

Your Career.....

A PLACE FOR YOU IN AGRICULTURE

**University of Missouri
College of Agriculture**

Special Report 84 — 4/68 5M



This series, first printed in the Missouri Ruralist, is reprinted here with the hope that it may help young people everywhere searching for a career to find a "Place in Agriculture."

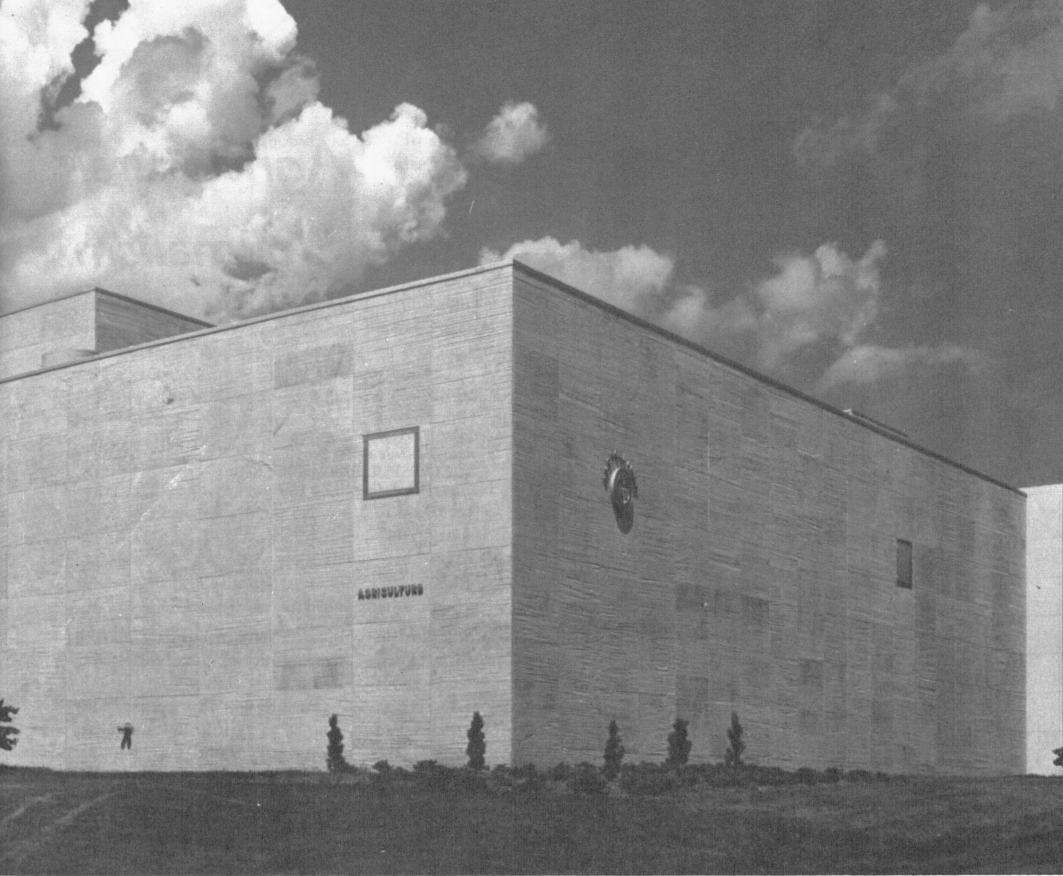
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Agricultural Journalism



*John Harvey, 1957 graduate,
now associate editor for
SUCCESSFUL FARMING, con-
sults with Editor Dick Hanson.*

Do you like to be with people? Do you like the out-of-doors world of agriculture? Do you like work that challenges and rewards you?

If your answer to these questions is yes, the chances are good that there's a career for you in agricultural journalism.

What does an agricultural journalist do? University of Missouri agricultural journalism graduates hold jobs as newspaper farm editors; farm magazine editors; farm photographers; agricultural advertisers; agricultural public relations directors; agricultural journalism teachers; and information specialists with agricultural colleges and the United States Department of Agriculture.

Opportunities Going Begging

These are good examples of jobs in the agricultural journalism field.

If you've become interested in an agricultural journalism career, you probably want to know about job opportunities and salaries. Well, job opportunities are plentiful. For some reason, the number of students majoring in the field is small.

The Training Needed

With few graduates available each year, the demand for agricultural journalists continues strong. As a result, starting salaries are higher than in many other agricultural or journalistic jobs. What does it take to be an agricultural journalist? Well, an agricultural journalist surely needs special training in agriculture and journalism.

All of us know that agriculture is becoming more scientific and complex day-by-day. The farmer needs a constant flow of new information—about feed rations; insecticides, pesticides, and her-

bicides; new machinery; market trends; outlook possibilities; and many other things.

To interpret this information, you, as an agricultural journalist, should have sound, basic training in agriculture. In studying agricultural journalism at the University of Missouri, you get this training in the College of Agriculture.

Journalism Courses

Knowing agriculture, of course, doesn't automatically qualify you to be an agricultural journalist. You must know how to use the tools of a journalist. Courses in journalism—taught at the University in the famous Missouri School of Journalism—acquaint you with these: writing, broadcasting, photography, advertising, and other tools.

And, last, but not least important, as an agricultural journalist you need to have a know-

ledge of people. You should like people—like to work with them, help them set and reach goals, and in general, to better reach their way of life.

To do his job well, an agricultural journalist must be able to talk to the agricultural scientist, the farm organization leader, the politician, and others. At the same time, he must know how to write for the man on the farm and the family in the city.

You can learn a great deal about people by just living, of course. But, there is much more that you can learn from courses in sociology, psychology, philosophy, and the other social sciences and humanities.

These courses are also included in the agricultural journalism course of study at M.U.

In summary, the field of agricultural journalism offers you a wide variety of well-paying careers. The agricultural journalism curriculum at the University of Missouri combines courses of agriculture, journalism, and arts and sciences. Upon completing the course of study, you'll have a B.S. degree in agricultural journalism.

Investigate Enrollment Early

If you're interested in studying agricultural journalism, or some other field of study, you need to make preparations now. Enrollment at the University of Missouri is often limited by the amount of housing available. Also, early enrollment increases the likelihood of getting financial help in the form of scholarships.

CAREERS IN AGRICULTURE

Jobs open to graduates of a College of Agriculture are many and varied. On this page and succeeding ones are listed many job titles that describe positions open to persons with training in agriculture. The list does not include all such jobs. However it does illustrate the scope of the field and the challenges offered to College of Agriculture graduates.

Administrator

Advertising Account Executive

Advertising Copywriter

Advertising Salesman

Aerial Applicator

Agricultural Aide

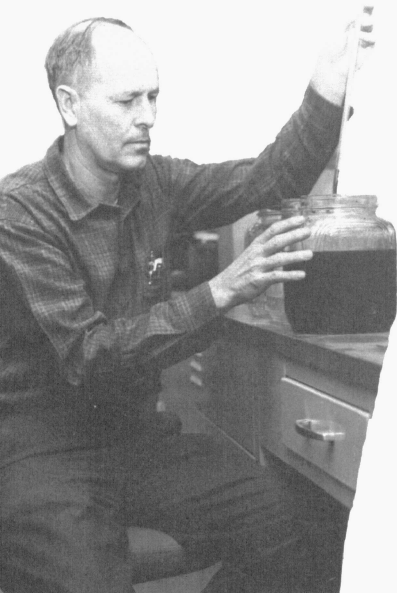
Agricultural Attache

Agricultural Biochemist

Agricultural Broker

George Logan, 1957 MU ag journalism graduate, conducts an interview for WIBW at Topeka, Kansas.





Agricultural Chemistry

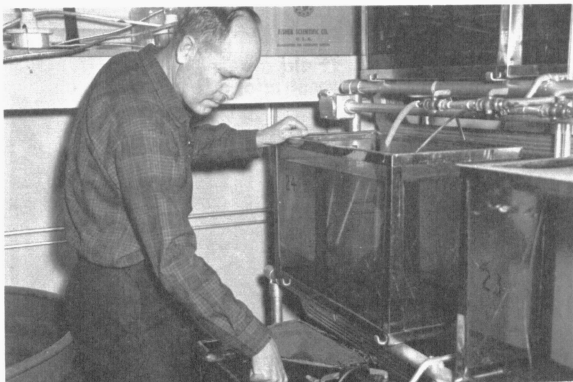
AGRICULTURE needs scientists. Demand for trained technologists and research scientists in agricultural chemistry far exceeds the supply.

For example, only a few people are graduating in agricultural chemistry from the University of Missouri this year. Yet, agricultural chemistry is the basis for many new industries offering

an almost unlimited choice of jobs for trained personnel.

Promises of good employment in the field are backed up by increasing needs for insecticides, fungicides, herbicides, and related materials. These products, widely used in agriculture, are finding new uses in highway, park, and forest maintenance, and in public health programs. Sales of agri-

Illustrating careers open in this field is James R. Whitley who does aquatic weed control research for the Missouri Conservation Commission. Whitley has advanced degrees in chemistry from the University of Missouri.



CAREERS IN AGRICULTURE

cultural chemicals have increased more than 650 percent since 1940.

Animal nutrition, a major field of agricultural chemistry, is the basis for our large feed industry.

"All of our graduates find jobs easily," explains Dr. Merle Muhrer, of the Department of Agricultural Chemistry at the University of Missouri.

