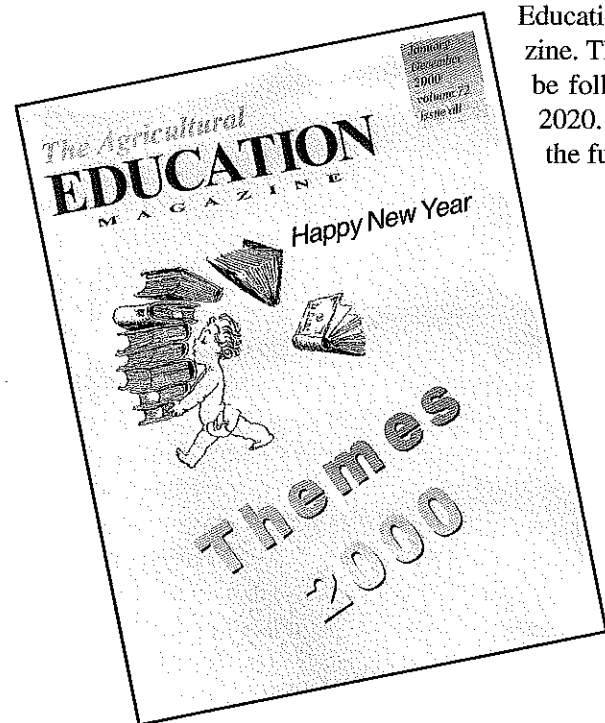
# Agricultural Education Themes for 2000

By Gary E. Moore

From time to time there are major events that happen in agricultural education. The Smith-Hughes Act of 1917 was one of those events. A more recent defining event for the profession was the publication of *Understanding Agriculture: New Directions for Education* in 1988. This publication was the impetus for a number of changes in the profession.

Only time will tell if the Reinventing Agricultural Education for the Year 2020 (RAE 2020) project was one of those defining events. This Kellogg Foundation funded project, conducted by the National Council for Agricultural Education, involved hundreds of people from various groups in looking at the future of agricultural education. The primary objective of the project was to establish a shared, vision for the future of school-based agricultural education leading to a strategic plan designed for long-term implementation. This ongoing process has been conducted at national, state and local levels. The initiative was designed to cause meaningful change in agricultural education programs and to reinforce the success of those programs by making the necessary adjustments to sustain agricultural education for the future.

During the year 2000 the profession will focus on Reinventing Agricultural Education for the Year 2020 through The Agricultural Education Magazine. The Jan.-Feb. issue will take a global view of the project. This will be followed by four issues looking at each of the four goals of RAE 2020. The final issue of the year will look at trends and issues affecting the future of agricultural education.



## Themes for 2000

Issue: January-February (Manuscripts due to theme editor Dec. 1, 1999)

Theme: Reinventing Agricultural Education for the Year 2020?

Theme Editor: Dr. Rosco Vaughn  
National Council for Agricultural Education  
1410 King Street  
Suite 400  
Alexandria, VA 22314  
703-838-5881  
e-mail: council@teamaged.org

Issue: March-April (Manuscripts due to theme editors Jan. 15, 2000)

Theme: Achieving 2020 Goal 1: An abundance of highly motivated, well-educated teachers in all disciplines, pre-kindergarten through adult, provide agriculture, food, fiber and natural resources systems education.

Theme Editors:

Dr. Bill Camp	Dr. Jay Jackman, NAAE
268 Litton Reaves Hall	1410 King St., Suite 400
Virginia Tech	Alexandria, VA 22314
Blacksburg, VA 24061	703-838-5885
540-231-8188	naae@teamaged.org
wgcamp@vt.edu	

Issue: May-June (Manuscripts due to theme editor March 15, 2000)

Theme: Achieving 2020 Goal 2: All students have access to seamless, lifelong instruction in agriculture, food, fiber and natural resources systems through a wide variety of delivery systems and educational settings.

Theme Editors: Dr. Rob Terry  
448 Agricultural Hall  
Oklahoma State Univ.  
Stillwater, OK 74078  
405-744-8036  
robt@okstate.edu

Issue: July-August (Manuscripts due to theme editor May 15, 2000)

Theme: Achieving 2020 Goal 3: All students are conversationally literate in agriculture, food, fiber and natural resources systems.

Theme Editor: Dr. Cary Trexler  
Agricultural Education and Studies  
204 Curtiss Hall  
Iowa State University  
Ames, IA 50011  
515-294-5904  
trexler@iastate.edu

Issue: September-October (Manuscripts due to theme editor July 15, 2000)

Theme: Achieving 2020 Goal 4: Partnerships and strategic alliances ensure a continuous presence of education in and about agriculture, food, fiber and natural resources systems.

Theme Editor: Dean Folkers  
National FFA Organization  
P.O. Box 68960  
Indianapolis, IN 46268-0960  
317-802-6060  
dfolkers@ffa.org

Issue: November-December (Manuscripts due to theme editor Sept. 15, 2000)

Theme: Trends and Issues Affecting the Future of Agricultural Education.

