Stories in Pictures

by Richard Douglass

Propective forestry students at Crescenta High, South Carolina, observe a demonstration by two majors on harvesting pine logs from the FFA Chapter Forestry Laboratory. Since these students are considering taking the forestry major, they are hoping all they can about the program beforehand. (Photo by J. Allen Hodge, Associate Professor of Agricultural Education, Clemson University)

Jim Cleaver, Mark Hall, and George Johnson remove an air filter from a high volume air sampler. The filter is then dried and weighed to tell the total amount of suspended particulate material in the air. This one is run for 24 hours and taken every 4 days. (Photo by Terry Baughman, Instructor, Environmental Science, Joint Vocational School, Montgomery County, Ohio)

Harold S. Chadwick, left, Vo Ag teacher, Crescent High, South Carolina, shows junior David Starnes, and counselor Eddie Johnson, manager of Curtis Farm Store, that Vo Ag is helping David obtain supervised work experience and employment during the summer with an agricultural business firm. (Photo by J. Allen Hodge, Associate Professor of Agricultural Education, Clemson University)

Vo Ag teacher Sam Clark, Mc砝lle High, South Carolina, gives prospective sophomore emphasis a guided tour and orientation to the vocational agriculture program at the school. These students will soon be making and their class schedules for next year. (Photo by J. Allen Hodge, Associate Professor of Agricultural Education, Clemson University)
UPGRADING THROUGH IN-SERVICE EDUCATION

Principles Involved

Group of the fifteen participants are usually considered optimal in size. This number allows the group to be seated in a circular pattern around tables in the classroom or in an arrangement in which all participants are in eye contact with each other.

Class meetings are held at a central point at outlying areas within the state where teachers reside outside a 30-50 mile radius. Block sessions are planned where the group may meet 3-4 hours one evening or 8-12 contact hours of discussion and critique within a weekend. It has proven very successful to include the noon or evening meal as a part of the group interaction and learning process. The training experience must last long enough for participants to do some reflecting, to discover some of their needs and problems, and to develop sufficient freedom together to allow them to experience the desired learning.

Application to Agriculture

This type of in-service education has proven very successful and helps develop the educational climate in Missouri. Many facets of participatory training are already in use by vocational teachers in adult education, although we may need to encourage these efforts. The participants may develop the expertise and confidence to provide instruction at the college level. Many young and/or adult farmer class sessions are conducted by small group discussion techniques. Advisory committees are also recognized and can do much to help the participants become more responsible group members.

Resource Person—One having had special training and/or significant experience on the subject matter being discussed.

Throughout the training session is outlined below. Time allotments for each item must be adapted by the trainer to meet the demands and needs of the situation.

TYPICAL SESSION AGENDA

An agenda for a typical training session is outlined below. Time allotments for each item must be adapted by the trainer to meet the demands and needs of the situation. Training sessions of 30-45 minutes should establish a learning atmosphere by explaining the training purpose, group procedures, and conditions of effective participation. The last 30-45 minutes, with the recorder, observer, and discussion leader assuming their roles, and with group participants conducting the discussion. The discussion topic and goals should center around the interests of the group as they explore conclusions to a realistic problem which cannot be answered with yes or no.

A brief critique shared by all participants, is conducted immediately after each session ends to examine and appraise how well the group has worked together during the discussion experience. They use this period to identify and discuss obstacles encountered and the accomplishments of their teamwork and individual learning for the purpose of improving future learning experiences. Before concluding a session, the group plans its next session, including: (a) topics to be discussed in school; (b) volunteer leader and observer; and (c) available resources for next session.

Themes for Future Issues

January — Career Education: Elementary Programs

February — Career Education: Junior High Programs

March — Career Education: Secondary Program

April — Career Education: Youth Organizations

May — Career Education: Supervised Agricultural Experience Programs

June — Career Education: The School’s Responsibility for Placement and Followup

J. A. White

Vocational Agriculture Teacher

Beauregard High School

Opelousa, Louisiana

It is my belief that the success of out training is just as important to the teacher as the quality of our new educational experience as pre-service training. If nothing else, I am a firm believer in pre-service education and I think the teachers should be fully accredited before he is employed to teach.

Regardless of how thorough the pre-service course was, the teacher must be comfortable, confident, and competent before the degree was awarded, after a few years of experience, a teacher finds himself lacking in one or more areas of instruction. It is impossible for a teacher to remain proficient — the teacher must constantly work toward. Technology changes so rapidly that the agricultural education teacher feels that he must regularly secure additional instruction if he is to properly serve those with whom he works. It is not wise to ignore the need in an area of instruction — it is shameless to remain ignorant when instruction is available. How, then, can a teacher upgrade himself in a particular instructional area?

Events Sponsored by the State

1. Working toward a higher degree: It is not possible for the undergraduate to enroll in all of the courses that would help him when he becomes a teacher. Occasionally a student just cannot schedule courses that he knows he will need, although there is a point at which it is better to pursue courses that will lead to a higher degree.

Changning technology changes course offerings in our teacher-training institutions. After a teacher has been out of college for some time, he will find certain beneficial course offerings that were not available to him several years ago. I believe every agricultural teacher should have the opportunity to upgrade his or her administrative skills to help him understand the complex problems with which his principal, superintendent, and board of education are confronted. Some of these courses could be held after the Masters Degree study, although much of the work should be done in an agricultural education program.

Monetary reward is another reason why a teacher should earn a Masters Degree, if possible. Most school systems offer generous salary increases to those who earn higher degrees. Many systems offer substantial opportunity for the agricultural teacher to acquire the Masters Degree over a period of years while he is fully employed. This should have been justified by better teaching at the degree is acquired.

2. Short Courses

In Louisiana a teacher may schedule one or more short courses which are sponsored by the state each summer. These courses are made available to help teachers increase their knowledge. Teachers are encouraged to attend at least one week of these summer sessions each year. The credit may be applied to the degree program and graduate credit may be received upon completion of certain courses. In those cases graduate credit is not offered on most courses.

This area of instruction has proven to be very popular with a large number of teachers over the years. A few of the courses that have been taught are: arc welding, gas welding, repairing of diesel engines, agriculture electricity, maintenance of shop equipment, weed control, beef cattle nutrition, land-levelling, greenhouse management, sheet metal, power mechanics, and concrete masonry.
IN-SERVICE EDUCATION FOR THE BEGINNING TEACHER

Phillip Zuehrich and Floyd G. McCormick
Department of Agricultural Education
The University of Arizona
Tucson

In-service education for teachers of agriculture takes many different forms and, in many instances, can be described as extremely flexible and widely diversified. This flexibility and variability in in-service education programs allows for wide extremes in subject matter; in duration; in location and in objectives. This sometimes leads critics to characterize our in-service education activities as “teasing snails”; in that we do a “little here and a little there” with minimal follow-up and little evidence of change.