Most of the openings for graduates trained in agricultural chemistry are in educational and research institutions; or in industrial organizations concerned with research, processing, manufacturing and sale of foods, feeds, fertilizers, insecticides, herbicides, and pharmaceuticals. Salaries are good, opportunities for advancement, excellent.

To illustrate further some of the opportunities, Jim Whitley, shown in the accompanying picture, is doing research on aquatic weed control for the Missouri Department of Conservation. He believes he is the only one in Missouri engaged in such research to any extent. But he says that many more organizations would be glad to hire qualified people for such work if they could only find them. The opportunities are there for the agri-

cultural chemistry graduate with a master's degree, but there just aren't enough people to fill the jobs.

To get into the field, you should like, and be successful in high school mathematics and science courses. If you are planning on specializing in one of the sciences such as agricultural chemistry, you should take as much science and mathematics in high school as possible.

For some problems in agricultural chemistry you need a farm background. However, there are many industrial applications to agriculturally-related products where you will not need a farm background.

If you wish to go on and get advanced degrees the potential is even more dramatic.

The University of Missouri has had three graduates go into cancer research in the last six years. Others are in medical schools working in biochemistry; in veterinary schools with animal physiology; others are teaching or in government or commercial research.

If you are interested in a science that has an application to production useful to man, perhaps you should consider a career in agricultural chemistry.

Agricultural Consultant

Agricultural Co-op Manager

Agricultural Economist

Agricultural Editor

Agricultural Engineer

Agricultural Extension Agent

Agricultural Implement Dealer

Agricultural Instructor

Agricultural Journalist

Agricultural Loan Representative



Wayne Duncan, right, 1963 graduate in agricultural economics, now assistant manager of the MFA Central Cooperative in Boonville, talks business with Field Representative Charles Robertson.

WHERE there's agriculture there's big business. And, whenever you're involved in business, a knowledge of economics becomes highly valuable.

Why? Because economics is the science of making decisions. And, at every step, from farm to consumer, agricultural businessmen working to produce, finance, insure, buy, sell, store, and distribute agricultural products are making important decisions.

This means that a person trained in agricultural economics may find a job in one of the many businesses related to agriculture. A degree in agricultural economics gives you the background you need to move up the ladder in any business.

Valuable to Farmer

A background in agricultural economics can also be highly valuable to you if you return to farming or act as a farm manager, once you complete your college education.

Agricultural economics, then, reaches into every phase, every facet, of modern agriculture. So there can be a career for you in the broad field of work connected with agricultural economics.

To give you an idea of what a person trained in agricultural

**CAREERS
IN
AGRICULTURE**

Agricultural Economics

economics can do, let's take a look at some recent University of Missouri graduates. These graduates have degrees in agricultural economics.

About 20 percent of Missouri agricultural economics graduates during the past six years have become farmers, farm managers, or have gone into related work, such as real estate appraisal.

Credit Agencies Hire Many

An eighth of the agricultural economists during the same period have gone into the important area of agricultural credit. These graduates work for banks, insurance companies, government lending agencies, and other credit agencies.

A large group of the graduates have taken jobs with agribusiness firms—chemical, fertilizer, machinery, meat packing, retail food, feed, farm building, grain elevator, and many other businesses.

Others have become teachers in colleges and high schools. Still others have continued studying for advanced degrees in the field of agricultural economics. They may become teachers, do research work in economics, or do a number of other things that such

special training qualifies them to do.

And the field of agricultural economics isn't limited to boys. Some of Missouri's top graduates in recent years have been girls. The jobs they hold are of the same high caliber of those that boys hold.

If you study agricultural economics, you'll follow a course of study that provides a broad basic educational background. You'll also have courses that provide a good grounding in economics. You'll likely also have an opportunity to get technical training in any special phase of agriculture in which you have an interest.

High Salary Potential

In agricultural economics, starting salaries may have a tremendous range from average to exceptionally high. Missouri agricultural economics graduates who have applied themselves to their jobs have had no trouble in achieving a satisfactory rate of pay.

If you are interested in a career in agricultural economics you need to start making preparations to attend college right now.

**Agricultural Marketing
Specialist**

Agricultural Missionary

Agricultural Representative

**Agricultural Research
Engineer**

Agricultural Salesman

Agricultural Scientist

Agricultural Statistician

Agriculturist

Agronomist

Animal Specialist

Agricultural Education

"UNTIL eating goes out of style, vocational agriculture will be in style" remarks C. V. Roderick, of the agricultural education staff at the University of Missouri.

What does he mean? Simply that the demand is strong for qualified people to teach agriculture in high schools and colleges, and he expects it to remain strong.

If you have grown up on a farm, or have had three years of

farm experience since you were 14 years of age, you might want to consider the field of agricultural education.

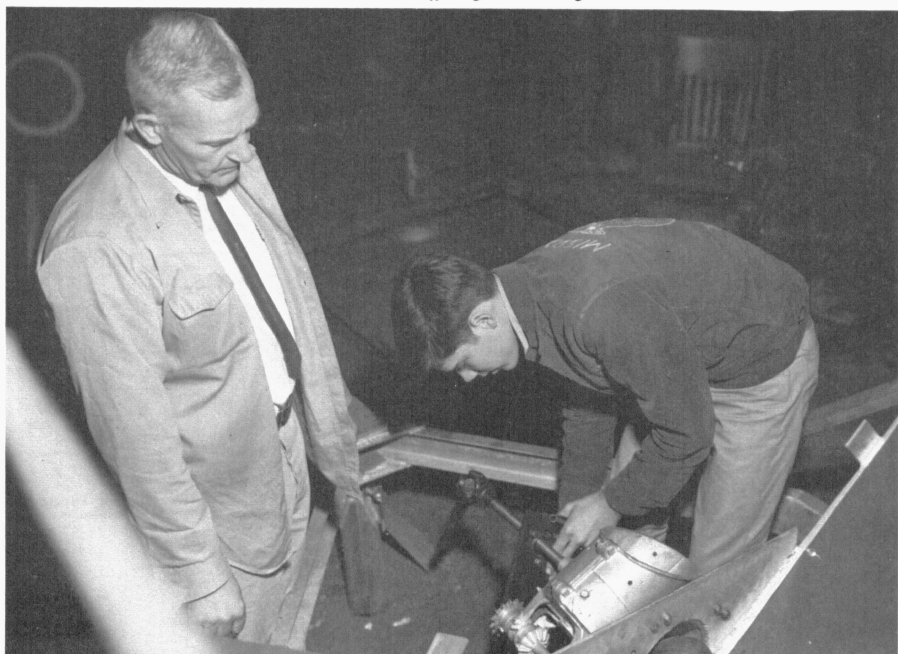
Teach in 240 High Schools

Mr. Roderick says that of the 512 high schools in the state, 240 are offering vocational agriculture. He estimates that vocational agriculture is reaching only 52 percent of the boys that would take it if they had a chance.

Vocational agriculture teachers are currently reaching about 20,000 people a year with organized instruction.

What qualifications do you need to teach vocational agriculture? You must like to work with people, especially young people. You must like to teach. You must be a graduate of a land grant college and meet curriculum requirements at the University of Missouri.

Jesse Clonts, vocational agriculture teacher, guides a student at Troy, Mo., in building an auger wagon. Troy's high school is one of the 240 in Missouri offering vocational agriculture.



Linhardt instructing vocational agriculture student in use of grinder.



Most vocational agriculture teachers are located in towns of 800 to 10,000, so you should be able to adapt to this size community.

How easy is it to find a job after you graduate? Mr. Roderick says that though turnover is not as high as for other teachers, there is about a 10 percent turnover each year. Out of 240 teachers that would be about 24 a year in Missouri.

Not All Graduates Teach

Approximately 25 percent of the young men qualified each year to teach vocational agriculture go into other agribusiness jobs and never teach. Therefore, taking them into account, Mr. Roderick says if there were 40 men qualified each year, every one of them would be able to find a job easily. The number of schools offering vocational agriculture is limited by the number of qualified teachers available.

Normally, less than 20 men qualify each year. This means that graduates from other states, if they are available, must come in to take these jobs. A vocational agriculture teacher is paid on a 12-month basis, while most high school teachers are paid on a school year, or nine month basis.

Security Benefits

Another interesting aspect of agricultural education is that retirement benefits are automatic, with disability and survivor's benefits.

A major in agricultural education at the University of Missouri College of Agriculture does not necessarily limit you to teaching. Of the 10 percent that leave the field each year, about 23 percent go into sales work with commercial companies, about 22 percent go back to the farm, 23 percent are teaching in other fields, and the rest go into other educational work.

CAREERS IN AGRICULTURE

Appraiser, general

**Aquarium Specimens
Collector**

Assistant Manager

Associate Buyer

Bacteriologist

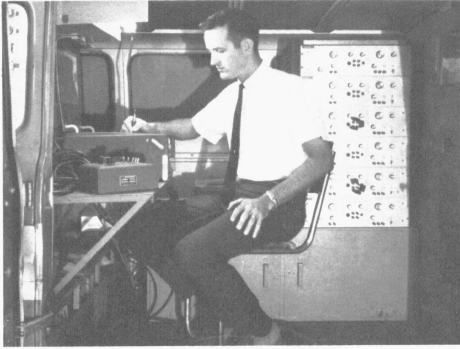
Banking Official

Beekeeper

Biochemist

Biological Aide

Biologist



Agricultural engineer Larry Gutekunst, 1959 graduate of the College of Agriculture, supervises engineering laboratory at the Allis Chalmers Independence Gleaner combine plant.

