Teaching agriculture classes requires specialized training on the part of the teacher. A group of vocational agriculture teachers are taking part in a horticulture seminar at Ohio State University.

Teaching in Nursery operation at Breux Bridge, Louisiana has become a popular part of the Vocational Agriculture curriculum. Photo—Annen

Featuring
Multiple Teacher Departments
The AGRICULTURAL EDUCATION Magazine

Volume 39  August, 1966  Number 2

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Cover Picture

S. Roberts, USA, Young and Adult farmer coordinator in the West Columbia High School, Columbia, South Carolina, makes a point concerning the 1784-67 curriculum plans in a whiteboard history department.

Dedication. The picture was left to right: Principal David Sladek and the other teachers, Mr. B. A. Woodard and E. J. Brady of the Eng. Agro. Department.

(Cover continued, Page 28)
Opportunity Unlimited

H. M. Hamlin
Center for Vocational Education
North Carolina State University

We in agricultural education seem to be satiated with opportunity. Many of our leaders are wondering how we can possibly do all that the Vocational Education Act of 1965 requires. We have about 95 percent of the farms in the country, and the Economic Opportunity Act does not require a great deal of money. Because all of these opportunities have been put in the law, we may have overlooked them. I think the nature of the problems are becoming clearer now.

The provision of the Act is broad, permitting us to do much in agricultural education that we cannot do solely with vocational education funds.

We have become more interested in the non-vocational educational aspects of the schools. We have almost lost sight of non-vocational education in agriculture, which is a profound mistake. Much that we are doing with federal funds should properly be labeled educational rather than vocational education as the federal acts have always done.

Dolton or Calhoun Prevail?

It is freely admitted that for almost fifty years one of the basic provisions of the Smith-Hughes Act has been ignored, particularly in the South. This Act and its successor has stated that the funds available are to be used in providing opportunities for persons of particular occupations or cultures of occupations. However, in many schools all boys, regardless of their vocational intentions, have been admitted to classes in vocational agriculture.

This practice is straight from the nullification doctrine of John C. Calhoun. It has not been seen in New England, but it has not been seen in the South. In general, all students should be treated fairly and take whatever action you wish, if you can. In either case, let us understand that for your efforts in behalf of our profession.

What is the FFA? Who says FFA, what does it mean? A state program? A national program? A secret organization? Does the FFA help a rotor or does the member help the FFA, or both? Who runs the FFA? Is it a boy organization? Does a state or local FFA advise a school or are most technical Institute boys? The FFA must be all of these things. The article by the State FFA Advisor in a recent article, "May We Have It?" is constructive. Under the leadership of the National FFA Advisor, national leaders are present that the student body is developing a program to their advantage. Some believe that we have neglected to give credit even to those who have had the opportunity to take advantage of the FFA.

There is a possibility, perhaps a strong possibility, that the provisions of the Vocational Education Act of 1965 will be enforced if the national enrollment of 1967 meets the standards of the Model Act. The Act is not to change and should not change much that we are doing in the field of high school vocational agriculture, but we may look to new sources of funds for additional needs.

The Act is comprehensive. It is not enough to establish local FFA's; there must be well-fund. Local FFA labor which is being established which could do much of the current work in the field of technical education, which is the biggest job in agricultural education, rather than investigating the causes of the problems. Let us work together as a team and meet the challenge of the future.

The principal to developing programs of non-vocational agriculture is food. The principal to developing programs of non-vocational agriculture is food. The principal to developing programs of non-vocational agriculture is food. The principal to developing programs of non-vocational agriculture is food. The principal to developing programs of non-vocational agriculture is food. The principal to developing programs of non-vocational agriculture is food.
The Organization of Multiple-Teacher Programs

Some of the findings of this study in Alabama differ from those in other studies. In fact, opinions of those surveyed there differed from those indicated in the table. However, the spread of the results did not occur because of a low agreement of the teacher in different schools. A total of thirty-nine individuals were involved in a survey of the organization of multiple-teacher programs in Alabama.

The teachers of teachers in multi-teaching situations will likely increase considerably in the years ahead. Clearly the most desired teaching situations were the classroom teaching and on-campus reconstruction. There was some indication that the previous teaching preferred classroom instruction. The majority of the beginning teachers favored the field laboratory method of instruction.

In the organization of the FFA, there should be three separate local chapters and each should be equally divided between the divisions. Most of the teachers of vocational agriculture indicated that they would divide equally the responsibilities in organization of programs so that each teacher would have the same amount of work.

Specialization was suggested in several departments. One teacher taught all of the shop instructions, while the other departments instruction taught all of the classroom courses. One department had success in having teachers exchange for the purposes of teaching particular parts of the program. Twenty teachers of vocational agriculture recommended exchange of classes occasionally.