While we, in April, are in Arizona, are guilty of these criticisms; the heart of our in-service program has been a “New Teacher Program.” The New Teacher Program, formally inaugurated in 1960, has been successfully continued ever since. This program has received much praise from teachers, high school administrators and supervisory personnel.

The primary intent of the New Teacher Program is concerned with helping the beginning teacher adjust to a new job and assisting him to overcome the common pitfalls and difficulties encountered by many new teachers. Particular attention is paid to helping these teachers improve their planning ability in an attempt to strengthen the overall instructional program and teaching methods.

Rationale for the Program

The basic rationale for the New Teacher Program is the belief that the first two years that the vocational agriculture teacher is on the job, the successes and failures which he experiences will, to a large extent, influence whether or not that individual chooses to stay in the profession and also will determine the effectiveness of his instructional programs. It is during this time, and especially during the first year on the job, that work patterns are formed and procedures are developed which tend to become habits and, for the most part, will stay with the teacher throughout his career.

The beginning teacher needs assistance during these formative years with his planning for instruction, the budgeting of his time, and constructive criticism directed toward the development of a strong total program of vocational agriculture. Many beginning teachers need help in the basic task of planning. This program is designed to give the new teacher some encouragement and support when his enthusiasm and morale begin to weaken.

Program Design

Growing out of the above rationale and convictions, the primary intent is to help the beginning teacher adjust to a new job.

"Another remark made at the conclusion of this year's seminar was: "This workshop gave me a better understanding of economic principles as well as a better method of teaching them to beginning students." Upon the conclusion of the seminar, teachers are provided copies of both inductive teaching units along with sets of transparency masters.

The curriculum planning seminar held in July is planned so that the new teacher has been on the job for at least three weeks and still has three or four weeks before the end of the term. The teacher realizes a need and is ready to get serious about planning his curriculum with the help of the school teaching team. They have had a chance to study pupils, parents and to identify community and student needs. As the principles of curriculum development are reviewed, a common reaction from the student teacher is: "Why didn't we get this earlier?" While their undergraduate preparation included principles of curriculum development, here is another example of where instruction was not effective until such time as there was a need or concern on the part of the individual for that instruction. During this two-day seminar, each teacher develops a comprehensive curriculum plan for the entire year and also develops a daily teaching schedule for the first six weeks of school.

During the Christmas recess, a second curriculum planning seminar is held at which time an analysis of the curriculum accomplishments of the first semester and the curricular goals for the second semester is replaced, along with the development of daily plans for the next six weeks. A form similar to the one shown in Tables 1 and 2 is used to plan the curriculum and its development during the first semester.

Instruction is effective because it occurs at a time when there is a need or concern felt by the teacher.

have taught more units in one area (normally the area of their strength) than in other areas. One teacher commented that he felt that his supervised occupational experience program was weak. After he completed Table 2, it was obvious to him why it was weak; he had not provided sufficient instruction in this area.

On the Job Supervision

Approximately five to seven weeks into the school year, a staff member visits each new teacher on the job. Experience has shown that this is an ideal time as the new teacher hits a low ebb, can use some encouragement and is very receptive to suggestions. Particular attention is given to classroom and shop instruction and the development of occupational experience programs. Teacher reaction to this phase of the program has been one of gratitude. As one participant put it, "You always seem to come on the wrong days, but I enjoyed the visit and appreciated the suggestions, even though I didn't adopt all of them."

A second staff visit is scheduled in November or December. Second semester staff visits are normally made during March and April. Again, improving and evaluating classroom instruction are the principal areas of suggestions on techniques for taking the department inventory and closing out the school year.

The last activity in the New Teacher Program is a one-day annual planning seminar, this section is held in May at which time an evaluation of the first year's experience and accomplishments is made. Each teacher also plans his summer program, in detail, at that time.

Benefits Derived

As soon as the teacher submits a completed and signed (by his school administrator) summer program to the State office, he is eligible to receive two semester units of graduate credit provided, of course, that he has participated in and completed all of the above assignments. This gives the new teacher a start on a graduate degree in agricultural education.

As indicated by comments of participating teachers, this program has been well accepted. To evaluate its effectiveness in helping good teachers in the profession or in improving instruction is difficult to measure. We do know, however, that more than one high school administrator has hired a graduate of the University of Arizona as opposed to a teacher from some other Institution because of the value he placed on the New Teacher Program. Probably the greatest beneficiary of the New Teacher Program has been the teacher education staff. By being able to visit former students on the job, the staff is able to find out the strengths and weaknesses in their instructional programs. Teachers often discover that unexpectedly they need to make adjustments.

Table 1

<table>
<thead>
<tr>
<th>Determining Percent Completion of First Semester's Curriculum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class</td>
</tr>
<tr>
<td>-------</td>
</tr>
</tbody>
</table>

Table 2

<table>
<thead>
<tr>
<th>Determining Percent of Topics Completed Upon Major Areas of Instruction During First Semester in Each Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>-------</td>
</tr>
</tbody>
</table>

The 1972 AGRICULTURAL EDUCATION MAGAZINE
It has been said that "you can't teach an old dog new tricks." The reason for this statement is that the "old dog" hasn't seen any need to learn new tricks. For years he has wagged his tail and barked three times and has received the same type reward (a cold brisk) for his performance. Why should he be told over, turn flips, or sit up straight for the same old thing? But, with the development of new and more nutritious food, the master could demand more performance from his canine. "Old Blue" then realized that more was expected before he received this new reward. Some type of in-service training was then announced and that sort was required on the part of "Old Blue."

No, we are not going to the dog's type of in-service education in-service training program in Alabama. In fact, we are staying away of the "pack."

With the broadening of the agricultural curriculum and the need for more specialization, an intensive program of in-service training has been implemented.

One concentrated effort has been to conduct summer workshops. For the past several summers, every Ag-Ed teacher has been involved in one or more workshops or in regular summer school programs. These workshops are usually the three-day or one-week type. For example, the following workshops were conducted this past summer (1972):

<table>
<thead>
<tr>
<th>Type Workshop</th>
<th>Dates</th>
<th>Location</th>
<th>Number in Attendance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building Construction</td>
<td>June 23</td>
<td>Auburn</td>
<td>12</td>
</tr>
<tr>
<td>Animal Production</td>
<td>June 24</td>
<td>Auburn</td>
<td>14</td>
</tr>
<tr>
<td>Agricultural Business Management</td>
<td>June 25</td>
<td>Auburn</td>
<td>20</td>
</tr>
<tr>
<td>Animal Husbandry</td>
<td>July 10</td>
<td>Auburn</td>
<td>28</td>
</tr>
<tr>
<td>Animal Housing</td>
<td>July 11</td>
<td>Auburn</td>
<td>25</td>
</tr>
<tr>
<td>Animal Marketing</td>
<td>July 12</td>
<td>Auburn</td>
<td>22</td>
</tr>
<tr>
<td>Animal Nutrition</td>
<td>July 13</td>
<td>Auburn</td>
<td>16</td>
</tr>
<tr>
<td>Animal Profit</td>
<td>July 14</td>
<td>Auburn</td>
<td>14</td>
</tr>
<tr>
<td>Animal Production</td>
<td>July 15</td>
<td>Auburn</td>
<td>19</td>
</tr>
<tr>
<td>Animal Production</td>
<td>July 16</td>
<td>Auburn</td>
<td>19</td>
</tr>
<tr>
<td>Animal Production</td>
<td>July 17</td>
<td>Auburn</td>
<td>19</td>
</tr>
</tbody>
</table>

In addition to these summer workshops, many teachers were enrolled in regular summer sessions at colleges and universities.