WHEREVER food or fiber is produced or processed, there is a place for an agricultural engineer.

If you like to work with mechanical things, do well in and enjoy math and science courses, then don't overlook agricultural engineering as a career.

The difference between an agricultural engineer and other types of engineers is a knowledge and interest in agriculture. A farm background is not necessary, but an interest in agriculture certainly is.

Four Major Fields

Dr. Harold Walton, chairman of the Department of Agricultural Engineering at the University of Missouri, says agricultural engineers work in four major fields: electric power and processing; farm structures; power and machinery; and soil and water management.

Agricultural engineers apply

scientific knowledge to solve agricultural production and processing problems. They develop machinery, structures, equipment, practices, and techniques.

"Demand for agricultural engineers exceeds the supply," says Dr. Walton. "We have inquiries all the time. We have to say, 'Sorry, there's no one for you to interview.'"

Foreign Service Openings

"The agricultural engineer is especially in demand for foreign assignments," Dr. Walton continues. "Countries needing a bigger food supply and better use of resources are looking to engineers for solutions."

Agricultural engineering graduates of the College of Agriculture go into farm machinery manufacturing; farmstead mechanization with equipment manufacturers; and farm building manufacturing.

Agricultural Engineering

They go with the Soil Conservation Service; with power companies as power use advisors; as engineers for cement associations; fieldmen for plywood associations; into teaching, research, extension, and many more jobs.

What do you need to go into agricultural engineering?

Walton suggests that success with engineering study begins in high school. Students enroll in agricultural engineering through the College of Engineering.

Valuable Preparatory Courses

Regular admission to the College of Engineering requires 15 units of approved high school work. These 15 units should include four units of English, three-and-a-half to four units of math, and two of a science. You can see that math and basic sciences are important in engineering studies.

While in college, you will study engineering sciences, mathematics, physics, plus engineering application courses, such as power and machinery design for specific application, i.e. drainage.

Other courses include surveying, economics, sociology, and humanities, soils, and courses dealing with animal and plant needs.

Mechanized Agriculture

Students who don't have an interest in agricultural engineering might still enjoy a curriculum in mechanized agriculture. It is designed to give students a broad general education in social sciences, biological and physical sciences, and mathematics.

Major emphasis is placed on courses in farm machinery, water management, farm buildings, farm electrification, and related courses in economics, soils and crops.

Biophysicist

Breeding Technician

Builder and Equipment Dealer

Buyer

Certified Seed Grower

Cheese Maker

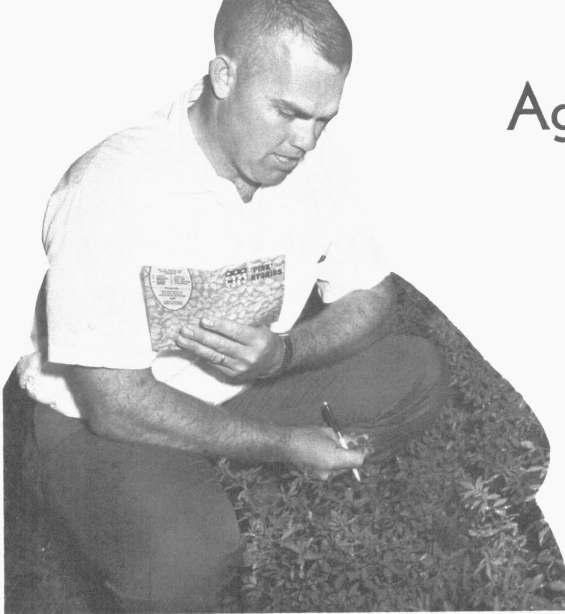
Cold-Storage Manager

College Faculty Member

Commercial Seedsman

Commodity Grader

Agronomy- Opportunities



Joe Bray, MU graduate in field crops, is helping breed and develop new plants at the MFA Seed Division, Marshall, Mo.

ONE OF THE great agricultural challenges of today is to grow more and better quality crops on less available land.

As world populations rise, and the amount of land suitable for producing food grows less, the world is looking to field crops experts for ways to increase yields and lower production costs.

The call is for crops with higher protein, improved nutritional balance, freedom from pesticide residues, higher oil, stronger fiber, better disease resistance, or other qualities to improve the food supply.

Field Open to Urbanites

If you are looking for an interesting and rewarding career, perhaps you should consider field crops.

A farm background isn't necessary, members of the Department of Agronomy faculty said recently, but they added that an interest

in the broad field of agriculture certainly is.

They have been well pleased with the students who have a background of vocational agriculture, they say, and add, the person planning to enter the field crops study should have a fairly strong science background.

There is a great deal of drama in the science dealing with field crops production and use.

The plant geneticist studies the plant chromosomes and genes, and learns how they can be manipulated by the breeder to develop improved varieties. The University of Missouri has won international recognition in genetic studies with corn and wheat.

Breed New Plants

The plant breeder develops new and improved varieties of crops, and actually custom builds into a new crop variety the qualities he wants it to have.

The crop pathologist studies diseases. In the struggle for disease control, a few hundred pathologists are pitted against thousands of crop diseases. Without the efforts of the pathologists, there might be no food.

The weed control researcher studies chemicals and how to use them to kill weeds and greatly lower crop production costs.

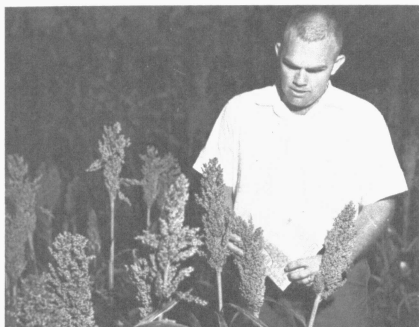
Training for Farming

Training in field crops is important for the person who plans to farm.

In addition, there are many jobs available in farm management work, seed production and processing, agricultural industries, governmental agencies, farm elevators and seed stores.

You may choose from three areas of study in field crops at the University: professional, business, and science.

in Field Crops



The professional field of study is aimed at the student who plans to enter agribusiness with an industry using or processing field crops, or an industry serving farmers.

Science Curriculum

The science curriculum is directed at students planning to take advanced degrees. Some of the courses in this curriculum might be weed control, genetics, or plant physiology.

During the past few years there has been a great increase in the percentage of students doing graduate work.

Growing Job List

The number of field crops majors has tripled over the last few years at MU; there is an increasing number of opportunities for them.

Industry is taking more people with B.S. degrees, and using them

for everything from sales to research and development.

Many graduates go into teaching or research with educational institutions.

The seed industry employs many graduates for a wide range of jobs.

Earn While You Learn

You have a good opportunity to earn money and learn at the same time in the MU Department of Agronomy. The various research projects, the seed laboratory, and the seed certification program require a great deal of student help, and the payroll runs over \$100,000 a year.

Faculty members are enthusiastic about the build-up of field crops majors, the last few years. There are more jobs than ever, and there's a tremendous increase in demand for people with advanced degrees.

CAREERS IN AGRICULTURE

Commodity Broker

Communications Consultant

Conservationist

**Conservatory
Superintendent**

Consulting Engineer

Contract Seed Grower

Cooperative Manager

County Extension Director

Crop Biochemist

Crop Breeder



Soil Scientist Richard Fenwick, Fulton, has a job that takes him both outdoors and indoors, classifying and mapping land for the U.S. Soil Conservation Service.



Soil Science

THE GROUND around us does not appear very glamorous. Yet this ground, along with all the land around the world, may well hold the key to man's future happiness and well-being.

Consider these points.

- Land and soil provide the starting point for most all of our food production.
- Land provides the base on which we build our homes, cities and parks.
- The area of land on this earth is quite fixed in amount. As population grows, man must use this fixed amount of land more effectively to meet his growing needs.

This means people trained in soil science are sure to play an increasingly vital role in helping mankind improve our way of life. Youths choosing careers in soils will find a variety of opportunities in their home state and throughout the world.

Openings in Extension

Many graduates of the University of Missouri College of Agriculture with training in soils work for the U.S. Soil Conserva-

Agronomy Opportunities in *and Related Careers*

CAREERS IN AGRICULTURE

Crop Ecologist

Crop Physiologist

Crop Production Specialist

Crop Specialist

Crop Technologist

Dairy Chemist

**Dairy Equipment Research
Engineer**

**Dairy Equipment
Serviceman**

**Dairy Experimentalist or
Feeding Specialist**

**Dairy Herd Improvement
Tester**

tion Service. Some are called soil scientists, whose primary job is soil surveying and soil mapping on an area basis. Others are called soil conservationists. They work on detailed soil and water conservation plans with individual landowners.

The University's Extension Division hires soil majors for county, area, and state educational positions. On occasion, the Forest Service, National Park Service and Bureau of Reclamation need soil specialists for site evaluation for forest plantings, park development, or soil mapping.

Other opportunities are open in state highway departments as inspectors to check materials used in road building. They need persons trained in soils for survey work on highway relocation—persons who can make costs estimates on road cuts and other construction. A related area of work is soil mechanics, which involves compaction and stability studies for use in planning roadbed construction.

