

THE KANSAS

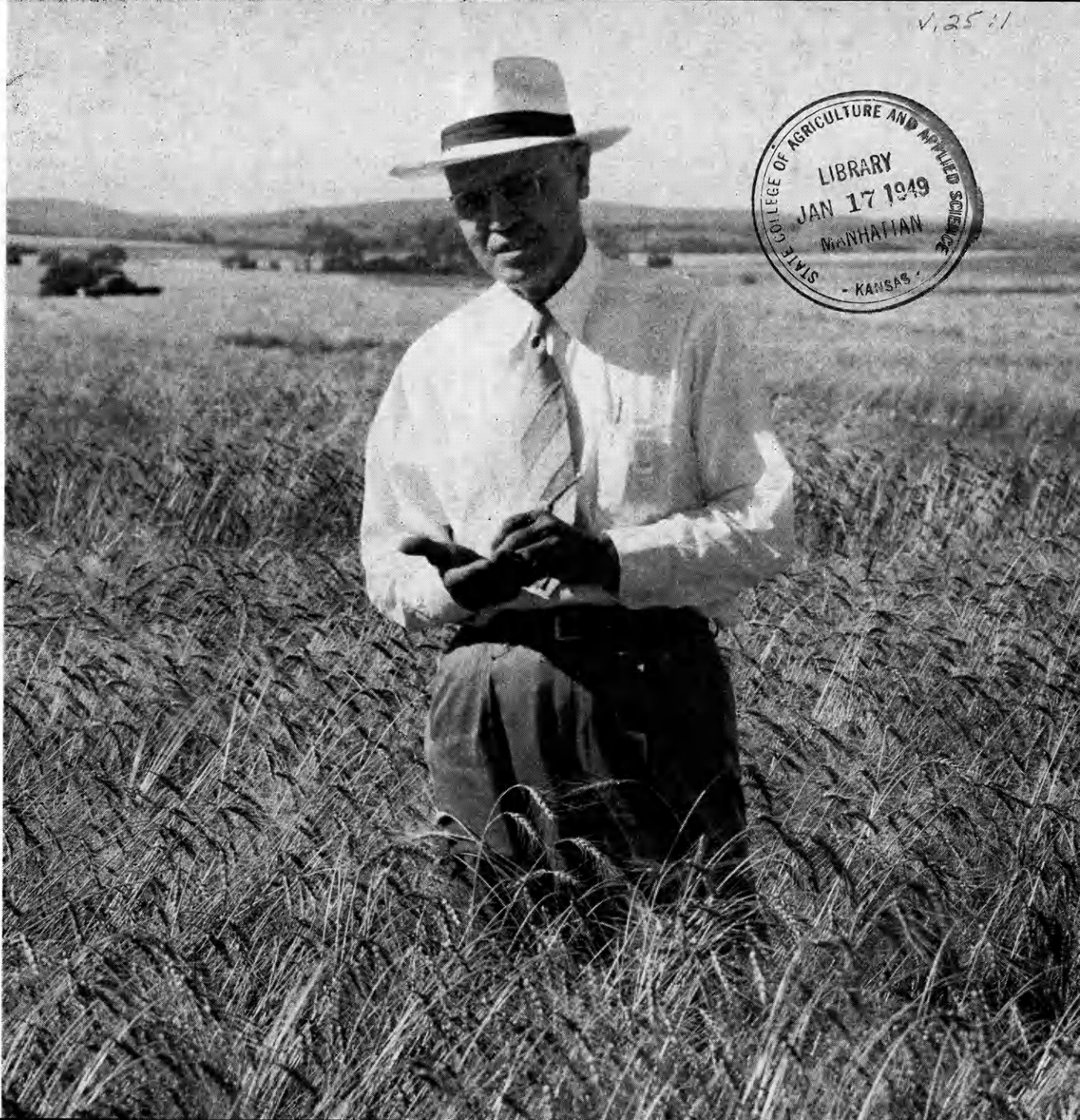
Agricultural Student

88 COPY



O
C
T
O
B
E
R

1
9
4
8



V.25.11



CAREERS AT GENERAL ELECTRIC



General Electric is not one business, but an organization of many businesses, offering opportunities in virtually all the professions. Here three G-E men brief the career-possibilities which the company offers to the mechanisms expert, the vacuum-tube specialist, and the engineer.

MECHANISMS EXPERT

John Payne (Cornell), who developed the mechanical hands for atomic research: Radioactive isotopes create problems to delight the heart and fire the imagination of any mechanical or electrical engineer who has a bent toward mechanisms. Developing pile "service" mechanisms and manipulating devices like the remote-control hands is tied in with a lot of existing techniques, but the special conditions offer a real challenge—and a real opportunity—to the engineer.

VACUUM-TUBE SPECIALIST

Dr. Albert W. Hull (Yale), assistant director of the Research Laboratory: The use of vacuum tubes for controlling industrial processes is only beginning. A new tube with a "dispenser cathode," for example, can take signals from "electrical brains" and apply them to apparatus of any desired size . . . Also, a new thyatron gives mastery over high-voltage currents as high as 40 amps at 70,000 volts. Such developments will foster the use of vacuum tubes as engineering tools and electronic servants.



STUDENT ENGINEER

Bob Charlton (Texas), graduate of the G-E Advanced Engineering Program: I have just completed three years of intensive engineering study on a level with the best graduate schools. Besides my experience "on the job," I've studied 20 hours at home each week. The first-, second-, and third-year courses are tough and realistic—the problems actually come from engineering divisions. I don't know of a better way to get a thorough technical background for an engineering career in industry.



For further information about a BUSINESS CAREER with General Electric, write Business Training Course, Schenectady, N. Y.—a career in TECHNICAL FIELDS, write Technical Personnel Division, Schenectady, N. Y.

GENERAL  ELECTRIC



Dairy Barn Adorns Ag Student Cover For Eighth Year

By THOMAS ROBERTS

A look at the front cover of this Ag Student will disclose an object which all Aggies have noticed. The College Dairy Barn in a colored arrangement to fit the cover itself has appeared on the Kansas Agricultural Student since the March 1941 issue.

