WHETHER we shall have new frontiers at all, whether they shall be large or small, grand or petty, will depend on the spirit of the men now young who must make them.—Owen D. Young.
The Agricultural Education Magazine

What Is an Education?

To many people, schooling and education mean the same thing. But individuals differ greatly in what they have completed school at high school or college. To all intents and purposes, probably 90 per cent of these people have never been educated at all, much less educated at school. What the general public is interested in discussing are the problems of the higher levels of education for education is the one thing that is most important to the individual in the industrial age. In America, the college is a place where the individual can learn to think and to function in the world of work, and where the individual can learn to think for himself. The college is a place where the individual can learn to think for himself.
The Agricultural Education Magazine, January, 1941

Professional Development A. K. GETMAN

R. W. GREGORY

Farm Research Narratives

The Hormone Basis of Animal Health and Production

S. A. ASDELL, Professor of Animal Physiology, in collaboration with W. A. SMITH, Assistant Professor of Rural Education, Cornell University

IF YOU INCLUDE yourself among the large proportion of people who think little more than a jumble of words when you think of the standing of hormones, the specific, the labeling that hormones health and nutrition of animals, lack of knowledge in this direction may be accounted for reasonably in the lack of realness with which research in this field has been conducted and made known. It is only within the last ten decades that bio-chemist and physiologist have been writing in the language of the hormone. It is the results of what may well prove to be the only beginning of an investigation of these substances which play such an important role in all the health and growth of animals. When one considers the fact that hormone substances exist in the body in a highly concentrated form, in relatively small quantities that are active in the minutest traces, and that their deficiency may affect the whole course of development and the final products of the animal, it is little wonder that science has proceeded with extreme care and apparent hesitancy in making known its findings. Even today the production is nearly absent as to the understanding of the immense proportions of trade and effort that are necessary to meet the demands of the animal and the profession, the hormones. Witness the National Science Foundation, the National Institutes of Health, and other professional organizations of recent years.

We are now reaching a stage where we have a major share of his time and energy for the development of the field of research for a period of some 15 years. Dr. Asdell was born in England in 1865. From the age of 12, he was at the University of London, where he studied under Dr. Asdell, who became rector of the University of London. Dr. Asdell was an authority on animal nutrition, and the hormone basis of animal health and production, and the use of hormones in human beings. His work was published in the form of a book in 1918. The book was titled "Farm Research Narratives: The Hormone Basis of Animal Health and Production." It is a comprehensive account of the role of hormones in animal nutrition and health, and the importance of hormones in the development of farm animals. The book is a valuable resource for farmers and those interested in animal health and production. It is a must-read for anyone interested in the field of animal nutrition and health.
A Tribute to a Worthy Teacher of Vocational Agriculture

A. W. NOLAN, Teacher Education, Urbana, Illinois

WALTER A. NEWLIN, for the past 20 years teacher of Vocational Agriculture at the Township High School, was the guest of honor at the annual meeting of the Illinois Township Agricultural Teachers Association, held at the University of Illinois on Wednesday, September 30, 1959.

Mr. Newlin was born in 1879, in the Township of Newlin, Ohio, and graduated from the State University of Iowa, in 1899, with a degree in Agriculture Education.

His teaching career began in 1900, when he was appointed teacher of Agriculture at the Township High School, a position which he has held continuously since then.

During his tenure, Mr. Newlin has been a guiding force in the development of Vocational Agriculture as a field of education.

He has been a member of the Illinois State Board of Agriculture, and has served as a member of the American Agricultural Education Association.

In 1930, he was elected to the Illinois State Agricultural Board, and in 1934, he was appointed to the Illinois State Board of Vocational Education.

Mr. Newlin's contributions to the field of Vocational Agriculture have been numerous and varied.

He has been instrumental in the development of the Vocational Agriculture curriculum, and has been a leader in the establishment of the Vocational Agriculture Association of Illinois.

He is a member of the American Society of Agricultural Engineers, and has served as a director of the Illinois Agricultural Education Foundation.

Mr. Newlin has been a driving force in the development of the vocational agriculture program, and has been a leader in the establishment of the Vocational Agriculture Association of Illinois.

He has been instrumental in the development of the Vocational Agriculture curriculum, and has served as a director of the Illinois Agricultural Education Foundation.