Eleven departments offered a total of twenty adult farm courses and in one department had no adult program. The teaching of these adult courses was shared by teachers in twenty departments. One teacher conducted all the adult programs. In one department, all adult courses were conducted by two teachers. In another case, one teacher conducted the last year adult courses in the department and the other teacher advised the FFA. Record keeping and reporting was shared by twenty teachers of vocational agriculture in two teacher departments. In one department, one teacher was responsible for all reports. In the other department each teacher kept his own records and made his own reports. (Continued on Page 51)

The Small Animal Laboratory

The results of a survey revealed that the number of high school students enrolled in a department of vocational agriculture was the deciding factor in the selection of the program. Students enrolled in a department of vocational agriculture averaged 50 students.

Number of students enrolled in each program indicated that a total of three or more courses should be required with an emphasis on the first 100 to 120 credits.

Other factors considered included:
- Number of credits
- Need for more participation in FFA
- Teaching agricultural related experiences
- Opinion of agriculture teacher currently employed
- Opinion of advisory council

Six departments followed the same general policy that each teacher was responsible for supervising the operation programs of his students. Six of the teachers allowed credit for the courses they offered, especially when the visits were often discussed in advance by the teacher to present duplication of credit to form of teachers who were in different classes.

Facilities

There were separate classrooms in all of the eleven multiple-teacher departments. Two of these had three classes located in the same agricultural building. None of the eleven departments had two classrooms in the same agricultural building. One department with two teachers had to share their shop with an industrial arts group. All teachers interviewed said that there should be two separate classrooms and one large shop when three or more teachers in a department.

All departments had shop facilities that were adequate. All teachers shared the use of the shop. Several of the teachers in large high schools stated that two shops and two classrooms should be available. If a successful program was to be carried out, supervisors and principals stated that two shops and two classrooms would be added expense for the shop, in most cases, was not used except part of the time.

The building and its facilities do not adequately determine the quality of instruction offered. However, most teachers felt that facilities should be adequate to permit the teachers to do an effective job in teaching. (Continued on Page 35)

The Small Animal Laboratory

Developing an inquiring mind and explaining basic scientific research methods are two important objectives of the vocational agricultural program. One way to reach these objectives is through a small animal laboratory. Several schools in Oregon have faced such an addition to their biology and teaching part of the curriculum, particularly where local farm experiences are limited.

Sophomore agriculture students at Central Linn High School really began to understand animals and their environment when a local hatchery donated several hundred legumes and a eight-unit breeder. Supplies and uniting mixing techniques were provided by a local food company. The specific action rations were furnished by the Oregon State University Poultry Department.

A team of student investigators began their work by selecting from one of the early mixed rations which were identical in vitamins A, B, C, D and K. These other rations; corn only, wheat only, and the balanced controlled rations were made available. Each student pair mixed and properly labeled their rations.

The young researchers then weighed, scaled, numbered, photographed and deboned each bird. Research objectives, procedures, and time schedules were established by the group. Each day the students would feed, water and clean the cages of birds. Daily notes were recorded on the birds physical condition, amount of food consumed, plus the weight and condition of the droppings. Each week as several elected representative samples of five of the fifteen birds were scaled, weighed and recorded in a photograph.

The experiment began with two-day, old birds and ended six weeks later. Student pairs then gave formal presentations of experiments to the class illustrating growth rates, feed consumption, periods of grain, feed utilization, deficiency evidence, and from reading supplemented research findings to impart and add to their experiences.

A permanent photograph and diagrammatic record was then assembled for display at the all school vocational fair to emphasize the part which research and development play in a vocational agriculture program.

Reports of similar activities from other schools in Oregon indicate that the small animal laboratory has a definite place in the vocational agricultural program.
Employment Opportunities in Retail Ferris Distributer Distribution

THOMAS R. POWELL, Research Assistant, and CLARENCE E. BUNDY, Teacher Educator, Iowa State University

The ferris industry in Iowa and has recently shown rapid expansion. In 1959, 10,015 farmers in Iowa reported the use of 21,777 tons of fertilizers. This grew to 88,582 users using 880,913 tons in 1969. Plant nutrient composition of each ton has risen as well. In 1965, 1,949,765 tons of fertilizers were sold in Iowa and sales are expected to reach 3 million tons in 1970.

The number of licensed Class II fertilizer firms in Iowa, who may mix irregular grades or make fertilizer in their own order, has risen from 104 in 1955 to 161 in 1965 and to 253 in 1969. Six agricultural chemical industry experts indicate a trend toward establishing one-stop farm supply service centers where all farm supply needs can be met.

