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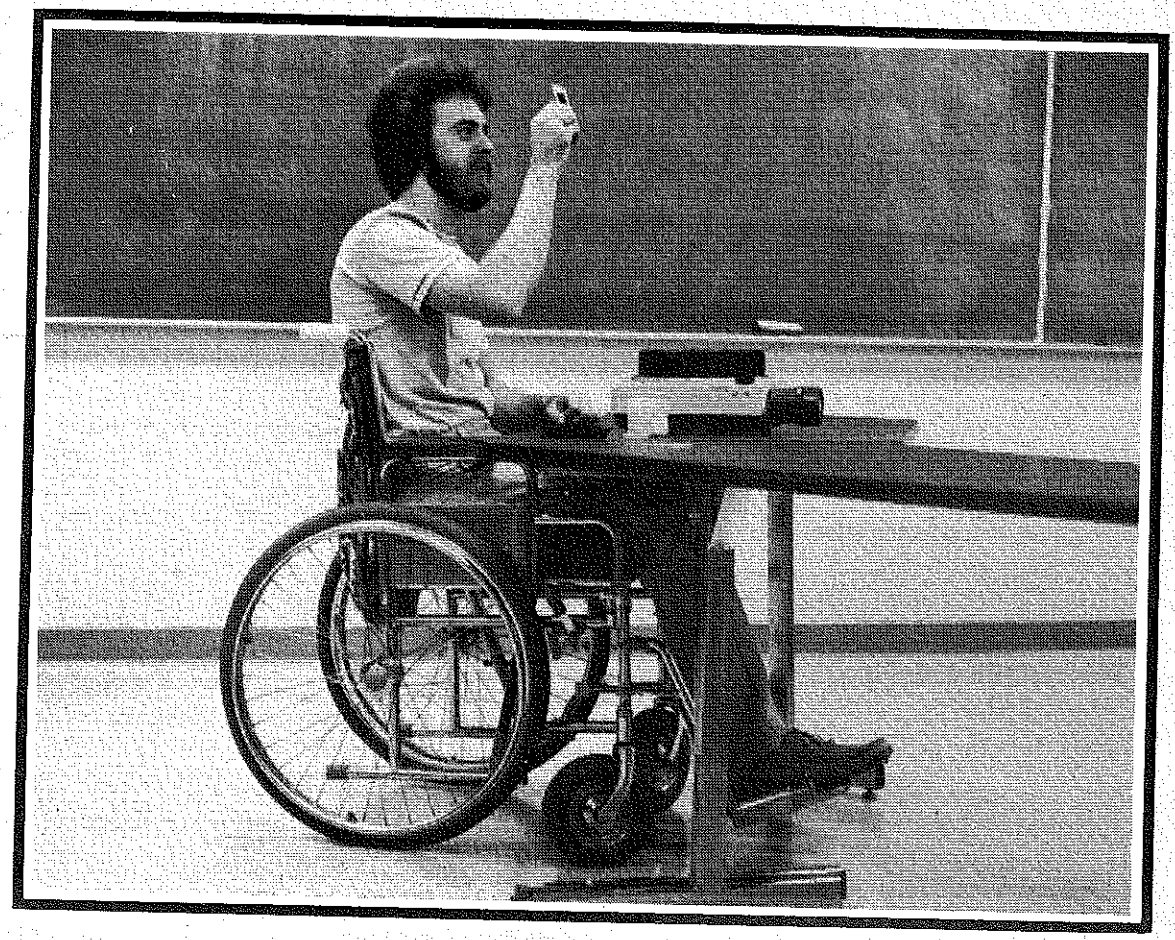

THEME: Programs for Exceptional Students

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ARTICLE SUBMISSION

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

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Exceptional Students: Are We Permitted to Ask Questions?

The term "exceptional" is used to describe students whose educational needs are very different from those of the majority of students. They are individuals who are so different the "regular" educational practices do not serve them adequately. "Exceptional" includes the gifted as well as the educationally handicapped. The deviations of the students are such that special teaching competence or unusual school services are required.

The Permitted Answer is "Yes"

In vocational agriculture/agribusiness, exceptional students are manifested as individuals who are physically or mentally impaired, disadvantaged, and gifted. Is it possible to serve the needs of these students in the same classes along with "regular" students? This is a big question! It is a question which has been answered "yes" by individuals who are not "regular" students and not teachers of classes comprised exclusively of "regular" students. In fact, educators today are almost forbidden to even consider an answer other than "yes" to this question!

There are several articles in this issue of the Magazine which discuss exceptional students and programs. These articles stress that there are laws and regulations requiring the placement of exceptional students in regular classes. Research is needed to determine if such placement maximizes learning of both the "exceptional" and "regular" students. Research is needed to assess the effects of such placement on teacher stress and burn-out. The fact that "laws and regulations" require something doesn't necessarily mean that it is the best educational practice. After all, those individuals who make laws and regulations are not the individuals most directly affected by them. They are not teachers and students in the classrooms of our Nation's public schools!

All individuals need to be able to productively participate in the mainstream of society. "Mainstreaming" in the classrooms of our schools appears to be a viable procedure for preparing individuals to function in the mainstream of society. Further, all individuals should develop a better understanding of how people with various characteristics can contribute to a quality way of life.

Vocational agriculture/agribusiness has traditionally served students with varying abilities and backgrounds. It has provided youngsters who apparently had little opportunity to succeed with experiences that helped develop skills needed for success. And it has done so without the benefit of Federal laws and regulations which apply to "non-regular" students! What will be the effect of these laws and regulations on vocational agriculture/agribusiness?

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

November, 1980

Dr. Frank Bobbitt of Michigan State University has served as Theme Editor for this issue of the Magazine. He has assembled a collection of excellent articles on programs for exceptional students.

Daryl Hobbs Said A Lot!

At the National Seminar on Agricultural Education in July, 1980, Daryl Hobbs, a University of Missouri sociologist, discussed new directions in society. He mentioned several trends, one of which was that in the 1980's the middle class would increasingly withdraw support from public education. Dr. Hobbs gave few details on how this would specifically affect vo-ag.

Public education in the United States has largely been supported by members of the middle class. The upper class has traditionally sent its children to private schools. The lower class has sent its children to public schools, if they went at all. It has been the middle class which has provided the support, leadership, and substance for quality public education. Why did Dr. Hobbs state the trend? What will happen if the middle class does respond accordingly?

Why?

The "why" is partially found in the entanglement of laws, rules, and regulations thrust upon the public schools. To comply with all of them is expensive, time consuming, and contributes little to education. It may well be that the actual learning that takes place will be less. (Scores on standardized achievement tests have not shown that we have improved on actual learning in most instances.) Today's educators in the local schools are having to spend too much time and energy on reports, testing, and other "compliance matters." This takes away from the effectiveness of

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their real purpose — to educate. And this waste does not go unnoticed by the middle class!

Basically, public education in the United States is financed at the local level with funds from taxes on property. Federal dollars contribute very little to education at the local level relative to the benefits gained. In practice Federal rules and regulations have often caused the expenditure of more funds than previously used. This has resulted in taxes being increased on property which is largely owned by the middle class. The question asked is: "Why does less education cost more?" Thus, the middle class is seeking relief from externally imposed regulations, higher taxes, and poorer efficiency in educational achievement.

The Effect

If there is a decline in support of public education by the middle class, vo-ag will definitely feel it. The major farmers, ranchers, and agribusiness persons in a community are in the middle class. Once their children are placed in private schools, they would attempt to reduce support for public education. Their children would no longer be enrolled in vo-ag. They would likely no longer be enrolled in adult/young adult programs because of loyalty to a private school. They would no longer be willing to serve as training stations for occupational experience and cooperate in other ways with the vo-ag program.

Quality programs of vo-ag require the support of the middle class. It is the individuals in the middle class who control a community's resources and give it the needed direction and leadership.

Is It True?

Daryl Hobbs, the trend may be true. I hope it is not. I believe in strong public education. On the other hand, I believe that the middle class (or any group) has the right to react and provide the best for itself at the least cost. We need strong programs of vo-ag in our public schools. We need to inform those who make laws, rules, and regulations of this trend and the effect it will have on public education.

THEME

Exceptional Students: Problem or Opportunity

By Frank Bobbitt, Theme Editor
Editor's Note: Dr. Bobbitt is Professor of Agribusiness and Natural Resources Education at Michigan State University.

Listen to a group of vocational agriculture instructors discussing the problems of teaching. Invariably the topic of "dumping" arises. "Dumping" is putting students who have no apparent reason for being there in vocational agriculture classes. They may be disruptive and/or cause time-consuming problems for the teacher. At times during the discussion, words like "disadvantaged" or "handicapped" may be thrown out in the same breath as the word "dumping." As the discussion progresses, one of the sharper, and often older, teachers will object to the trend of the conversation. He or she will insist that some of his or her most satisfying moments in teaching have been working with students who could be labeled disadvantaged or handicapped. The teacher may further insist that he or she does not feel "dumped on" at all.

Is there a difference between having disadvantaged and handicapped students in vocational agriculture classes and "dumping?" I feel that there are very definite differences. "Dumping" refers to the placement of students in vocational agriculture who have no interest in agriculture. These youngsters have not developed interests in any of the school subjects available to them. They must be placed where something positive might occur or at least where they can be expected to stay out of the hallways of the school building for an allotted period of time. The students who are so placed obviously may or may not have disadvantages or handicaps. Vocational agriculture teachers must share with all other teachers of the school the responsibility of helping these individuals identify and progress toward occupational and life goals.

Teaching students who have handicaps or disadvantages and who are interested in learning skills taught in vocational agriculture is welcomed by good vocational agriculture teachers. These students are not considered students who are "dumped" but rather students with special challenges and problems.

Careful consideration should be given to guiding students who are interested in agriculture into vocational agriculture. The use of interest inventories by school guidance personnel should be encouraged as one means of discovering interest. Teachers also must accept the responsibility for arousing and maintaining interest of all students.

Some vocational agriculture teachers are more successful than others as teachers of students who may be disadvantaged or handicapped. During a recent survey of vocational agriculture teachers in Michigan, it was found that older teachers were the most likely individuals to be teaching disadvantaged and handicapped students in vocational agriculture. Another study also completed in Michigan recently reported that older teachers were found in general to have more positive attitudes toward teaching disadvantaged and handicapped students. The question to be answered is "why are older teachers teaching more disadvantaged and handicapped students?" Perhaps the answer is that it takes time to develop the skill to successfully deal with the disadvantaged and handicapped. Further, younger teachers may not be adequately prepared to teach the disadvantaged and handicapped students. Whatever the reason, the profession must continue to improve on a good tradition of providing excellent vocational training to students regardless of their classification.