Theme Editor: Dr. Gary E. Moore  
Agricultural & Extension Education  
North Carolina State University  
Campus Box 7607  
Raleigh, NC 27695  
919-515-1756  
gary\_moore@ncsu.edu



# The Future: Adult Education in Secondary Agriculture Programs

By Edward A. Franklin and James D. White

I believe in the future of agriculture..., an all too familiar line to those of us in the secondary classroom. We ask our freshman students to memorize and recite this the first of many lines of our FFA creed. Are they just words, or do we actually believe there is indeed a future for agriculture and if so what does it look like? Are we as instructors, professors, supervisors, and specialists doing our part to insure that there will be a world committed to providing food, fiber, and mindful of conserving our natural resources for the next millenium? Our energies have been focused for so long on the youth of our nation for they are the adults of tomorrow. But what about the adults of today, right now? Are we doing all we can to provide this population with "such knowledge and skills as they can secure?" Perhaps we need to begin by asking a few pertinent questions. Is adult education in agriculture for the next century reality or a mirage? Are we just rearranging the chairs on the Titanic? Can adult education in agriculture survive with more of the same approach? Are we ready to make decisions and choices, which will challenge us as agricultural professionals? The future is not tomorrow; it is already here - today! Are we prepared? Better yet, what image will our clientele have of adult education in agriculture for the 21st century?

First, let's examine a few misguided beliefs or myths, which may be present.

♣ "Unlock the Ag Building, put on the coffee pot, and get out of their way; the program will run itself."

♣ "Just show up, they'll be there."

♣ "I put together an outstanding program, but no one came."

Have you been challenged enough? Are you ready to make the changes necessary to change the lives of your clientele and your perceptions of Adult Agricultural Education? First, what do we know about adult education and agriculture?

Adult Education in Agriculture has been the focus of numerous research studies for the past two decades (Burhoe and Stewart, 1983; Miller and Krill, 1985; Adeliaine and Foster, 1987; Martin and Omer, 1990; Nur, Birkenholz, and Stewart, 1989; Birkehnholz and Maricle, 1991). The conclusions are similar. There is indeed a need. State leaders in agricultural education agree that adult education needs to be provided through the framework of agricultural education (Birkenholz and Maricle, 1991).

How do we determine what is important? Let's begin by asking some very pertinent questions. Do you know the clientele of your community? Has a need assessment been conducted among the clientele in your community? Chances are their faces have changed over the years as well as their particular needs. What needs are prevalent, do priorities exist, are there alternatives? What kind of program will fit

your community and agriculture clientele? Do opinion leaders in your community know you, especially in agriculture? What has been their experience with adult agricultural education?

The mindset of "why do I need to worry about this, isn't this the job of extension agents?" needs to be readressed. Traditionally, agricultural extension has been recognized for assuming the role of providing education to the adult population; however, changes in funding and staffing have diminished the capacity of the system to reach out to the portions of our population that need its service the most. The demographics of our rural population are changing and so are their needs. When was the last time you sat down with your extension educator and discussed the necessities of your adult population?

In 1983, when agriculture educators were asked to rank the most important educational topics for adult clientele, the responses were farm/ranch business management, animal science, plant science, and agricultural mechanics, respectively (Burhoe and Stewart, 1983). Has this changed over the years? Production and management practices within these areas have certainly changed with research and improved technology. Will the adult audience of 2000 be any different than those of 1983?

The way we manage our business practices has been greatly influenced by the use of personal computers. A series of workshops demonstrating the use of the latest management software and information gathering techniques pertinent to your adult clientele's operations is an appropriate subject. Demonstrate how necessary it is for their future success. Show your audience how to utilize the tools using data from their own operations.

In the area of livestock production, feeding practices including the effects of growth hormones on meat quality

and food safety is a topic that every grower needs to be alerted to.

For those with a need in plant and crop production, the effects of the use and application of chemicals as well as beneficial alternatives should be addressed.

Homeowners can benefit from workshops designed to aid in the improvement of the areas in and around the home. These could include floral design, bedding plant propagation, home landscape ideas, backyard gardening, composting, and mini-greenhouse construction and use. Shop skills can be developed and refined. A series of hands-on short courses providing skills that are needed in and around the urban household as well as the rural farmstead are timely and practical. Possible topics could include: sprinkler irrigation planning and installation, copper pipe soldering and repair, PVC plumbing practices, turf equipment maintenance, concrete projects, backyard carpentry skills, interior electrical wiring, and MIG welding for vehicle maintenance. Bring in a welding company representative to demonstrate the latest equipment, or how to perform simple maintenance procedures on wire welding machines.

One of the topics to emerge from a Bruening and Radharkrishna (1993) study of adult education was how to deal with the challenge of rural-urban interface. We read and hear stories of demonstrations by concerned groups of people protesting production practices and about court proceedings that result in legislation that impacts the way agriculturists operates as well as the implementation of moratoriums on future agriculture production activities. Perhaps we should educate our adult clientele on issues of perceptions of agricultural practices by the urban population. Should we stop there? Why not address the issue with those residing in the suburban areas adjacent to agricul-

tural production areas? Where do we start? Let's examine the adults in your community today. How many come from an agriculture production background or work directly with agriculture? If your answer is in the range of "not that many," then perhaps your adult education program will teach about agriculture rather than in agriculture. Is there a difference? Can the urban and suburban adult clientele benefit from instruction about agriculture? Surely they have questions and concerns which, if we really get down to it are agriculturally related (at least that is what we tell our own students!). We may be more comfortable teaching agriculture producers and managers how to cope with problems related to production and management (Nur and Birkenholtz, 1989) because of our own pre-service education and training. But should we not broaden our scope to include those adults who are not presently being served? School superintendents believe there is a need for adult programs that include a broader audience that is not currently being served by adult agriculture education programs (Nur and Birkenholtz, 1989).