Other major sources of employment are fertilizer and farm chemical companies. They hire men who know soils and crops to be technical representatives or

“troubleshooters.” They serve as a contact between dealers and researchers of the company and universities.

Other opportunities are open with banks, farm equipment manufacturers, and nursery and seed companies. Some graduates in soils go into business for themselves—farming, as farm supply dealers, in soil testing services, real estate sales, or farm management services.

Ag Supply Companies

The list could go on and on, but two more types of soils careers can be mentioned. One is the growing opportunity for work in foreign countries—either with a fertilizer or chemical company, or as an educational representative of a university or foundation. The other is a research and teaching career with a university or commercial company. In fact, there is a real shortage right now of graduate students preparing for this type of career. Land-grant universities have more fellowships for graduate study in soils than they can fill.

The study of soils can lead to a wide range of interesting, well-paid careers.



John Giddens, a 1956 graduate of the MU College of Agriculture, now an agricultural representative for a St. Joseph, Mo., bank, discusses cattle with Jim McCord, another MU graduate. Their work illustrates the great variety of careers open to animal husbandry graduates.

Animal Husbandry

HA VE YOU ever considered a college major in animal husbandry? Do you immediately think of someone trained to manage a farm livestock operation?

If so, you should know that in addition to being prepared for this, many young men and women are finding that studying animal husbandry in college opens up other avenues of training and specialization to them.

During the first two years in the College of Agriculture you would take basic courses to de-

velop a sound background. Courses such as English, mathematics, biology, chemistry, and physics are necessary to help you understand the scientific aspects of present day animal husbandry.

After you have laid the basic foundation, you're ready to build on it. Select one of four divisions in which to specialize: production and management; meat technology; animal breeding and physiology; or animal nutrition.

During junior and senior years you can take courses to

train you for these opportunities in animal industry.

Many graduates go on to graduate school to pursue their scientific interest. Working toward Ph.D. degrees in such areas as genetics, physiology, nutrition, and meat chemistry qualify them for jobs a college teachers, commercial research specialists, or medical researchers.

Governmental organizations, United States Department of Agriculture, Public Health Service, and National Institute of



Health, for example, are hiring many animal husbandry trained people.

Expansion of college programs in almost every state has increased the demand for animal husbandry teachers.

Junior colleges, for instance, offering basic courses in animal husbandry, add to the demand for teachers.

Commercial companies are always looking for qualified people to be their technical representatives, people who can relay in-

formation to buyers of their products (feeds, additives, minerals, vitamins, and equipment used in the animal industry).

If you decide to go into production and management you will be able to apply directly the animal husbandry technology you have learned. You may raise livestock, or you may want to go into other related work. Management consultants and credit agencies need animal husbandry trained personnel to look after their livestock interests.

Associations and Firms

Breed associations doing progeny testing use animal husbandry graduates to make their programs go. Livestock buyers, graders, and commission agents are other examples of jobs waiting for you as an animal husbandry graduate.

The meat industry hires technically trained people in grading, processing, and distribution, and in development of new products.

Some graduates prefer self-employment, and operate feed stores, elevators, and other farm related retail businesses.

Foreign Service Openings

If you're interested in traveling abroad, foreign service opportunities are available which require degrees in animal husbandry.

The meat animal industry is big business in Missouri and in the nation. It reaches from the farm to the supermarket; from the county extension office to the United States Department of Agriculture; and it offers you a wide choice of careers in animal husbandry.

CAREERS IN AGRICULTURE

Dairy Herd Manager

Dairy Inspector

Dairy Laboratory Technician

Dairy Plant Manager

Dairy Product Buyer

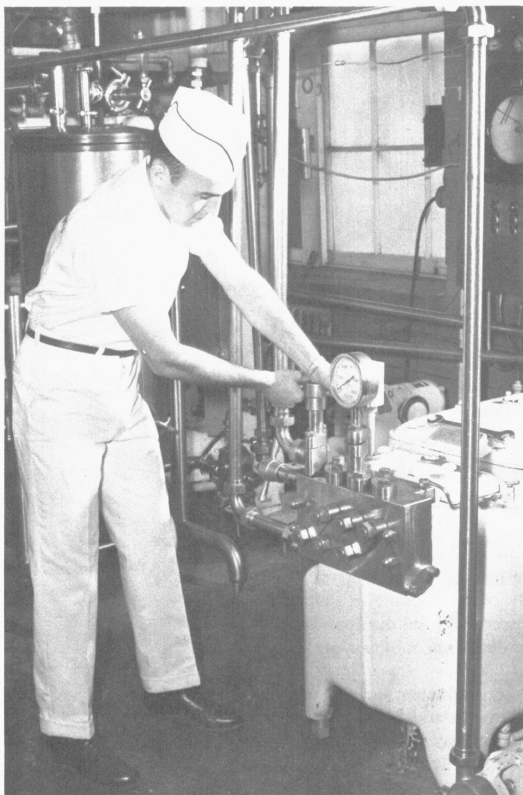
Dairy Technologist

Dairyman

Department Manager

Director of Research

**Editor of Livestock
Magazine**



Dale Chapman, 1963 MU graduate in dairying, is employed by Foremost Dairies, Inc., Springfield, Mo.

DAIRY manufacturing—processing milk into milk products—offers excellent job opportunities for college graduates.

Keeping a daily supply of dairy foods in the nation's stores, restaurants, and homes requires the services of more than two million people.

There are around 3,500 milk plants in the United States. Dairy manufacturing is an \$11 billion a year, stable industry.

To give you an idea of the scope of the industry, you might be interested in some phase of fluid milk processing; or ice cream manufacture; or cheese making (there are over 400 varieties made); or manufacture of condensed and evaporated milk; or specialty products.

Candy Makers Wanted

Fluid milk plants make fermented products, too, such as cottage cheese, buttermilk, and sour cream. Many candies are made with milk, and some milk companies own candy companies.

A specialty unique to Missouri is production of mush-

Dairy Manufacturing

rooms grown in milk medium.

This diversity creates a great need for well-trained people to fill high paying, challenging jobs as plant managers, plant superintendents, and other technical jobs in the dairy industry.

More Jobs Than Graduates

Six or seven students graduate from the dairy manufacturing curriculum each year, say John Campbell and Bob Marshall of the MU Dairy Department.

Further, Drs. Campbell and Marshall say the department could handle 20 a year. With 12 to 15 dairy companies wanting graduates they say they could place any number.

According to Campbell and Marshall, dairy companies want top graduates, and are willing to pay to get them. Competition is keen among companies for qualified graduates. Advancement depends on the individual. He will go up if he has initiative, and is willing to work.

The dairy manufacturing curriculum is expanding at the Uni-

versity. There are more opportunities for you to take related courses, such as egg production and meats courses. The first two years of such a curriculum will be general courses. If you are planning to transfer from another school, better check carefully on the University's recommended curriculum, cautions Dr. Campbell.

If you have questions on what courses will transfer, write to the Department of Dairy Husbandry.

Include On-Job Training

Students majoring in dairy manufacturing get a chance to work in the University's milk plant during the summer (some work part time the rest of the year too), or for dairy companies during the summer months.

If you go to work for a dairy company after graduation, you will go out as a trainee, probably as an assistant plant superintendent or in a similar position, then move up. You will probably be a part of a one to three year training program.

Educational Director

Educational Supervisor

Elevator Manager

Embryologist

Entomologist

Erosion Specialist

Executive Secretary

Extension Specialist

Farm Administrator

Farm Appraiser

Farm Building Specialist



Dairy Production

"DAIRY farming is the only form of animal agriculture found in each of the 50 states," John Campbell, MU dairy scientist remarked recently.

If you are looking for a career, if you have a farm background, and want into an expanding and constantly changing industry, dairy production may interest you.

Nearly sixty billion quarts of milk are produced annually on almost three million farms, over 83 gallons of milk per year for every person in this country.

Dr. Campbell, and Dr. Robert Marshall, also of the MU dairy staff, point out that only about one out of every ten dairy graduates return to the farm. However, many students use their farm background as one of their best assets.

Three Jobs per Graduate

MU dairy graduates following the production-oriented curriculum find at least three job opportunities available for every graduate. Salaries are competitive with other agriculturally-related

jobs, and the dairy graduates that do go back to the farm need the advanced training.

"You don't just learn how to milk a cow better or feed better. There are many avenues open," reminds Dr. Campbell.

Opportunities for those graduates not planning to return to dairy farming include such jobs as fieldmen for dairy breed associations; representatives for milk cooperatives; dairy equipment and supply sales work; feed manufacturing and sales work;



Ed Turner, right, a 1965 graduate in dairy husbandry, talks with Sam Coker of St. Joseph, one of the dealers he calls on in his work for a major feed company.

CAREERS IN AGRICULTURE

Farm Store Manager

Farm Credit Manager

Farm Equipment Specialist

Farm Loan Representative

**Farm Management
Specialist**

Farm Manager

**Farm Organization
Representative**

Farm Planner

**Farm Product Buyer or
Salesman**

Farm Realtor

Farm Security Supervisor

farm loan and bank representatives; or farm management. Or you might be interested in agricultural extension work; artificial insemination work; or the fields of education and research.