Under current legislation, funds have been allocated to provide the "extras" that are required to offer a quality vocational training program for those who are labeled disadvantaged and handicapped. Teachers should take advantage of these funds, aggressively seek them out, and combine these resources with the traditional "we can do it" attitude of vocational agriculture teachers to turn the presence of disadvantaged and handicapped students from a problem to an opportunity to demonstrate the value of vocational agriculture to each individual and, thus, to America.

THEME

The Handicapped Student in Vocational Agriculture

By Anthony Mikloiche
Editor's Note: Mr. Mikloiche is Vocational Agriculture Teacher at Lackawanna County Vocational-Technical School in Mayfield, Pennsylvania.

Four years ago the counselor at the school where I teach came to the classroom and asked for a short conference. He explained that the parents of a handicapped child were in his office inquiring about vocational education for their son. He explained to them that because of the nature of the work being done in most of the shops, it would most likely be too dangerous for their son. He told them he would ask the instructors if they would accept this young man with his quite obvious limitations. The counselor's questions to me were: Do you think that a handicapped student could function in your shop, and would you be willing to let him try? Being a rather positive person, I agreed to try, since my enrollment was anything but capacity.

Two weeks later, an open house was held at our school. It was then that I got to meet my handicapped student for the first time. He was 16 years old, a little overweight, had thick glasses, and walked with a funny waddle. His response to questions or any conversation was short and abrupt so that his "yes" or "no" answers both sounded somewhat like a grunt. He had birth defects that left him legally blind (although he could see to read up close) and partially crippled (so that he had to have pins implanted into his hips). This accounted for his rather pathetic appearance. His parents were very nice people, probably in their late fifties, and were all excited that their son might be accepted at our school. Even though I was having second thoughts, I agreed to accept him into the program.

My next thoughts were how to go about the seemingly difficult task that lay ahead. Not having any training in teaching special education, I very quickly concluded that I would only give him the usual amount of attention that any other student would receive. Yet, it was obvious he would need more!

Having a few years of teaching experience under my belt, I already had a system which let a student develop at his or her own rate. I thought it would challenge the better students. It seemed that this special student should be able to adjust to it.

The Self-Entry System

A self-entry system is used at my school. The students make entries into a record book at the end of class. The tasks they did that day are written down along with a self-assessment of how well they could do the specific task. They also record the amount of time spent in doing the task. The book used for this purpose is the "Record Book of Occupational Skills and Tasks," published by the Pennsylvania State University. It is designed for use in Ornamental Horticulture Programs, such as the one at my school. The fact that it has a place for evaluation by the teacher makes it possible to use the record book as part of my marking system.

My approach worked well with the handicapped student. Even though he was unable to do all the things that the other students did, he would have entries to make each day for the things that he could do. In this area he was on an even plane with all the other students, and he apparently did not feel unable to compete.

The marking (grading) system used is important in student motivation. The one I use is as follows:

60% on task performance (record book mark)
30% on tests over theory given in the classroom
10% on character and attendance

This approach in marking means that a student who is poor academically or has a handicap can earn a passing grade by working hard on the tasks and having good school attendance. This is not difficult for them because they want to succeed at something and are usually well behaved. A challenge is still maintained for other students because the 30% theory mark will make the difference between just passing and earning an A or B. We have handicapped students, like the one I described earlier, working side by side with the students who are planning to go to college. The handicapped students apparently feel equal. The better academic students get to know the special students as friends and soon accept them as class members. That may be over simplifying the situation, but in time it usually works out that way. Of course, there are many

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The Handicapped Student in Vocational Agriculture

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other factors that enter into the picture of a classroom made up of different individuals.

Students Helping Students

The "A" students in the class catch on fast and become bored if there is not a challenge. When their work has been completed, they become my teaching aids for the slower and handicapped students. In most instances, they are willing to help the slower students. In fact, close friendships may develop.

Students work in groups on projects in the school test gardens and greenhouse. Each group has a foreman. The foremen are given responsibilities and select from the rest of the class those students who they want to work in their group. The selection is in rounds so that the talent in the class is distributed in the groups. The groups work cooperatively for a mark. This system involves the special students as a part of a small group. Group friendships are often formed of students who would probably not associate with each other because of their differences.

The FFA

The FFA is used as a means of providing for individual achievement and challenging those who need to be challenged. With FFA, leadership and cooperation are most important. The FFA program of work is designed to be about one-half competition in scholastic contests and one-half in recreation contests and community involvement. By doing this, the handicapped and special students are able to become involved in some activity.

Give Them A Chance

Since my first special student came into class a little over four years ago, mainstreaming has increased so that 10 to 12 percent of my classes are comprised of students with special educational needs. They function well in our program. Even if they were unable to learn enough to make themselves independent of others, the understanding and fellowship that is created among our young people is well worth any extra effort.

There are no unusual ideas in the approaches that I use in working with the handicapped students in the classroom. Young people with handicaps should not be counted out before you give them a chance. Their biggest need is to feel that they can be successful in class.

THEME

Mainstreaming: There's More Involved Than Teaching Students

By Arthur L. Berkey

Editor's Note: Dr. Berkey is Professor of Agricultural and Occupational Education in the College of Agriculture and Life Sciences at Cornell University.

Teaching special education students "mainstreamed" into vocational classes is now a fact of life for many teachers of agriculture. Mainstreamed students extend the range of student mental and/or physical abilities in classes. This increases the competencies teachers need for effective instruction. Unfortunately, many teachers have been expected to teach mainstreamed students before being provided an opportunity to develop the additional competencies needed.

There is more to successful mainstreaming than teacher competency to teach mainstreamed students. Of equal, and perhaps greater, importance are the factors of teacher involvement in placement and evaluation, administrative decisions affecting resources and procedures, and the supportive role of special education staff. This article will focus on the importance of these factors to a successful mainstreaming program for pupils with special education needs.

Teacher Involvement

Teachers need to be actively involved in decisions to place mainstreamed students in their classes. Such involvement should be proactive rather than reactive. This means that teachers will need to be knowledgeable about special education requirements and procedures. The Education for All Handicapped Children Act (P.L. 94-142) and the 1976 Amendments to the Vocational Education Act are basic. The August 23, 1977, Federal Register cites the rules and regulations for PL 94-142.

"Mainstreaming" is not mentioned in Public Law 94-142, only the requirement for an appropriate education in the "least restrictive" educational environment. The question in mainstreaming placement thus becomes, "Is the vo-ag program the least restrictive environment for a given student?" Or, stated another way, given the student's goals, interests, and abilities, is the vo-ag program the best placement? Teachers need to take the initiative to assure that special education staff and other members of the special education committee legally mandated in each district have a clear understanding of what the vo-ag program involves. This will require careful analysis of the objectives of the program and both written and verbal communication by the teacher with special education staff members.

Where physically handicapped students are involved, funding to modify equipment and facilities for student access and use may be prerequisite to placement. The subskills to activities need to be identified (For example, following directions is a prerequisite skill to operation safety.). Emotional maturity and physical ability are also considerations in safe operation of machinery and equipment. The teacher needs to insure that such factors are considered in placement decisions.

The student's mandated individual education plan (IEP) should also be considered. The 1976 Amendments to the Vocational Education Act require that complete vocational education programs be available to handicapped students. When vocational education is included as part of a student's IEP, vocational educators must be part of the IEP team.

Only when agricultural knowledge and skills representing preparation for entry level employment in an agricultural occupation are within the student's capacity and career goals should placement in vocational agriculture be made. The IEP needs to be developed with involvement by the agriculture teacher and in sufficient detail to assure preparation for employment. Vocational education objectives should be an integral part of the IEP. All students should be interviewed prior to placement. Rather than having mainstreamed students "placed" in their class, teachers of agriculture should actively seek and insist on involvement in the placement process. Careful student testing and diagnosis is needed to assure students have the minimum competencies required in the vo-ag program. Where such is lacking, supplemental help in basic skill areas may be needed prior to placement.

The key to placement of handicapped students most appropriate to their interest, goals, and abilities is the collection and use of comprehensive information with direct involvement of the vocational teacher. Otherwise, educational opportunity for students as well as teacher effectiveness can be compromised.

Active teacher participation in the evaluation of mainstreamed students is also important. Teachers have a significant and necessary role beyond classroom evaluation. This role includes sharing responsibility for decisions on student IEP modifications, work experience, changes in mainstreaming placement, and employment options. Major decisions on each student will be made at least annually, and teacher initiative to share in the process and administrative policy will be major factors in determining the extent of the teacher role.

The special education committee is legally mandated to include parents of handicapped students. Also, the parents of individual students are often included on the IEP team. Teacher interaction with parents, especially at the IEP team level, is important.

Resources and Decisions

Administrative leadership is critical to successful mainstreaming. Budgeting for modifications to facilities and equipment to provide access and use for physically handicapped students is an administrative responsibility. Funds for instructional materials and special equipment to meet individual student needs also fall under this area. Budgeting and leadership for teacher inservice on how to work effectively with different types of mainstreamed students is an important administrative responsibility.

Another important, but sometimes overlooked, area is scheduling. Special education and regular education transportation and classes need to be on the same schedule to facilitate mainstreaming.

Administrators need to assure that mainstreaming policies are reasonable and fair. All teachers, not only those untenured, should be expected to work with mainstreamed students where the respective programs are appropriate for mainstreamed placement. Teachers who make the special effort to be successful in working with mainstreamed students should not be "rewarded" by having additional mainstreamed students placed in their class. This can result in regular students dropping out, which, in turn, means a class with low enrollment where "additional" mainstreamed students are then placed. Such a negative reward cycle is readily apparent to teachers and can be a serious barrier to a successful mainstreaming program.

Additionally, mainstreamed students should be double counted (as in funding) in considering class size. Eighteen regular and two mainstreamed students should be counted as 22 rather than 20.

Other critical administrative decision areas are policy to assure teacher involvement in placement and policy to provide a strong support role by special education staff. Budgeting for an adequate special education support staff is also important. Teacher time for cooperative planning, coordination, and evaluation of mainstreamed students needs to be provided.

Grading and evaluation are other areas of concern. Where grades are assigned in addition to occupational profiles, a policy for mainstreamed students should be established.