## The Future

How can we prepare to meet the needs of our adult clientele? Organizing and participating in professional development and in-service opportunities that help the instructor to conduct community needs assessment analysis, address adult learning styles, preparation for successful facilitation of workshops, and refinement of subject matter knowledge is important. The selection of competent instructors and acceptable facilities are a must.

Can we afford to wait for the adults of tomorrow to decide our direction today? To borrow the last line of the FFA creed, what part can we play in exerting an influence in our

homes and communities, which will stand solid in this inspiring task?

As long as people eat, wear clothing produced from natural fibers, build homes of materials from our nations' forests, recreate in our natural resources, and have the power to influence how these activities occur with the use of a single vote, all of this can be altered. We will continue to need agricultural education. It seems we as a profession have for so long targeted the youth of our country as the primary receivers of our efforts, in the hopes that by the time they reach the magical age of 18, they will be well-informed voters who will support the mission of agriculture and agricultural education.

In reality, we recognize that in many geographical areas of the United States, students graduate from high schools, attend colleges and universities, and secure jobs with little knowledge of the influence they actually have over the direction which our profession embarks. Their power resides in the ability to make decisions using the voters' ballot. As uninformed or "ag-illiterate," legislation is passed that regulates and restricts the actions of production agriculture.

Are you up on the latest technology in the agricultural area of interest? Don't proclaim to know the answers if you in fact don't. There is nothing wrong with bringing in those with the expertise to provide your clientele with the necessary information.

(continued on page 23)

## John Deere Career Partnership.... A Powerful Solution

By Craig Murray

The new 8410, 235 horsepower, row crop tractor is not your father's John Deere.... it has a torque curve that would make Dale Earnhardt proud, more on board computer technology than the Apollo space capsules, a cab as comfortable, convenient, and quiet as any corporate office...corporate office on wheels that is. The owner of that 8410 has changed as well. His operation is bigger, more productive, and changing faster than ever before. It has to, the market demands it. What's the right seed population, how much fertilizer and chemicals should be applied, and on which parts of the field? Bt or conventional? Should I lease or buy? Rent or own? Till or no-till? Diversify? Wheels or tracks? Expand or get out? More questions, more solutions, more challenging decisions than ever before.

For 163 years, John Deere has been part of the solution for agriculture across the world starting with that first of its kind, self-scouring plow back in 1837. Past performance, however, is no guarantee of future success. In order for John Deere to maintain and grow our leadership position in the marketplace of the future, it will take more than tractors and combines with green and yellow paint and the latest technology built into them...it will take PEOPLE. It will take people that customers recognize as the most reliable source for the information and solutions in the marketplace. People that will help make their operations more efficient and productive. "The most reliable source of information and solutions in the marketplace"...a challenge for any company, particularly a company in a fast changing industry such as agriculture. How does John Deere

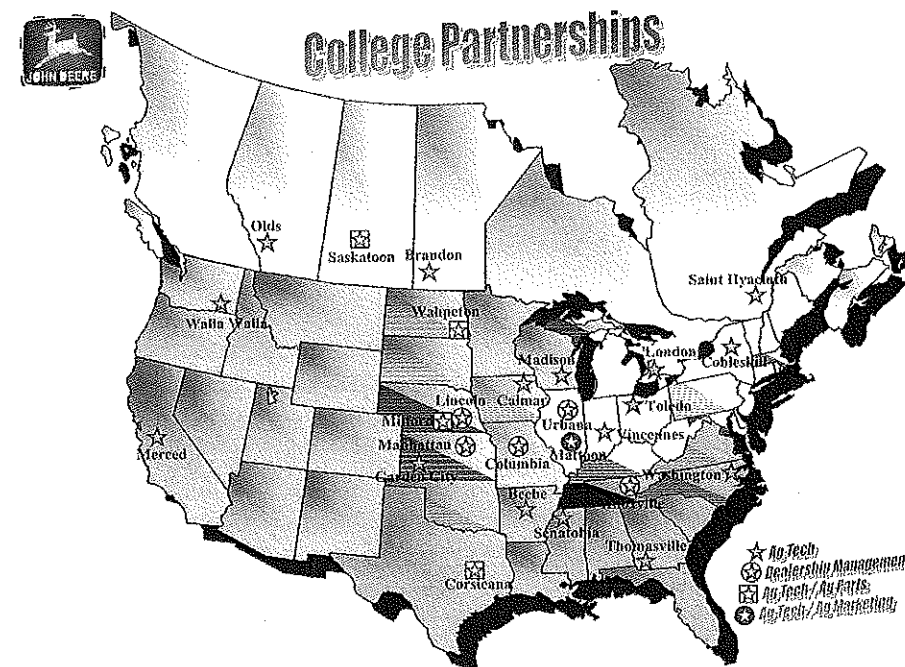
plan to prepare its people for the marketplace of the future? That is a question that has more than one answer. However, this we know for sure, John Deere's partnerships with ag education across North America are vital to our strategy of developing world class people that will serve our customers, in a leadership role, in the marketplace of the 21<sup>st</sup> century.

How has John Deere partnered with ag education? Back in 1987, the first John Deere Career Partnership effort began with 20 students enrolled in a 2 year, post secondary, Ag Technician training program at Southeast Community College in Milford, NE. This program was created because of a shortage of well-trained agricultural technicians. Since 1987, John Deere has partnered with 19 other community colleges in the United States and Canada. The John Deere Ag Tech program today boasts the capacity to graduate over 400 technicians a year, still far short of the annual new technician requirements of our dealers. John Deere Ag Tech provides our dealers with the best source for new technicians anywhere.