If agricultural education is to train persons in light of actual or anticipated opportunities for gainful employment as outlined by the Vocational Education Act of 1963, what are the employment opportunities in this rapidly expanding and changing industry?

The Survey

Firms retailing fertilizer in 25 selected counties in Iowa were surveyed with a mail questionnaire to determine the number of full-time employees they employed in 1969, their present employment of their employees, and the anticipated employment of anticipated employees in 1968 by job category plus management background information.

Future employees being trained must learn skills, abilities, and understandings in dealing with a broad range of agriculture communities as shown by more than one-half of the firms handling grain, feed, and fertilizer with only 25 percent of the firms handling fertilizer alone.

Based on the 309 responding firms of the 316 firms, there were 151,575 full-time male employees in 1969, 75,319 in 1964, and 9632 anticipated for 1968 in firms retailing fertilizers in Iowa or 38.4 percent more full-time employees anticipated in 1968 than in 1964. (Table 1 first page)

With allowances for retirement and employee turnover, job opportunities of 100 percent of full-time male employees were shown from 1954 to 1964. A need for 1054 fertilizer specialists, 955 other unspecified employees, 692 salesmen, 494 clerical workers, 201 feed salesmen, 250 assistant managers, 195 heads of fertilizer department, 157 salesmen, 115 heads of feed department, 115 managers, and 105 elevator men from 1944 to 1964 were shown. There were 3206 total part-time employees in 1969.

Promotion Ladder

The route to management tended to pass through the job categories of service, clerical, or technical personnel moving to sales positions or becoming heads of fertilizer or feed department or managers positions. Thirty percent of the managers had college training and they averaged only 2.6 years before becoming managers compared to 5.3 for those with 12 years of schooling.

Training Needed

Present and future expanded programs of vocational agriculture in high school may serve to prepare future employees for service, clerical, and unspecified other job categories where job opportunities were anticipated from 1964 to 1969 or 554 persons per year. Two employees per present vocational agriculture department in Iowa with additional teachers and technical supervision might move through sales jobs to management.

Management in the high schools and college departments in Iowa or 38.4 percent more full-time employees anticipated for 1968 in firms retailing fertilizers in Iowa or 38.4 percent more full-time employees anticipated in 1968 than in 1964. (Table 1 first page)

TABLE 1. Iowa retail fertilizer manpower personnel by job category and year

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Managers</td>
<td>1388</td>
<td>1256</td>
<td>1352</td>
<td>48</td>
<td>-4</td>
<td>44</td>
<td>115</td>
</tr>
<tr>
<td>Assistant Managers</td>
<td>630</td>
<td>775</td>
<td>802</td>
<td>145</td>
<td>127</td>
<td>272</td>
<td>329</td>
</tr>
<tr>
<td>Head of Feed Department</td>
<td>210</td>
<td>219</td>
<td>342</td>
<td>123</td>
<td>137</td>
<td>260</td>
<td>187</td>
</tr>
<tr>
<td>Head of Fertilizer Department</td>
<td>276</td>
<td>337</td>
<td>474</td>
<td>61</td>
<td>137</td>
<td>198</td>
<td>177</td>
</tr>
<tr>
<td>Elevator Man</td>
<td>376</td>
<td>403</td>
<td>438</td>
<td>35</td>
<td>168</td>
<td>197</td>
<td>115</td>
</tr>
<tr>
<td>Feed Mill Man</td>
<td>442</td>
<td>561</td>
<td>638</td>
<td>57</td>
<td>176</td>
<td>322</td>
<td>207</td>
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<tr>
<td>Fertilizer Salesman</td>
<td>333</td>
<td>510</td>
<td>1048</td>
<td>538</td>
<td>715</td>
<td>654</td>
<td>654</td>
</tr>
<tr>
<td>Feed Salesman</td>
<td>224</td>
<td>391</td>
<td>567</td>
<td>175</td>
<td>342</td>
<td>516</td>
<td>281</td>
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<tr>
<td>Agricultural Service</td>
<td>212</td>
<td>272</td>
<td>526</td>
<td>254</td>
<td>214</td>
<td>328</td>
<td>328</td>
</tr>
<tr>
<td>Other G, F, E, F Employees</td>
<td>1060</td>
<td>1091</td>
<td>1638</td>
<td>31</td>
<td>547</td>
<td>865</td>
<td>905</td>
</tr>
<tr>
<td>Non-G, F, E, F Employees</td>
<td>624</td>
<td>877</td>
<td>790</td>
<td>33</td>
<td>133</td>
<td>166</td>
<td>205</td>
</tr>
<tr>
<td>Total</td>
<td>6137</td>
<td>7386</td>
<td>9032</td>
<td>1149</td>
<td>2140</td>
<td>3295</td>
<td>3939</td>
</tr>
</tbody>
</table>

* Calculated from 297 firms reporting employees in 25 counties in 1959.