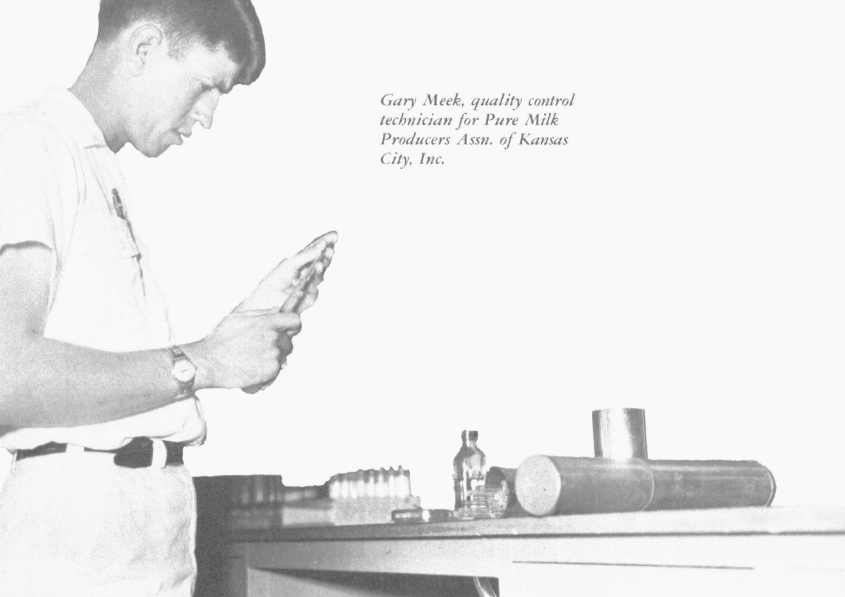
What sort of courses would you take in dairy production? Well, courses like management and nutrition; agricultural law, business courses; physiology; dairy cattle judging (includes market milk, ice creams, etc.); farm and plant inspection; bacteriology; principles of sanitary

milk production; all courses that help you to produce quality milk or assist you in helping someone else to.

Leaders in Industry

Say Drs. Campbell and Marshall, "Throughout Missouri, dairy graduates are leaders in the industry, especially in producer groups."

If the courses and jobs described sound interesting, perhaps you should consider a major in dairy production at the University of Missouri College of Agriculture.



Gary Meek, quality control technician for Pure Milk Producers Assn. of Kansas City, Inc.

Dairy Services and Allied Industry

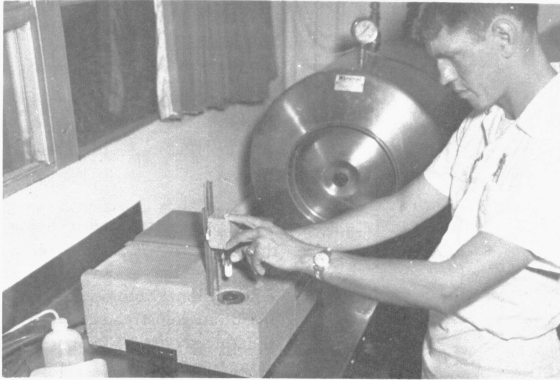
EVERY day around 8,200 new milk drinkers are added to our population.

Never has the opportunity for well trained people in the dairy industry been so great as it is now.

Not only are all phases of the dairy industry seeking college graduates with proper training, but many service agencies and closely related industries need similarly trained graduates.

If you are interested in a career in the expanding dairy industry, perhaps you should consider a college major in this field at the University of Missouri College of Agriculture.

The Dairy Husbandry Department in the College of Agriculture offers a curriculum that would qualify you to go into any of several allied fields related to the dairy industry.



Meek runs bacteria counts on raw milk samples, makes sediment tests, and runs tests for antibiotics in milk. His job also calls for some research.

Here are some of the jobs you might go into after graduating in this curriculum.

You might go into the public health field, as a milk sanitarian (inspection) or as an inspector for the Federal Food and Drug Administration.

The United States Department of Agriculture needs qualified people for dairy products grading. You might become a grader or buyer for supermarkets, or work with quality control in food plants. (Milk is used in many different food products.) In many allied industries you might supervise routine testing for composition of milk.

Or, you might go into sales and marketing with anyone from detergent manufacturers to dairy and food equipment manufacturers.

You might be a technical sales representative, or even go into research with some firms.

Although salaries throughout dairy and allied industries are competitive with other agriculturally related jobs, pay scales are above average for sales work in allied industries, according to Dr. Bob Marshall, MU dairy scientist.

Many Research Jobs

Some graduates with bachelor's degrees go directly into research. Dr. Marshall estimates that each graduate in the services and allied industry curriculum has about five possible jobs to choose from upon graduation.

In addition to the broad field of dairy services and allied industry, many college graduates are needed to fill positions in dairy manufacturing, and jobs closely related to production.

CAREERS IN AGRICULTURE

- Farmer or Operator
- Federal Coordinator
- Feed Dealer
- Feed Inspector
- Feed Sales Representative
- Feed Technologist
- Fertilizer Sales Representative
- Field Agent
- Field Crop Grower
- Field Crop Physiologist
- Field Crop Specialist
- Field Representative
- Fish Management Specialist
- Flock Foreman and Service Man



Richard Hart, an MU Ph.D. graduate now at Northwest Missouri State College, Maryville, runs a laboratory check on an insect to identify it.

ARE YOU interested in living things? If so you may be ready for training that would make you a professional entomologist. As an entomologist you could give valuable service to your fellow men, to your country, and to science.

In addition to being in a fascinating profession, you can enjoy a better than average income in any of a dozen or more specialized areas of this science. "But wait," you say. "I've never heard of an entomologist, much less know what they do."

Well, entomology is a branch of science that deals with the study of insects.

A Most Important Group

In many ways, insects are the most important group of living organisms that affect man's welfare on the earth today. People commonly have the idea that insects are pests and do actual harm. Many of them are. On the other hand, many insects are of great benefit to mankind. The bee, for example, provides food and pollinates many of our crops. Some insects are parasites that feed upon other insects harmful to man.

Insects are numerous, too. Some 80,000 different species or kinds of insects are known in the

Entomology

CAREERS IN AGRICULTURE

United States and Canada, and more than 700,000 in the whole world. These figures don't include the related spiders, mites, and ticks.

For many people, entomology is a fascinating hobby, or an interesting study. Some collect insects such as butterflies, moths, or beetles. Others watch the habits and behavior of insects and their relatives.

Examples of Jobs

For some 4,500 men and women in the United States, however, entomology is also a profession. What do entomologists do? Here are some of the jobs a person trained in entomology is qualified to hold.

Many entomologists do research work. Areas of research work in the profession include insect control, insect biology, chemistry of insecticides, and, as applied to insects, physiology, toxicology, taxonomy, and morphology.

Other entomologists are involved in regulatory services. In such work, entomologists enforce federal and state quarantines to prevent the introduction of insect pests from other countries and to slow down the spread of those that have been accidentally introduced.

Entomologists are needed to provide leadership in large-scale insect control programs. Many of these programs are designed to prevent the spread of insects new to an area. Such programs are almost always carried on cooperatively by federal, state, and local agencies.

Teaching Profession

Both formal and informal teaching positions are open to entomologists. Formal classroom teaching may be in high school, college, or university. Entomologists working for extension services of the different states are engaged in informal teaching.

In addition to these positions, there is a broad range of opportunity in commercial entomology. This phase of entomology pertains to industry as contrasted with the work done with public agencies.

Broad Education

If you study entomology in the College of Agriculture you'll get a broad, but still intensive, education. In addition to courses in entomology, you will take a number of courses in the College of Arts and Sciences in allied scientific fields and general arts.

If you are interested in a career in entomology you need to be making preparations right now.

Florist

Florist Broker Salesman

Florist Commission House Salesman

Floral Designer

Floral Salesman

Florist-Technician

Fluid Milk Grader

Fluid Milk Pasteurizing Man

Food Processor

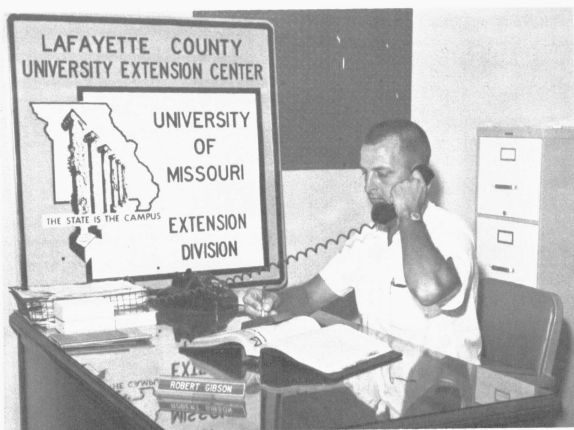
Food Retailer

Food Technologist

Foreign Agriculturist

Forester

Free-lance Journalist



Robert Gibson, Balanced Farming agent in Lafayette County, is a 1955 graduate from the MU College of Agriculture.

Extension Education

“**W**E’RE ALWAYS on the lookout for agricultural college graduates who have done well in their college work and who like to work with people.”

These words of the personnel director for the University of Missouri Extension Division, give an indication of the many career opportunities open in extension work.

Extension workers are a unique group. They are staff members of the state’s land-grant university (in this state it’s the University of Missouri at Columbia). However, many extension workers live in county seat towns throughout the state. They are really “teachers without classrooms.” Their job is to make research information and knowledge of the university available to people in every part of the state.

Can Serve Youth

The different types of career opportunities open in extension can be illustrated best by specific examples here in Missouri.