Placement of graduates as a basis for program evaluation is another area of concern for teachers. The realities are that mainstreamed students are usually prepared for employment in a narrower range of occupations. Also, employers may be less receptive to employing handicapped persons. Administrative policy on placement for program evaluation needs to consider mainstreamed placements. Also, extra effort will be needed to place handicapped students in jobs.

Administrative leadership to budget resources and establish supporting policies is essential for successful mainstreaming. Teachers need to convey this expectation to administrators individually and through professional organizations.

Special Education Staff

Special education staff for mainstreaming will vary by staffing levels, administrative policy, and the quality of interaction between staff and the agriculture teacher. The support role includes placement decisions, support in teaching, and evaluation.

Positive teacher attitude and initiative are important to obtaining staff support. Special education staff have experience and access to helpful resources that can facilitate

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Mainstreaming: There's More Involved Than Teaching Students

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mainstreaming. Staff tend to "grease the squeaky wheel," so it may be necessary to ask for help. Where the response by staff is inadequate, a change in administrative policy may be needed.

Joint staff meetings of the special education staff and vocational teachers should be a regular part of the school program. Open communications and a team approach are necessary prerequisites for an effective working relationship.

The Reynolds and Birch[1] concept of a "cascade" of services is useful for a team approach. A "cascade" is a continum or flow of services (options) provided jointly by special education and regular education rather than provisions of two separate parallel sets of services. However, collaboration by such a team approach will necessarily be time-consuming. Hopefully, the advantages will justify the time required.

Quality Education

Although the ultimate value of mainstreaming is in the quality of education provided to students, the factors of placement and evaluation, administration, and support from special education staff also have a major impact on educational quality. Successful mainstreaming requires attention to student/teacher interaction and the facilitating factors in the school environment.

Reference

[1]Reynolds, M. and Birch, J. TEACHING EXCEPTIONAL CHILDREN IN ALL AMERICA'S SCHOOLS. Reston, Virginia: The Council for Exceptional Children, 1977.

THEME

The Penn State Story . . . Vocational Teacher Education for Special Needs Students

Most vo-ag classes have students with a wide range of physical and mental abilities. Some will enter college for further preparation for careers while others may have difficulty completing high school. It is these latter students who have learning difficulties and who, in many cases, stay in school only because of the vocational education program. Reading is difficult and English is meaningless for many of them. Others cannot compete in sports because of physical disabilities.

When given the opportunity to enter a vo-ag program, some will excell in shop, others in vo-ag judging contests, and still others in supervised occupational experience projects. And there are those who find that success in a vocational program does not come easily. Special needs students may get excited about school when they work in the mechanics laboratory, occupational experience programs, and the FFA.

With many special needs students, words alone do not communicate. They must see something and work with it before they understand it. For them, the practical application phase is especially important. For those with physical disabilities, ways must be developed to adapt facilities and equipment for their use. Teachers also need to know individual and group techniques to help the special needs students develop to their fullest potential. For example, all occupations require a certain amount of reading skill, such as being able to read the directions for applying weed control chemicals to a field corn or to read the operator's manual for a $50,000 harvestor.

BY SAMUEL M. CURTIS AND DAVID L. HOWELL

Editor's Note: Both authors are on the faculty in Agricultural Education at the Pennsylvania State University. Dr. Curtis is Professor and teaches a course entitled Vocational Education of Special Need Students. Dr. Howell is Assistant Professor and is in charge of the doctoral program in vocational education.

The major difficulty for the vocational agriculture teacher is to teach students who have a wide range of abilities. Teachers need both preparation for teaching special needs students and appropriate instructional materials (Curtis, Byrd, McFadden, 1973). In Pennsylvania, teachers reported that 19 percent of their students had special needs. Other sources report it is much higher for the United States (Conroy, 1978). With mainstreaming, students not formerly enrolled in vocational agriculture now attend school. The demand for teachers with competency for teaching special students becomes more apparent each year.

What We Did at Penn State

It was decided to approach the development of teacher competency from several angles. One was to find out what other people were doing. All 84 agricultural teacher education departments in the United States were surveyed. Course outlines were collected from those three institutions offering course work at that time. In the summer of 1975, an experimental course entitled "Teaching the Disadvantaged in Vocational Agriculture" was offered to 32 in-service teachers. Concomitantly, summer workshops offered in vocational education and special education were made available to a mix of vocational and special education teachers. A special needs committee with representation from Home Economics Education, Agricultural Education, Trade and Industrial Education, and Special Education was appointed. This committee now provides the direction for the Penn State effort.

Subsequently, two thrusts have developed. The first was one of infusion — the introduction of teacher competencies related to special needs students into the methods courses offered by the various departments. The second was the development of an across-the-board vocational teacher education course. The underlying assumption for both thrusts was that "the special needs student is less able than his or her more advantaged counter-part to cope with the effects of poor teaching." Hence, our major objective was and is to develop more effective teachers. The second part of the commitment was to focus on those areas of vocational education where special needs students are unique.

These areas seem to be: 1) guidance and identification, 2) cooperative education, 3) supportive services, 4) curricular and facility modification, and 5) individualized instruction. We are hopeful that the teacher education modules from the National Center for Research in Vocational Education will assist in the delivery of these unique competencies when they become available. The major units in the Penn State course are: 1) legislation, 2) identification, 3) common and unique needs, 4) school support systems, 5) community support system, 6) facilities and equipment, and 7) cooperative work experience.

The course format is designed to obtain maximum benefit from each teacher's professional experience. Each experienced teacher enrolled in the course writes a case study on a special needs student previously taught. Case studies are written around the course content areas listed above. For this project, any members without teaching experience are teamed with those who have experience. The case study must address student needs in relation to the major competency areas in the course outline. About 20 percent of class time is spent in analysis and discussion of the case studies. To date, the course has been offered both on and off campus. Student evaluations of the course are positive, but they cite the need for additional work in the course content areas.

From our experience, several problems are apparent. First of all, there is too much to accomplish in one three-credit course. A possible future direction is to split the course into two courses — one relating to disadvantaged and one relating to the handicapped. Secondly, a small percentage of teachers who enroll have negative attitudes toward inclusion of special needs students in their classes. They totally reject the concept of mainstreaming. This attitude must be addressed before the class can proceed.

Recently, The Pennsylvania Department of Education mandated that teacher education programs provide preservice teachers with the competencies needed to implement PL 94-142, the Education of All Handicapped Children Act (Scanlon, 1980). Ten competencies were listed. These are:

1) the legal basis for the least restrictive environment concept
2) characteristics of students with handicaps, techniques for matching individual education programs to individual needs
3) the utilization of available assistance
4) confer with parents
5) provide/maintain a classroom atmosphere that develops positive interpersonal relationships
6) assess learner's instructional/social needs
7) manage a classroom for effective accommodation of those students with handicaps
8) adapt instructional strategies based upon appropriate assessment
9) evaluate educational progress
10) develop positive personal attitudes toward students, colleagues/peers with handicaps

The thrust at The Pennsylvania State University has been to improve the competency of vocational agriculture teachers for working with special needs students. A variety of approaches is underway, including the course just discussed. (It is only one approach to implementing competencies needed by professional teachers of agriculture. Others will emerge until the need is met.) If there is a lesson from history, it is that teachers of agriculture will rise to the challenge and that the nation will be better for it.

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The Cover

Johnny May, an undergraduate student in the Department of Agricultural and Extension Education at Mississippi State University, is shown preparing for a slide presentation. Injured in an accident, Johnny is confined to a wheelchair. He plans to teach vocational agriculture after completing the baccalaureate degree. (Photograph by the Editor.)

THEME

Serving Special Needs Students

There appears to be a good amount of literature on serving disadvantaged students in agricultural education. Even though there is a need to determine how the agricultural education profession can more effectively serve disadvantaged students, this article will focus on handicapped students. In general, mainstreaming focuses on those special education students who have various impairments (mental retardation, emotional disturbance, learning disabilities, sensory impairment, and speech and language impairment) and can benefit from regular classroom activities. Much has been done over the years relative to serving and mainstreaming students. Yet, a tremendous amount of new work needs to be done.

Historical Perspective on Serving Special Education Students

The education profession has encountered some difficulty in serving special education students. Some probably feel that because of these difficulties, we have made a full circle in regard to identifying the best approaches for serving these students. The research and literature does not indicate that educators are where they were fifty years ago in regard to educating handicapped pupils. Fifty years ago, most students had only two choices: stay at home or enroll in a regular classroom with thirty or more other students. The mainstreaming concept today is to place handicapped students in least restrict environments. While the regular classroom is considered the least restricted environment, a team of educators (regular classroom teacher, consulting teacher, resource room teacher, and principal) is given the responsibility to work with handicapped students and their parents to deliver the best education possible. In successful mainstreaming programs, this team is supported by the school board, the superintendent and his/her staff, and other personnel.

A brief look is provided here at how special education students were served over the years. The examples to follow are not real situations, but are listed to depict how special education students with identical problems may have been served or not served in former years.

Pre-1950

Sally crippled by cerebal palsy may have been hidden away in the back bedroom with few community people ever knowing that she existed.

John may have dropped out of school because he could not read, spell, write, or perform basic mathematical computations.

George, a real trouble-maker, fought each day while in school, cursed his teachers, and attended school whenever he wanted.

1950-1969

People in a given community would have known Sally was crippled by cerebral palsy. In most cases, she would have attended special classes or received instruction in

By Eddie A. Moore
Editor's Note: Dr. Moore is Associate Professor at Michigan State University.

home by a visiting teacher.

A student like John in the 1950's would have been encouraged to attend a vocational school even though this may not have been the best recommendation.

George in the 1950's would have been diagnosed by the school psychologist as having an unhappy home life, low-normal IQ, and used the school to release some of his frustrations.

1970-1974

Sally would have been enrolled in a class for the orthopedically handicapped.

Classes would have been designed for students like John to assist him in reading, utilizing practical arithmetic problems, and resolving issues directly related to employment and daily life.

George would have enrolled in a special class (for example, behavior modification techniques) designed to help him learn more effective ways of living and working with peers and adults.

1975 to present time

Sally is apt to spend most of the school day in a regular classroom and brief periods during the week in a resource room developing better motor coordination. Sally's regular teacher, resource room teacher, and consulting teacher meet periodically to discuss her progress and identify additional processes to meet her needs.

John spends half of his school day learning basic literacy, mathematics, and social skills. The remaining half of the day, John enrolls in a special vocational program in which he develops vocational skills in addition to learning how to get and maintain a job.