The Ag Tech program works because the partners involved come together and contribute their respective strengths to the partnership. The schools provide outstanding instructors with the necessary technical expertise. The schools also provide outstanding facilities that are located close to our key agricultural markets. Dealers recruit the technician candidates and provide them with paid on-the-job work experience that gives students excellent real world exposure to their chosen careers. John Deere Company provides equipment and components, factory training for the

instructors and scholarships for the students. Together, these partners have created a win-win situation for Ag Education and rural America. The school gets students, equipment, and technology that otherwise might not be available to them. John Deere dealers get highly skilled workers that are able to be more productive much faster than they would otherwise. Most importantly, customers benefit because their downtime is minimized when well trained, skilled technicians are able to fix the problem right...the first time.

John Deere Ag Tech is the foundation of our partnership with ag education. However, John Deere Career Partnership programs have evolved and are expanding into new, innovative programs offered by the partnership colleges we work with, giving John Deere dealers the opportunity to develop partspeople, salespeople, and Dealership Management candidates...people that will differentiate John Deere from our competitors. Like Ag Tech, the John Deere Ag Parts and Ag Sales Programs are two year, A.A.S. degree programs that offer students a combination of classroom study, lab time, specialized John Deere training and significant paid, on-the-job work experience... sometimes up to seven months of a 21 month program. The John Deere Ag Parts and Ag Sales program are offered in four and two locations respectively in North America and will likely be expanded to new locations where Ag Tech already exists. These additional programs allow the colleges and John Deere to leverage the investment already made in Ag Tech, and expanding the offerings to more students.



The John Deere Dealership Management program is a 4-year degree program currently offered at the University of Missouri, University of Nebraska, University of Illinois, University of Tennessee, and Kansas State University. Through John Deere's partnership with these leading universities, with more schools to be added by fall 2000, students interested in working in the retail ag equipment industry are identified and invited to participate in the Dealership Management program. Once accepted, the students take a combination of agribusiness and ag technology systems classes. These classes give them an excellent knowledge base to work from when they perform their minimum of two summer internships at sponsoring John Deere dealerships. Upon graduation, the students unique classroom and work experience backgrounds make them excellent employee prospects for not only John Deere dealers, but just about any company in agribusiness.

John Deere Career Partnership programs are not limited to new

dealership employees. John Deere Pro Tech and Pro Parts training programs are designed to, again, leverage our investment in Ag Tech and Ag Parts by providing training to current dealership employees using instructors who are employed by the college. Deere contracts with the college to deliver product and technical training that the Company has neither the time nor resources to develop and deliver. Hydraulic Certification training is an example of Pro Tech Training and is a four-day class dedicated to the principles of hydraulics. Every John Deere technician (over 8,000 in North America) is required to attend. Our college locations make it easier for dealer employees to attend, as they tend to be closer to dealers than Company Training Centers. Where personnel and facilities permit, the college locations become extensions of Company Training Centers delivering over 100 days of training per year.

Fast paced technology changes combined with rising customer expectations will continue to challenge

how Deere, CAT, New Holland-Case, AGCO, and other agricultural companies deliver products and services to producers. And just as it has always been, the PEOPLE behind those products and services will be the determining factor in which products customers purchase. John Deere is fortunate to have found colleges and universities who are willing to partner and make significant and many times innovative commitments to ag education and agribusiness. These partnerships are proven models of success as they yield, ambitious, high quality people well prepared for careers in agriculture...future leaders in the marketplace. That old John Deere plow, innovative as it was, is unacceptable in today's world of 70-foot tillage equipment. John Deere's partnership with ag education is more like that new 8410 row crop tractor...A Powerful Solution!

*Craig Murray is the Manager of College Partnerships for John Deere Company, Minneapolis and Reno Branches. His office is in the John Deere North American Ag Marketing Center in Lenexa, KS.*



# Farm Business Management Education Programs:

## *A Commendable Past and a Challenging Future!*

By Richard M. Joerger and John Murray

Farm business education programs feature instructors who deliver management education programming to farmers and ranchers in individualized and group settings. Many public and private farm management companies and agencies deliver information or services, or both. Few, if any, focus their efforts on educating the farmer how to use proven economic principles and practices for managing the farm or ranch.

Most farm business management (FBM) education programs in the United States had their origin in Minnesota in the early '50's through the cooperative efforts of faculty in the Department of Agricultural Education at the University of Minnesota and the Agricultural Education specialists at the Minnesota Department of Education. Designed to provide management education to farmers to assist them in meeting personal, family, and business goals, each full-time FBM instructor currently works with 40-60 farmers each year. Programs with similar missions and instructional activities exist in states including Missouri, North Dakota, Wisconsin, Colorado, Utah, Texas, and Washington.

Curricula for the farm business management program results from comprehensive need analyses involving farmers and ranchers, creditors, and farm business management instructors. Each state has established desired learner outcomes and guidelines that outline the number of years farm operators can participate in the programs. Farmers completing the

Minnesota Farm Business Management curricula, for example, are expected to be able to: (a) establish personal, family, and business goals; (b) exhibit record keeping skills; (c) effectively demonstrate the functions of management; (d) analyze and interpret records; (e) successfully apply economic principles; (f) use data to optimize the organization and efficiency of the business; (g) appreciate and experience the long-term affects of current and future management decisions; (h) understand the foundations of human resource management; and (i) understand how the farm business relies on other organizations and systems (Minnesota Farm Management Task Force, 1999). FBM instructors provide common and customized curricula approved by program administrators to farmers in individualized and group settings. Innovative instructors are supplementing traditional approaches through use of e-mail, the World Wide Web, CD-ROMs, and videotapes.