The picture in black and white first appeared on the October and December issues of 1940. The Ag Student was enlarged that year under the editorship of Glenn Busset who is now in 4H extension work at the College. The size of the quarterly magazine was 7 by 10 inches before the present 9 by 12 publication was adopted.

Although every issue since 1940 has had the picture on it, no information concerning the barn itself has been printed. It is an important part of Aggeland and should be well known to every Aggie on the hill.

Prof. J. B. Fitch was head of the dairy department at the time the barn was built. Money to build the barn was appropriated by the 1931 legislature and construction was finished in 1933. Although the original appropriation was reduced 25 percent it was still possible to build quite a satisfactory barn with the funds available. The barn is located off the northwest corner of the campus on the east side of the road leading to the agronomy farm. This location allows drainage away from the barn in every direction.

Native limestone similar to that used in the other Kansas State College buildings covers the exterior, and the barn is fireproof except for the wooden roof. The original plans called for a building in the form of an H but it was necessary to reduce the size, so a part of each end wing was taken off, leaving the barn in the form of a U.

In the middle of the center section on the front or west side of the barn is the milk house, attached to the barn by a corridor. Directly opposite the milk house in the rear is the feed storage room to which is attached a group of four silos. The four concrete stave silos each 16 by 40 feet furnish storage space capacity for about 600 tons of silage. Stalls for 70 cows are provided in the center or milking-herd section of the barn, while in the north wing there is additional room in the form of eight box stalls. In this wing also are six experimental stalls, three of which are suitable for digestion or metabolism trials.

In the south wing, quarters for 44 calves are available. Here also is the feed room for this wing and a treatment room for sick animals and those requiring minor surgical treatments.

A feed grinder, a feed mixer, and a feed elevator are found in the feed storage room. After the feed mixtures are prepared they are stored in a series of bins on the second floor, from which they are drawn into the feed carts on the first floor through metal chutes. Room for storage of sacked feed also is available on the second floor of the feed storage room.

The entire barn is of two-story construction and the mow has a concrete slab floor. This provides adequate storage space for a year's supply of hay and bedding for the herd. Hay is brought from the mow to the first floor through a dust-tight hay chute at each end of the center section.

Except for a small transformer room under the feed storage room, the only basement room provided is under the milk house. Here is the refrigeration plant for cooling the milk and the milk storage room, the milking machine pump and motor, a hot water heater, and the boiler for furnishing heat to the two floors above and steam for use in the milk and wash rooms. A weigh room, refrigerator room, milk room, wash room, and an office comprise the first floor of the milk house. On the second floor are located two bedrooms, a bath, and a locker room.



VOL. XXV OCTOBER, 1948 No. 1

STAFF

MELVIN COTNER	Editor	WYMAN WHITE	Photographer
DALE WISEMAN	Associate Editor	JIM ORTON	Associate Photographer
NORVILLE GISH	Associate Editor	DEAN REESE	Business Manager
ELBERT MACY	Faculty Adviser	JOHN SCHNITTKER	Associate Business Manager

DEPARTMENTAL REPORTERS

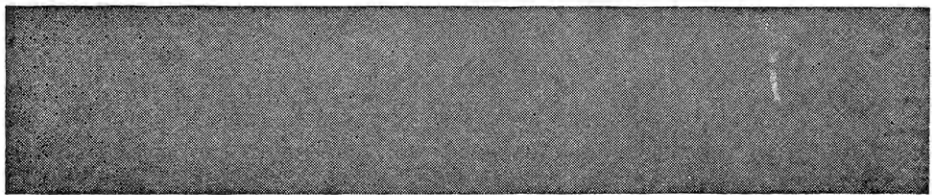
NORMAN COLLINS	Agricultural Economics	GLEN MCCORMICK	Dairy Husbandry
MERLE HOWES	Agricultural Education	JOE BRADY	Horticulture
GARRETT SEATON	Agronomy	HAL ROSS	Milling
ED MCGINNESS	Animal Husbandry	TOM JAMES	Poultry Husbandry

Contents

Dairy Barn Adorns	1	Nature Provides Material	8
On the Cover	2	Scenic Rock Springs	9
Ag Faculty Changes	2	Soil Conservation Experiment	10
C. D. Davis Retires	3	Yvonne Swenson Queen	11
Pilot Plant Bakery	4	Ag Princesses	12-13
Sears, Kroger Winners	5	Farm Power Course	14
Dr. Weber To Judge	6	Ag Enrollment	17
Government Gift Provides	6	F. F. A. Leadership	18
Problem of Tenancy	7	Joy of Editor	22
K-State Showman	7	Readers Survey	24
Dairy Team	7	Editorial	24

Published by the Agricultural Association of Kansas State College of Agriculture and Applied Science, Manhattan, Kansas, on or before the Twentieth Day of the months of October, December, March, and May. Subscription rates \$1 per year; 2 years for \$1.50; single copy 30c.

Entered as Second Class Matter, November 9, 1946, at the Post Office at Manhattan, Kansas, under the Act of Congress of March 3, 1879. Accepted for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized November 9, 1946.



Throckmorton Endorses New Wheat Varieties

By MARVIN LUNDQUIST

New wheat varieties developed in recent years at the Kansas Agricultural Experiment Station have added nearly \$30,000,000 to the annual income of Kansas wheat farmers, according to R. I. Throckmorton, dean of the Kansas State College School of Agriculture.

Tests conducted here at Kansas State by experiment station personnel have resulted in the release of several promising new varieties of wheat during the past few years. Among them are Pawnee, Comanche, and Wichita, all of which have proved successful.

The responsibility for the discovery and development of the new varieties which have raised average yields by 20 per cent is distributed among agronomists, botanists, plant pathologists, entomologists, and millers. Men from each of these departments aid in the research which finally brings forth a new variety.

Percentages derived from 10 years of experimentation show that Pawnee yields 51 percent more per acre than its grand old predecessor, Turkey, which made Kansas the bread basket of the world.

Directing the breeding phase of the wheat program is Prof. E. G. Heyne of the agronomy department. Though his offices are in East Waters Hall, he is more often found at work in his wheat plots on the Agronomy Farm northwest of the campus.