George enrolls in a regular classroom where the teacher uses behavior modification techniques to reduce George's disturbances. The results should be helpful in that George will be able to spend more time on academic matters.

Innovations in Teacher Education Programs

With the passage of Public Law 94-142, the Education for All Handicapped Children Act, staff in the Bureau of Education for the Handicapped felt that higher education institutions had an important role to play if the mandates were to be achieved. In 1974, the Bureau staff invited deans of colleges/universities, schools, divisions, and departments of education across the nation to submit proposals to investigate alternative solutions for training school personnel to work effectively in carrying out Public Law 94-142. Specifically, P.L. 94-142 indicated that states must establish procedures "to assure that, to the maximum extent appropriate, handicapped children, including children in public or private institutions or other care facilities, are educated with children who are not handicapped and that special classes, separate schooling or other removal of handicapped children from the regular educational environment occurs only when the nature or severity of the handicap is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily" (Education for All Handicapped Children Act, 1975, P.L. 94-142, Section 612). Considering past approaches for serving handicapped pupils and P.L. 94-142, it was detected by Bureau staff that school personnel (teachers, principals, supervisors, counselors, superintendents, etc.) needed assistance in the placement of handicapped students in regular classrooms.

Initially, sixty planning and development projects were approved to investigate alternative approaches for training education personnel to accommodate handicapped students in regular classrooms. These grants were called the Dean's grants. During the 1977-78 fiscal year, 81 projects were funded and the Bureau allocated $3.2 million for the effort. After two years of funding, the feedback seems to indicate that the task of restructuring school personnel preparation programs is going to be difficult.

This obviously creates a problem for the public schools in their attempt to meet the requirements of Public Law 94-142. Furthermore, it creates problems for the education profession. One problem is a lack of skills on the part of school personnel to work effectively with handicapped students. Secondly, there is reluctance among faculty and administrators in institutions of higher education to restructure school personnel preparation programs.

Challenges for Teacher Educators

Teacher educators in agricultural education should be aware of Public Law 94-142 and some of the difficulties to be expected in responding to the mandates. Preservice and inservice programs will have to be further developed in collaboration with other education facilities. Vocational agriculture teachers will make a difference in the placement of handicapped students in regular classrooms. Therefore, teacher educators may have to be change agents for restructuring school personnel preparation programs at the university and college levels. Present and future school personnel will need to have the necessary skills for educating handicapped students in the least restrictive environments. College and university faculties are most capable of preparing school personnel. Needless to say, such training can best be provided through a collaborative effort.

If teacher educators elect to be change agents for preparing school personnel to work effectively with handicapped students, the following guides may be of some assistance in managing change:

1. Design a long-term process to promote change
2. Build readiness to collaborate
3. Strengthen processes for communication, problem solving, and decision-making
4. Supplement strategies that produce cognitive change
5. Start the change project (effort) with highly visable actions
6. Provide for frequent meetings and staff development once implementation begins

The mainstreaming movement will undoubtedly continue because of the number of special education students that will need to be served. Teacher educators will have an important role to play in this movement. They will be called upon to assist school personnel in working effectively with handicapped students. The efforts are apt to be more productive and efficient if some of the traditional delivery systems are restructured through collaborative efforts with other faculties who are also responsible for preparing school personnel.

Reference

Grosenick, Judith K. and Reynolds, Maynard D. Teacher Education: Renegotiating Roles for Mainstreaming. The Council for Exceptional Children, 1920 Association Drive, Reston, Virginia, 22091, 1978.

BOOK REVIEW

The Farm Management Handbook, 6th ed., by Robert A. Luening and William P. Mortenson, The Interstate, 1979, 514 pp. $13.50 less educational discounts.

According to the authors, the changes in this sixth edition of the book are so pronounced that it is virtually a new book. The changes include a greater emphasis on farm business management; farm records and business analysis; resource acquisition; farm business organization and business arrangement; budgeting; and getting started in farming. Less emphasis has been placed on specific production technology.

This book contains 25 chapters which are divided into six major parts. These parts include: "Things to Consider Before Starting Farming;" "Getting Started in Farming;" "Farm Records, Income Tax Management, Business Analysis, Financial Management, and Credit;" "Planning for the Future;" "Adjusting the Farm to Price and Market Conditions;" and "Other Important Considerations."

Both authors are affiliated with the University of Wisconsin at Madison. Robert A. Leuning is a professor of farm management and William P. Mortenson is professor emeritus of agricultural economics. They have extensive experience in farm management and have published all previous editions of the book.

This book was designed for use as a text in agricultural courses. It was written at a level appropriate for high school and junior college students. The book would be quite useful as a reference in preparing teams for the National FFA Farm Business Management Contest. In addition, the book was designed to be useful to practicing farmers, off-farm owners, and those individuals considering entering farming.

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ARTICLE

Reaching Regular and Special Needs Students at the Same Time

By John Hillison
Editor's Note: Dr. Hillison is Associate Professor of Agricultural Education at Virginia Polytechnic Institute and State University.

Many vocational agriculture teachers have become frustrated attempting to reach and teach special needs students in their regular classrooms. Teachers are asking many questions. What should I do with the regular students while I am trying to reach the special needs students? How can I keep from going over the heads of special needs students when I am on the right level for the regular students?

These are typical of the many questions being asked by teachers who are teaching mainstreamed special needs students. A more basic question may be: What is mainstreaming and why do we have it now? Mainstreaming is an approach for integrating special needs students into regular classroom situations. One of the major purposes behind mainstreaming is to assist special needs students in making the social transition into adult life. If special needs students spend all of their time at school with special needs students, they will not know how to work with other people when they become adults.

One of the most serious mistakes teachers make is to isolate special needs students when they become part of the regular classroom. This isolation can occur in many ways. It may occur when the special needs students in the class work by themselves on a project. It may occur if there is only one special needs student in the class and that individual is always by himself or herself. Isolation also occurs when individualized instruction is used as the major instructional technique. The question still remains as to how to reach both special needs and regular students a the same time.

Reaching Both Groups

One way to reach both groups in the classroom at the same time is by assigning pairs of students to work as a team. Teams of students are frequently used in laboratory situations. These laboratory teams have been used out of necessity. Many times there were not enough welders or other equipment for each student to work individually. The solution to the problem was to assign teams of two or more students to a piece of equipment. Generally, this procedure has worked quite successfully. Teachers can assign a special needs student to a team which has one or more regular students in it. These students can read together during supervised study and they can also help each other take notes when class discussion centers on the topic of the day.

There are other ways that small groups can integrate special needs students. Whenever small group reports are given in class, special needs students should be part of such small groups. Committees for the FFA chapter program of activities should have special needs students as members. Whenever possible, special needs students should be a part of chapter athletic teams.

It is also possible to use a combination of individualized instruction and large group instruction to reach special needs students.

Combination of Individualized and Large Group Instruction

An almost universal problem for special needs students is that of an inability to read. One possibility to help the special needs student is to let them listen to an audio cassette tape recorder during supervised study.

One of the students in the class, the departmental secretary, or the teacher could read the words of a reference into the tape recorder before class. The special needs student could use an earplug and listen to the words while seeing them in the reference during supervised study. If there are two or more special needs students they could listen to the tape recording at a table by themselves.

When the entire class is taken out of supervised study and ready for discussion, the special needs students will also be ready. This procedure will let the special needs students get more out of a reference and let them participate more effectively in a general class discussion.

A cassette tape recorder is generally inexpensive and available to most vocational agriculture departments. Once a recording has been made it can be easily stored and used in future years. It is not always necessary for the teacher to be the one who does all of the work of recording. Additionally, special needs students will enjoy working with the tape recorder, and those who are hard of hearing can turn the tape recorder to a volume which they can hear.

A Challenge

Special needs students provide a special challenge to teachers in regular classrooms. There are effective and practical ways to meet the challenge of teaching such students. It is very possible to combine the interests of both special needs and regular students without socially isolating either group.

Details of Annual Research Meeting Announced

Final plans for the National Agricultural Education Research Meeting to be held in New Orleans on December 5, 1980, have been made, according to L.H. Newcomb, Meeting Chairman. Dr. Newcomb, a member of the faculty at the Ohio State University, has arranged three concurrent sessions along with one general session.

ARTICLE

Improving Insight Into the Problems of Physically Disabled Students

By M.J. Iverson
Editor's Note: Dr. Iverson is Associate Professor in the Department of Vocational and Adult Education at Auburn University.

Vocational agriculture/agribusiness teachers are currently being asked to instruct an increasingly diverse student group, including those classified as physically handicapped. Under provisions of PL 94-142, Education of all Handicapped Children Act, it is mandated that handicapped children be placed in the "least restrictive environment." This is being interpreted by many school officials as the regular vocational classroom.

Assignment of physically disabled children to the vocational agriculture program may result in apprehension on the part of the teacher, especially if, as is true in many cases, the teacher has had no formal coursework, experience, or other training in working with the handicapped.

Attitudes of Vo-Ag Teachers

How do vo-ag instructors feel about teaching disabled students? A study[1] conducted at Auburn University in 1979, which tested a cross-section of teachers as to age, experience, and educational levels, revealed a generally positive attitude toward the handicapped (grand mean of 3.45 on a five point scale of 1 = strongly disagree to 5 = strongly agree, 3 being "undecided"). Though moderately positive, the closeness of the score to the midpoint of the scale indicates that those teachers did in fact have some doubts, concerns, questions, and misconceptions about the physically handicapped. Since perceptions and beliefs are reflected in attitudes, and teacher attitudes are an important part of any educational environment, it is important that correct perceptions of the handicapped student be secured by teachers.

Means to Fill the Need

Effective inservice education programs can meet this need. The most effective method tested in the Auburn study[2] was found to be videotaped presentations featuring disabled individuals describing their handicaps and the adjustments required in personal, school, and job situations.

Three handicapped students at Auburn University were interviewed: Gwen, a paraplegic for five years, now confined to a wheelchair; Manny, who is legally blind; and Robert, a victim of cerebral palsy.

The following is an excerpt from the taped interviews:[3]

Interviewer: What problems do people with your disabilities have in everyday life?

Gwen: There are a lot of health problems that can affect you once you've become a paraplegic. You are subject to kidney disease, so you have to drink a lot of water and take pills and be very careful because you don't stand up and do much movement and your kidneys can have problems. Pressure sores are another problem because you sit so much and you wouldn't know if you've been sitting too long so it could become ulcers or pressure sores and really become a health hazard. There is also danger from blood clots. Being overweight has always been a problem for me the last few years and that can be bad for heart disease, besides the fact that it is more difficult to lift yourself around, getting in and out of cars, etc. But, for me the biggest problem has been the fact that it takes me longer to do everything. I've had to get over wanting to be in a hurry about things. I have to take my time.