Effective farm business management instructors provide current, relevant, and timely management education that is delivered "just-in-time" instead of "just-in-case." The farm business is used as the textbook, laboratory, and classroom for each farmer. Farmers produce and arrange the data for easy entering into computerized accounting packages. The FBM instructor assists the farmers in producing comprehensive enterprise and whole business analyses from the data on an intermittent and annualized basis. The instructors

further assist the farmers in interpreting and using the data from the analyses for making a variety of financial and production decisions.

Is this type of adult education needed? Anecdotal evidence from farmers and program administrators along with earlier research findings (Persons, Casey, Wittenberg, 1985; Richardson, 1979) clearly suggest farmers believe they receive over an eight-to-one return on their annual tuition and fees. Public and private credit agencies and institutions often require their farmers to enroll in farm business management education programs due to the effectiveness of the instructors in working with the farmers.

### **How Are the Programs Funded? Should the Funding Mechanisms Change?**

Farm business management education programs are administered through state agencies or post secondary education system in most states. Programs in Minnesota, Wisconsin, North Dakota, Utah, Colorado, and Washington, for example, are administered through community colleges, state colleges, or technical colleges. Tuition and fees collected from the farmers enrolled in the FBM programs account for 30-40% of program costs. This share of program cost is not unlike the funding for most post secondary public education programs offered through public colleges and universities.

### **Is There a Need and Context for the Future of the FBM Program?**

Farmers pay a substantial amount of the taxes that are used for paying for our government and education programs. Not unlike other citizens, farmers are entitled to access to lifelong learning. There is currently no other program available in our education systems that uses an educational approach to teach farmers how to meet their personal, family, and business financial goals in a context they understand. The rate of change in our society also dictates the need for management education programming for farmers and ranchers. As the economies, practices, technologies, and environments associated with producing an abundant and safe supply of food continue to change, so must the technical and management skills of farmers producing the food. Quality FBM programs can meet the needs of the modern farmer well into the 21<sup>st</sup> century.

In order to maintain vibrant, effective, and long-lasting programs, FBM administrators, instructors, and policy-makers must constantly assess the needs and update the programs to meet the needs of the farmers. On-going promotion of the features and benefits of the program using current data is needed to keep all stakeholders informed and satisfied with the FBM programs in the early years of the 21<sup>st</sup> century.

### **Strategies for Ensuring Viable FBM Education Programs in the 21<sup>st</sup> Century**

The mission, goals, delivery methods, and instructional and program management practices of FBM programs must keep pace with the changes in agriculture if participating farmers are to be successful. The following list reflects a number

of enhancements that should be considered by instructors, administrators, and policy-makers for expanding the effectiveness of the FBM programs well into the 21<sup>st</sup> century.

- FBM programs need to work with new, developing, and veteran farmers that can value from the FBM courses and experiences. Until now, FBM instructors have often enrolled a larger share of farmers that are early in their farming careers. Mechanisms need to be put in place to enable all types of farmers to participate regardless if they are large or small, diversified or specialized, or beginning, developing, or finishing their farming careers. Farmers need to be encouraged to participate in the program as long as they are satisfied with their educational experience and are receiving an appropriate return on their investments.

- Periodically complete assessments of the educational needs of all types of farmers. Large and small, as well as beginning, intermediate, and veteran farmers have unique needs that can be met through individualized and group instruction by FBM instructors.

- Selectively market and effectively deliver the FBM program to a broader group of farmers keeping in mind that instruction needs to be packaged appropriately to meet the different needs of a broader group of farmers.

- Restructure program requirements to allow farmers to stay in programs as long as they desire. New courses need to be designed with input from the farmers not currently being served.

- Cooperate with other organizations, such as the American Dairy Association, National Cattlemen's Association and the National Pork Producers Council, to co-sponsor educational programming that keeps the farmers and ranchers abreast of

changes in production and financial management.

- Teach farmers how to gain access to, and how to effectively use appropriate management information systems for collecting, analyzing, and using data for operating and strategic planning.

- Establish collegial relationships with other agriculture professionals who provide advice, production inputs, credit, risk management tools, and marketing programs to the farmers. The best interests of the farmers can be better served when all providers are working in a unified manner.

- Expand usage of electronic media for delivering 'just-in-time' group and individualized instruction to the farmers. Future instructors must increase the use of the World Wide Web, compact discs, e-mail, laser discs, videotapes, and other emerging technologies to provide greater access and timeliness for communications, information, courses, and seminars.

- Seminars must be delivered in locations that allow farmers to combine different aspects of their business and personal travel. For example, FBM instructors need to deliver seminars and courses in the Sunbelt locations that are frequented by farm families during the winter months.

- Establish and maintain active and well-informed advisory councils. The local FBM program can garner support as well as gain unique ideas and advice and direction from farmers, agribusiness persons, and others with interests in the continuing education needs of the farmers.

- Promote features and benefits of the FBM program at trade and professional events of creditors, policy-makers, farmers, and farm suppliers.

- Enhance regular communications with farmers and interested agribusiness leaders, policy-makers, and educators through use of electronic mail, web sites on the World Wide Web, timely electronic newsletters, and other emerging strategies.