In-service training is also provided during the school year. The meetings are usually held after regular school hours on a county, area, or district basis. Each of the six supervisory districts holds three or four such sessions each school year.

We as teachers feel that workshops and short-courses will continue to be an important phase of our in-service program. Members of our State staff, schoolteachers, extension service personnel, and experiment station personnel, along with business representatives cooperate in conducting this type training for our teachers. Workshops are held in high school Ag-Ed shops, technical institutes, colleges and universities, and in business and industrial facilities.  

(White—from page 27) 

Events Sponsored by Business Firms and Agricultural Organizations

1. Business firms:

Our friends who are in agricultural business provide opportunity for the teacher to learn. Farm machinery dealers sponsor programs that help to up-date the teacher. Field days and machinery demonstrations provide excellent learning opportunity for teacher and student.

Manufacturers and distributors of farm machinery hold short courses for their employees. Agriculture teachers may get permission to attend some of these.

2. Agricultural organizations:

Livestock breed associations provide excellent instruction through their field days, type demonstrations and judging contests. A teacher should school his students in some of these programs without showing partiality to one group. He can take his students and livestock judging teams to some of these.

Others who provide similar events are: Cattlemen and Farm Bureau.

It may not be possible for a teacher to participate in all events in one year, but over a period of years, an alert teacher should be involved in many of the events we have mentioned.

A five-year summary of teacher participation in in-service courses in agricultural education offered by the University of Missouri—Columbia faculty has revealed that 75 percent of the teachers now teaching in Missouri have taken one or more courses for credit. In addition, all teachers had the opportunity to participate in a minimum of two non-credit workshops and nine sub-district meetings each year.

This record of participation in in-service education is possible because of the interest of Missouri teachers in keeping abreast of changes in the agricultural education program and in the technological changes in agriculture. This interest also exists on the part of the State staff, and definite provisions have been made to plan and staff in-service experiences for the teachers.

Each year 14 to 16 non-credit workshops of four hours in length are planned as a part of this program. These workshops vary in title from the State Teachers' Conference, topics are suggested by a teacher committee. The workshops are organized by the education representatives and are staffed by agricultural specialists, state supervisors, and teacher educators. The teachers are surveyed and assigned to two workshops of their choice. Initially, the participation involved technical agriculture subject matter. However, during the past three years there has been a great deal more participation in workshops dealing with program planning and developing in agricultural education. This year 50 percent of the workshops dealt with information related to program planning in agricultural education.

Workshop topics this year included: forage crop management, pesticide some range, range management, planning, teaching agricultural management, planning to teach agricultural sales and service, livestock judging, planning responsibilities in a multi-teacher department, electrical demonstrations, conducting supervised occupational experience programs in off-farm agriculture, forestry in the vocational agriculture program, record-keeping and record-keeping, the Occupational Safety and Health Act as related to farming, programs of agriculture in area schools and community colleges, and utilizing the Farm Planning Handbook in teaching agriculture.

At the sub-district level, Missouri teachers have organized to provide a newsletter for communication and to conduct in-service education programs. The sub-districts range in size from 8 to 17 schools. The teachers and district supervisors meet and plan the programs. The topics covered vary widely and involve both the sharing of ideas among teachers present and the utilization of outside resource persons that deal with pedagogy and technical agriculture subject matter.

The University of Missouri—Columbia staff in consultation with supervisors and teachers organize and conduct all of the credit courses. Staff members with joint appointments in Agricultural Economics and Agricultural Engineering have major responsibilities in working in in-service education. In addition, the city staff members also teach in-service courses on a rotating basis.

During the past five years, 48 courses have been offered for credit with 786 enrollments. The enrollments were by 313 individuals, 265 of which were teachers of agriculture. When the annual turnover rate is considered, 380 different teachers were employed during the five-year period. Three times this number of groups completed one or more courses. As shown in Table 1, individual enrollment ranged from one to eight classes. The mean enrollment was 2.5 classes per individual enrolled. Although the newly created a five-year period, there were fifty teachers enrolled as to the number of men presently teaching in Missouri, it was found that 189 or 75 percent of the group has taken one or more courses for credit.

The enrollment by type of courses was analyzed. The participation was greatest in agricultural engineering courses as shown in Table 2. How- ever, it should be pointed out that the agricultural economics courses were all offered during the last three years of the five-year period studied.

Summary

The opportunity has been provided for Missouri teachers of agriculture to engage in in-service education on both a college credit and a non-credit basis. The teachers have taken advantage of the in-service opportunities available to keep abreast of changes in the agricultural education program and in technical agriculture. It is projected that during the next year, Missouri teachers will have the opportunity to elect participation in the seven non-credit workshops, and eleven in-service courses for college credit as well as to participate in monthly sub-district meetings.
In-service education program in Tennessee

It is impossible for teachers of vocational agriculture to receive all of the training which they should have in a baccalaureate program. This condition is made more complex with rapidly changing agricultural techniques and sub-national legislation to implement programs to keep training abreast with changing technology. The in-service education program for vocational agriculture teachers have become accepted as a means for keeping teachers up-to-date in changes that occur in their subject area.

Several approaches for in-service education for vocational agriculture in Tennessee have been used. Many of the courses and programs which have been offered have dealt with methods of teaching with little emphasis on subject content. Inversely, some courses have dealt with subject content with little emphasis on methods of teaching. For a teacher to have the kind of instruction that is needed by students preparing for employment in agricultural occupations, competence is needed not only in methods of teaching but in subject areas as well. An in-service program dealing with both methods and technical subject areas was recently conducted for vocational agriculture teachers in Tennessee.

This program was unique in that Camp Clements, the state camp for youth organizations in vocational education, was utilized as an instructional center. During the first week of camp (8-14 August 1971), the camp was available to the full-accommodated 64-vocational agriculture counselor group as a workshop facility.