(Continued from Page 32)
Competencies Needed in Agricultural-Supply Business

A basis for program development

HAROLD BINKLEY, Teacher Education, University of Kentucky

A number of studies have been conducted to identify the competencies in farm agricultural occupations. Some work has been done to determine occupational competencies in the agricultural-supply business for various occupations. This particular study dealt with the competencies required for successful employment in the agricultural-supply business.

A list of 250 competencies needed were developed in six areas by interpreting managers and assistant managers in agricultural-supply businesses. The six areas and number of competencies in each are as follows:

<table>
<thead>
<tr>
<th>Area</th>
<th>Competencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foods</td>
<td>40</td>
</tr>
<tr>
<td>Seeds</td>
<td>33</td>
</tr>
<tr>
<td>Feedstuffs</td>
<td>44</td>
</tr>
<tr>
<td>Agricultural Chemicals</td>
<td>48</td>
</tr>
<tr>
<td>Business Services</td>
<td>25</td>
</tr>
</tbody>
</table>

Sixty-five agricultural-supply businesses were surveyed in Kentucky. Each supervisor and teacher educator on the joint-staff in agricultural education assisted with the survey. The survey had good state-wide coverage, since teacher educators surveyed in a different supervisory district coordinated their work with the supervisor of the district. The survey included each kind of employee in the business.

In a business which employs 100 individuals, 59 competencies were employed by 49 individuals whose jobs required competencies in foods; 73 needed competencies in seeds; 70 needed competencies in feedstuffs; 73 needed competencies in agricultural chemicals; 70 needed business competencies; and 90 needed certain general competencies.

General Competencies

Even though the general competencies are not agricultural in nature, they were felt to have a definite bearing on one's successful employment in an agricultural-supply business. All competencies listed here were rated by 86 percent or more of the employees as being "very helpful" to their employees in the successful operation of the business.

A. Ability to:

1. Accept and carry out responsibilities.
2. Maintain good personal appearance.
3. Have a good attitude toward the business.
4. Follow work-orders and write work orders.
5. Have initiative.
6. Have enthusiasm.
7. Be punctual in reporting for work.
8. Be on time, and work at a steady pace.
9. Be on time for work, and work at a steady pace.
10. Care for materials, tools, and equipment.
11. Make effective use of working time.
12. Develop speed and accuracy in work.
13. Follow instructions.
14. Direct and supervise others.
15. Be observant.
16. Make basic mathematical calculations accurately.
17. Be careful with property on farms.
18. Practice safety.
19. Drive a truck safely.

B. Summary

The 250 competencies surveyed, in the six areas 114 or 45 percent were rated by 75 percent or more of the manager or assistant manager interviewees as being "very helpful" for their successful employment.

The competencies listed here have implications for course building in departments where teachers are planning specialized training for students in agricultural-supply businesses. In developing such a program the class instruction should be geared to the competencies needed for successful employment in the agricultural-supply business and the opportunity for supervised occupational experiences is essential to develop these competencies.

Business Competencies

A. Understanding of:

1. Business operations.
2. Importance of meeting the public.

B. Knowledge of:

1. The duties of salespeople.
2. How to meet the customer satisfactorily.
3. Suggestive selling.
4. Understanding the sales methods.
5. Mixed and straight selling.

C. Ability to:

1. Make suggestions acceptable to the customer for his improved use of fertilizer.
2. Communicate with farmers regardless of their production level to follow up selling fertilizer.
3. A farmer's credit potential and when to extend credit.
4. Share a farmer's problems when a "bad cost" and what increased from a farmer's variable costs, and additional yield and profit.
5. Latest concerns about customers following not good fertilizer practices.

D. Advantages of using high-quality seed

1. What is involved in producing high-quality seed.

E. Understanding of:

1. Advantages of using certified seed.

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JULY, 1965-JUNE, 1966
AUTHORS

Chapters Help With School Safety
VAN H. BURNS, Yo Ay Teacher, Selina, Louisiana

School files endanger the lives of students, disrupt school programs, and cause heavy property losses each year. Even with our ultra-modern school structures, fire hazards can be found in many buildings. Assigned responsibility, if carried through, can do much to eliminate these conditions and make our school buildings safer. These and other situations afford P.F.A. chapter members an excellent opportunity to help make their school safer through organized group activities.