- Implement contemporary program management, delivery, and evaluation practices that are informed by corresponding and on-going research. Programs can be strengthened through use of appropriate and accurate information.

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Richard M. Joerger is Assistant Professor at University of Minnesota, St. Paul, MN.



John Murray is State Director for Farm and Small Business Management Programs, Minnesota State Colleges and University System.  
(no photo)

United States Postal Service  
**Statement of Ownership, Management, and Circulation**

1. Publication Title: The Agricultural Education Magazine

2. Publication Number: 07324677

3. Filing Date: 10/1/99

4. Issue Frequency: Bimonthly

5. Number of Issues Published Annually: 6

6. Annual Subscription Price: \$10.00

7. Complete Mailing Address of Known Office of Publication (Street, city, county, state, and ZIP+4): 1410 King Street, Suite 400 Alexandria, VA 22314

8. Complete Mailing Address of Headquarters or General Business Office of Publisher (Not printer): 1410 King Street, Suite 400 Alexandria, VA 22314

9. Full Names and Complete Mailing Addresses of Publisher, Editor, and Managing Editor (Do not leave blank):  
 Publisher (Name and complete mailing address): The Agricultural Education Magazine, Inc. / The National Council for Agricultural Education 1410 King Street, Suite 400 Alexandria, VA 22314 Dr. Rosco Vaughn, Executive Director  
 Editor (Name and complete mailing address): Dr. Gary Moore NC State University PO Box 7607 Raleigh, NC 27695-7607  
 Managing Editor (Name and complete mailing address): Dr. Rosco Vaughn c/o The National Council for Agricultural Education 1410 King Street, Suite 400 Alexandria, VA 22314

10. Owner (Do not leave blank. If the publication is owned by a corporation, give the name and address of the corporation immediately followed by the names and addresses of all stockholders owning or holding 1 percent or more of the total amount of stock. If not owned by a corporation, give the names and addresses of the individual owners. If owned by a partnership or other unincorporated firm, give its name and address as well as those of each individual owner. If the publication is published by a nonprofit organization, give its name and address.)

11. Known Bondholders, Mortgagees, and Other Security Holders Owning or Holding 1 Percent or More of Total Amount of Bonds, Mortgages, or Other Securities. If none, check box  None

12. Tax Status (For completion by nonprofit organizations authorized to mail at nonprofit rates) (Check one)  
 Has Not Changed During Preceding 12 Months  
 Has Changed During Preceding 12 Months (Publisher must submit explanation of change with this statement)

PS Form 3526, September 1998 (See instructions on Reverse)

13. Publication Title: The Agricultural Education Magazine

14. Issue Date for Circulation Data Below: July/Aug 1999

15. Extent and Nature of Circulation		Average No. Copies Each Issue During Preceding 12 Months	No. Copies of Single Issue Published Nearest to Filing Date
a. Total Number of Copies (Net press run)		3,475	3,450
b. Paid and/or Requested Circulation (Sum of 15b(1) through 15b(4))		3,264	3,300
15b(1) Paid in Advance by Subscribers (Include advertiser's proof and exchange copy)		0	0
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PS Form 3526, September 1998 (Reverse)

**The Future: Adult Education in Secondary Agriculture Programs**  
(continued from page 17)

**What should adult education in agriculture look like in the 21st century?**

How much do the parents of your students know about agriculture? Granted, there will be some that were FFA members themselves and are true supporters of your local program, but what about the other parents? How many of your students that enter into your program during their junior and senior year have parents who truly understand what your program is actually teaching? Do you think they could benefit from a short course on agriculture and what you are attempting to teach their children? Perhaps the parents of little Johnny could reinforce the attitudes and behaviors we attempt to impact everyday. Should we not broaden our scope to include those adults who are not being served?

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Edward Franklin is a Graduate Teaching Assistant in Vocational Agricultural Education at Oklahoma State University, Stillwater, OK.



James D. White is Professor in Vocational Agricultural Education at Oklahoma State University, Stillwater, OK.





# webmaster@agedmag.edu

By Matt Raven

## sites on the web

Adult education is based on the need for lifelong learning and the World Wide Web is probably one of the most important resources for lifelong learning that has developed in recent times. This month's [webmaster@agedmag.edu](mailto:webmaster@agedmag.edu) looks at a variety of Web sites that agricultural educators could utilize in an adult education program. As usual, each Web site review provides the location, a description, and a rating of 1 to 5 bookmarks (with 5 being the best). Be sure to e-mail me ([raven@ra.msstate.edu](mailto:raven@ra.msstate.edu)) the URL of a Web site that you feel should be included in a future installment. Please place Ag Ed Web Site in the subject header.

### NorthernLight.Com (<http://www.northernlight.com/>)

Northern Light's new Internet search engine enables you to search the World Wide Web and information from 5,400 premium sources. Web results are combined with information from premium material in one search, giving you access to books, magazines, databases, and newswires not available from any other search engine. Northern Light supports full Boolean capability (and, or, not) including parenthetical expressions, in all search forms. This is an extremely powerful search engine that needs to be included in your searching bookmarks.

(☆☆☆☆☆)

### Fast Search - All the Web, All the Time (<http://www.alltheweb.com/>)

Fast Search is another of the new breed of search engines that are available on the Web. It is important to use more than one search engine as no service covers the entire Web. Fast Search is the first search engine with the ultimate goal of searching "All The Web, All The Time™". The help section could be improved. Another powerful search engine to include in your searching bookmarks.