In a small three-acre plot on the farm and on land on or near the campus in several nurseries, new wheat varieties are born.

The first step Professor Heyne and his associates must take to create a new variety is to cross varieties which have demonstrated desirable characteristics. Offspring of these crosses are planted in three-foot rows. This is continued for as long as seven generations. It is possible that a promising youngster may be transferred to preliminary testing when it is but four or five generations old.

Each new cross is tested for insect

and disease resistance. Milling qualities are also tested.

Pawnee, when four generations old, was taken from its Kansas birthplace and transferred to Nebraska. Continuing to show promise, Pawnee was brought back to Kansas and at the age of six generations was ready for step number two. This consists of tests on a somewhat larger scale. The new variety is now tested for prolificacy and ability to stand up under certain natural conditions.

Plantings are made in rows a rod long. If the variety is promising here it may be sent to other nurseries over the state. If it survives these tests it is put into larger tests. Prof. A. L. Clapp is responsible for the distribution of these new varieties to co-operative farms for large scale testing.

Years of diligent and painstaking work by many people go into development of a new variety. The cost of developing Pawnee adds up to some \$85,000, according to Dean Throckmorton's report. "A lot of money!" is the natural comment. But when all factors, including the increase in farm wheat incomes, are taken into consideration, the price of a new variety is cheap indeed.

Ag School Faculty Changes Find New Faces on Staffs Of Every Department

By BILL FOWLER

All departments in the School of Agriculture made changes in their faculty personnel before the start of the fall semester.

Dr. J. Adair Hodges is acting head of the Department of Economics and Sociology, replacing Prof. George Montgomery who is working on his doctorate at the University of Minnesota this year. Asst. Prof. Russell Berry, who recently received his master's degree at Michigan State, is teaching land economics in the absence of Prof. N. J. Anderson, who is also



DEAN R. I. THROCKMORTON

at Minnesota University continuing his graduate work.

Mrs. Shirley Marnix, John Dotson, Oscar Albrecht, and Wayne Pearce, graduate assistants, are handling research and teaching assignments in the economics department. Wallace Barrett and John Sjo are student assistants.

New instructors of farm organization are Prof. Charles F. Bortfield and Asst. Prof. Ralph Dahin. Working with accounting is graduate assistant Calvin Logerman.

The Department of Animal Husbandry has only one new instructor this semester. He is Walter H. Smith, a graduate research assistant.

New in the milling industry department is Gerald H. Ingraham who teaches a course in elements of milling. Also connected with that department is John F. McCammon, an assistant chemist for the United States Department of Agriculture.

William Rutz, Howard Voelker, and Charles Foreman are the three new men in the dairy husbandry department. These graduate assistants are teaching freshman dairy courses.

Working this semester as graduate assistant in poultry husbandry is Ellis R. Wise. He teaches in elements of poultry laboratory.

Hailing from China is Kwang Sheu Shan, a graduate research assistant in the horticulture department. Other graduate assistants are Kenneth Goertzen and Almon Fish. They teach sections of horticulture laboratory.

The agronomy department has seven new graduate assistants. Stanley Brooks is doing research on corn. Cleveland Gerard, Roscoe Ellis, Mar-

(Continued on page 8)

C. D. Davis Retires from Faculty After 27 Years Service to Ags

By GARRETT SEATON

After twenty-seven years of service to Kansas State College, philosophical C. D. Davis is scheduled for retirement. Belonging to one of the best known members of the faculty in the School of Agriculture, the name of Associate Professor Charles DeForest Davis has long been a synonym for farm crops at Kansas State.

An intimate knowledge of seeds and plants coupled with his initials have earned Professor Davis his nickname "Seedy". A surprising agility, despite his 70 years, has earned him the title of "speediest man on a field trip."

A native of Jewell County, Kansas, C. D. was born on a farm five miles north of Cawker City on November 30, 1878. Now, as he approaches the completion of his seventieth year, he can look back with pride at twenty-seven years service in class room, lab-

oratory, and field, serving as teacher, counselor, and researcher.

Mr. Davis moved with his parents to Saline County in 1892 and later to Ellsworth, Pottawatomie, and Riley. His common school education came rather piece-meal in four different localities. But he finished at the age of 17 and attended teacher's institute in 1896. He secured a certificate to teach but, he says, "I was too green, awkward, and ignorant in appearance, and in fact, to get a position."

Unable to get a school to teach, C. D. worked as a farm hand until the spring of 1898. He then enrolled at Kansas Wesleyan for one term, took and passed the teacher's examination and secured a teaching job at \$30 a month.

In 1900 he re-enrolled at Wesleyan where he worked and studied to complete his education. He sold stereoscopes and insurance, worked as a carpenter, farm hand, and teacher. He attended Emporia State Normal for a short time.

In 1909 he was married to Lydia Ericson, and he says, "We jointly financed a wedding trip to the Yukon."

During the first World War, C. D. did cinema work at Bordeaux and Paris with the Army Y.M.C.A. In 1919 he enrolled at Kansas State where he got his B. S. degree in 1921 and his M. S. in 1926. He holds memberships in Alpha Zeta, Phi Kappa Phi, Gamma Sigma Delta, and the American Society of Agronomy. He was awarded

senior honors at Kansas State. He is a charter member of the Kansas chapter of Farm House Fraternity and has served as the perennial treasurer of the chapter's alumni association.

With characteristic modesty, Professor Davis claims his family as his most outstanding personal achievement. "With the cooperation and sacrifice of Mrs. Davis, I raised three children, and have done nothing else very outstanding." Thousands of Kansas State College alumni may disagree with the humble statement, for C. D. Davis has been an important influence in the lives of many students privileged to know him.

Professor Davis is teaching at Colorado A and M, Fort Collins, Colo., this year. He is teaching advanced courses in Cereal crops and a section of general crops. Professor Davis also plans the seminars and acts as adviser to 40 freshmen. C. D. has not stated his plans for after this year.

During his career at K-State he has advanced from instructor to assistant professor and is now associate professor of farm crops. Long after his retirement his former students will remember "Seedy" Davis for his genuine interest and friendship.