The workshop was a joint effort between The University of Tennessee College of Education and the Tennessee Vocational Agriculture Education Association. The instructors included members of the University faculty, state agricultural agents, and vocational agriculture teachers. The workshop was designed to provide in-service education to staff members from both institutions who cooperated in planning the in-service program. Costs for meals and lodging of the teachers and a counselor were paid by the teachers and were purchased for the workshop were financed by the State Department of Education. The cost for the instructors was an expected $250 per week.

An in-service workshop dealing with both methods and technical subject areas was conducted.

- Book Review

This is a comprehensive text covering the principal soil-forming factors and soil management. Included are essential soil components, formation and classification of soil types, the treatment of land judging criteria, soil chemical properties, and the management of soils. This text is intended primarily for students in the United States. Many of the references are cited in the bibliography, and the text includes a section on soil exploration.

- Tennessee Cooperative Extension Service

An in-service program was conducted for approximately 55 teachers.

An in-service workshop dealing with both methods and technical subject areas was conducted.

- Book Review


This is a comprehensive text covering the principal soil-forming factors and soil management. Included are essential soil components, formation and classification of soil types, the treatment of land judging criteria, soil chemical properties, and the management of soils. This text is intended primarily for students in the United States. Many of the references are cited in the bibliography, and the text includes a section on soil exploration.

- Tennessee Cooperative Extension Service

An in-service program was conducted for approximately 55 teachers.

- BOOK REVIEW


This is a comprehensive text covering the principal soil-forming factors and soil management. Included are essential soil components, formation and classification of soil types, the treatment of land judging criteria, soil chemical properties, and the management of soils. This text is intended primarily for students in the United States. Many of the references are cited in the bibliography, and the text includes a section on soil exploration.

- Tennessee Cooperative Extension Service

An in-service program was conducted for approximately 55 teachers.
WORK EXPERIENCE FOR TEACHERS

Gary Blooming
Program Coordinator and Assistant Professor of Natural Resources
San Joaquin Delta College
Stockton, California

E. M. Jorgensen
Teacher Education
University of California, Davis

The concept of work experience is as old as agricultural education. Most often it is thought of by teachers as a program for their students as part of their supervised practice program. However, it may have another more direct application. As agriculture becomes more sophisticated and expands its related fields, teachers must acquire and improve their teaching techniques to keep abreast of inevitable changes. What better way to learn new skills and improve your teaching techniques, than by actively participating in a work experience program, just as you expect your students to do.

In addition to technical ability acquired, becoming familiar with the concerns of the industry and the requirements of the industry standards and conditions, will enable teachers to counsel more effectively and better relate to problems that their students may be facing.

During the summer of 1971, the Agricultural Education Department of the University of California, Davis, came up with a novel approach to teacher involvement in the world of work. The primary purpose of this was to help the high school and community college teacher of vocational education upgrade his occupational competency and acquire new competencies through on-the-job experience in a carefully selected business or industry for a minimum of four weeks while concurrently enrolled for related class work before, during, and after the work experience.

The work experience programs for students are common, there is little experience to draw on for such programs for teachers. In the planning stages of this program, the emphasis was laid on providing programs through the United States Office of Education — E.P.D.A. in order to defray the additional expenses involved in setting up a new program.

A work experience program was one which included four different disciplines. Included were agriculture, economics, business administration, and business education. It was obvious from the first face-to-face meeting that the program would be broadened to include vocational-technical programs involving not only men and women, but also students, a real asset in both in-service and the interest and potential of the periodical class meetings.

Placement in the work station was made on the basis of the experience opportunities in the participating employer and the occupational objectives of the teacher. Each teacher was encouraged to find his own job station, in most cases he did so, and ended up working in his home community. However, the college coordinator provided guidance in getting an appropriate station and assisted in locating stations if teachers could not find their own.

In some cases it was necessary for the work experience coordinator to work with the teacher and employer to develop a meaningful program, with a variety of experiences, a supervisor was acceptable only when a variety of experiences relative to the occupational goal was planned.

The class was conducted as part of the summer session program so all students were enrolled in this program and received six units of college credit toward graduation. The work experience period was organized easily through the regular state study letters and assistance of the regional registration officer in each vocational field. A brochure was not developed but this would be another angle in publicizing the program. The class was limited to twenty-five teachers. Five of these were teacher candidates in their graduate study of rural agriculture, and the rest of the teachers turned in and it was necessary to reduce this to the operational level of twenty-five. This was done through a selection committee composed of a teacher educator, course coordinator, and members of the state work experience coordinator.

The class was also open to teachers from other geographical area which in itself helped to hybridize the program. Since in most cases the work experience programs in various states were similar, and traveled to the University only for the four meetings, the experience to the participants varied.

With the approval of the coordinator the teacher was able to work for one, or two, in several cases, for three different employers. The University did not enter into any of these aspects of the program. If pay was involved, that was a matter between the teacher and the employer. It was noted that about 45 percent of the participating teachers received some pay for their work experience. One important outcome was that those not involved with pay often had the benefit of exposure to a variety of skills which they did not necessarily need to be productive, economic individuals for the business world.

Through the program the teachers gained insight into the problems that are encountered by the vocational students when they leave school and enter the job world. Each teacher was required to go through their program and make a report of their work experience, which would be a permanent file of their work experience experiences. (Added by the Agricultural Education Magazine, October 1972, p. 5.)
Abraham A. Blum
Director, Agriculture as Environmental Science Project
Curriculum Center, Ministry of Education
Jerusalem, Israel

The idea to in-
clude agriculture into general education is not new. J. J. Rousseau, a leading advocate of the outstanding educators of the 17th century, advocated relating education to everyday life and emphasizing contact with the objects of the student’s near environment. J. J. Rousseau's theories were much influenced by his educational thoughts and led him to teach the young agriculture. The famous Swiss educator Pestalozzi introduced gardening into his school, partly as pre-vocational training, but also as a means for character education.

A rough glance at the developments of agricultural education seems to indicate that vocational agriculture, by growing quickly, has overshadowed the non-vocational trends in agricultural education. But these trends are connected to interest educators who put particular emphasis on subject matter. It might be more than a coincidence that the first and last mention of the "curriculum pendulum" from a strict division into subject matter to a whole development towards a larger integration, non-vocational agriculture is starting to develop again in various parts of the world.

At least four trends can be identified in non-vocational agriculture (or "Rural Science") as it is sometimes called, with a slight shift in emphasis, each trend tends to develop under different socio-economic conditions, and then, in turn, to become influenced by a local or national philosophical education. A fifth trend—nevertheless well known was discussed in an earlier issue of the Agricultural Education Magazine, and is not included in this review.

1. Agriculture as Part of Rural Studies
This trend developed in industrialized countries and received renewed interest in Great Britain, in connection with the "Country Studies" or "Country Projects" movement. According to a School Council Working Party, rural studies are designed to enable students to understand and use nature for their own purposes. These studies may lead to the development of a lifelong hobby; growing plants or rearing animals as an emotional balance to life in an industrialized society. Agricultural practices in the rural studies trend are studied mainly in the light of their influence on the balance between nature as a fundamental biological principles. Strong emphasis is put on the need for sound conservation practices. According to the British concept of rural studies, the valuable craft tradition must be retained as a practical basis for further development. Nearly all schools engaged in rural studies use a plot of land for demonstration and experimental purposes.