(☆☆☆☆ 1/2)

### Desert Roses ([http://www.ag.arizona.edu/desert\\_roses/](http://www.ag.arizona.edu/desert_roses/))

The Desert Roses Web site is an extension of the Desert Roses Newsletter. Both the Newsletter and Web site serve as pro-active support mechanisms for women agricultural education teachers across the country. This site is well organized and has a number of useful features including lesson plans and links to related sites. Perhaps the best feature of the site is the electronic forum provided by Desert Roses. This is an excellent use of the Web to facilitate important discussions. A suggestion would be to make the archived issues of the newsletter PDF files rather than image files for faster downloads and higher print quality. This site continues to grow and evolve.

(☆☆☆☆)

### Ohio State Extension (<http://www.ag.ohio-state.edu/>)

An excellent Cooperative Extension Service Web site. This is an extremely organized and easy to navigate with a wealth of information. Much of the information is in the Ohioline section in the form of Fact Sheets. It would be nice if the Fact Sheets were also available as PDF files for ease of printing. An online survey was being conducted when the site was reviewed – an excellent use of the Web. This would be another good addition to your bookmarks.

(☆☆☆☆ 1/2)

### ZDNet (<http://www.zdnet.com/>)

This site is an Internet portal concentrating on information technology. Some of the things available include ZDNet's software library, ZDU online courses, and help with information technology shopping. The site is well organized, easy to navigate, and employs a search engine to help find what you need. This site is a must for your bookmarks especially if you are interested in information technology.

(☆☆☆☆☆)

### Caterpillar (<http://www.cat.com/>)

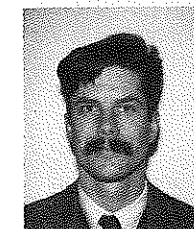
Find out about Caterpillar, Cat products and services, industries served, dealer locations and employment. The site is organized into five major sections: general information, products, services, dealers, and employment. The product section does an excellent job of showcasing the vast array of equipment Caterpillar manufactures for a variety of industries. The employment section allows you to search for positions and to apply online. This is a site that could be used in a number of instructional units.

(☆☆☆☆)

### DuPont ([www.dupont.com](http://www.dupont.com/))

DuPont is a science-based company, delivering science-based solutions to a variety of problems including agricultural ones. The agricultural section of their Web site is <http://www.dupont.com/ag/us/>. This site is an excellent way to illustrate for students how important science is to agriculture and how pervasive science is in today's world.

(☆☆☆☆ 1/2)



*Matt Raven is a Director of User Services in the Department of Agricultural Information Science and Education at Mississippi State University*



# How Much Do You Know About Adult Education in Agriculture?

Over the years, agricultural educators have been involved in various agricultural education initiatives for adults. Go to the Head of the Class if you can answer these adult education in agriculture questions.

- The act that was responsible for creating the largest adult education program in existence was the:
  - Smith-Lever Act
  - Smith-Hughes Act
  - G-I Bill
  - Vocational Education Act of 1963
- In the Smith-Hughes Act:
  - There is no mention of adult education in agriculture
  - Adults are mentioned before secondary students in the agricultural education section of the law (Section 10)
  - Students are mentioned before adults in the agricultural education section of the law (Section 10)
- In order to prevent duplication of effort between the Cooperative Extension Service and school based agricultural educators in regards to youth and adult education, what happened in 1918?
  - A Memorandum of Understanding outlining the responsibilities of each group was developed.
  - The George-Reed Act was enacted
  - A Federal Adult Education Advisory Board was established with membership from both groups.
  - Nothing
- A specialist in adult education in agriculture was hired by the Federal Board for Vocational Education soon after the passage of the George-Reed Act. This action occurred in:
  - 1921
  - 1929
  - 1936
  - 1946
- The art and science of teaching adults is called:
  - Adultery
  - Pedagogy
  - Seniology
  - Andragogy
- Between 1946 and 1965, there were large numbers of adults enrolled in high school based adult agricultural education programs. A major reason for this was:
  - The George-Barden Act included large sums for adult education in agricultural
  - The Agricultural Adjustment Act - a government sponsored depression recovery program
  - The G.I. Bill
  - A change in the income tax code
- Match the following adult education books written by agricultural educators with their author(s).
 

___ Adult Education in Vocational Agriculture	A. Robert Birkenholz (1999)
___ Teaching Evening and Part-time Classes in Vocational Agriculture	B. Ekstrom and McClelland (1952)
___ Effective Adult Learning	C. Kahler, Morgan, Holmes, Bundy (1960)
___ Adult Education in Agriculture	D. Bender, McCormick, Woodin, Cunningham, Wolf (1972)
___ Methods in Adult Education	E. John T. Wheeler (1926)
___ Methods in Farmer Training	F. Schmidt and Ross (1931)

- A publication often read by adult educators in agriculture from 1947 to 1963 was titled:
  - County Agent and Vo-Ag Teacher
  - The Agricultural Advisor
  - The Fieldman
  - The Journal of Adult Education in Agricultural Education
- One of the members of the agricultural education family is the National Young Farmers Education Association (NYFEA). Which of the following statements *is not true about the NYFEA*?
  - It is jointly sponsored by the Farm Bureau
  - It was incorporated in 1982
  - The current national headquarters is in Birmingham, Alabama
  - There are about 15,000 individuals involved in NYFEA activities.
- "Farm Business Management" is the title of a school-based adult education program employing full time teachers in:
  - South Carolina
  - Maine
  - California
  - Minnesota

## Joe Scatterscrew... (continued from back cover)

at State College. On the way back home, he had one of the boys scribble out the story on the back of an envelope. This way when they got back in town he could drop the story by the newspaper office. That way the news would be real current. Can't figure out why those monkeys never did publish that story," muttered Joe. "I'll just publicize this meeting by word of mouth."  
Joe rocked back in his chair happily. "Once a smart ag teacher like me puts his mind to work, it ain't hard to work up a good adult meeting."