Will you be a boss or a leader? Remember these ten points:

1. The boss drives his men; the leader coaches them.
2. The boss depends upon authority; the leader upon good will.
3. The boss inspires fear; the leader inspires enthusiasm.
4. The boss says "I"; the leader says "We".
5. The boss assigns the task; the leader sets the pace.
6. The boss says "Get here on time"; the leader gets there ahead of time.
7. The boss fixes the blame for the breakdown; the leader fixes the breakdown.
8. The boss knows how it is done; the leader shows how.
9. The boss makes work a drudgery; the leader makes it a game.
10. The boss says "Go"; the leader says "Let's go".

Isn't it just too bad, that when Success turns a man's head, it doesn't wring his neck at the same time?



PROF. C. D. DAVIS

Millers Complete Installation Of New Pilot Plant Bakery

By BILL FOWLER

In the west wing of Waters Hall is a new pilot plant bakery. It is the first of its kind at any educational institution in the Middle West. The dream of Dr. John A. Shellenberger, head of the milling industry department at K-State, has become a reality.

More than a year ago Dr. Shellenberger went to his friend, Mr. John W. Cain, president of the Midland Flour Mills in Kansas City to seek aid. Mr. Cain was very enthusiastic and quickly obtained subscriptions totaling \$16,500 from various groups to help build the new laboratory. The money was used for redecoration and for purchasing necessary pieces of equipment.

The department has long had an

experimental laboratory where small quantities of dough could be baked and tested by students. Even this laboratory, now operated as a part of the larger plant, has been made more adequate. In one side of the pilot bakery new equipment for the student laboratory has been installed. A brick hearth oven is in one corner. Nearby is a fermentation cabinet, and a moulder with rollers.

A 130-sack pilot plant mill has been operated by the department for years. The new bakery will complete the set-up for testing. Students will receive training under conditions paralleling those found in commercial bakeries.

A top feature of the bakery is the horizontal day mixer. In the two speed mixer, certain ingredients are combined by what is called the sponge dough procedure. It has hot and cold water which enables the dough to be taken out at varying temperatures. In the fermentation system, which is believed to be the smallest ever installed, steam is used to heat and humidify. Fermentation is carried on at a temperature of 85-90 degrees and with a relative humidity of 90 percent.

The dough then goes back to the mixer where other ingredients are added and it is developed to full capacity. Forty percent more flour and water are added here. Also added are salt,

sugar, dry milk, and shortening.

The dough is then transferred to a day single pocket dough divider. It is then dropped to the conveying belts and go to the Model "C" Rounder. When the rounding process is done, the dough goes to the Model "L" Dough Moulder which moulds the dough into loaves.

Now the dough is dropped into the baking pans which have been coated with "silicone", a new product for the grease, rather than the conventional animal fat. The white porcelain baking oven is heated by gas and has all the modern gadgets necessary for control.

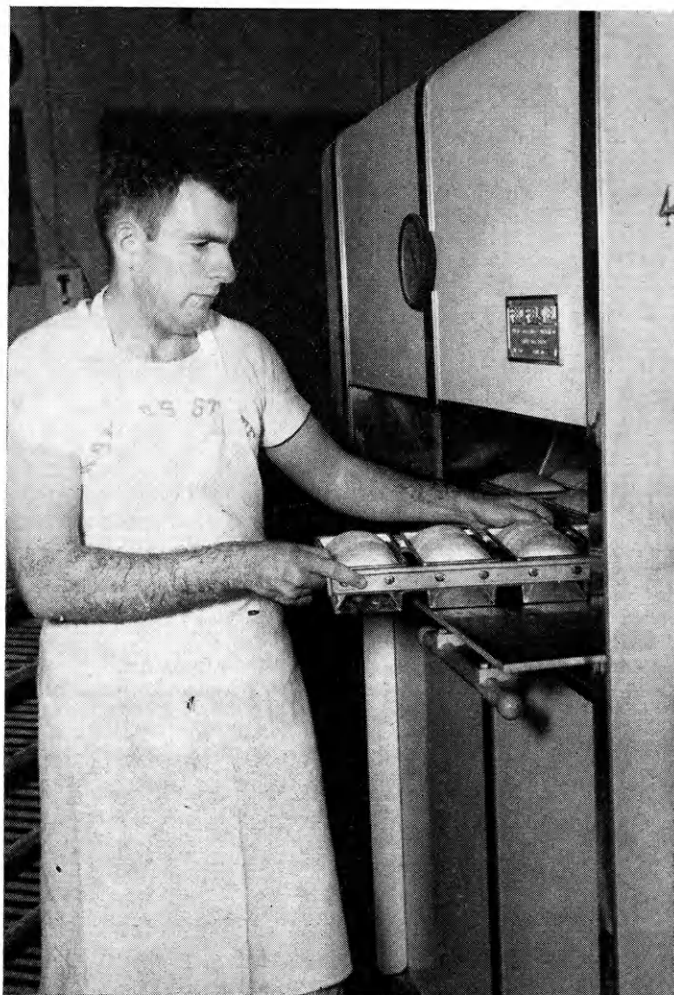
You find a newly painted white ceiling and steel gray floor in the bakery. The equipment is white and is trimmed in stainless steel. Several maple tables are finished in white with natural tops. New cabinets line the walls. There is a new 10 cubic foot refrigerator. Two large sink cabinets have several drawers and are covered in stainless steel. Overhead is adequate fluorescent lighting. Yes, it's a bakery large enough to supply the needs of a small town.

The large room has its own air conditioning unit and the temperature is kept at 80 degrees. Uniform temperature must be maintained if best results from the fermentation process are to be obtained.

Many machines in the bakery are small replicas of those used in commercial bakeries. Some companies gave machines that could not be purchased.

Experiments are conducted on wheat varieties before the experiment station will recommend them. Every wheat variety now in use in the nine state winter wheat area has been tested for baking qualities in the old laboratory.

The products from the new bakery will not be used commercially. By the time complete evaluation of the baked samples is made, the bread is too stale for popular consumption. The department has a gelometer which is used to test the compressibility of bread. A crumb tester, built in the shops at K-State, is another feature of the plant. The rate of the staling of the bread products will be observed here. Also the effect of certain enzymes on bread will be studied. Equipment to study the physical characteristics of bread is being installed.