There is the county or area extension director. He is responsible for all of the extension programs in his county or area. This involves administration duties. In addition, he works with people on various subjects, depending upon the type of county he is in, and his training. If in a rural area, he may work primarily with farm families. If in an urban area, he may work mostly with non-farm people.

Another position is that of agricultural agent. This is an agent who has specialized in some field, such as animal husbandry, dairy, or field crops. His primary job is to work with farmers on their

production and marketing problems.

Still another extension position in Missouri is that of Balanced Farming agent. His job is to help farm families work out plans for their total farm operations. This position requires considerable knowledge of farm management principles.

Examples of Openings

Youth agent positions provide another career opportunity for agricultural college graduates. The people who fill these positions have an unusual opportunity to be of service to young people through 4-H clubs and other youth groups.

Finally there is the community development agent. He works at a broad range of problems aimed at improving economic and social conditions in his county or group of counties.

In the positions just described, the extension employee works in

only one county or a small group of counties. In addition to these jobs, there are area and state staff positions. It could be summed up this way: No matter what area of agriculture you are interested in—livestock, crops, soils, youth, administration—there is likely to be a position in extension that would require your particular knowledge and skills.

Extension work offers a number of advantages: (1) good pay (2) opportunity for advancement (3) job satisfaction (4) retirement, insurance, and disability benefits.

Two of the main requirements to be an extension worker are a college degree, and a sincere desire and ability to work with people.

If you would like to know more about career possibilities in extension work, you might stop by to see your local County Extension Director.

CAREERS IN AGRICULTURE

Freezer Products Operator

Fruit Broker

Fruit Grower

**Game Management
Specialist**

General Manager

Geneticist—Plant or Animal

Golf Course Superintendent

Grader of Dairy Products

Grain Buyer

Grain Inspector

Greenhouse Grower

Grounds Keeper

Hatchery Operator

Herdsmen

Gibson's job is to provide information and guidance to farm families on farm organization and management.



Food Science and Nutrition

FOOD! Everyone perks up at the mention of food. Since eating is both necessary and enjoyable, the food industry is the largest and most stable of all manufacturing industries in the United States.

Field of Great Service

Agriculture faces a tremendous challenge in producing food for fast increasing world populations. A challenge equally as great faces man in insuring that this food is of good quality and nutritionally adequate to supply human needs. Even though much is known, so much more needs to be learned in the field of human nutrition. You can have a part in helping mankind meet this challenge.

Food science is one of the youngest and most rapidly expanding career fields available to

college graduates in agriculture. It begins with the raw product, and involves everything from processing, through packaging, to distribution.

Technologists and scientists have brought about revolutionary changes in our way of living by applying the basic sciences (chemistry, microbiology, biology, physics, math, and economics) to food industry operations.

If you are interested in preparing for a career in this field, you should enjoy the sciences, including chemistry, a foundation for much of the work.

Food Plant Function

A simplified description of a food manufacturing plant might go like this. In general, a food manufacturing plant takes raw materials apart, cleans and grades

them, puts materials and ingredients together, forms the products to the desired size and shape, treats them with heat, quick freezing, radiation or refrigeration, allows them to undergo chemical or biological change under controlled conditions, and puts the product into technically proper packages to preserve them, keeps them sanitary, and makes possible widespread distribution and self-service retail sales.

Challenging Careers Open

As a graduate in food science from the College of Agriculture, you might go into manufacturing and distribution, either domestic or foreign, as a plant manager or plant supervisor, or into research with food products and process development, as a whole-

*Neil Finley operates
a quality control lab
for Seven-Up at Clayton Mo.*



sale manager or buyer, or super-market manager, food merchandiser or salesman.

In the area of technical service, you might become a food packaging specialist, or a food ingredient or food equipment specialist.

You could have a part in technical research and development with such jobs as food microbiologist, food chemist, or food engineer.

Teaching and Research

You might find your liking in teaching or research at a College or university, or in a federal agency, such as the Department of Agriculture, or Health, Education, and Welfare, or Department of Defense; or perhaps in inspection and grading for a regulatory agency of federal or state

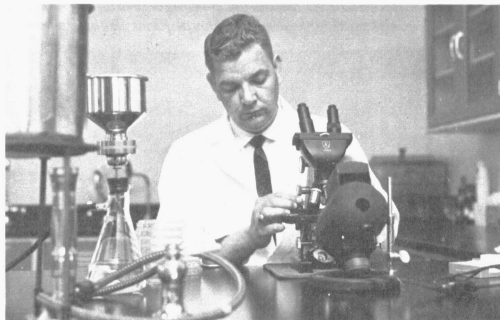
government.

Plant facilities at the University, plus a chemical analysis laboratory, a bacteriology laboratory, and a taste-test kitchen, help students learn procedures needed in industry. The plant facilities are equipped with modern, small scale plant machinery, which the students use in manufacturing products.

Earnings High

You will take general courses for the first two years, with more specialized courses (chemistry, microbiology, food processing) following. These courses can be tied together with courses in food economics, marketing, and distribution.

Earnings begin at a higher level than with most other professions.



Finley specialized in food technology at the University's College of Agriculture to fit him for this career.

CAREERS IN AGRICULTURE

Horticulturist

Ice Cream Maker

Incubator Operator

Industrial Appraiser

Information Specialist

Inspector—Agricultural
Equipment or Produce

Inspector—Food or Feed

Insurance Adjuster

Insurance Broker

Laboratory Technician

Land Appraiser

Land Use Surveyor

Landscape Architect

Landscape Contractor

Forestry

WHAT a multitude of jobs are open in forestry today.

Perhaps, at the word forestry, all you think of is trees. But though trees are the reasons we need foresters, a forester must feel at home in almost any situation.

True, he may spend some time in the deep woods, but in this wide ranging forest industry, a forester must be able to meet and get along with people.

If you were to study to become a professional forester, your work might require everything from cruising timber to business management. It might take you anywhere in the United States or the world.

Training Professional Foresters

The University of Missouri School of Forestry has over 200 undergraduates and usually about 20 graduate students a year. They are in training to become professional foresters. What kinds of jobs will they go into? Here are just a few possibilities.

Forest Rangers: Young college trained foresters may enter the

U.S. Forest Service as assistant rangers or junior foresters.

They may work up to District Forest Ranger positions. A District Forest Ranger administers and manages a national forest ranger district covering several hundred square miles. He is responsible for protection of his

forest and its resources from fire, for growth, management, and sale of its timber crops, safeguarding watershed values, developing wildlife habitat and recreational facilities, leasing land for resorts and other special uses, granting permits for livestock grazing, and management for recreational use.

He may have one or more assistant rangers, and a large number of technicians, foremen, aides, and other workers on his staff. The volume of business he conducts may be larger than any other enterprise in the community.

A professional forester might manage industrially-owned forest lands, or a watershed for a water company or municipality, or state and national parks for recreational use, or a wildlife refuge to maintain a good habitat for wildlife.

Ownership aims vary, and the forester is apt to engage in many

Earl Niewald, district forest ranger headquartered at Rolla, administers 87,000 acres of national forest in the Ozarks.



different kinds of activities. Foresters trained in wood products and building materials management are employed by private industries such as wholesale lumber dealers, manufacturers, etc., and can advance to executive positions.

Work With Farmers

Farm Forestry Work: Many state forestry departments employ "farm foresters" to work closely with farmers for proper management of farm woodland holdings.

After much experience as a forester, some professionals act as consultants to private forest landowners, and sometimes public agencies, in such matters as making appraisals, studying investment possibilities, marketing timber, and supervising timber operations.

Research in forestry is necessary as in other fields of science. The demand is always good for

teachers of forestry. Trade and conservation associations need foresters, as do related conservation fields, such as fisheries, soil conservation, and range management. Some foresters take foreign assignments as consultants.

To be a professional forester, college training in forestry is practically a must.

"We have had more job opportunities in recent years than graduates to fill them," says Dr. Donald Duncan, director of the University of Missouri School of Forestry. "This is particularly true in the building products and construction areas."

Three Types of Training

The school offers three types of training: forestry; wood products and building materials management; and residential and light construction. They provide a liberal education as well as technical training.

CAREERS IN AGRICULTURE

Landscape Gardener

Laying House Operator

Lime Salesman or
Representative

Livestock Auctioneer

Livestock Breed Association
Representative

Livestock Breeder

Livestock Buyer

Livestock Feeder

Livestock Superintendent

Manager, Agricultural
Business

Market Reporter

Market Analyst

Marketing Specialist

Meat Buyer

Here Niewald and D. J. England, forestry technician, use map for directing fire fighting operations. Niewald is a 1959 graduate of the University.



Fruit and Vegetable Production



Greenhouse Growers Robert and Steve Reich, Kansas City, both have degrees in horticulture. The brothers grow lettuce and tomatoes, and have a big mushroom operation.

IF YOU LIKE the out-of-doors, like machinery, are good at paying attention to details, and have a farm background, there may be a career for you in fruit or vegetable production.

The University of Missouri College of Agriculture has a curriculum that will qualify you for a great variety of jobs in either field.

For the first three years, the curriculums are similar; the senior year you specialize, taking more courses in fruit or vegetable production, whichever field interests you most.

Graduates in Demand

Graduates in fruit and vegetable production are in ever-increasing demand as farm or orchard managers, contract fieldmen, and horticulture agents. After graduation, you will likely serve a short time as an apprentice before assuming full responsibility.