### Answers:

- A. The Smith-Lever Act created the Cooperative Extension Service that operates the largest adult education program in existence.
- B. In describing whom vocational agriculture is for, the Smith-Hughes Act uses the words, "...who are listed first."
- A. The Memorandum of Understanding indicated agriculture teachers could work with adult farmers but working with adults was primarily the job of the extension service. The Federal Board for Vocational Education and the Federal Cooperative Extension Service signed the document.
- B. As a result of the George-Reed Act, several specialists were added to the agricultural education staff of the Federal Board for Vocational Education.
- D. Andragogy was first used in the 1920s to describe the teaching of adults but was made popular by Malcom Knowles in the 1970s.
- C. Many agriculture teachers taught adult education classes for veterans as a result of the G.I. Bill.
- B = Adult Education in Vocational Agriculture
- F = Teaching Evening and Part-time Classes in Vocational Agriculture
- A = Effective Adult Learning
- D = Adult Education in Agriculture
- C = Methods in Adult Education
- E = Methods in Farmer Training
- A. The County Agent and Vo-Ag Teacher later became the Agricultural Advisor and then evolved into a publication called Farm Technology.
- A. The Farm Bureau has their own young farmer and rancher program. It is not associated with the school-based NYFEA.
- D. Several states in the North Central United States have full time adult teachers operating out of public school agricultural education programs and community colleges.



# Joe Scatterscrew and Adult Education

By Gary E. Moore

Joe Scatterscrew stormed out of the principal's office madder than a wet hen. He was muttering under his breath, "The gall of that new principal saying I should start an adult education program. What does he know about teachin' vo-ag? I've taught for nine or ten years and ain't never had no dad-blame adult program. There's too much for a good ag teacher to do without addin' new-fangled ideas to his job."

The more Joe thought about what the new principal said, the madder he got. The new principal had come from Brightdale where they had an adult education program. He said it was a part of the total agricultural education program and was good publicity for the school.

By the time Joe reached the ag shop he had cooled down somewhat. He dropped into his creaky swivel chair and propped his feet up on the desk and started to think. After pondering the problem over for several minutes, he decided he'd just show that dang principal. He'd just have an adult meeting.

"Now, all I need to do is figure out where that pamphlet on *How To Start an Adult Agricultural Education Program* is," mused Joe.

The filing cabinet appeared to be the logical place to find the pamphlet, but it wasn't there. Joe did find two dozen eggs that he used last year to teach egg grading. A thorough examination of the desk in the classroom turned up a lost feeler gauge and some greenhand pins, but the pamphlet was not there. "Now where in heck is that dumb pamphlet." Joe muttered as he took his search to the shop.

All of a sudden it hit him. He knew where the pamphlet was. He should have thought of it sooner. Last spring when the boys were working out in the shop, they got to sharpening the ends of welding rods on the grinder and throwing them like darts. It was amazing how well they could be thrown. A couple of window panes had been hit by the makeshift darts and Joe had taped some cardboard and pamphlets over the broken glass. Joe remembered the strong lecture he had given on how dangerous it was to work around broken glass and how he showed the boys how to tape up the windows. "Yep, safety is something I really stress," Joe proudly exclaimed.

The pamphlet was taped to the glass just as Joe thought it would be. He ripped it off the glass and returned to the familiar litter of his office. Propping his feet up on the desk, Joe began to read from the pamphlet, "The steps in starting an adult program are:

1. Establish an advisory committee to help plan and conduct the meetings.
2. Base your program on the needs of the community.
3. Check with other groups to see if similar programs are being conducted and work with other agricultural groups.
4. Publicize the meeting.
5. Have the meeting.

Joe pondered the steps for a couple of minutes, then concluded, "This is going to be easier than I thought. I can eliminate Step 1. I don't need no dad-blame advisory committee telling me how to run my show."

Step 2 presented more of a problem to Joe. "I guess I could have a program on ag chemicals, but they change so much an ag teacher can't be expected to keep up with all them changes. There are several new breeds of cattle, but there's so many articles in farm magazines about them that farmers wouldn't be interested in coming to a meeting." Joe thought some more about the problem of deciding on a meeting topic and then it hit him: A meeting on selecting coon dogs. He had lots of friends in the Forked Creek Coon Hunters' Club that would come to such a meeting. The state coon hunters meeting was coming up in a few weeks. As Joe thought about it a little longer, he decided a better topic might be hunting first aid. At the state meeting some of the hunters had a tendency to get hurt. "That's it, a meeting on coon hunting safety and first aid would be perfect," Joe exclaimed.

Joe turned to Step 3 next. Cooperate with other groups. "This will be easy," Joe thought. "I'll just run up the hall to the home ec class and talk with the teacher. She holds a young homemakers' meeting every so often. I'll schedule my meeting at the same time as hers. That way we can probably get some refreshments and some of the husbands might come with their wives."

Joe wasn't very excited about Step 4, publicize the meeting. He didn't like the local newspaper. Last spring Joe had taken a group of boys to the State Poultry Judging Contest

(continued on page 27)