Dough loaves being placed in the new Pilot Plant oven. This bakery is first of its kind at an educational institution in the middle west.

Prof. John A. Johnson is in charge of the unit. He is a Kansas State alumnus, and has recently returned from a year's advanced study in biochemistry at the University of Minnesota.

At the present time the college offers only one course in experimental baking. With new laboratory facilities available other courses of undetermined nature are to be offered. Professor Johnson, who is also a federal employee, teaches the present course.

"We intend to give the fundamental aspects of baking needed by trouble shooters of large bakeries," said Professor Johnson. He emphasized that Kansas State did not intend to turn out professional bakers. Men will receive training as research consultants for the larger bakeries.

Among the contributors to the new laboratory were American Flour mills, Inc. of Newton; Shellenbarger Mill and Elevator Co., Salina; Midland Flour and Milling Co., Kansas City, Mo.; William Kelly Milling Co., Hutchinson; Moore-Lowry Flour Mills, Kansas City, Mo.; Pillsbury Mills, Commander Larabee Elevators and General Mills all of Minneapolis also aided in making the lab possible. Others donating were Western Star Mills; Weber Flour Mills of Salina; Rodney Milling Co., Kansas City, Mo.; New Era Milling Co., Arkansas City; Kansas Milling Co., Wichita; Flour Mills of America, Kansas City; Omar Inc., Omaha, Neb.; Blair Flour Mills, Atchison, and the Standard Milling Co. of Chicago, Ill.

"In addition to the specific contributors named previously," said



Dough being prepared for the fermentation process. Fermentation is carried on at a temperature of 80 to 90 degrees and with a relative humidity of 90 percent.

Professor Johnson, "we at the college are grateful to those manufacturers and distributors of baking equipment who helped make the plant possible."

Sears, Kroger Scholarships Go to Outstanding Freshmen In School of Agriculture

By ELBERT GREEN

"Sorry, son, but if you want a higher education you'll have to work for it," or "you'll appreciate your education more if you earn it," are familiar words to the graduating high school senior and are witnessed by the applications for the Sears Roebuck Foundation and Kroger Company scholarships. These awards are given to freshmen in the School of Agriculture.

To receive these awards the graduating seniors of Kansas high schools

are considered on a basis of scholarship, agriculture accomplishments, leadership and personality; finally, the applicant must have been deserving from a financial standpoint.

A review of the applications to the School of Agriculture for these awards revealed that property owned by the average applicant amounted to \$1,110. The lowest individual possession was \$200 and the highest amounted to \$5,000. The average boy had \$246 in ready cash and an additional \$166 invested. Less than one-half of the applicants had debts to pay, with an average obligation of \$302 for each individual.

"If need were made a basic requirement not over four or five of the applicants would have been eligible, as compared with applicants of 1937," said C. W. Mullen, assistant dean of agriculture. Fifteen awards of \$150 each were given this year by the Sears Roebuck Foundation, and the Kroger Company awarded two scholarships of \$200.

This is the second year the Kroger scholarships and the 12th year the Sears scholarships have been available to agriculture students. Five of the older Sears scholarship winners are now on the faculty at Kansas State. Two additional winners of former years are doing research work for the Kansas Agricultural Experiment Station.

Each year Sears Roebuck Foundation give a sophomore scholarship based on scholarship. This year's \$200 winner is Richard Ramsdale, Anness, Kans., with a 2.83 points of a possible 3 point average during his freshman year.

The \$150 Sears freshman winners this year were John Allison, Merriam; Melvin Askren, Holton; David Betts, Bunkerhill; Kenneth Boughton, Emporia; Myron Brensing, Hudson; Eugene Brinkman, Coffeyville; Duncan Circle, Hazelton; Lewis Eggenberger, Berryton; Dale Gigstad, Effingham; Edwin Gorman, Toronto; Bernard Meyer, Belpre; Eugene Rizek, Munden; Larry Seaman, Wilmore; Eugene Winterschiedt, Mercier, and Frank Hagenbuck, Lawrence.

This year's Kroger winners were Harland Priddle, Burrton, and James Warren, Garnett, both with \$100 scholarships.

'Dad' Weber First American To Judge International

By ED MCGINNESS

Dr. A. D. Weber, head of the animal husbandry department of Kansas State College and recently appointed assistant director of the agricultural experiment station, will judge all of the steer classes at the forthcoming 49th International Livestock Exposition. Departing from a 48-year precedent, the exposition in the International Amphitheatre at the Chicago Union Stock Yards, November 27 to December 4, will be the first to have an American cattleman as judge.

Dr. Weber was invited as the first American judge of steers at the International upon unanimous approval by the board of directors of the exposition. He will judge all the individual fat cattle at the 1948 show, including the junior livestock feeding contest which is scheduled for

the opening day. He will conclude his work with the selection of the grand champion steer—star show animal of the week.

Since the first International in 1900, 13 judges have come from England. Stockmen from Scotland have officiated at 20 Internationals; five were Canadians, three were Argentinians, and one was from Ireland.

"Dad" Weber judged the steer classes at the 1945 Chicago Fat Stock Show—wartime substitute for the International—where his work was highly regarded by all exhibitors. He is one of the most popular beef cattle judges in the country and has repeatedly judged major shows. Last month he officiated at the Eastern States Exposition, Springfield, Mass., and the Mid-South Fair, Memphis, Tennessee.



Dr. A. D. Weber looking over one of the college herd sires. Dr. Weber is one of the outstanding beef cattle judges in the world. He will be the first American in 48 years to judge individual fat cattle at the International Livestock Show.

Government Gift Provides Kansas State with Nucleus For Thoroughbred Nursery

By K. E. GRIFFITH

A gift of two thoroughbred brood mares has provided Kansas State's animal husbandry department with a nucleus for a thoroughbred nursery, according to Prof. R. B. Cathcart. The mares were presented to the college recently by the United States Remount Association.

Recently the U. S. Army Remount was liquidated and then reorganized under the Department of Agriculture known as the Agricultural Remount Association. The U. S. Army maintained four breeding stations composed of both brood mares and stallions. The stallions were transferred to the agriculture department, while these mares were declared surplus and made available as gifts to colleges, universities, and other institutions within the United States.