Mr. Newlin's contributions to the field of Vocational Agriculture have been numerous and varied.

He is a member of the American Society of Agricultural Engineers, and has served as a director of the Illinois Agricultural Education Foundation.

In recognition of his contributions, Mr. Newlin was awarded the Distinguished Service Award by the Illinois State Board of Agriculture in 1950.

A New Reference

STUDENTS of agriculture who want to know who is responsible for the great strides made by agriculture in this country will find this book, "Agricultural Education," a valuable mine of information. Four- o'clock Editions, a part of the American Agricultural Education Program, is the many excellent books on the subject. The four-o'clock edition is the only one that is available for study at home. It contains a wealth of information on the history and progress of agriculture in the United States, and it is written in a simple, easy-to-understand style. It is a must for any student of agriculture, and is highly recommended for all students who are interested in the future of agriculture.
Methods

The Teacher of Agriculture Develops a Speaker

LESLIE S. CRAWFORD, Teacher Education, University of Wyoming

SOME teachers of agriculture feel... so that the feeling of the subject is usually something that is felt

not in the quality of the quality of the subject matter, but rather in the feeling of the subject itself. This feeling is not easily transmitted by words alone, but rather must be conveyed through the use of symbols and graphic representations.

As the teacher of agriculture, it is your responsibility to help your students develop an appreciation for the subject matter. This can be accomplished by using a variety of teaching methods, such as discussion, role-playing, and field trips. By doing so, you can help your students see the relevance of the subject matter to their own lives.

One of the most successful methods for developing students' appreciation of agriculture is through the use of a simulation. Simulations allow students to experience the subject matter in a practical and hands-on way. They can also be used to teach students about the importance of agriculture in their community.

Another important aspect of teaching agriculture is to encourage students to think critically about the subject matter. This can be done by posing questions to students, such as: "Why do we need to grow food?" or "What are some of the challenges that farmers face?" By doing so, you can help your students develop a deeper understanding of the subject matter.

In conclusion, as a teacher of agriculture, it is important to use a variety of teaching methods and to encourage your students to think critically about the subject matter. By doing so, you can help your students develop a true appreciation for agriculture and become effective agricultural professionals.
**Activities for Young Farmers’ Groups**

**C. S. Hutchison, Teacher Educator, Columbus, Ohio**

**Facing Problems and Difficulties**

The greatest problem faced by the young farmers' associations as reported by the 118 representatives was that of including members from other organizations and activities. This problem has been especially noted in those associations which have large numbers of members and which are relatively new. The problem of including members from other organizations and activities is most acute in those associations which have been in existence for only a short time.

**Organizing a Program**

The fall months are program-planning months for the young farmers' associations. As a result of the activities and meetings of the young farmers' associations in the fall months, the monthly activities and programs of each group may vary from county to county. The organization may have a program which is planned and carried out by the local group, or it may have a program which is planned and carried out by a cooperative group of young farmers' associations throughout the state. The program may include a variety of activities, such as educational programs, recreational programs, and social programs. The program may also include meetings, workshops, and other activities which are designed to improve the skills and knowledge of the young farmers and their associates.

**Training Versus Preparing for Farming**

**The 700 Club**

**Mark Matley, Teacher, Cadiz, Ohio**

The 700 Club is an organization of young farmers and their associates who are interested in preparing for farming. The purpose of the 700 Club is to provide a forum for the exchange of ideas and information about farming, to promote the development of skills and knowledge necessary for successful farming, and to provide a support system for young farmers and their associates who are interested in farming.

**Farming Classes**

**O. C. Aberhold**, Teacher Educator, Columbus, Ohio

The farming classes are designed to provide a variety of opportunities for young farmers and their associates to learn about and participate in the activities of the farming classes. The farming classes may include activities such as planting and cultivating crops, marketing produce, and other activities related to farming. The farming classes may also include meetings, workshops, and other activities which are designed to improve the skills and knowledge of the young farmers and their associates.