Organization
P.F.A. chapter members meet with high school principal and other school officials and discuss school safety. Get approval of principal and other school officials for the P.F.A. chapter to carry out safety activities at school. At the next regular P.F.A. meeting start making plans for your school safety program. The chapter members select a fire warden and three assistant wardens. The president appoints the following committees: Fire hazards, Fire extinguishing equipment, Fire drill, Traffic safety and Playground equipment. There are several other committees that might be needed, depending on your local situation. These activities and committees, of course, must exist with approval of principal or person in charge of operation of the school.

Fire Hazards Committee
Five hazards can be found in many of our buildings. If these hazards are not detected and corrected they can cause serious accidents and great losses. The committee in charge of fire hazards must be schooled in the ability to recognize fire hazards, have some knowledge as to how they can be eliminated and be prepared to report them to the proper authorities. The representative of the State Fire Marshall’s Office will be glad to discuss all phases of school safety with the P.F.A. members. He can provide literature and suggest other publications which will prove very helpful in fire hazards detection and elimination. This committee makes regular inspections of all school buildings, a minimum of one check per month and make report to school authorities as to their findings.

Extinguishing Equipment Committee
Schools are required to equip buildings with certain fire extinguishing facilities. This P.F.A. committee is responsible for checking all existing extinguishing equipment.

(Continued, Page 40)
A Good Curriculum Becomes Obsolete

EARL M. PRICE, Supervision, North Carolina

Vocational agriculture education in the present-day school has been challenged in one area as a program no longer needed because it is based on a need to teach a craft previously needed by industry and business, which no longer exists.

Although this type of challenge gives additional impetus to the need for evaluation of the vocational agriculture program, it is not the main reason for the need to improve the program as it has been developed in the past. Only a poor curriculum ever becomes obsolete.

A curriculum does become obsolete, perhaps it has served its purpose and should be discontinued. Few people question the examination that we will need the number of full-time production farm operators tomorrow which have been needed in the past.

In 1965, there were only about 150,000 farmers, and in 1965, the number was estimated to be 15,000. In the future, the number of farmers is expected to decrease even further.

A man who earns college degrees in chemistry, biology, mathematics, or any other field, is not expected to be a farmer. Farmers should be encouraged to pursue other careers that will require even better training than the farm.

Traffic Safety Committee

Traffic on or near the school campus is controlled by the traffic committee. Items of special interest to this committee include parking and unloading of school buses, picking up or near school campus for all school activities, student vehicle registration, right of pedestrians and rules concerning bicycles.

Playground Safety Committee

Defective play equipment is dangerous to children and property losses. A playground safety committee is responsible for the children's safety in the playground. The playground safety committee must have the equipment in good working order and ready for use in case of emergency.

Summary

The primary purposes of such programs are to eliminate fire and other school hazards and to reduce school accidents. As a result of those programs, F.F.A. members get actual experience in safety experiences, develop a sense of pride in having a safer school environment, and learn to work and cooperate with other students and school officials.

Specialization

The most significant characteristic of a modern F.F.A. curriculum is the option type of curriculum. A student will pursue a pattern of courses. As has been previously indicated, there is no one-size-fits-all education in agriculture. The F.F.A. curriculum, instead of offering a wide variety of production programs, will offer particular courses in agricultural chemicals, ornamental horticulture, forestry, and other fields of agriculture. These are important facets of living in a society where more and more people are finding that they have almost as much time to devote to jobs of their own choosing as they have to devote to the job of earning a living.

The purposes of the Vocational Education Act of 1965 are to provide vocational education that is relevant to the occupational needs of society.

Within this viewpoint, many states are redesigning their programs in vocational agriculture education. It is not infrequent for appropriate vocational agriculture education for those who desire to obtain the most comprehensive training in any of the broad areas of agricultural science and agricultural leadership.
Factors Related to the Enrollment of High-School Boys in Vocational Agriculture

HERBERT H. BRUCE

A study "Factors Related to the Enrollment of High-School Boys in Vocational Agriculture" made in Kentucky in 1906, revealed some interesting findings.

Although the vocational agricultural enrollment in Kentucky had been increasing each year, the study revealed that some boys who had an opportunity for supervised practice were not enrolling. The study also revealed some boys who did not have an opportunity for supervised practice were enrolling. (Supervised practice in this study was used to designate the practice in farming carried out under the supervision of the teachers of agriculture.)

The study attempted to determine:
1. What caused boys to enroll in vocational agriculture who did not have an opportunity for supervised practice?
2. What caused other boys who had an opportunity for supervised practice not to enroll?