Similar projects were developed also in other parts of the world. In continental Europe the school gardens are mostly intended for extra-curricular self-teaching activities in vegetable and fruit growing, whereas in the USA some garden projects are directed by Vocational Agriculture teachers (as reported earlier), while others are strongly Biology-oriented.1

2. Agriculture as Part of Science Education in Developing Countries
Quite different in origin and motivation are the various programs of lower secondary science programs, which are developed mainly in Africa.2 These projects are based on small experimental agricultural projects as inexpensive and meaningful ways to teach science. Developing countries curricula yields are still low and experimental with fertilizers (as examples) will show students that scientific process are very relevant to everyday life and can lead to self-reliance.

Another argument in favor of agricultural education in the African primary school is based on the recognition that agriculture is the most important of the subsistence activities in the rural areas, and therefore they should not be avoided from the activities in the classroom. Students must be prepared to live on their own in the future.4 Although it is acknowledged that a classroom teacher should not be expected to teach agricultural science by himself, the trend in Africa is to come to a working arrangement with extension workers who would take charge of the agricultural part of an integrated rural education program.

In some parts of the developing countries primary agriculture is seen as part of the science program, but in some countries a regular Agriculture science has been introduced, and interesting material, well adapted to local conditions, has been developed.5

Often in developing societies, students tend to identify the lack of technical progression in agriculture with the death of life in the village and, at the same time, to equate the scientific evolution with urbanization. This misconception strengthens the tendency to move to the city, even when there are no job openings for the new arrival in the urban society.6

A science curriculum, which combines the experimental approach of modern science teaching with subject matter contents taken from the students’ environment, might serve as one remedy for this psychosocial conflict. As applied, rural science curriculum might combat the idea, that scientific progress is all too possible (as often presented), and deserve to be discussed on the basis of a careful reappraisal of scientific training and the effectiveness of each possible action. Too often the mass media and many people of good intentions, who reported on the mushroom, distorted the nature by using slogans impossibly, where a healthy diet would do a better service to their health.

The use of synthetic pesticides and fertilizers by farmers is part of the environment, students learn to recognize the importance of the environment, in order to supply his

needs. From here stems the interest in the life sciences, which serve agricultural production and environmental education. From here also the growing concern about the possible boomerang effect of the farmer's interference in nature.

Arguments in Favor of Agriculture in General Education
The subject of agriculture in general education, which is used in the curriculum literature, may help us to understand several things about the current situation, which revolves around the question of applying the science principles to the practical work. This introduction is built around a case study, starting with a major economic problem — the damage caused by the Mediterranean Fruit fly, which is one of the most dangerous pests in Israel and many other parts of the world. This example is given on the "Rise and Fall of DDT," which is not only a major problem, but a symbol of the scientific discoveries and technological invasions by Israeli farmers is the main factor in the success of Israeli agriculture. The problem of a farmer depends very much on his ability to schedule new knowledge and to apply it to his own conditions. This ability should be developed through a suitable means of instruction, and by the theory of open training, open learning, open field experiments, training scientific methodology elements, and the integration of the general agricultural curriculum. This conclusion proved to be able to change instilled agricultural method in both rural and urban trial classes in Israel.7 The plants grown are not only grown for food, but for the sake of research (although this is considered), but rather for their methodological role in the curriculum. Because agriculture is given also in city schools, and in the city, fewer and fewer plants are emphasized for motivational reasons.

3. Agriculture as Part of Affective Education
Relatively few agricultural education programs in some countries have been clearly defined as an "affective" component, for example, either a special skill is objective like "fostering international friendship, aesthetic appreciation" and use flower culture.

(Continued on next page)
TRAINING TEACHERS FOR THE DISADVANTAGED THROUGH APPRENTICESHIP PROGRAMS

Ralph G. Field
Teacher Education
Kansan State University

Larry E. Miller
Teacher Education
Virginia Polytechnic Institute & State University

ALABAMA'S IN-SERVICE EDUCATION
For Ornamental Horticulture

George S. Williams
Agriculture Teacher
Andalusia High School
Andalusia, Alabama

During the past decade a demand has been placed on teachers of vocational agriculture in Alabama to train the next generation of Ornamental Horticulturist in their curriculum for both high school and adult students. This demand springs from several changing situations.

First, homes ownership has experienced rapid growth in the demand for landscape planting material and services. Thankfuly, the improving economic conditions permit the new and established homes owner to landscape his property, and the long weekend and after workday enjoyed by new workers allow time to follow this interest. But many in this group lack the know-how to use and grow landscape plants, placing a demand on the agricultural teacher for giving instruction in this area.

With the increased demand for ornamental plants, an expansion in the production and marketing of ornamental plants is being experienced. The expansion in this segment of agriculture is creating a skilled labor shortage and offers an opportunity and challenge to teachers of vocational agriculture.

Another reason for this surge is interest and need for instruction in Ornamental Horticulture. The teacher is well positioned to provide this instruction. With increased health awareness, another factor that influences demand is the emphasis being placed on improving our environment. After all, the residential landscape within the home provides a major function in nature's way to control air pollution. Civic groups, garden clubs and local government units are conscious of our environment and sponsor clean-up, fix-up and beautification programs. In most communities, particularly in the area around the Alabama State University, one finds the FFA members and their Building Our American Communities program working closely with these groups. The FFA sponsor and the Alabama Agricultural Teachers Association provide continuing in-service education for our teachers in this area. So, the opportunity for the teacher is quite apparent. In fact, many teachers are already using this program.

Below is a rundown of several phases of this in-service program:

1) A group of agriculture teachers representing each supervisor district in Alabama were selected to attend a two-week workshop on home landscaping conducted by the Ornamental Horticultural staff of Auburn University. Ornamental plant identification and the preparation of landscape planting plans for home grounds and school areas were taught. Following a summer a second workshop continued this study and prepared plans for the teachers of their district. This provided background information and techniques for each agriculture teacher to include in the student's improvement in their curriculum and to use in adult programs.

2) The landscape workshop was followed by the Environmental Education Workshop publishing a suggested teaching guide titled Home Ground Improvement. The state agriculture supervisor's staff coordinated the preparation of lesson plans and study questions by the teachers who attended the landscape workshops and the answers in the study questions were prepared by the staff of ornamental horticulture at Auburn University.

A more recent study guide which includes all phases of ornamental horticulture was prepared for the agriculture subject matter specialist. Copies of both publications have been sent to all agriculture teachers in Alabama and student copies are available on a nominal cost.