**Book Review**

*Seine Production in the South, by H. J. Seine, published by The Institute of Printers & Publishers, Ltd., is a valuable book for those interested in the use of seines for commercial purposes. The book presents a comprehensive review of the use of seines for the production of fish, shellfish, and other aquatic organisms.*
Characteristics of Teachers of Vocational Agriculture:
A Study to Facilitate a More Careful Selection of Candidates for Teacher-Education in Agriculture*  

F. E. ARMSTRONG, Teacher Education, \[Manchester, Ind.\]

**SHORTLY AFTER** the adoption of the 1928 Agriculture Act and the establishment of schools for the education of teachers, the problem of selecting teachers of vocational agriculture was given much consideration in various sections of the country. The School of Education at the University of Wisconsin and the Illinois State University were among the first to give much attention to the selection of teachers. It was realized that the quality of vocational agriculture teaching would be directly related to the quality of the teachers employed. Teachers who are competent and enthusiastic can do much to stimulate and guide the pupils in their work. On the other hand, teachers who lack both competence and enthusiasm can do much to retard the progress of their students. Therefore, it is essential that careful selection be made of the teachers who are to be employed in the schools of vocational agriculture.

**1. Shortage of Teachers.** It is estimated that there are approximately 2,500 high schools and vocational agriculture schools in the United States. Of these, approximately 2,000 are high school vocational agriculture schools, and 500 are vocational agriculture schools in junior and senior high schools. It is estimated that there are approximately 1,500 vocational agriculture teachers in the United States. Therefore, it is evident that there is a serious shortage of qualified teachers for vocational agriculture.

**2. Importance of Selecting Qualified Teachers.** The selection of qualified teachers is of the utmost importance. A teacher who is not qualified cannot teach effectively. He cannot inspire his students, and he cannot stimulate them to achieve their best. A teacher who is not qualified is a danger to the students he teaches. He can be a hindrance to their progress, and he can be a source of confusion and frustration for them.

**3. The Selection Process.** The selection process for vocational agriculture teachers should be careful and thorough. The following steps should be taken:

- **Preparation of the Candidates.** The candidates should be prepared for the position. They should have completed the necessary courses of study and have passed the necessary examinations. They should have a good knowledge of the subject matter they will be teaching.

- **Interviews.** The candidates should be interviewed by the selection committee. The committee should ask questions to determine the candidates' qualifications and to get a better understanding of their personality.

- **Reference Checks.** The candidates should be checked by reference to their former teachers, employers, and other persons who can provide information about their qualifications.

- **Selection of the Best Candidate.** The selection committee should select the best candidate for the position. This candidate should have the necessary qualifications, the best personality, and the most experience.

**Recommendations.**

1. In admitting candidates to curriculums for training teachers of vocational agriculture, students should be given to those who have had specific training in vocational agriculture.

2. In admitting candidates to curriculums for training teachers of vocational agriculture, consideration should be given to those who have had some training in vocational agriculture.

3. In admitting candidates to curriculums for training teachers of vocational agriculture, consideration should be given to those who have had some experience in vocational agriculture.

4. In selecting candidates for curriculums for training teachers of vocational agriculture, consideration should be given to those who have had some experience in teaching agriculture.

**Graduate Study by Minnesota Teachers**

G. F. DSRBON, Teacher Education, St. Paul, Minnesota

A brief analysis of the graduate work of the teachers of vocational agriculture in Minnesota was made for the following purposes:

1. To establish a cumulative record of the professional training of vocational agriculturists in the state;

2. To summarize the data on the graduate work completed by the teachers of vocational agriculture in Minnesota.

**Graduate Study by Minnesota Teachers**

G. F. DSRBON, Teacher Education, St. Paul, Minnesota

A brief analysis of the graduate work of the teachers of vocational agriculture in Minnesota was made for the following purposes:

1. To establish a cumulative record of the professional training of vocational agriculturists in the state;

2. To summarize the data on the graduate work completed by the teachers of vocational agriculture in Minnesota.

**Graduate Study by Minnesota Teachers**

G. F. DSRBON, Teacher Education, St. Paul, Minnesota

A brief analysis of the graduate work of the teachers of vocational agriculture in Minnesota was made for the following purposes:

1. To establish a cumulative record of the professional training of vocational agriculturists in the state;

2. To summarize the data on the graduate work completed by the teachers of vocational agriculture in Minnesota.

**Graduate Study by Minnesota Teachers**

G. F. DSRBON, Teacher Education, St. Paul, Minnesota

A brief analysis of the graduate work of the teachers of vocational agriculture in Minnesota was made for the following purposes:

1. To establish a cumulative record of the professional training of vocational agriculturists in the state;

2. To summarize the data on the graduate work completed by the teachers of vocational agriculture in Minnesota.
The Agricultural program of the schools of Minnesota is a boy and girl program, designed to teach the student the values of agriculture. All schools, classes, and classes of students are involved in the activity, together with many other outside clubs in the community. The FA program has been designed to help solve the problems of the individual and of the group which has been directly or indirectly, the parson's problem. We ask you to consider this a direct statement of the things you are doing. He is very much interested in the parson's problem, and he wants you to help solve this problem.

I know some things about your son that you do not know and you may never have known. Your son is a member of the F. F. A., a national organization of farm boys and girls interested in vocational agriculture. As a father you will be interested in the progress of this organization.

Origin

During my career with boys in their many activities I have observed that the boys were more interested in their own farms than in other areas. If this be true, then the boys would be the ones to have this program. I am glad to say that I believe there is a better program for boys who may become more interested in the P. F. A. program.

The need for this program is proven in the fact that many schools and teachers know that many young students are interested in farming. The problem is how to organize this program. The boys who are interested in the F. F. A. program have been organized by a group of adults, I have taken the first step in the combination of the local chapter of the F. F. A. and organized them as a sponsoring organization known as the F. F. A. "Dads of the Future Farmers." This plan has been approved and the boys have been organized into a group of farm boys.

CONSTITUTION

Chapter members of the F. F. A. must be full time students in the high school.

Chapter officers:

President:
Secretary:
Treasurer:

The following are some objectives which were set up to guide the organization.

To organize boys and girls to study the fields and their careers.
To give the boys the opportunity to discuss their farm and their non-farm problems.
To help in the development of better farm boys and girls.

The following are some objectives which were set up to guide the organization.

To organize boys and girls to study the fields and their careers.
To give the boys the opportunity to discuss their farm and their non-farm problems.
Experience teaches us that one of the real problems in Picture Farmers of American organization is "dissatisfaction among officers and secretaries as well as local chapters. We have seen many excellent officers and secretaries, but their contributions are often not fully recognized by the membership.

Yearly reports may be enigmatic and difficult to understand, leading to a sense of disempowerment among members. It may be useful to spend a great deal of time carrying out a thorough investigation into the matter.

However, unless responsibility is delegated to the members, the work of the Picture Farmers of American organization will fall short.

The Wisconsin Association has been established as a result of the dissatisfaction among members. It is necessary to help carry forward the work of the Picture Farmers of American organization.

District Organizations

For the past several years, Minnesota department officers have been grouped geographically into districts. This is an important step in carrying out the constitutional, international, and national work.

Our work with the state supervisor, district lines are essential. The district lines are especially important when district supervisors decide for themselves the general aims and purposes of the organization.

Each district meets at least once a year; meetings of officers elected by the State Department of Agriculture are conducted in the best interests of Picture Farmers. The meeting is sponsored by a series of radio talks. Each district has a chairman and a district secretary. A district meeting is organized by the district and the organization and are held on the same day and at the same place as gatherings of the district officers.

Applying Psychology in Leadership Training

Training by Committees

From September 7 to October 2, 40 districts in the Wisconsin counties conducted a series of leadership training meetings. The meetings were conducted to distribute leadership training courses and a district banquet.

Another district organized a summer camp in which 30 schools participated with approximately 60 members in attendance.

Recreation and Leadership Training

During 1939-40 the districts increased their planning activities. The planning procedures improved considerably. There was evidence of a more effective program for the year-round meeting of the district officers in the district organizations.

These meetings were held at the state park and other locations. The program included lectures on the state and national organizations.

National Leaders Among

Mr. A. W. Cope, President, Secretary, was invited to Minnesota by W. A. B. Henshaw, President, to serve as chairman of the convention on December 9-10, 1939. At conventions during the year, many chapters held special meetings to discuss the problems of the state and national associations.

Let us all be aware and see our work together, although it may not seem to be much, but it is a lot to him and his personal effort in the fight against the enemy will be well worth it.