Robert: I'm a little different from Gwen, I was born with my disability. It is hard for me to see my problems as physical problems. I really don't have any problems with what I can do. I do everything I need to. I've been doing these all my life. I have ways and means. I live alone and do all the things I need (work in house, etc.). My biggest concern is other people's attitude toward me because of my appearance to others. They think I am totally disabled. So my biggest problem is communicating with people about what I can do because of my speech impediment and dealing with their attitude toward me.

Manny: The biggest problem for the blind is transportation — to be able to move around on one's own. Also clothing is a problem especially how to know what goes with what. You have to tag items. Also cooking is a problem. You have to learn to bake and use other means to cook up food. As far as my social life, I'm single so I've had to ask the girls to come and pick me up. It hurts one's pride but I've never had anyone refuse to come pick me up. A big problem is that I am almost totally blind at night so a date would have to help me get around. These are a few of the problems, with transportation being the main one.

Interviewer: What adjustments to everyday living have you had to make?

Gwen: I've had to adjust to being stared at and being a center of attention instead of just one in the crowd. I've learned to smile back, and that breaks the ice. Also, it takes longer to dress and get in and out of cars. I have to allow more time to make it to an appointment. I'm still working on being shorter than everyone. I've had a hard time asking for help from others. Also, I once chased my children and now I can't. This caused some personal adjustment problems — they, as teenagers, are having to get used to a disabled mother.

Robert: Yes, the psychological adjustment. I can work out any problem with a piece of equipment or technique but the attitudes can't be handled so

(Continued on Page 14)

Improving Insight into the Problems of Physically Disabled Students

(Continued from Page 13)

easily. I am responsible for creating an environment in which I can be successful. There was a time when I sat back and said, "Here I am, help me, make the world right for me to get along with!" I would wait for someone to come along rather than do the things that needed to be done to create my own environment. This adjustment didn't occur until I was about 30.

Manny: Yes, to make the best of the situation. The public attitude is changing and that's what we need . . .

Interviewer: Have you had any special problems in classroom or laboratory work?

Gwen: Desk-type chairs are a problem; I usually write in my lap. I prefer tables where I can pull up under them in my wheelchair and sit next to people in chairs. On field trips, I've only been to one place that was inaccessible. Labs are a problem. Most tables are built high, with stools for the students to sit on. Those are very unhandy.

Robert: Not really, I spent 12 years in public schools. I've had problems with writing, which required oral exams or having someone write for me. I've been fortunate in that these were always available.

Manny: I've had no problems in my school program because I was in a rehabilitation center where all these things were provided.

Interviewer: What can people — and especially teachers — do to help students with disabilities?

Gwen: Make everything architecturally accessible, like ramps, elevators, level surfaces to enter buildings, things like that, and especially accessible restrooms. I can humble myself enough to ask somebody to pull me up steps or get me a cup to get a drink of water. But, I draw the line at asking somebody to carry me through a door that's too narrow into the restroom. I would just stay at home before doing that! So it would make life a lot easier for anyone in a wheelchair if things like that were accessible.

I'd also like teachers to treat me like any other student and not be gushy or overly solicitous. Maybe the first day of class ask if there are any considerations they can do to help me move around. "If there is, let me know later." But after that, just let me be one of the students. An obvious thing is with stairs. I'd rather they move classes to the first floor than be carried up stairs. People might feel that is making the class accessible but it is dangerous for all concerned and bad for one's pride.

Robert: Basically I go along with what Gwen says: *accessibility*. I'm more mobile because I have use of my legs, I can get crutches and walk short distances, climb stairs (it's a hassle, though) but I can do it.

Communication is a problem, so teachers must be creative and seek alternate ways to communicate with the student. This is the biggest thing. Communication is the essence of the teaching-learning situation: you are sending a message and the student receives the message and communicates feedback. If we take the stereotype (one way to do it) out of our minds, there are always ways to communicate if we look for ways. We can deal with anyone.

Manny: One thing that is being done is the removal of architectural barriers. Just removing sharp corners so that when you bump into them it doesn't hurt so bad is helpful. Of course, public transportation systems are a key to people with visual problems — these do wonders.

Teachers should know about the nature of visual problems. Many visual problems are progressive in nature (they get worse). This causes depression, so teachers must be aware of this and be ready to give some understanding.

On chalkboard use: If the teacher will talk along with their writing, it will help, as well as using white chalk on a black chalkboard. Avoid use of yellow chalk on a green chalkboard. Tests are a problem, but there are typewriters with primary (¼") type which make tests easier to read. Having a reader available to help people who cannot read for themselves would also be a great aid.

Interviewer: What limitations to your vocational goals are dictated by your special disability?

Gwen: It seems that since my mind, arms, hands are okay, I wouldn't have many problems in most any career. Of course, things like sports or a career in the army wouldn't be available to me. But as far as evaluation, nothing should limit me. People may have to reach things or carry things for me, but I can repay that favor in many ways. There are a lot more things I can do than can't do!

Robert: Not too many. I intend to stay at the university level. I have done some teaching at Auburn and have been a graduate assistant for two years. Communication is a problem. Dealing with the students and communicating to a class is a perceptual problem rather than an actual problem. People think that because I have a speech impediment they will not be able to understand me. In fact, they can understand me because they will listen closer and pay closer attention.

Manny: A person with vision problems must consider if jobs call for desk work, reading, or travel. Federal regulations call for furnishing a driver for a sight-impaired person if he is otherwise qualified. I'm fortunate in that aspect because I have someone available in my job to drive me around when needed.

Conclusion

It can be seen that persons with physical disabilities have many problems in their everyday lives, in their educational programs, in vocational class situations, and on the job. Several things can be done by teachers, employers, and the general public in their contacts with handicapped people to insure they can make a significant contribution to society. Vocational agriculture teachers, because of their increased contact with special needs students, must secure knowledge of the problems and means for effectively teaching physically impaired students.

References

[1]M.J. Iverson and P.D. Davis. "The Effects of Selected Inservice Education Methods on the Attitudes of Vocational Education Instructors Regarding Teaching Students With Physical Disabilites." Research Report of a Staff Study. Department of Vocational Education, Auburn University, 1980, 55 pp.

[2]Of the three methods tested, videotape was most effective in changing attitudes, informal lecture was next in effectiveness, and reading a self-paced study guide was least effective.

[3]A full transcript of the tape may be obtained by writing the author at 112 Petrie Hall, Auburn University, Alabama 36849.

ARTICLE

Improving Mathematics Skills Among Vocational Agriculture Students

By Bob Hughes

Editor's Note: Mr. Hughes is a teaching assistant with the Department of Agricultural Education at Texas A & M University.

While teaching vocational agriculture at Nodaway-Holt High School in Graham, Missouri, it became apparent that many students were deficient in mathematics skills. This was particularly evident when students were budgeting or summarizing records. Most students could add, subtract, multiply, and divide, but had trouble applying these operations to everyday situations. When confronted with this deficiency, many students replied that they did not need to know how to do these problems, as their commission man or someone else did it for them.

The Solution

The first step toward improving this situation was adding a short unit entitled "Math for Agriculture" to the vocational agriculture curriculum. Emphasis in this unit was placed on everyday application of math skills. Topics included: basic math operations, percentages and decimals and conversions of units from price per bushel or ton to price per pound. This unit was most effective when taught with the supervised occupational experience program records unit.

The second step was adding a word problem to weekly quizzes. This step drew the most groans from students. These word problems usually were worth 5 to 10 percent of the total points possible for the quiz. The problems were pertinent to the topic of the quiz. For example, if the quiz was on an animal science unit, a livestock marketing problem would be appropriate.

Example A: If you sold eleven steers that averaged 1090 lbs. and brought $52.50 per hundred weight for which you were charged 3% commission and yardage, how much would you net?

An example for crop production might be:

Example B: If you sold 15,680 lbs. of corn at $2.10 per bushel and were docked 2.5% for weed seed, how much would you net?

An example for farm mechanics might be:

Example C: If you needed nine 1" x 6" #2 penta-treated boards 16' long, and the cost was $.625 per board foot, how much would the total cost be?

This technique could be tailored to practically any topic taught in vocational agriculture. The problems should be as practical as possible for maximum effectiveness.

The Results

Within a short time, the students' familiarity with and skill in solving agriculturally related problems increased. Some additional benefits were realized. They were: the teaching of budgeting and enterprise analysis was facilitated; the quality and accuracy of SOE records increased; and the students no longer feared simple math, but regarded it as a tool they could use.

This technique worked at Graham, Missouri, and could be adapted to work in virtually any program.

BOOK REVIEW

The Black Rural Landowner — Endangered Species: **Social, Political and Economic Implications,** edited by Leo McGee and Robert Boone, Greenwood Press, 1979, 200 pages, $17.95.

This book is a compelling collection of essays and research on the decline of black landowners in the South. In 1910, the number of black farmers in the South peaked, with 15 million acres owned and farmed by blacks. Estimates today indicate that 5 million rural acres are owned by blacks. It constitutes the largest equity resource controlled by blacks in the South.

This drastic decline in black ownership of land has created a critical problem in the rural communities. It has eroded the security and independence of many black families, which in turn erodes rural communities of their human resources.

The book gives solid historical data on the evolution of black ownership of land in the South. It covers many aspects of reconstruction (social, political and economic) that are not covered in history books. Although it cites many reasons for the decline of black ownership of land in the South, the most important were: chicanery of white lawyers and landowners, migration of blacks to northern cities in the promise of jobs, partition sales and mortgage foreclosures, failure to write wills, and the lack of education.

As teachers of agriculture, perhaps we have often overlooked an important mission, that of teaching youth the importance of keeping their land and making it productive. This collection of essays gives many possible solutions to the problem. The authors research data, both statistical and analytical, are direct and to the point. Other essays in the book help support their basic premise.

This book should be required reading in all university economic courses. Every vocational agriculture teacher and extension specialist should be familiar with the problems discussed in this book.

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ARTICLE

Reaching Learning Disabled Students

By Diana Burgess
Editor's Note: Ms. Burgess is a learning disabilities specialist in the Rockingham County Public Schools, Harrisonburg, Virginia.

Ready or not, the vocational agriculture instructor has been thrust into a new roll — that of a provider of special education services for handicapped students.