Breeding stations retained by the agricultural department consisted of Front Royal, Va.; Fort Reno, Okla.; Fort Robinson, Nebr.; and Pomona, Calif.

Agnolla, one of the two animals given to K-State, is a dark chestnut, 7-year-old mare. She was bred and raised at Front Royal, Va. A great grand-daughter of Man-O-War and Broomstick, Agnolla is royally bred and should prove to be an outstanding brood mare. She has the great race horse, Broomstick, on both her sire and dam sides of the pedigree. Broomstick made his name on the race track and then went on to fame as an outstanding sire of winners.

Flag Pole, sire of Agnolla, has a Man-O-War sire and a Broomstick dam, which is one of the top crosses in race horse pedigrees. Flag Pole won several thousand dollars on the track before being purchased by the Army. At the present time he has several sons and daughters running on the tracks. Flag Pole has equalled a track record, running a distance of six and a half furlongs in one minute and 17 seconds.

Reno Reverie is the name of the other mare presented to the college. A large chestnut mare, bred and raised

(Continued on page 16)

Nation Searching for Solution To Problem of Farm Tenancy

By JOHN DOTSON

A major problem of the land tenure system, as it exists in the United States today, is that of farm tenancy. No individual problem affects our society as a whole as does that of the tenant farmers.

Tenant farming has its effect on society through the conservation of our natural resources. Individually it affects home and family life, and in many cases causes instability to the farm community. Churches, schools, and community organizations are disrupted by frequent shifting of tenants. A feeling of insecurity is always with the tenant and his family.

It is not my purpose to discourage the practice of farm tenancy, but rather to emphasize the importance of improving it. Tenancy is an important and often necessary step in the so-called "farm ladder" stretching up to the goal of ownership.

On various occasions, I have had opportunity to visit farms where the farmer was a tenant. Many of these were a credit to our society and democratic form of government. On the other hand arrangements were undesirable in many respects and should be corrected for better economic and social living.

In many cases the less desirable instances are caused by farming land that is too depleted in its resources to support two families. Many tenants are operating on farms that are too small to provide for both tenant and landlord.

This problem, in a majority of cases, can be improved by better landlord-tenant relations. Each party must understand the other's position and be willing to work together as a team.

In England the predominant type of farming is tenant farming. It has been highly successful. The tenant operates under tenure that is more secure than many of those existing in this country.

England's landlords and tenants work together to make improvements

in the land. If the tenant is then disturbed in his tenure, he is paid for the unused value of his contributions.

The better tenant relations in this country follow along the same lines. With rental contracts that cover long periods of time there is ample opportunity for landlord and tenant to work together. The tenant has more security. He is more likely to respect the resources of the soil and to maintain their productivity. With increased tenant security, the landlord often becomes more willing to make contributions to the farm maintenance.

Many phases of this problem are directly traceable to speculative or absentee ownership of land. As a general rule, the only interest the owner has is the remuneration returned to him. He has little interest in the maintenance of either soil or buildings. This attitude is reflected by the tenant who feels there is little security or stability in the association. The result is considerable exploitation of the resources with few returns to the soil.

These problems have long been

realized and considerable work is being carried on by college and extension workers. Not only should these things be investigated, but the results must be made known. Education of more people about the prevailing evils and a wider dissemination of corrective practices might be the cure needed for the problem.

K-State Has Top Livestock Showman

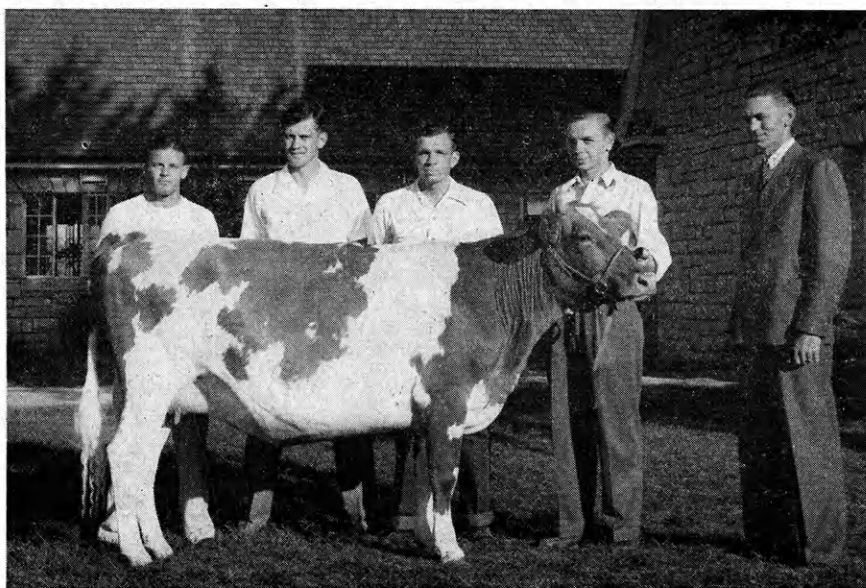
By HAROLD T. BLACK

Man behind the scene for Kansas State's livestock entries at the American Royal and International Livestock shows is George Crenshaw, herdsman at the cattle barns at Kansas State.

Herdsman Crenshaw exhibited a reserve champion Hereford at the Royal this year. The Hereford, C. K. Red Cap, was first among 22 entries of senior yearlings and was second in the finals for championship of the Hereford open class. Crenshaw also exhibited a reserve champion Short-horn steer.

A great deal of preparation, planning, and hard work goes into the efforts to produce the results seen by the spectators of a show. Much of this is routine. During the summer George secures most of his help from students in animal husbandry. A few

(Continued on page 11)



The Kansas State Dairy Judging team participated in the National Inter-Collegiate Dairy Judging contest held at Waterloo, Iowa, Oct. 4, 1948. They placed seventh in Brown Swiss and Holsteins, and were sixteenth in all breeds. Twenty three teams were entered. Members are: (left to right) Stan Fansher, alternate; Clint Jacobs, John Wilk, Don Hopkins, and Prof. Glen Beck, coach.