CAREERS IN AGRICULTURE

Meat Department Manager

Meat Grader

**Meat Packing Plant
Superintendent**

Merchandise Director

Milk Bottling Operator

**Milk Condenser and
Evaporator**

**Motion Picture
Photographer**

Motion Picture Producer

Motion Picture Director

**Museum of Natural History
Curator**

Mushroom Grower

Mycologist

Nematologist

Newspaper Farm Editor

You might go into fields associated with horticultural production, such as sales, promotion, or consulting.

There are openings in government and university positions in research, teaching, and extension. Most of these require at least a master's degree.

Other opportunities lie in operation of garden centers, quality control work in the food processing field, and in foreign service programs.

Three Areas of Emphasis

The courses you would take in the horticulture department would depend upon the specific requirements of the job for which you were preparing.

The curriculum has three areas of emphasis. The first, professional, is more heavily weighted with actual production courses. The second, business, is directed toward the large scale business operations of the fruit and vege-

table industry. The third, science, including chemistry, mathematics and statistics, prepares the student for graduate work, and contains more of the courses he will need at the graduate level for research.

Business Knowledge Helpful

Students going back to the "home" enterprise need a broad knowledge of business, processing, and how to manage labor. In fruit and vegetable production you might also take courses in money and credit, banking, and business law.

According to Dr. V. N. Lambeth, professor of horticulture, the department welcomes students with general agriculture backgrounds, who want to become familiar with horticultural crops and thereby broaden their job opportunity base.

Currently, there aren't enough horticulture graduates to fill the positions available.



Horticulture graduate Larry Wayland owns and operates Lari's Flowers, a flower shop and greenhouse in Columbia. He also does landscaping, land planning and construction.



Landscape Design and Floriculture

IF YOU are interested in a varied profession, that keeps you out of doors most of the time, gives you an opportunity to work with nature, and gives you a chance for artistic expression, occupations in the landscape profession have much to offer you.

A professional landscape man or woman serves the public by designing, building, or maintaining residential property and also public areas such as parks, playgrounds, subdivisions, roadside improvements, and other open areas.

Opportunity Expanding

There is growing opportunity for you in this field. Courses in the University of Missouri College of Agriculture can lead to

a degree in landscape design and nursery management. As a landscape professional, you may be a designer who prepares plans and specifications for your firm's work. You may be a landscape adviser or salesman who arranges with the customers the work to be done; you may supervise the planting and construction that is designed and sold by others; or you may combine these services.

Government Has Openings

As a landscape professional, you might be employed by a governmental agency, such as a park department, highway department, or a federal agency, in much the same capacity as you would work for a private employer.

As owner of a landscape nursery, you might grow and sell your own plants, design and install landscape plantings, do other phases of landscape work such as grading, walks, pools, patios, or offer services such as custom spraying, tree surgery, and turf maintenance, or you might want to specialize in one of these services.

College Subjects

At the College of Agriculture you will receive training in the usual academic subjects, plus training in the arts and drawing, engineering and surveying, botany and horticulture, land management and soil improvement, and land use for human enjoyment.

CAREERS IN AGRICULTURE



Floriculture

Another avenue open to you through the Department of Horticulture in the College of Agriculture is floriculture.

The florist industry in the United States is a 1.5 billion-plus dollar a year business. Job opportunities range from flower production and the wholesale and retail business to research and teaching.

Business Courses Help

Courses in floriculture deal primarily with the production of florist's crops, but courses in agribusiness may be combined with them. The specialized courses in store management, marketing, and flower arrangement are particularly helpful to young men

and women planning to own or operate flower shops.

There is a growing need for persons interested in the academic side of floriculture. The well trained specialists have the best chance for advancement in teaching, research, and extension in universities and experiment stations.

Chances for advancement in the florist industry are excellent. Many high school students get started in greenhouses or in florist shops on a part time basis. The florist industry offers excellent opportunity for individuals interested in operating their own small business. The capital investment needed for self-employment is not great.

Nurseryman

Nutritionist—Plant-Animal

Office Supervisor

Organizational Fieldman

**Packing House General
Manager**

Parasitologist

**Park Superintendent or
Naturalist**

Pasteurizer

Pathologist—Plant-Animal

Photographer

Physiologist (Plant)

Phytochemist

Plant Chemist

Plant Propagator

**Poultry Advertising
Specialist**

Poultry Specialist

Meteorology

“**W**HAT’S the weather going to be?”

Everyone is interested in the weather because it affects his life day to day. As man becomes more and more able to understand and control his environment, the study of atmospheric science will mean more and more in man’s everyday life.

If you have a natural curiosity about why things happen, if you have an aptitude for science, perhaps you would be interested in atmospheric science as a career.

High School Preparation

High School preparation should include courses in the physical sciences, such as physics, earth science, and chemistry, and also all of the mathematics courses available at your high school.

At the University of Missouri you may enter this field of study one of two ways; either from the College of Agriculture or the College of Arts and Science. If you approach atmospheric science from within the College of Agriculture, you will study in the area of atmospheric science, and also in an area of agriculture

that you can relate to atmospheric science.

Develop Specialty


For example, a student might develop a specialty in the effects of weather on water management, or he might study the in-

fluence of atmospheric processes on cold protection and tolerance for plants.

The third and fourth years you will get into more specialized courses, including calculus, physics, ecology, physiology, and 15 to 20 hours of meteorology.

There are three functions of the atmospheric science area at the University. One is research, another is graduate teaching, while the third is the area of undergraduate teaching.

Upon graduation, or upon completion of graduate work,



David Horner, left, director of U.S. Weather Bureau Station at Columbia briefs University pilots on weather conditions.

you have several different opportunities from which to choose. Certainly, the U. S. Weather Bureau offers a great many job opportunities. In addition, the Weather Bureau is setting up state programs in meteorology, applied specifically to agriculture, entailing such activities as frost forecasting, recommendations for irrigation applications, forecasts for spraying operations, etc.

Openings in Government

The armed forces and other governmental agencies have open-

ings for graduates trained in atmospheric science. The developing nations of the world need agriculturally oriented meteorological personnel. Other opportunities are with private laboratories, insurance companies, and fertilizer companies.

Salaries Good

Presently, the College of Agriculture has eight to 12 graduate students a year. Salaries offered upon the completion of their studies are competitive with what others in the physical sciences receive.

CAREERS IN AGRICULTURE

Poultry Farm Manager

Poultry Grading (Poultry Marketing)

Powder Milk Operator

Processor of Liming Materials

Produce Department Manager

Production Manager

Public Relations Director

Purchasing Agent

Quality Control Specialist

Radio Farm Director

Railroad Agricultural Agent

Rancher

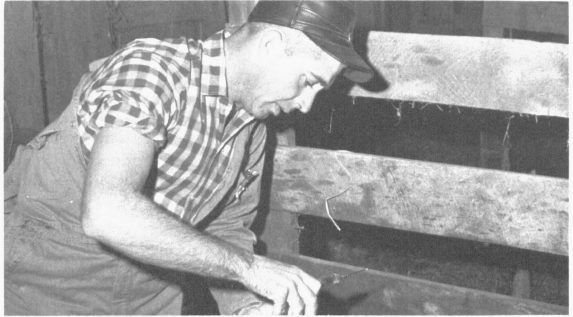
Ranger

Representative Insurance Company

Research Specialist



Robert Linsenhardt, 1961 graduate, has a big practice treating animals as a partner in Sedalia Veterinary Center.



Veterinary Medicine

IF YOU'RE INTERESTED in biology and medicine, and like to work with animals, perhaps you should consider a career in Veterinary Medicine.

The School of Veterinary Medicine at the University of Missouri accepts 60 students each year to follow a four-year curriculum leading to the degree, Doctor of Veterinary Medicine.

To apply for veterinary school you must complete a minimum of two years of pre-veterinary college work, and the average student accepted has about three and a half years.

A farm background is not necessary. The profession has branched out in recent years, ac-

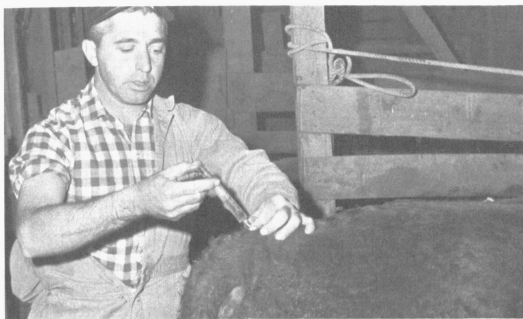
ording to Dean of the School, B. W. Kingrey, and any high school graduate may enter.

A background in biology, chemistry, and mathematics might prove helpful, says Dr. Kingrey.

Supervised Practice

After you have been accepted into veterinary school you will receive both formal instruction and supervised practice.

Your instruction the first two years will be pre-clinical or basic science. Your courses will be in such areas as anatomy, pathology, and physiology. Your second two years, or clinical years, you will study surgery, medicine, radiology, and similar courses. You will



also have hospital assignments in which you will make diagnoses with faculty guidance in the hospital clinic at the University.

Broad Opportunities

Two-thirds of the veterinarians are in private practice, either large or small animals or both. Other opportunities lie with state and national regulatory agencies; in inspection and disease eradication and control programs; with the Public Health Service; or with the Food and Drug Administration. Industrial opportunities are growing; drug manufacturers need veterinarians; the Atomic Energy Commission hires veterinarians; and military veterinary medicine offers oppor-

tunities. Graduates of veterinary school go into the army with a captain's commission.