3) An on-campus greenhouse began to be established over the state, the crops in Ornamental Horticulture workshops shifted from greenhouse construction and management. One-week workshops have been staged annually for the past three years and approximately 200 teachers who operate on-campus week experience laboratories. Specialist from Auburn University and the state agriculture supervisor's staff coordinate the programs and the workshops are planned to fill the needs of teachers who operate on-campus week experience laboratories. Specialist from Auburn University and the state agriculture supervisor's staff coordinate the programs and the workshops are planned to fill the needs of teachers who operate on-campus week experience laboratories.
Pioneers in Agricultural Education:

ARTHUR K. GETMAN

Arthur Kendall Getman

Arthur Kendall Getman (1867-1968) was well known as one of the early leaders in the field of vocational education in agriculture. In fact, he stimulated leadership; rewarded leadership; and often quoted verses dedicated to 'A Leader,' a title he well deserved. Dr. Getman’s experience in leadership followed his graduation from Cornell University in 1891 with a B.S. degree in agriculture. He accepted a position in the Cornell State Normal School to train teachers of Vocational Agriculture, prior to any well established program at Cornell University. Next, he became a specialist in Agriculture Education in the State Education Dept. at Albany, N.Y. for two years. This experience was followed by a Teachers Training position at Rutgers University for two additional years, prior to returning to the State Education Dept. at Albany to accept an appointment leading to the position of Chief of the Bureau of Vocational Education. This position he held until 1947. His last three years of service were spent as Assistant Commissioner of Vocational Education.

Personal Characteristics and Philosophy

Getman was a religious man who believed in his fellow men, especially in youth. His son, Kendall, wrote concerning his father’s religious life: “His was very active in church work most of his life. Did you know that he was an elder in the church? Because of poor vision, however, that position was handed to his son. He was superintendent of the Sunday School for eight years at Colchester Methodist Church (where the memorial service was held) and on active parochial for fifty years. He was also instrumental in developing courses of study at colleges and universities, and was a major force in raising the status of agricultural education at the State level. For several years he served on the Board of Trustees of the Methodist Church and on the Administrative Committee of the New York State Council of Churches. He was also a member of the New York Agricultural Board of Education. In the late 1890's and 1900's many new saws were developed. Getman was a major influence in the development of these new saws, and his leadership and vision led to the successful development of new saws. In 1900, Getman was recognized as one of the greatest leaders of this time. His vision and leadership led to the successful development of new saws and saw companies. Even today, many saws bear the Getman name.

The shortage of well-qualified teachers of agriculture in the 1900's was a serious problem. This problem was met, in part, by A.K.’s personal appeal for increased college enrollments of F.P.A. boys, as he speaks at their barbecues and at the two statewide meetings. The same stimulation is presented to both agriculture and industrial arts in small schools. Again, Dr. Getman’s desire for professional improvement led him to enroll for special courses at both Harvard and Ohio University. Appropriate to his stimulating influence at Cornell each year in the 1900’s and A.K.’s had positions for all of them and several of the boys. It was during the 1950’s that the teaching of agriculture of New York experienced their “fossil fuel.” One hundred of our well qualified teachers were enrolled in the armed services; seven were their lives in the six or one man battlefronts of the world. The fifty-year book of the Association of Teachers of Agriculture is dedicated to their memory.

Though there were a terrific loss of teachers, many temporary teachers, who were not very well trained, were “carried over” the several alphabetic programs proposed and financed by federal and state governments. The greatest of all these programs was the Veterans’ Training Program. In 1940, the first two booklets were entitled “Early Days”; in the third book it was called “The 1940’s in Review.” Dr. Getman was author, joint author, contributor or editor of ten professional books or reports, including the well known publication ‘Agricultural Education’ (1927). He was chairman of several research committees for which he wrote reports or introductions. In addition, he was editor or joint editor of more than twenty of the WPA reports, which were used extensively in Veteran Farm Training Programs.

The nation’s growth of Agricultural Education, he published innumerable State Bulletin, leaflets, directives and handbooks.

Personal Characteristics and Philosophy

Getman was a religious man who believed in his fellow men, especially in youth. His son, Kendall, wrote concerning his father’s religious life: “His was very active in church work most of his life. Did you know that he was an elder in the church? Because of poor vision, however, that position was handed to his son. He was superintendent of the Sunday School for eight years at Colchester Methodist Church (where the memorial service was held) and on active parochial for fifty years. He was also instrumental in developing courses of study at colleges and universities, and was a major force in raising the status of agricultural education at the State level. For several years he served on the Board of Trustees of the Methodist Church and on the Administrative Committee of the New York State Council of Churches. He was also a member of the New York Agricultural Board of Education. In the late 1890's and 1900's many new saws were developed. Getman was a major influence in the development of these new saws, and his leadership and vision led to the successful development of new saws and saw companies. Even today, many saws bear the Getman name.

The shortage of well-qualified teachers of agriculture in the 1900's was a serious problem. This problem was met, in part, by A.K.’s personal appeal for increased college enrollments of F.P.A. boys, as he speaks at their barbecues and at the two statewide meetings. The same stimulation is presented to both agriculture and industrial arts in small schools. Again, Dr. Getman’s desire for professional improvement led him to enroll for special courses at both Harvard and Ohio University. Appropriate to his stimulating influence at Cornell each year in the 1900’s and A.K.’s had positions for all of them and several of the boys. It was during the 1950’s that the teaching of agriculture of New York experienced their “fossil fuel.” One hundred of our well qualified teachers were enrolled in the armed services; seven were their lives in the six or one man battlefronts of the world. The fifty-year book of the Association of Teachers of Agriculture is dedicated to their memory.

Through there were a terrific loss of teachers, many temporary teachers, who were not very well trained, were “carried over” the several alphabetic programs proposed and financed by federal and state governments. The greatest of all these programs was the Veterans’ Training Program. In 1940, the first two booklets were entitled “Early Days”; in the third book it was called “The 1940’s in Review.” Dr. Getman was author, joint author, contributor or editor of ten professional books or reports, including the well known publication ‘Agricultural Education’ (1927). He was chairman of several research committees for which he wrote reports or introductions. In addition, he was editor or joint editor of more than twenty of the WPA reports, which were used extensively in Veteran Farm Training Programs.

The nation’s growth of Agricultural Education, he published innumerable State Bulletin, leaflets, directives and handbooks.

Leadership in Action

The three decades in which the

Field & Mill — from page 97

50th Anniversary of the New York State College of Agriculture and Applied Science — from next page

In 1940, the first two booklets were entitled “Early Days.” In the third book it was called “The 1940’s in Review.” Dr. Getman was author, joint author, contributor or editor of ten professional books or reports, including the well known publication ‘Agricultural Education’ (1927). He was chairman of several research committees for which he wrote reports or introductions. In addition, he was editor or joint editor of more than twenty of the WPA reports, which were used extensively in Veteran Farm Training Programs.