Vo-ag classes in many areas have traditionally been composed of a large number of "slow learner" or "disadvantaged" students. The difference is that now many of these students have been identified as "learning disabled" and qualify for special educational services because of their learning handicap. Federal laws insure that all handicapped students receive vocational education which is specially designed to met the unique educational needs of each student.

Teachers of agriculture should look at this new role as an opportunity — not as a burden.

Characteristics of the Learning Disabled

Students with learning disabilities do not learn in the same way as others, in spite of normal or above normal overall intellectual ability. They are not retarded. They are often referred to as dyslexic, perceptually handicapped, or neurologically impaired. They comprise approximately five percent of the total school populations; the majority are boys.

In vocational classes, 10 to 20 percent, or even more, may be learning disabled. Most of them have difficulty forming sound-symbol relationships, and have not developed adequate reading skills. They often reverse letters or even whole words, such as confusing **b** and **d**, **was** and **saw**. Many are poor spellers for the same reasons.

Most learning disabled students are easily distracted and have a short attention span and poor concentration ability, so they cannot remember and follow instructions well in the classroom. Some are hyperactive. Some have poor eye-hand coordination and find it difficult to express themselves in writing. Others are delayed in speech and language development, though many express themselves very well verbally. Impulsive and aggressive behavior is often demonstrated. Almost all victims of learning disabilities are alike in one respect — they are extremely frustrated by their lack of success in school and, as a result, have a very poor self-concept.

How Vo-Ag Can Help

Teachers of vocational agriculture are in a unique position to make the difference between a life of failure or one of success for many of these students. Because vo-ag instruction is based on hands-on experiences, students with learning disabilities are more likely to succeed. A patient, understanding teacher who uses a variety of visual aids, manipulative materials, and demonstrations, to help those who cannot read adequately will do much to build a student's self-confidence.

Home visits, which have long been a part of vo-ag, provide a teacher with a valuable opportunity to help both the student and his or her parents to understand and accept the strengths and abilities, as well as the disabilities, which each person possesses. These young people desperately need the close relationship which so often develops between an agriculture instructor and his or her students.

Unfortunately, because each learning disabled student is different in the manifestation of his or her learning difficulties, there is no "recipe" or magic kit of materials which an agriculture teacher can purchase to solve the problem of reaching the learning disabled student in a regular class situation. However, with a little time and ingenuity and a basic understanding of your student's deficits, materials can be made or adapted which can be used successfully by the handicapped student.

Avoid long, complicated directions. Assign work one short task at a time. Provide immediate feedback to the student, if possible. Some learning disabled students will need extra time to complete a task or should be given a shorter assignment so they can finish in the same time as the other students. For example, when answering questions, regular students may be required to write a complete sentence, learning disabled students only the key word. Tests may be given orally, on a tape recorder, or read by another student.

Many learning disabled students who can't follow written directions can utilize a diagram quite effectively. A good example is when building shop projects. Students should be encouraged to participate in class discussions. Assign responsibilities which they can successfully carry out independently, such as "shop manager" who sees that the area is cleaned well and promptly at the end of each period. There are some learning disabled students who are "natural leaders," and as they gain self-confidence, they may become active in the FFA, serving on committees, on judging teams, and as officers. Be sure to offer sincere praise when a student has shown improvement.

The Challenge

The role is yours whether you want it or not. Whether or not it will be an opportunity is up to you. Being an advocate for students with learning disabilities is not easy. It takes much time, patience, understanding, and caring. You must give, most of all, of yourself.

Is it worth it? Yes, I sincerely think it is. I have seen dramatic changes occur in a student just because someone cared and understood. How many of us are willing to accept the challenge of an extra step to help a child?

ARTICLE

Giving Special Education Students a Chance

By Raena C. Wharton and Linda H. Parrish
Editor's Note: Both authors are with the Vocational Special Needs Programs in the College of Education at Texas A & M University. Ms. Wharton is Editorial Assistant and Ms. Parrish is Assistant Professor.

What do you, as a vocational agriculture teacher, do when a handicapped or learning disabled student is placed in your program? Do you feel panic, frustration, resentment? Maybe it hasn't happened yet, but chances are good that your classes will include more handicapped students in the future. Since the passage of P.L. 94-142, increasing numbers of these students are being mainstreamed into vocational programs. How will you handle them? Two teachers in Texas with a background in agricultural education and experience in working with handicapped students have some suggestions.

Maintain a Positive Attitude

Eleven-year veteran agriculture teacher, Clyde Barber, now Director of Special Education Services in Dumas, Texas, says that the key to working with handicapped students is to maintain a positive attitude. "Look for what strengths and skills the student has and what he or she **can** do, not what the student can't do."

It has been proven that handicapped people can be very successful in certain vocational occupations. For example, Barber is acquainted with a blind man who is excellent in small engine repair because of his acute senses of touch and hearing. A blind person's shop is not so very different from a non-handicapped person's except a blind person is especially careful to replace each tool in the same place every time it is used, which is a good organizational technique for any shop.

Before handicapped persons can attain vocational employment, they have to have vocational training. Barber referred to a 1979 survey of agricultural teachers conducted by Jay Eudy, Texas Education Agency Area I Supervisor for Vocational Agriculture, to point out that initial opinions on working with handicapped students vary greatly. Some teachers are primarily optimistic in saying, "Sure, bring the handicapped students in and I'll see what I can do for them." Unfortunately, other teachers react with the opinion, "Handicapped students can't do anything for my program and I don't have anything available for them."

Overcome Fears of the Unknown

Much of the negativism on the part of teachers who have never taught special education students stems from fear of the unknown. Teachers with a negative attitude, according to Barber, may have two major concerns: first, they feel inadequate in coping with handicapped students; and, second, they fear for the safety of both handicapped and non-handicapped students involved, particularly in instructional laboratories. The feelings of inadequacy teachers have include a perceived lack of patience, facilities, or knowledge in the area of handicapping conditions. A heightened awareness level can help alleviate these feelings.

Better understanding of the conditions also calms fears for student safety. The survey showed that 80% of the teachers were concerned with safety factors. Barber thinks these anxieties can be overcome through exposure and experience. Teacher education preservice and inservice training can provide information about working with the handicapped or, specifically, learning disabled students. The best approach, though, is to accept these students as viable members of your classes and give them, and yourselves, an opportunity to establish a productive learning environment.

Put Theories into Practice

Barney McClure, vocational agriculture teacher in Grandview, Texas, gives every student an opportunity. McClure focuses on individualized instruction. He admits that it presents a problem when mildly retarded and prospective valedictorian students are in the same class; yet, it is not an insurmountable problem. McClure has developed some effective strategies for teaching regular classes which include learning disabled students.

During lectures, McClure suggests that teachers explain concepts in several different ways with varying language levels. Some students may be able to experiment with hybridization while others still ponder over the fundamentals of pollination. In terms of language levels, certain students will think of "bovines" while others can only think of "cows." In short, each lesson must be adjusted to the individual students.

Tests may be individualized, too. For example, you may want to give different tests in which the language level varies while the material covered does not. For students who have problems reading, read the tests aloud or tape them. This might be done in a private setting in which the student either writes or recites the answers. The special education teacher may help administer tests, especially if time necessitates assistance in this.

McClure has some ideas about individualizing shop projects, also. Some students will need more supervision than others. You may be able to tell advanced students what the end product should be and then allow them to work totally on their own. If you can simply ask the advanced students to make a barbecue pit, for instance, you have more time to work with other students on fundamental welding skills. This will not really "short-change" the ad-

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Giving Special Education Students A Chance

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vanced students because they will recognize and appreciate the confidence you show in their abilities. In effect these students become peer tutors.

Set Realistic Goals

Students achieve different levels of skill proficiency. To avoid a condescending manner, start everyone on the same tasks at first and require that they master one task before tackling the next one. This will mean that there will be many different activities going on at the same time, but it will also mean all the students have an opportunity to achieve maximum proficiency. Competency-based curriculum allows all students to achieve at their own rate while not lowering standards for any student.

Because the end products and the skills will vary for different students, a fair grading system should encompass more than mere skills mastery. McClure suggests that when assigning a grade for laboratory activities, teachers should consider a student's attitude, neatness, and safety consciousness. These factors are just as important as skill aptitude in light of long-range goals.

Teachers must realize that while some students will be able to learn how to grade market steers, for example, others have to struggle to learn how to buy a pound of hamburger. The point is that both are learning. Granted, you may not be able to enter a blind student in a range and grass judging contest because rules prohibit touching the plants to identify them; but if you can teach the student to be punctual and follow simple instructions, you are advancing that student's vocational education. Social skills (or survival skills) are vital. The handicapped person who never learns to function in society will never be more than a liability to that society.

Vocational agriculture teachers can do their part to transform these individuals from liabilities into productive, successful employees. Yes, it will require planning and patience. It isn't easy working with an integrated classroom, but teaching never is. Accept the challenge of educating handicapped students by giving them a chance to prove themselves. That is all they ask.

ARTICLE

Readability — Technical Agriculture Texts

By Lee Cole

Editor's Note: Dr. Cole is a member of the faculty in the Vocational-Technical Education Division, School of Education, Oregon State University.

Readability of technical agricultural texts has been a concern of vocational agriculture teachers for years. A text which contains good technical information will be of little value if the instructor intends to use that text with 9th graders and the reading level of the text is too high.

Various formulas have been identified which estimate the reading level of materials used in schools. Despite claims to the contrary, applying these formulas requires time commitment and expertise in their use. Unless properly used, erroneous results may be obtained. Poor quality information many times is worse than no information, at all.

Formulas for determining readability have recently been computerized, and pertinent data may be obtained which identifies such things as readability of the text, average sentence length, average word length by both letters per word and syllables per word, and printouts containing a list of words which should be defined in order to increase student comprehension.

Readability of Agriculture Books

In Oregon, a readability service is provided by the Oregon Department of Education. In utilizing this service, the Oregon State University staff wanted to determine the reading level of four commonly used technical agriculture text books: The Stockman's Handbook, Profitable Soil Management, Livestock and Poultry Production, and Modern Agricultural Mechanics.

Three readability formulas were used: Fry, Dale-Chall, and Flesch. The readability summary using these formulas for The Stockman's Handbook, Fifth Edition, 1978, is presented in Table 1.