Nature Provides the Materials--- It's Up to Us to Use Them

By JOE BRADY

Landscaping the farm home grounds concerns many things besides beautification. Cleaning up the grounds, making drives, walks, and other useful things, and finally the planting of ornamental flowers and shrubs are of the utmost importance.

The walks, drives, clothes lines, chicken yard, and vegetable garden should be planned for utmost use and convenience. The approach drive should be direct and the turn around should be of such a proportion that turning can be done without undue backing and turning. Walks should also be direct and constructed of concrete, while the drive should be made of either concrete or gravel. Clothes lines should be made of cross arm iron poles and imbedded in concrete. The vegetable garden and chicken yard should be conveniently located, but not conspicuous. The home grounds should be fenced to keep out poultry and livestock.

Our farm grounds will have much more charm and appeal if we try for simplicity instead of elaborateness. Rock gardens, pools, and high priced plants should come only after good planting of windbreaks, shade trees,

and lawn has been attained. Not only are the former expensive, but they also require much time and attention.

Trees should be considered first because they are the most important and lasting of the ornamental plants. Trees increase in value every year, whereas the value of shrubs and vines does not increase after two or three years.

Trees are valuable not only for their beauty and shade, but also for their protection. Windbreaks are protective and give a beautiful enclosure for the grounds.

The south and west sides of the house can be protected from the hot summer sun by planting elm, oak, or maple trees.

A beautiful view from the house can be attained by having an open lawn enclosed by native trees.

Landscaping is not so expensive as most people think. Nature has provided us with beautiful trees, flowers, grass, and shrubs—why not use them?

All the planting need not be done the first year, but may be spread over a period of years. This procedure will make the cost quite low each year.

The first year slow growing trees such as oaks should be planted and the

grounds cleaned up and buildings painted. The second year a lawn could be planted and the walks and drives improved, or rearranged for better use and convenience. The third year, the wind breaks, shrubs, and ornamental trees could be planted. The fourth year, consideration can be given to perennial flowers and fruit trees, and a sundial and garden seat may be added if desired.

Rose gardens, rock gardens, or water gardens should not be planned until the above steps have been taken.

Why not start to give your farm home grounds a new look?

You will find that the time you spend will bring you a great deal of happiness and pride in 'my place.' You owe it to your neighbor as well as yourself.

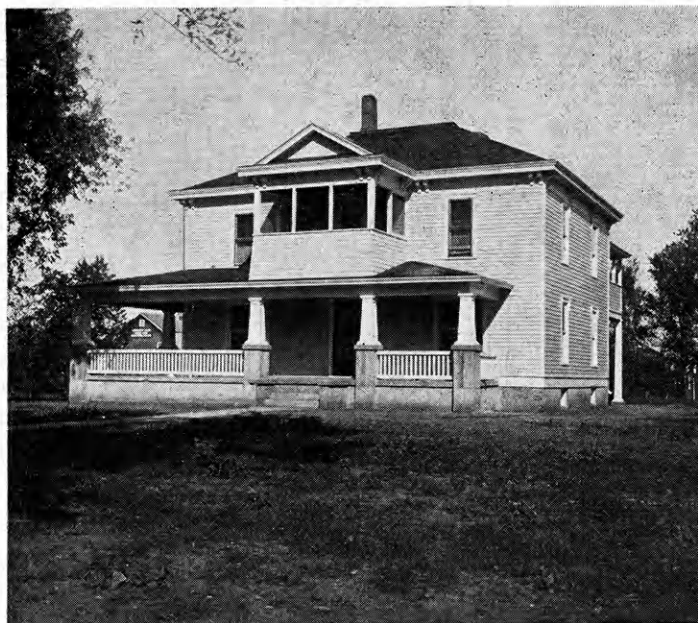
FACULTY CHANGES

(Continued from page 2)

ion Postlethwaite, and Robert Randle assist in the soil division.

Assoc. Prof. Ernest L. Maden is the new head of the crops division this fall. Teaching pasture improvement is Asst. Prof. John L. Parsons. Asst. Prof. Harold G. Safrin teaches soils. Other instructors in crops are Charles R. Allred, Dean W. Finnerty, and John A. Goodding.

He who whispers down a well
About the goods he has to sell
will never make as many dollars
as he who climbs a tree and hollars.



A farm home before the grounds were planted.



The same farm after the grounds were planted.



A 1,000 gallon per hour spring gushes forth at the Rock Springs ranch, site of the state 4-H camp.

Scenic Rock Springs 4-H Ranch A Haven for Kansas Farm Youth

By WILBUR LEVERING

Scenic Rock Springs Ranch is a haven of paradise for Kansas 4-H and youth organization members. The 348 acres of rolling hills, wooded bottomland, spring-fed streams, and generous expanses of bluestem grassland were purchased recently by the state 4-H club as the Kansas 4-H camp. The camp is located midway between Junction City and Herington, about two miles off U. S. Highway 77. A hard surfaced road leads to the camp. The location permits isolation enough for ideal camping conditions but is easily accessible by motor vehicle.

A never-failing supply of crystal-clear spring water flowing at the rate of 1,000 gallons per minute is the greatest single feature of the camp. The water from the spring runs an

18-foot waterwheel which furnishes the camp with water power.

A second feature of the camp is a string of Palomino riding horses. The sleek, well groomed animals are prized possessions of the campers. Many of the horses have been presented to the camp by prominent breeders in the state.

The combination of grass and cultivated land makes possible ideal conditions for the study of various soil conservation methods, demonstrations of approved agricultural practices, livestock judging and feeding plans, latest adapted crop variety tests, and other important programs.

There are 5,000 adult and junior leaders of Kansas 4-H clubs who will find the camp a fountain of information for the development of a bet-

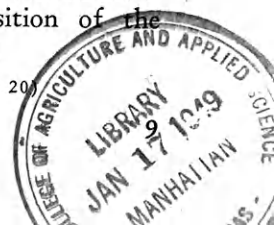
ter rural state. The information gained at Rock Springs will be disseminated throughout the state by increased leadership activity among those who visit the camp.