The nation’s growth of Agricultural Education, he published innumerable State Bulletin, leaflets, directives and handbooks.
IN-SERVICE EDUCATION TO UPGRADE TEACHING

Mrs. Geraldine Couture
Agriculture Teacher
Shadle Park High School
Spokane, Washington

Let me tell you about my experiences in teaching a vocational agriculture course, and how I have had to search for in-service training to upgrade myself. In one of my instruction areas, I had two strikes against me from the start. For one thing, I am a woman, and agriculture is not a course that a woman would ordinarily teach. For another, I am not an agricultural major, nor a science major, though I wish I were. The only things I had going for me were the love of the subject I was teaching, a master's degree in education, and seven years work experience in an agribusiness, and a strong desire to teach a vocational subject.

My major teaching areas had been English, then Art, but for several years I had been trying to interest the Art Department in our school in some type of vocational training for art students at the high school level. So much of our high school teaching has geared itself to the college bound students. Today's youth are seeking a new education and training that will lead to career opportunities. They are entitled to experience the meaning of work and to test themselves in different work roles. I tried to outline a course that might earn an Art major some type of work experience. However, when I surveyed the field, I found that the Community College in our area was adequately filling the needs of the advertising agencies in our city. There seemed to be few employment opportunities, other than for sign painters and display artists that would be suitable for high school students. Also, I found that certification as a commercial artist is called for extensive and developmental experience in the subject to be taught. Although I had taught Commercial Art for several years, I had no actual experience as a commercial artist.

One day my department head approached me with an idea of teaching a course in floral design as a vocational subject. It was a natural for me. It was a subject that was of particular interest to me, for previous to my teaching career I had worked in a greenhouse as a planter's assistant and later in the attached flower shop as a floral designer. I knew that at times my instructor of floral design had attended, for hardly a holiday passed that I wasn't asked to work in one or another of the flower shops in our area, and many times I did work long enough to help fill the orders of orders that had been put up for Mother's Day or Easter delivery. I enjoyed the change of pace from teaching, and working with flowers was a skill that I did not want to forget. The owners of these flower shops were very cooperative when I got my program launched.

I have been teaching this vocational agriculture course for over three years under the guidelines of vocational agricultural standards. It has not been a static course, for I have changed the content several times, finding that I need to add units of study to give the students a better background or to broaden the scope. I know that the addition of a flower shop, I have the skills of designing; I know how to sell, and I also know the operation of a greenhouse and could identify and care for the flowers grown there, but I found that the students in their search for knowledge required even more. So, I know that I have to be broadened in my work. This is why the course, Horticulture. How could we do this with my qualifications alone? I need help of some kind.

There is a shortage of instructors qualified to teach vocational agricultural courses. Teachers are needed in specialized agribusiness courses, such as, Ornamental Horticulture, Nursery Operation, Golf Course and Landscape Operation, and Landscaping, to name a few. These are subjects that are relevant to urban living. I read that by 1979, over a million students would be enrolled in agribusiness education. Fortunately, all of these students will be training for career objectives in off-farm agribusiness, and 45 percent with objectives in farming and ranching. It is believed that in secondary schools these enrollments will increase in corresponding numbers as programs in agriculture are extended to urban as well as rural schools. Manpower will be essential in the rapidly expanding off-farm segment of agriculture. Almost every state reports significant increases in enrollments in Horticulture. For those of you interested in teaching in this area has been slowed by a lack of instruction in this specialized area. Many teachers have been trained to teach production agriculture and the switch has necessitated some in-service training, and one of the most significant changes to take place in vocational education recently has been the addition of training programs for off-farm agriculture occupations.

In order to keep abreast with the demands of my students for more scope in their instruction, and to keep abreast with the times, I have had to avail myself of as many in-service type of training that I could work into my teaching schedule. I also found it necessary to add a second instructor to teach specialized courses. I will train:

(Concluded on page 50)

LaVern R. House
Farm Management Instructor
Granite Falls Public Schools
Granite Falls, Minnesota

Do you work from sunrise to sunset and a little longer? Most of the time in the fall the hours len long a week day. Therefore, the schoolin of off-farm training in the fall has proven to be a real problem.

This fall period does present an ex cellent opportunity, however, to take all measures to produce crops, examine crop yields, and calculate crop yield. All of this work can be done in the fall of the year even though the cooperators are very busy at this time. A fall program of this nature started with the people enrolled in the farm management program at Granite Falls last fall.

To get the instruction started, the importance of these activities and also the general operations to be followed were explained. A preliminary explanation greatly facilitated the scheduling of these farm visits.

This work was organized so that when a cooperator had finished the harvest of a field due to weather conditions, he was able to operate, he contacted the Vo-Ag Dept. and a visit was scheduled for the purpose of soil testing. All the information was obtained, the soil tests were calculated and the other associated areas checked. The results of these visits are the current enrollment as follows:

Only 8 per cent knew the proper method of soil sampling: none knew how to use the soil analysis booklet for fertilizer applications: 92 per cent relied on the local dealers for seed advice. In the counties and 80 per cent had not taken soil tests in the last five years.

This in-service instruction has been beneficial in the application of proper rates and amounts of fertilizers. One operator's soil test results was high in organic matter — with 35 on the permissive level, and a potash level of 0. In the past, the corn crop has averaged 22 bushels per acre with a fertilizer program of 175-100-100 pounds.

After checking references and discussing the alternatives, the decision was made to plan next year's crop with a 150-40-40 application of fertilizer. This test will be followed up next summer with a leaf analysis check to determine if this amount is available to the plants. Most of the cooperators are planning on following the basic recommendations as reported in the test.

To follow up this instruction the results will be recorded by fields on the crop map in the Minnesota Farm Account Book. This will serve as a reference guide until it is time for another test to be taken and the information will be readily available for discussion of the crops program.

The analysis summary tables contain large amounts of information on the cropping program. This soil test report can be used as a source of supplementary information to evaluate the results more fully. Combined with the information on fertilizer usage, production, yields, and returns, the average of area farms contained in the analysis print out, the soil test information will assist in deciding next year's fertilizer and crop rotation.

As one member stated, "without this type of a program and a little prodding I would never have used this management practice." Next fall the members will have had this basic instruction and the teacher can now work with the new group in establishing a more farm management. This fall time is wasted by waiting in the office and waiting for the harvest to be finished.

The results obtained from the work started this last fall will be used many times; such as when the crop is being produced, evaluation of the growing crop, and the respective yield. But the work has to be started first.

THE AGRICULTURAL EDUCATION MAGAZINE

FALL ON-FARM INSTRUCTION

HAVE YOU TRIED ACREAGE MEASUREMENT THIS WAY?