Table 1. Readability Summary — The Stockman's Handbook

Formula	Grade Range	Average Reading Grade Level	No. of Samples Used in Averaging
Fry	6.0 - 15.0	10.0	27
Dale-Chall	9.0 - 16.0	12.5	27
Flesch	6.0 - 17.0	10.9	27

The average for all three tests listed in Table 1 was an 11.1 grade level. The publisher's designated reading level was eighth grade.

It must be pointed out that as the number of illustrations, charts, and pictures increase, the reading level is reduced. The average reading level of the three tests above was based solely on printed material, and no consideration is give to illustrations.

Table 2 contains the readability summary for Profitable Soils Management, Third Edition, 1979.

Table 2. Readability Summary — Profitable Soils Management.

Formula	Grade Range	Average Reading Grade Level	No. of Samples Used in Averaging
Fry	8.0 - 16.0	10.4	12
Dale-Chall	9.0 - 16.0	13.4	13
Flesch	8.0 - 16.0	11.2	13

The average for all three tests listed in Table 2 above was 11.6 grade level. The publisher's designated reading level was twelfth grade.

Again, all tests were on line print only. No attempt was made to reduce the reading score by the number of charts, illustrations, and/or pictures.

The readability summary presented in Table 3 is for Livestock and Poultry Production, Fourth Edition, 1975.

Table 3. Readability Summary — Livestock and Poultry Production.

Formula	Grade Range	Average Reading Grade Level	No. of Samples Used in Averaging
Fry	6.0 - 17.0	9.1	31
Dale-Chall	8.0 - 16.0	11.5	31
Flesch	6.0 - 16.0	9.4	31

The average for all three tests listed in Table 3 above was 10.0 grade level on written material only. The publisher's designated reading level was twelfth grade.

Table 4 below contains the readability data for Modern Agricultural Mechanics, 1977.

Table 4. Readability Summary — Modern Agricultural Mechanics.

Formula	Grade Range	Average Reading Grade Level	No. of Samples Used in Averaging
Fry	6.0 - 13.0	7.4	17
Dale-Chall	6.0 - 13.0	9.6	17
Flesch	6.0 - 13.0	7.5	17

The average for all three tests listed above in Table 4 was an 8.1 grade level on written material only. The publisher's designated reading level was twelfth grade.

Implications

Some texts are being used in the ninth and tenth grades which have a reading level of twelfth grade. This should not be so. Vocational agriculture teachers should, at minimum, check the publisher's designated reading level.

Since many high school students do not read to grade level, some individuals would contend that instructors should consider eighth to ninth grade readability ratings as being appropriate for most high school students. Indeed, Fry indicates that the average reading level of the general public is between sixth and eighth grade.

It is the conviction of this writer that students will perform only to levels expected of them. Therefore, an instructor should buy texts that provide good technical information, are interesting to read, have good illustrations, and are of a reading level commensurate with the students' grade. How else can we expect students to improve in reading ability unless we challenge them to do so?

The three tests used in this study did not yield the same readability rating for texts as the publishers' designations. Readability tests should be conducted on texts commonly used by vocational agriculture teachers.

Publishers should use an averaging system incorporating the results of three or four highly respected readability tests. As can be seen from any of the information presented, there will be variation among tests.

BOOK REVIEW

Dictionary of Agricultural and Food Engineering, 2nd ed., by Arthur W. Farrall and James A. Basselman, editors, The Interstate, 1979, 454 pp., $17.50.

The technical terminology of engineering is often unintelligible to outsiders. Words exist to identify equipment and their component parts and processes and principles of operation. Most people are unfamiliar with these words and terms. This book is a collection of engineering terms used in the agriculture and food industries. Its purpose is to provide a current source of information about these terms.

The definitions are restricted to engineering applications. "Track" and "track shoe" have nothing to do with foot races, "stock car" is not defined as a racing vehicle, and "press box" is not defined as part of a sports stadium, these terms have other meanings as defined in the dictionary.

Engineering terms from the areas of farm machinery, food processing, building construction, food storage, irrigation, meteorology, logging, sawmilling, electricity, and waste disposal are included in the book. Some of terms included, such as troostite, felly, strake and husking peg are little used today. Their inclusion is of historical value rather than of current importance.

This Dictionary is a collection of "shop talk" words. Many are somewhat familiar, but others such as wallow wheel, twibil, froe, fifth wheel, and tod are examples of lesser known items.

Thirty-nine editors, consultants, associates, and reviewers produced this book. These people bring a wide variety of knowledge, training, and experience in all of the engineering fields and insure complete and accurate coverage. The editors have extensive experience in agricultural engineering research, teaching, and extension.

This book will be an excellent reference source at all levels of agricultural education. It is easy to read and the definitions are written in clear, concise language. Its main value will be to facilitate communication between agricultural and food engineers and others who use the equipment and processes of agricultural industry.

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ARTICLE

Should Vo-Ag Become A Science?

By Winston Haye
Editor's Note: Mr. Haye is a teacher at Boca Raton High School in Boca Raton, Florida.

Since I have taught vocational agriculture for two years and science one year at the Boca Raton (Florida) High School, questions have arisen on whether agriculture should be listed as a science or as a vocational elective subject. To help answer these questions, I surveyed students in the high school.

Four hundred students were surveyed. Less than five percent indicated that they would elect to take vocational agriculture.

Reasons For Opting Against Taking Vocational Agriculture

When most of the students were questioned as to why they choose not to take vocational agriculture, the reasons were given as follows:

1. The majority of the students felt that there was so much science involved in agriculture they should be given a science credit for taking the subject rather than elective credit. (It also stands to reason that more science credits are required for graduation than elective credits.)

2. Some students felt that since vocational agriculture is an elective credit course, it would be better for them to take courses that they regarded as easier elective courses.

3. Others felt that vocational agriculture is an inferior and stigmatized subject and that they would loose prestige among their peers and parents for taking it.

4. The great majority of the students expressed a desire to take vocational agriculture if it was offered in the science department.

Based on student responses, there is a valid question for educational administrators and planners to address. In my college training in agriculture, I have been taught to understand that agriculture is a science. When one completes the Bachelor of Science Degree in Agriculture, he/she has courses in chemistry, physics, mathematics, biology, histology, bacteriology, plant and animal pathology, and entomology, to name a few.

High school agriculture instruction should provide the nucleus for students who are going on to college as well as prepare them for a career. If teachers had not been taught agriculture in the scientific perspective, then they would be unable to cope with the rigors of the sciences at the college level. The science concept in teaching agriculture embraces five of the major sciences: physics, chemistry, mathematics, botany, and biology.

Relationship of the Sciences to Agriculture

Some of the relationships between the sciences and agriculture are explained here.

Mathematics: Mathematics becomes very important to students in agriculture when they deal with farm management, landscaping, fertilizer analysis and usage, and floriculture. An example of the latter is when students have to construct different geometrical type floral designs.

Physics: Physics becomes useful when students are being taught soil conservation.

Chemistry: Chemistry is important in dealing with the nutrient elements, fertilizer mixtures, soil structure, pH tests, and plant and animal growth and development.

Botany: Botany plays a great part in plant genesis and identification.

Biology: Biology is the study of life which consists of all living things and those that once lived. Plant biology should constitute a great part of any agriculture science course.

My Opinion

If instruction in agriculture is to take its rightful place in the curriculum, it should be regarded as a science and not as a vocational subject for students who cannot cope with the sciences. This is not a matter just for the Boca Raton High School, but the rest of the country where the elective concept is being practiced. If students are to be properly educated in agriculture, parents and counselors need to be oriented to the nature of agricultural industry. Parents and counselors play an important part in directing and formulating the goals of students. There is a great need for them to have the proper perspective. If this is not done, the stigma that is attached to agriculture will never be erased.

ARTICLE

Include Parts Training in Your Mechanics Program

By Van Shelhamer
Editor's Note: Mr. Shelhamer is an instructor in the Department of Agricultural and Industrial Education at Montana State University.

Many vocational agriculture students have a strong interest in power mechanics. However, some students lose interest when they get their hands in the grease and grime. To help maintain interest, students may be taught the parts business while they are studying small engines and farm power. Machinery dealers and parts houses need people who can work as parts clerks.

With Small Engines

The parts training may begin while teaching small engines. The instruction might involve giving one class period to the operation of parts departments and how to use the service manual to locate and determine parts numbers and costs. A job sheet asking the students to identify, determine parts numbers, and costs may be used to allow students to become familiar with the process. This training is put to use when the students determine what replacement parts are needed in overhauling an engine. They may be required to determine the parts numbers and prices before ordering the parts. This saves the teacher time and reinforces learning of the process.

As a way of evaluating their skills, the process of determining parts numbers and costs may be included in the final trouble-shooting exercise. Several parts, such as the head gasket or carburetor needle seat may be removed and three or four other things done to make the engine inoperative.

When the time comes to evaluate the students, they should arrange the engine and get their tools out. A signal may be given for them to start troubleshooting. As an incentive to cause the students to work quickly, the first student to get his or her engine started may be given 15 points, the second student may be given 14 points, the third 13 points, and continued until all engines are running. Further, to cause the students to work carefully, the first student who correctly repairs and replaces all deficiencies may be given an additional 15 points, the second student to finish may be given 14 points, the third 13 points, and continued until all students have completed the exercise. For each part removed, the student should determine its name, number, and cost and present a written request with this information included before he/she receives the part. This portion of the test may be given a 5 to 15 point value, depending on the level of difficulty and the number of parts missing. In addition, points may be awarded for attitude, workmanship, and safety.

By placing emphasis on speed, skill, and workmanship, the student is placed in a situation similar to that which a worker is likely to encounter in a farm machinery dealership as a mechanic or as a parts clerk. Most students can handle the situation very well. However, because of the pressure, some may get excited and make silly mistakes. For example, a good student may be first to get his engine running. However, it may be barely running with black smoke rolling out of the exhaust pipe. It may be necessary for him to work two more class periods before he realizes that the carburetor needle seat is missing. The other students may apply pressure to him because he was the first started and last one completed. This serves as an example of why workmanship is important.

With Farm Power

The parts training may be continued in the farm power class. Students may be required to look up the parts numbers and cost for the parts that they need on the engine they are overhauling. Old parts manuals may be obtained from the local parts houses as they receive new catalogs. Even though the prices are not up-to-date, the older manuals show students what it would cost to repair an engine and the different ways parts manuals are organized.

Training in parts can lead to strong support of the vocational program by the local parts houses and to a discount on many parts and equipment for the school. The parts houses may sponsor training sessions by national brand name distributors, and make free training aids and wall charts available.