Boys, teachers of agriculture, and guidance counselors in 45 schools, five from each of the nine supervisory districts, were surveyed. There were 2,444 freshmen and junior boys surveyed. These boys were grouped on the basis of their opportunity for supervised practice. They were then asked why they did or did not enroll.

Teachers of agriculture were asked why they thought these boys did or did not enroll.

The 45 schools in the study were ranked on the basis of the percent of boys enrolled in vocational agriculture who had an opportunity for supervised practice. Teachers and guidance counselors from the top nine schools having the highest percentage of boys enrolled in voc-ag who had an opportunity for supervised practice were interviewed to determine the practices used in enrolling boys. The same was done for the bottom nine schools.

Thirty-six percent of the boys surveyed were enrolled in agriculture. Of the boys enrolled in agriculture, 89 percent voted on 10 acres or more land.

Twenty-seven percent of the boys who did not enroll in agriculture had an opportunity for supervised practice. Twelve percent of the boys not enrolled were interested in being placed on a good farm for experience in farming. Of all the boys surveyed 44 percent expressed interest in being placed on a good farm for experience in farming. Of all the boys surveyed 44 percent expressed interest in being placed on a good farm for experience in farming. Of all the boys surveyed 44 percent expressed interest in being placed on a good farm for experience in farming.

The size of the schools that the boys attended, whether they lived or worked on a farm, the size of farms, crops grown, livestock possessed, machinery available, farming status of the father, and the occupation of the father had an influence on boys enrolling in agriculture.

Findings

 Teachers of agriculture and others involved in counseling should realize the need for supervised practice in vocational agriculture. They should also understand why boys who had an opportunity for supervised practice did not enroll in agriculture and why boys who did not have an opportunity for supervised practice enrolled.

Certain practices were followed by more teachers and guidance counselors in the schools which were more successful in enrolling boys in agriculture who had an opportunity for supervised practice. These practices should be used to cause a higher percentage to enroll.

(Continued, Page 43)

The Agricultural Education Magazine, August, 1906

Guidance Counselor—Friend or Foe

W. J. CRUCE, Guidance Counselor, Reidland High School, Paducah, Kentucky

In the guidance counselor a foe of the vocational agriculture department? Speaking for one counselor—emphatically NO.

Why is it that many vocational agriculture teachers feel that the answer to the question is yes? And in some cases may be. If it is true, who is to blame? First, if this condition exists, it may be due to a lack of his understanding of vocational agriculture. Does he understand your program? If not, why not?

7. Boys should understand that vocational agriculture will help them learn to farm.
8. Boys should know that students who study agriculture in high school do as well in college as those who do not study agriculture.
9. Students of agriculture should help the principal work out a class schedule that will prevent serious conflicts for boys taking agriculture.
10. Boys should be more liberal in enrolling freshmen boys than junior boys in agriculture.

11. Boys interested in agriculture who do not live on farms should be placed on good farms to get farm experience.
12. Boys interested in training in off-farm agricultural occupations should have an opportunity to take agriculture.
13. Boys interested in agriculture should enroll all four years in high school.

Recommendations

1. Only boys who can profit from the training should enroll in agriculture.
2. Boys and parents should be visited telling boys enroll in agriculture.
3. Boys should make plans for supervised practice before they enroll.
4. Teachers of agriculture should work with the counselor, principal, and other teachers in enrolling boys in agriculture.
5. Teachers of agriculture should do everything possible to help contact and encourage to enroll boys who want to enroll and have an opportunity for supervised practice to enroll in agriculture.
6. The public should be informed about the program of vocational agriculture.

(Continued, Page 44)

The Agricultural Education Magazine, August, 1906

AUGUST 1, 1946

National Seminary Cooperative Education Center for Vocational and Technical Education
Ohio State University

Cooperative Education

In agriculture is not reaching as high as it should, in your school, take a good look at your program. Analyze and criticize it and modify it to make it what it should be.

(Continued, Page 44)
Meeting Opposition to Change

J. C. AHERTON
Teacher Education
Louisiana State University

Two neighboring school districts recently held local elections for an appropriation of tax funds for the public schools. In one community the vote was 50 percent against the levy by public authority whereas in the other community the issue was soundly rejected.

Even a cursory investigation would indicate that there are reasons for neighborhood reaction different to school needs. It was simply a matter of public sentiment. The same is true in favor of a particular individual and in favor of the other. The favored choice was the result of an informed public who had been involved in the issue from its inception to the final conclusion. Reasons, benefits, and criticisms had all been given careful and considered presentation by public officials. On the other hand the adverse results from the election to the neighboring community were brought about through our communication, a job of selling rather than selling a complete and accurate message with the results and criticism raised by the general public.