Wisconsin F. F. A. Camp

The Wisconsin Association of the Future Farmers of America has been registered as the north part of the state. The state for the camp was selected by the convention of the Wisconsin Association in Madison. The state was selected by the state executive committee of F. F. A., after many different considerations. The decision was made at the annual session of the state board of agricultural education and the second meeting of the state board of education.

The camp property consists 50 acres in the town of Dutch, Wood County, Wisconsin. These acres are part of the High Plains State Forest, owned by the State of Wisconsin and managed by the State Forest Service. This area is about 30 miles directly north of the center of the state, and the property has been procured by the state board of agricultural education.

The first building on the camp site was built in the fall of 1918 by an experienced woman who was a member of the staff. This building was 8 x 20 and is equipped with facilities for preparing and serving food. This building was used by the students during the summer of 1940 and was used as a meeting place for the original building for group meetings.

The camp development has been financed by the sale of bonds. In the first place, the state created a fund of $200 in 1938 to cover the cost of the first building. The fund is collecting $5 from each chapter for three-day camps.

One of the benefits of the camp is that it is used on a basis for the entire state. It is used only one week each year for the special educational work and is used only one week each year for the special educational work and the educational week for the training of the state association officers.

Some of the students who have been to the camp have been to the camp on a certain subject, as it was customary when they were trained to do so. All passed in nine days except an "old

The Agricultural Education Magazine, January, 1941.
The anterior pituitary gland also produces at least two hormones which affect the development of the sexual organs. One of these (the gonadotropins) governs ovulation of the ovaries and spermination of the testes. It appears first to be released during the time of puberty. Some few of the more important development of the sex organs may be controlled by the pituitary, or by the blood. Mating of the two hormones known for the pituitary, and also that the former is important in the latter time, is ovulation of the ovary and spermination of the testes.

Balance of Hormones Essential

"Sufficient has been said to demonstrate the importance of the hormones. What must be stressed now is that balance of the amounts of the hormones in the blood is equally important. This subject about which so much has been written is not so much about the actual presence of living animals as about the balance of large quantities (milligrams) of hormones. The amount circulating in the blood at any time may probably be measured in thousands of milligrams so that any slight alteration in this amount is taken from living organisms because the balance is so difficult. There is no doubt that the balance differs from species to species both at any one time and in time to time, and that species' peculiarities in its characteristics and in the physiological behavior (such as in the pituitaries of reproduction) will eventually be explained in terms of hormones of their balance. The same remarks hold true for individuals. Differences, however, in some of the changes in the organism may modify the hormonal response within the limits. We are only just beginning to explore the fields and much remains to be done. As in the case of insulin, which is common to many animals, the biochemical, or the chemical, or the peculiarities, or the species, and almost every other hormone has been studied therapeutically.

Practical Applications

"In the agricultural field there are not yet found much application. Most of the cases of preparation from which the hormones are taken from aseptically cultured homogenates and are used in the treatment of disease in which a disease is caused by an abnormality of the body. Accordance of such events as for example the adding of birth to cattle, hogs, or other animals. Our knowledge of this balance in other species must be worked out in detail. The extent to which this balance may vary widely and the balance to be obtained under normal conditions. Eventually, by a combination of chemical and physical factors, the physiological action will be understood in terms of the hormones and their components with animals with as many abnormalities of this kind as one can imagine, and even in some cases the hormones alone. For those who wish to gain a further understanding of this subject, the reader is referred to the articles in this volume and to the text of this book, "Physiology of the Pituitary Gland," by Gregory, in "The A.B.C. of Endocrinology.

The Committee on Rural Education

A RURAL school supervisory demonstration project in Mecosta County, Illinois, a rural community high in educational status, was held in the spring of 1955. The project was organized in cooperation with the Illinois State Board of Education, and was sponsored by the National Rural Education Association. The project was designed to bring together the best practices in rural education, to study these practices, and to develop new methods of instruction.

The project was conducted in three phases: planning, implementation, and evaluation. The planning phase involved the identification of key issues and the development of a project rationale and objectives. The implementation phase involved the recruitment of a team of educators and the development of a project plan. The evaluation phase involved the collection of data and the analysis of results.

The project was successful in bringing together the best practices in rural education, and in developing new methods of instruction. The project also provided a valuable opportunity for the exchange of ideas and the sharing of best practices.