There are opportunities in research and teaching with state universities, and some schools of medicine are adding veterinarians to their staffs.

The income commanded in the field following graduation has been increasing steadily, and is creditable for a professional, says Dean Kingrey.

There are more applications each year than can be accepted. Applications are accepted each year until March 1. Students are admitted to the School on the basis of aptitude tests, scholastic record, and interviews.

CAREERS IN AGRICULTURE

**Research Workers in
Floriculture**

**Research Worker in Soil
and Field Crop Science**

**Retail Sales Promotion
Manager**

Retailer

**Rural Electrification
Specialist**

Rural Organizer

Rural Sociologist

Sales Manager

Salesman Farm Machinery

**Salesman of Equipment
and Supplies**

Sales Representative

Sanitation Supervisor

Scientist

Script Writer

Securities Broker



M. R. Irwin, right, president and general manager of Colonial Poultry Farms, Pleasant Hill, inspects chick shipment preparations.

POULTRY production has changed during the last few years, from a sideline usually managed by the farm housewife, to one of the greatest commercial agricultural industries.

If you haven't considered a career in poultry science, it might be worth your while to investigate the possibilities.

Poultry science includes scientific study of poultry breeding, nutrition, management, physiology, disease and parasite prevention and control, and processing of poultry products for market.

Besides needing people who can produce efficiently, this large industry needs research scientists to discover and develop new production and processing practices.

The University of Missouri College of Agriculture offers avenues of study leading to degrees in poultry science.

First Year General

For the first two years, most of the courses you will take will be general. Specialized courses come later.

If you specialize in poultry nutrition you will take college courses largely in the biological sciences. A high school background of biology, chemistry, mathematics, and physics would be helpful.

If you major in poultry physiology, in addition to the general courses in biological sciences, you take courses such as genetics, animal physiology, avian biology, or veterinary science.

Poultry Science

If you are interested in food processing, you should prepare to take considerable course work in chemistry, mathematics, physics, bacteriology, and food science. Besides these specialized courses, you can also elect to take more courses in economics, English, business administration or general agriculture.

Wide Selection

After graduation, you will be able to go into one of several different areas of work in the poultry industry.

The feed industry is also a very important allied agricultural industry. There are about 6,000 feed manufacturers in the U. S. and more than half of the manufactured feed is fed to poultry.

The manufacturers need people to fill jobs in sales and services, research, promotion and advertising, production and financing.

Many poultry graduates are employed by federal, state or city governments. The specific job may be teaching, research, extension, or some type of service or inspection.

Openings in Genetics

Hatcheries and poultry breeding farms have openings for graduates with a knowledge of genetics and poultry breeding.

Employment and advancement are not altogether determined by knowledge of a specialized field. Graduates need an ability to get along with people, and some knowledge of related fields. Knowing something about other fields of agriculture is a valuable asset, and being able to write and speak in public is always helpful.

Salaries range widely, but in general are about the same as in other agricultural fields.

CAREERS IN AGRICULTURE

Seed Analyst

Seed Broker

Seed Grower

Seed Inspector

Seed Salesman

Seed Specialist

Seedhouse Operator

Service Engineer

Soil Bacteriologist

Soil Chemist

Soil Conservationist

Irwin obtained degrees in poultry husbandry and nutrition at the University.





Bruce Trussell, right, farms and is pastor of church where he grew up. He took rural sociology courses at MU and was graduated from theological seminary in Kansas City.

THE work of a rural sociologist touches almost every phase of life.

If you have a curiosity about human behavior, and an interest in how society is organized, then perhaps college courses, or a major in rural sociology may be for you.

Courses in rural sociology are becoming almost essential for a well-rounded career in agriculturally related fields.

Emphasis on Service

The Department of Rural Sociology, part of the College of Agriculture, emphasizes a service role. That is, almost every College of Agriculture student

takes courses in rural sociology even though he may not be majoring in it.

Helpful in Many Fields

In addition to offering a bachelor's degree in rural sociology, the department has several graduate students a year who have received a bachelor's degree in another field, but feel the need for specialized training in rural sociology as well.

As a rural sociologist, you might perform a wide range of functions. There is nothing limiting about a degree in this field. For instance, rural sociology training is useful in business management, market research,

**CAREERS
IN
AGRICULTURE**

Soil Management Specialist

Soil Microbiologist

Soil Physicist

Soil Research

Soil Scientist

Soil Surveyor

Soil Technologist

Specialist in Soil Drainage

Speechwriter

State Pullorum Tester

**Supervisor Commercial
Research**

Rural Sociology

youth work, or in emerging programs of the federal government, to name a few areas.

Particularly in jobs dealing with the international scene, is sociology training important.

Sociologists with a rural interest might do research in the areas of population, human ecology, diffusion, community organization, health, or other areas.

Teaching Opportunities

Since rural sociology does play a service role, there is a need for teachers in universities and colleges.

"There are opportunities for everyone," according to Dr. Daryl Hobbs, of the Rural Sociology

Department, "particularly at the graduate level. There are several good job opportunities for every person with a graduate degree."

A general high school education will prepare you for a college major in rural sociology. You will follow the general curriculum for the College of Agriculture, with specialized courses beginning around your junior year.

According to Dr. Hobbs, the demand for rural sociologists is reflected in the monetary rewards, and the training you receive enables you to work in almost any occupation where there are people involved.



Leroy Korschgen, game biologist with the Missouri Department of Conservation, obtained bachelor's and master's degrees to prepare for his satisfying profession.

Korschgen experiments with food habits and adaptation of wildlife to Missouri.

THE whirr of a wild bird's wings, the flash of a white tail deer, flag waving, or the leap of a bass in the early evening; these sounds and sights are worth preserving.

Study Wildlife Management

There are many people who spend their lives working with wild creatures, studying better ways of managing them, studying their food and nesting habits, determining their needs to live and reproduce while the pressures of human population and pollution, and the concentration of agriculture make more demands on the use of the land and water.

This is where you might find a satisfying career. Wildlife

conservation and management offers many opportunities to the well-trained college graduate. You may enter the field of Fish and Wildlife Ecology and Management through one of two avenues at the University of Missouri: the College of Agriculture or the College of Arts and Science. The technical program is essentially the same for both colleges except for certain background courses.

Ag Background Not Needed

You do not need an agricultural background; however, a strong interest in science is necessary. A high school background for wildlife conservation should include mathematics, chemistry, speech and writing. Fish and Wildlife Ecology and Manage-

ment is scientific in nature, and requires communication with the public as well.

If you enroll in the College of Agriculture you will need 32 resident hours of agricultural subjects to graduate. For the first two years your courses will provide you with a general background in this field, with more technical courses coming the last two years. Your courses will include general zoology, genetics, ornithology (birds), ecology (interrelationships of living things), ichthyology (the study of fish), botany, and courses in communication.

Master's Degree Valuable

While a student may prepare himself during the undergraduate years for some types of wildlife



Wildlife

work, his progress toward professional responsibility in the field requires graduate work leading to the master's degree.

The University has about 20 graduates a year in Fish and Wildlife Ecology and Management. Federal and state governments employ most graduates. Teaching and industry offer other opportunities.

Many Fields of Study

Once employed, you might be making research investigations in wildlife management, conducting studies of fishing pressure and its effect on fish populations, or studying species combinations in ponds. You might be doing food and nutrition studies, or studies of the interrelationships between animals, to name only a

few areas in which you might be working.

The Missouri Cooperative Wildlife Research Unit at the University is a cooperative venture between the Fish and Wildlife Service, the Missouri Department of Conservation, and the University, with support from the Wildlife Management Institute. It was one of the first units to be established in the United States.

State Fishery Unit

In 1962, the Missouri Cooperative Fishery Unit was established, and is a cooperative venture between the Federal Bureau of Sport Fisheries and Wildlife, the Missouri Department of Conservation, and the University of Missouri.

CAREERS IN AGRICULTURE

Taxonomist

**Teacher of Vocational
Agriculture**

Turf Producer

Turf Specialist

TV Farm Director

Urban Appraiser

Vegetable Grower

Veterinarian

Weed Control Specialist

Wildlife Specialist

Wood Specialist

CHOOSING YOUR CAREER

Your selection of a career is one of the most important decisions you will make in your lifetime. To arrive at this decision, you should evaluate your assets. Here is a check list that is handy for this purpose.

1. *What assets do I possess that will contribute to success in a career?*
 - a. *My personality—to work with people.*
 - b. *My ability to do academic work.*
 - c. *My desire to be successful—set goals.*
 - d. *My ability to organize and plan.*
 - e. *My interests as they relate to our social pattern.*
2. *Have I evaluated my interests and abilities?*
 - a. *Discussed career plans with my counselor or teacher.*
 - b. *Taken a vocational interest test.*
 - c. *Read extensively in the area of my interests.*
 - d. *Talked with a person of authority and distinction in my chosen career.*
 - e. *Evaluated my interests and abilities in view of the requirements for a particular career.*
3. *What do I really want from my job?*
 - a. *Financial security and job stability.*
 - b. *Opportunities for promotion within the job structure.*
 - c. *Prestige of work among my peers.*
 - d. *A position that provides me with power and control.*
 - e. *Opportunity to serve my fellow man.*