Dealing Ms Opposition

As implementation of the educational program in of-farm agriculture moves into the future there is the constant danger of sincere opposition arising against the school administration and faculty as well as the public community. Something now which is not understood is frequently received and considered by the public at large as something the need to know. The views of the arbitrary—What are you not up on, you are down on. The teacher in the delectation of the program will want to keep the opposition within minimum proportions. This is not always an easy assignment.

Footnotes

1. By Clayton Riley, Director, Demonstration Center, Delta High School.

2. We agree with Mr. Croce's comments. It is our responsibility as teachers to inform the public about our schools and our programs. Mr. Croce has met with our administration and visited with the local school system and the state school district. We have been kept informed of the progress and development on our school.

3. We are all concerned about the social problems of today's society. One of the ways we can help is by teaching our students how to be responsible citizens. This will help them in the future and it will also benefit our society.

Personnel Needed in Ag Industry

ALAN H. LAMB, Secretary, New York Farm Machinery Dealers Association, Hamilton, New York

There are views of personal needs from "the other side", the employer in the ag industry. Their implications for training programs in both areas are as follows:

- The most pressing problem facing the farm equipment, light industrial, and farm machinery industry is the lack of trained personnel. I believe special programs for education in this area are safe in order to train for these jobs.

- Up until recently, a mechanic in the farm machinery field didn't need to be exceptionally proficient in order to get by. This is changing as farm machinery becomes more complex and sophisticated. Mechanic's skills will have to be more refined in the near future. I believe some mechanical skill could be a desirable job.

- People in the ag industry need to be a lot more trained in departments such as sales and marketing. This is because the ag industry is a fast-paced one where quick thinking and decision-making are necessary. I believe that the ag industry needs to be a lot more educated in these areas.

- The agricultural management field needs a lot of trained people. This is because the ag industry needs to be able to manage their businesses effectively. I believe that the ag industry needs to be a lot more educated in these areas.

- The ag industry needs to be a lot more educated in the areas of finance and accounting. This is because the ag industry needs to be able to handle their finances effectively. I believe that the ag industry needs to be a lot more educated in these areas.

- The ag industry needs to be a lot more educated in the areas of marketing and sales. This is because the ag industry needs to be able to market their products effectively. I believe that the ag industry needs to be a lot more educated in these areas.

- The ag industry needs to be a lot more educated in the areas of production and management. This is because the ag industry needs to be able to produce their products effectively. I believe that the ag industry needs to be a lot more educated in these areas.

Summary

I would say that we need to establish training programs which would prepare people into the more specialized areas of agriculture. These programs would need to be well planned and executed. I believe that the ag industry needs to be a lot more educated in these areas. The ag industry needs to be a lot more educated in the areas of marketing and sales. This is because the ag industry needs to be able to market their products effectively. I believe that the ag industry needs to be a lot more educated in these areas. The ag industry needs to be a lot more educated in the areas of production and management. This is because the ag industry needs to be able to produce their products effectively. I believe that the ag industry needs to be a lot more educated in these areas.
Encyclopedia of Educational Research

Agricultural Education will not be listed in the Encyclopedia of Educational Research, as it has not been included in the current edition. This was learned by Bob Wambrad in correspondence with Editor Robert Ebel, Ph.D. The Agricultural Education Resource Center has the information of all who may be interested in the subject.

It would seem that dropping Agricultural Education as an entry in the Encyclopedia of Educational Research would be unfortunate and deceiving. For the first time, personnel and funds have been made available for broader research in Agricultural Education, and the results seem most encouraging. Again, the notion that Agricultural Education is concerned only with farming limits our effectiveness and influence in educational circles. In a letter to Professor Abel it was pointed out that relative little research in Agricultural Education is concerned with "farms and farm managers" as implied in his letter. Editor

Dr. Robert L. Ebel
400 College Hall
College of Education
Michigan State University
East Lansing, Michigan 48823

Dear Dr. Ebel:

I note in your letter of May 20 indicating that there would not be a separate entry on agricultural education in the Fourth Edition of the Encyclopedia of Educational Research was most surprising. I do not agree with this decision. It is my understanding that the Encyclopedia of Educational Research is concerned with providing a broad coverage of the field of educational research. Agricultural Education falls under the category of educational research, and it would be inappropriate to exclude it from the encyclopedia. It seems to me that the encyclopedia should be expanded to include this important subject area.

Sincerely yours,

J. Robert Wambrad
Assistant Professor
Agricultural Education
Michigan State University

The Agricultural Education Magazine, August, 1966

Robert Wambrad, Associate Professor, Agricultural Education, University of Illinois

No leaves have been lost in the editing process of the Fourth Edition of the Encyclopedia of Educational Research. The Agricultural Education entry has been expanded to include a more comprehensive treatment of the subject. The inclusion of this entry is important because it provides a valuable resource for students, educators, and researchers interested in the field of agricultural education.