Henry C. Goodman
Vo-Ag Teacher
Stewart County High School
Lamont, Georgia

This article is presented on the assumption that (1) many calculations to establish approximate acreage are based on (2) multiplication is largely preferred to division where necessary numbers are involved.

Briefly stated, square yards (based on pacing) times 2066, with 7 places pointed off from the right in the product, would give square yards to square chains and square chains to acres. The following figures give the basis of this calculation:

- 40 By 40 yards = 10 sq. chains = 1 acre
- 40 By 40 yards = 1 sq. chain = 1 acre
- 40 By 40 yards = 0.000966 sq. chains (approx.)
- 40 By 40 yards = 0.00206 chains
- 40 By 40 yards = 1 sq. yard (approx.)

Rounded off to 4 decimal places, this product deviates only 1/1,000 of an acre from the true area (or the equivalent of 1/10 of an acre per 1,000 acres)

Since pacing (at best) would certainly not be considered the most accurate means of measurement, this order of calculations would prove acceptable for its intended purpose.

Kathy Woods and Darnell McPherson
working on a landscape project.
In an attempt to determine why more students participated in FFA activities, it was frequently stated in state FFA activities a study was conducted at three different locations: University-River Falls.

It was hoped that insight would be gained as to whether factors as (1) age and teaching experience of the vocational agriculture instructor, (2) the teaching load of the vocational agriculture instructor, (3) local school policies, (4) the vocational agriculture geographical location within Wisconsin, (5) the level of support from the county and (6) Wisconsin State Association policies had any influence on the FFA members' participation in FFA activities. With the assistance of Mr. A. R. Cordes, Executive Secretary of the State FFA Association, eight instructors were randomly selected from four levels of participation in state FFA activities (0, 1-29, 30-99, and 100 or more students) for the school years 1969-70.

Conferences were set to only single man departments. Information was obtained from seventy-eight of the eighty-eight participants (96 percent) for study.

Findings and Conclusions

In randomly selecting schools for this study, the following data was the state we were represented. Over 75 percent of the Vo-A departments exceeded enrollments of at least 50 students in school FFA activities and agriculture. Most of the involved instructors felt that student vehicles were available to departments for this purpose.

The distance between the location of the FFA chapters and the place where state FFA activities were held (Madison, Green Bay, La Crosse) had little influence on the frequency of participation in state FFA activities by the FFA chapters.

A lack of information on state FFA activities from the state office or FFA activities held by the teacher was cited by fifty-four percent of the teachers. Twelve percent indicated no reports arrived late at district meetings and therefore felt a lack of assistance from the state office and nine percent indicated a lack of assistance from the state FFA officers. However, a need for information of state FFA activities was indicated by a number of instructors.

Although there was a substantial difference between participation in FFA activities and their involvement in local chapter activities, the number of local FFA activities gradually increased as chapter involvement in FFA activities increased. The high school FFA chapter who most likely was a high participant in state FFA activities had:

1. An experienced instructor who is the department head for at least ten years.
2. Twice only Vo-A classes.
3. Over fifty FFA students in his high school Vo-A class of which sixty percent are FFA members in addition to the general student population.
4. A well developed program of local FFA activities.
5. Indicated satisfaction concerning the assistance received from the state FFA office and county adviser.
6. A high percentage of their students enrolled in state FFA activities.

A favorable change in FFA and Vocational Agriculture teachers were asked to include changes in activities and the names of FFA and vocational Agriculture.

Recommendations

The high school administration must be made fully aware of the importance of maintaining a strong FFA chapter in the school in the same department for several years. Thus it is not desirable to become a reality in areas that are consistently involved in FFA activities. The teachers were operating. After two years this practice was discontinued due to the problems of the high school administration.

The teacher must have the time to train. An enrollment of 100 students is not required to have a successful FFA. It is recommended that any Vo-A department with an enrollment of 100 or more students be staffed by more than one teacher. The high school Vo-A teacher should explain thoroughly their FFA activities to their administration and students. A continuing annual program of information concerning the FFA must be prepared and made available to the participants.

Continual effort must be made to

Mention all persons involved feel as though they can and will belong.

The further study should be conducted in the following areas:

1. Effect of community cooperation with the local FFA chapter with respect to the participation in state FFA activities.
2. Detailed analysis of chapter involvement in Vocational Agriculture and its effect on FFA participation.

Education to Upgrade Teaching, Career— from page 92

Most of the material covered was a repeat of the methods course that was taken at the University. It is not a degree in education. Nevertheless, the vocational approach in writing student comments was interesting.

Another class that I completed last fall was a class labeled VTE 570 Occupational Internship which dealt largely with Ornamental Horticulture and Landscaping. After completing the landscape segment of this in-service training I immediately took a unit of the same in our high school, and although though my class were boys and the girls, it was one of the most successful subjects that I have ever taught. It was run on a self-study curriculum and all questions were asked for a continuation of the subject.

Another type of training that I have found to be very helpful was a self-paced on the job training. This type of training is a great idea: in its present form. This form of teaching is now the FFA and Vocational Agriculture.

Vocational Teacher Training Course— from page 89

Alabama's In-service Education, William— from page 89

As I write this report I am aware of the fact that education for the teacher is not limited to one's own school or college. It is a lifetime process for the teacher to understand the better skills he needs to teach and convey to his students. It is a lifetime process for the commercial grower to know the markets, and the farmer to know the market forces. It is a lifetime process for the business to know the marketing of agricultural commodities. It is a lifetime process for the consumer to know the marketing of agricultural commodities. It is a lifetime process for the teacher to know the market forces. It is a lifetime process for the business to know the marketing of agricultural commodities. It is a lifetime process for the consumer to know the marketing of agricultural commodities. It is a lifetime process for the teacher to know the market forces. It is a lifetime process for the business to know the marketing of agricultural commodities. It is a lifetime process for the consumer to know the marketing of agricultural commodities. It is a lifetime process for the teacher to know the market forces. It is a lifetime process for the business to know the marketing of agricultural commodities. It is a lifetime process for the consumer to know the marketing of agricultural commodities.
Stories in Pictures

"Being Involved" and "Hangin' On" are key needs for In-Service Education. "Guido Grooming" and "How to Set up a Jettiping Course" are the topics at this In-Service Workshop. (Photo supplied by Richard Brinigsen, Coordinator, In-Service Agricultural Teacher Education, University of Nebraska.)

"Career Education" is the theme of many In-Service Workshops in 1972. Dr. Dwight Nelson, Project Manager for Career Education Development Task Force, U.S.D.E., helped the Nebraska State Department of Education define their role in Career Education. (Photo by Richard Douglas).

Professional organizations play a key role in In-Service Education. To supply the increasing demand for Agricultural Professional Personnel, NYATA sponsors a Career Book each year in conjunction with the National FFA Convention. Sam Stouffer, new Assistant NYATA Executive Secretary, visited with last year's booth. (Photo from Sam Stouffer)