This approach can be successfully used in teaching students the opportunities in the parts business, interest in agricultural mechanics, an appreciation for the service provided by parts houses, and the cost structure involved with parts.

Food For Life, by Fred E. Deatherage, Plenum Press, 1975, 422 pp., $19.50.

Food and nutrition books usually deal with only one topic such as: food crops and animals; food nutrients, food preservation and storage; the biology of digestion, absorption, and assimilation; supply and demand for food; history of food production; government regulation of food or world population; and food supplies. Food for Life is a rare integration of all these areas. It provides a wholistic approach to food which integrates basic concepts from the physical, biological, and social sciences.

It was developed as a text for an introductory college course in food problems for general or nonscience students. The result is an excellent, well organized, comprehensive, yet uncomplicated treatment of the technical and practical problems of providing people with food. It deals with the fundamental role of food in our lives on a personal, national, and global perspective.

The author stresses the interdependence of people for food and how humans need to daily consume other biological systems in whole or part for survival. The history of mankind is related to food supplies, nutrition, disease control, and scientific crop and animal production. He points out that inorganic chemicals and fertilizers must be used to provide a sufficient food supply for the world.

Dr. Deatherage is a professor of biochemistry at the Ohio State University. The book is evidence that he can communicate complicated technical information in a clear, understandable manner. This book is readable, like a popular story rather than the technical text it is. He has done an excellent job of fitting together parts of several specialties to produce a total picture of food. The numerous charts, graphs, and illustrations add to the clarity of the book and its usefulness.

An understanding of basic chemistry and biology are necessary for the reader to make full use of this book. It is appropriate for general food courses at the college level. It would serve as an excellent reference for the vocational agriculture instructor as well as for the general reader with an interest in personal, national, or worldwide nutrition and food supply problems.

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ARTICLE

Why Have A Local Stock Show?

By James R. Collins
Editor's Note: Mr. Collins is the Vocational Agriculture Teacher in Rio Vista, Texas.

One of the basic parts of vocational agriculture is the supervised occupational experience (SOE) program. Within SOE, many students have livestock projects. Aside from the many advantages gained from SOE programs of this type, there is also the area of public relations. One of the most popular ways to gain publicity and create public awareness of SOE programs is through fairs and stock shows. With the high cost of travel, it is becoming increasingly difficult to participate in livestock shows outside the community. Even when students can afford trips to exhibit their livestock projects, few parents and adults in the community may attend. One answer to the problem is to conduct a livestock show in the local community.

The local stock show provides students with an opportunity to exhibit livestock projects in a manner that allows for the involvement of adults in the local community. This provides a good public relations tool since the community can see first-hand what students are doing as a part of the vocational agriculture program. By having the stock show in the community, which at Rio Vista is on the school grounds, people can attend without a long, costly drive. Many times, people in a community are not aware of the livestock projects of students unless they have a son or daughter in vocational agriculture or live next door to an FFA member.

Adults can also be involved in conducting the local show and actually work with the students rather than having to watch from a seat somewhere in the grandstands. Having livestock on display locally also provides an excellent opportunity for the school administration and other members of the school faculty to see what you are doing in your program. Quite often, the only thing that other teachers know about the projects of students is that livestock shows cause students to miss class.

Also, the quality of the livestock in SOE programs can be improved through the use of a local show. When students compete with their fellow chapter members in front of their family and friends, they tend to want to make a good showing. In some communities, students actually place more importance on their local show than any other show. A healthy competitiveness can be developed — an asset to the FFA chapter. At Rio Vista, all students who have livestock are allowed to exhibit their animals regardless of quality. Having the experience of competing tends to motivate many students to improve their SOE program the next year. Another important factor is that by having a show in the community, prospective students from the first grade on up can actually see what they can look forward to when they become old enough to be in vo-ag.

The local livestock show can be valuable to students who plan to show at other livestock shows. At Rio Vista, the judges are asked ahead of time to point out to students those things that could improve their showmanship and to feel free to make suggestions. This extra help from the judges can prevent the reoccurance of costly errors at a later date. Students may take advice from a judge more seriously than they would from their own vocational agriculture teacher!

Conducting a local livestock show can tend to be extra work for the teacher. Most vo-ag teachers already have more than enough activities going to keep them busy and may feel that this would be just one more chore. If the teacher takes advantage of those adults in the community who are interested in the program, the work required by the teacher can be kept to a minimum. In this way, parents and adults can become more involved in the vocational agriculture program while the students gain from the experience of exhibiting livestock. The amount of travel expense can be minimized while the community is made more aware of the student's activities in the vocational agriculture program. The amount of support that can be gained from the community for a program can make any extra efforts on the part of the teacher worthwhile. The local livestock show can be a valuable tool in having a successful vocational agriculture program.

BOOK REVIEW

Materials Handling in Farm Production, by Bill Butterworth, Halsted Press- John Wiley and Sons, Inc., 1979, 122 pp., $10.95.

This book addresses agriculture materials handling in Great Britain; however, the content is applicable to the United States. The content of the book covers many areas. The first chapter includes materials handling as a method of cost control. The second chapter analyzes the current and future situation in an agricultural business and shows how to determine costs. Chapter three is a short chapter on laying out buildings to best handle agricultural materials. The book has three chapters that cover the topics of equipment, fertilizer equipment, manure handling equipment, and storage houses.

This book should be used as a reference book in the United States. The students that could best use this book would be at the postsecondary level. I feel there is a great need for an agriculture material handling book to be written for use in the United States. This is one area that many schools do not properly cover in class.

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FFA PAGE

The Proficiency Award Program, 1944-1980

By Robert A. Seefeldt
Editor's Note: Mr. Seefeldt is FFA Program Specialist at the National FFA Center in Alexandria, Virginia.

The decade of the 1940's is prominent in the history of programs offered by the FFA. Today's one million plus dollar National FFA Foundation had its beginning in 1944. The Foundation had a grand total of $36,775 in receipts in its first year of operation. Through the efforts and foresight of the early founders, the Foundation has grown so that it is a real force in helping to provide the needed stimuli to encourage FFA members to prepare for challenging and rewarding careers in agricultural industry.

Rewards for FFA Members

The Agricultural Proficiency Award Program was designed to reward FFA members for advancement in knowledge and skills learned through their classroom and supervised occupational experience training. The first Proficiency Award Programs were developed to encourage FFA members to learn skill-type activities. They included Agricultural Mechanics (1944), Agricultural Electrification (1946), Dairy Production (1948), and Soil and Water Management (1949).

As the years went by, the vocational agriculture instructional program expanded to provide students the knowledge and skills that were needed to be successful in farming. This change in the instructional program required the addition of proficiency award programs that would encourage FFA members to develop management-type skills and to develop the resources to become established in farming. Through this effort, Crop Production, Livestock Production (changed to Diversified Livestock Production in 1975), Poultry Production, and Forest Management Programs were added in 1961.

The Ornamental Horticulture program, which was first initiated in 1966, expanded to four programs in 1977, including Turf and/or Landscape Management, Floriculture, Nursery Operations, and Fruit and/or Vegetable Production. The Home Improvement award was initiated in 1996. Since 1974, the Home Improvement program has been called Home and/or Farmstead Improvement. The inclusion of the Ornamental Horticulture and Home Improvement award was the first step in providing recognition and incentive programs in non-production agricultural programs.

As a result of the Federal legislation which provided opportunities in vocational agriculture for students in non-production agriculture programs, additional proficiency programs were needed. Award programs added in 1968 included Placement in Agricultural Production, Agribusiness and Natural Resources Development. To continue to meet the needs of the increasing number of students who were interested in non-production agricultural careers, the agribusiness award program was changed and expanded in 1970 to Agricultural Processing and Agricultural Sales and/or Service. In 1970 the Natural Resources Development program was expanded into two programs: Fish and Wildlife Management and Outdoor Recreation.

By the mid 1970's, specialization had begun to play a more important role in agriculture. To assist FFA members who were developing specialized, single-specie livestock programs, proficiency award areas were made available in Sheep Production, Beef Production, and Swine Production in 1974. In 1975, the FFA members with horse-related supervised experience programs were provided a recognition program with the addition of the Horse Proficiency Program.

The Proficiency Award Program in 1980 continues to reward FFA members for their advancement in knowledge and skills needed to enter an agricultural career. The major change that has taken place in the proficiency award program is that FFA members are now recognized for knowledge and skills learned in preparing for all careers in agriculture rather than just farming.

Participation

FFA member participation in the Proficiency Award Program varies from year to year and among the different programs. In 1979, the number of FFA members participating in each of the individual 22 programs ranged from a low 3,478 to a high of 27,215 members. From 1975 through 1979, 43 of the 51 chartered State FFA associations have had one or more regional winners. During this time, 32 states had all of the national winners. Since 1975, the Central Region has been the most successful in having National winners.

Up until 1969, the FFA was a national organization for boys studying vocational agriculture in public secondary schools. The opportunity for membership in the FFA was opened to girls in 1969. This increase in enrollment and involvement in FFA activities is vividly reflected in the steadily increasing number of female FFA members earning recognition in the Agricultural Proficiency Award Program. Linda McDaniel from Tennessee was the first girl to break the male dominance in the regional awards when she won the Southern Regional Award in Outdoor Recreation in 1973. Ellen MacLaughlin from New York was the first girl to take national honors when she was named National Horse Proficiency Award winner in 1976. Since 1973, 34 girls have received regional recognition, of which four also took national honors.

The opportunities for being rewarded for advancement in knowledge and skills in agriculture have been a part of the FFA since its beginning. Rewards were a vital part of the organization then, and will remain so in the years ahead.

Stories in Pictures

ILLINOIS

Loyalty to the profession was recognized at the 1980 Illinois Association Vocational Agriculture Teachers Conference when two distinguished associate members were recognized for 45 years of professional membership. Recognized for this achievement were John Matthews (left) and Harold Witt (right); each served as Head of Vocational Agriculture Service, University of Illinois, and is now retired. With them is Richard Watson (center), 1979-80 IAVAT president.

(Photograph courtesy of John H. Fedderson, Associate Executive Secretary, Illinois Association of Vocational Agriculture Teachers.)

NEW MEXICO

New Mexico vocational agriculture teachers are shown receiving information on the purification of water from uranium mines in Grants, New Mexico. Teachers received two hours credit from New Mexico State University for a two-week traveling seminar which visited vocational agriculture departments in New Mexico, Arizona, and Colorado.

(Photograph courtesy of Rosco Vaughn, State Supervisor, New Mexico.)