J. Robert Wambrad
Assistant Professor
Agricultural Education

The Agricultural Education Magazine, August, 1966

C. W. Hill, President
American Association of Teacher Educators in Agriculture
Division of Agricultural Education
Cornell University
Ithaca, New York 14850

Dr. Alfred H. Krebs, President-Elect
American Association of Teacher Educators in Agriculture
350 College of Education
University of Illinois
Urbana, Illinois 61801

I respectfully request that you and the Board of Editors reconsider the decision to exclude a separate entry on Agricultural Education in the Fourth Edition of the Encyclopedia of Educational Research. Agricultural Education cannot be treated adequately in a general article on educational research.

Please inform me concerning procedures for submitting a formal request to the Board of Editors for including a separate entry on agricultural education. I eagerly await your reply.

Very truly yours,

J. Robert Wambrad
Assistant Professor
Agricultural Education
University of Illinois

J. W. Cree

Themes for the Agricultural Education Magazine

November-December CHANGING ROLE ARE YOU IN VETERAN EDUCATIONAL AgAgricultural Education, Vocational Education, or Occupational Education? Educational leaders or agricultural specialists? Examine the changing role of the teacher, the supervisor, and the school educator.

December: OBJECTIVE PROGRAMS FOR PROSPECTIVE TEACHERS

Do we have a Model T or 1967 Model T? Or a Model A? If our objectives of the undergraduate program are not met with the demands placed upon the beginning teacher? What responsibility do we have to improve the program so that students will be better prepared for their future in other agricultural education positions? New guidelines. Needed improvements from other areas of teacher education.

January: GRADUATE STUDY

Need Opportunities. Role of graduate study in professional improvement, leadership, and professional achievement. What are the obstacles to going into other agricultural education positions? Problems faced in implementation. Needed guidelines.

Agricultural Education not concerned solely with "training for farmers and farm managers" as indicated in your letter. The Agricultural Education Resource Center of 1963 includes the mandate that vocational education in agriculture is educative. The major thrust of agricultural education during this decade has been and continues to be the development of programs for present and prospective workers in the nonfarm, off-farm, agriculturally oriented business and industries. Extensive research in some 20 states has already demonstrated the fact that almost one-half of the persons employed in the nonfarm, agriculturally oriented business and industries need knowledge and skill in agriculture (animal science, plant science, agriculture engineering, veterinary medicine, management, and the like). In fact, rapid technological changes in agriculture and related sciences necessitate an elevated level of training for farm managers and supervisors. No one can deny that the need for more farm managers even though farmers needed in the future may not be as great as in the past. Currently, the number of farms in the United States with annual sales of $10,000 or more is increasing rather than decreasing. Therefore, the need for additional farm managers and supervisors will increase in the years ahead.

3. Agricultural Education is not concerned exclusively with vocational education in agriculture. The Agricultural Education Resource Center of 1963 includes special education in agriculture, for example, soil and water conservation, and nonvocational education in agriculture for purposes other than agricultural education. The study of agriculture is emerging as a major field.

4. The elimination of a separate entry on agricultural education implies, in no way, that agricultural education is not important. Agricultural education is important, and no one should昸 consider it a minor subject. I feel that many of the nation's leaders are not aware of the importance agricultural education plays in our future. Agricultural education must be recognized as having its place in the total education of the student.

5. In the most rapidly developing field of agricultural education today is technical education in agriculture. Many of these programs have a level of competence which requires post-high school education. Nevertheless, the need for a more effective understanding of the education of students in technical agriculture is essential. The technical education of agricultural education programs is being established throughout the country. The necessity for agricultural education into a general category on vocational education would be premature and disappear from the same is a second reaction. By refusing to admit that the conditions exist, the teacher is taking a most unrealistic attitude or position. In many instances the present technological changes, however, will just force more entrenched the longer it takes.

If the teacher expects to remain in the school system and to progress toward full implementation of the broadened program of instruction in vocational agriculture it seems essential that these facts be made clear to the person so that they may react in a positive manner. It should be clearly understood that the teacher is not in full agreement or sympathy with certain procedures but he is not necessarily against the entire program or the teacher.
Stories in Pictures

GILBERT S. GUINER
OHIO STATE UNIVERSITY

Teachers in Montana Voc. Agr. departments take time for evaluation and planning of programs with students.

School Administrators and teachers of Voc. Agr. in Washington agreed that planning, coordination and evaluation are essential elements of success in a multiple teacher department. Photo by Kopp.

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