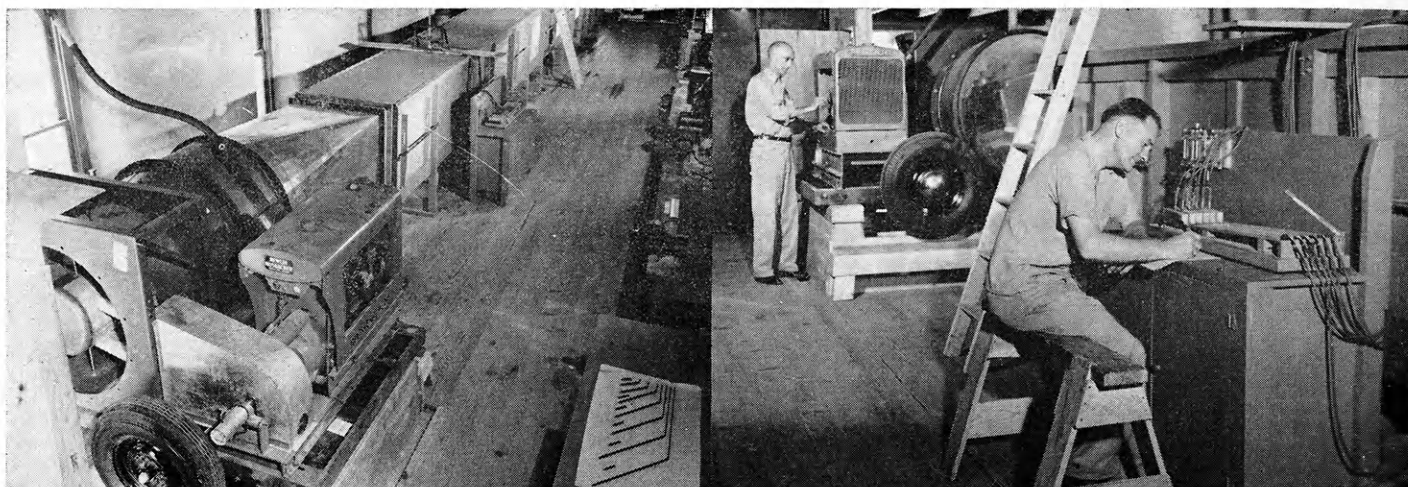
State 4-H club leaders estimate that 3,000 to 5,000 youths as well as many adults will be accommodated each year. Facilities are being planned to handle 500 campers at one time.

Camping has been an educational feature of the 4-H program since the beginning of club work. For the rural boy and girl, camp training means much in physical, mental, and emotional growth. The acquisition of Rock Springs Ranch is the realization of an ambition of 4-H members for a planned encampment that is both enjoyable and educational.

Most parents are strongly in favor of short camp experiences with planned educational, inspirational, and recreational programs. Many of them have been instrumental in making possible the acquisition of the Rock Springs camp site.

(Continued on page 20)





This wind tunnel helps provide data for soil erosion studies being conducted by the U. S. Soil Conservation service and college agronomy department.

New Soil Conservation Experiment Creates Big Wind at Kansas State

By NORV GISH

A 92 foot tunnel, capable of producing wind velocities of 50 miles per hour, has recently been completed on the campus by specialists of the United States Soil Conservation Service. It will be used in soil erosion studies of the Great Plains area.

The agronomy department at Kansas State is cooperating in the experiments. The college was chosen because Kansas conditions are the most typical of the Great Plains area. The project is the only one of its kind in the nation.

In charge of the work is A. W. Zingg, soil conservation specialist for the United States Department of Agriculture.

The tunnel, which is three feet square and nearly as long as Farm Machinery Hall, in which it is housed, is equipped with glass panels in the sides so that results of the experiments may be observed from outside.

Trays of soil will be placed in the glass enclosed structure and the actions of various wind velocities recorded. The trays will be placed on scales so that an exact measure of the amount of soil removed by the wind can be obtained.

The gale is generated by a large fan powered by a 25 horse-power engine. The power plant and fan are portable units and may be set up in the field for studies under natural conditions.

An alcohol multi-manometer, which takes readings of wind velocity at six different points in the tunnel, and a portable velometer are among instruments utilized in making the experiments.

Construction of the tunnel and power unit has been completed, according to Mr. Zingg. The 50 mile per hour wind which the unit is capable of producing will exceed any natural ground level wind occurring in this area, he said.

Mr. Zingg has recently done work in Missouri on soil erosion problems and river control. W. S. Chepil, who is assisting in the studies, has done similar work in Canada.

You Buy What You Pay For!

Due to exacting specifications and precautions for certification the price of certified seed may be higher than that of ordinary seed. Increased yields gained from higher quality seed make the small extra cost of Certified Seed insignificant.

Buying seed is an important matter.

Always buy KANSAS GROWN CERTIFIED SEED.

**The Kansas Crop Improvement
Association**

Manhattan, Kansas

Queen Yvonne Swenson Reigns Over Barnwarmer

By DALE WISEMAN

Added color on the campus the past week has been provided by members of the Ag school dressed as farmers. The occasion was a prelude to the Ag Barnwarmer dance held last Saturday evening.

About this time each year, organized women's houses are asked to select a candidate for Ag Barnwarmer queen. Twenty-two aspirants were chosen and during Ag Seminar October 14, the field was narrowed to five. They were Virginia Chance, Alpha Delta Pi; Yvonne Swenson, Alpha Chi Omega; Mary Lou Harwood, Kappa Kappa Gamma; Elizabeth David, Waltheim Hall, and Darlene Thompson, Clark's Gables.

Between sips of cider and dancing, the aggies found time to select Yvonne Swenson of Leonardville as queen to reign over the 21st annual Barnwarmer. Miss Swenson was crowned from a bale stacked hayloft in Nichols gym by Dean R. I. Throckmorton of the Ag school.

Nichols gym was dressed in true fall color for the occasion. The walls were covered with shocks of sorghum and baled hay. Tree boughs covered with colored leaves obscured the ceiling. Haylofts were erected at each end of the gym from which pieces

of harness and saddles could be seen hanging from posts that supported them. The bandstand, which shut off the north entrance, was made of baled hay and from here Matt Betton and his farmer clad orchestra provided music for some 250 aggies and their dates. Across the front of the stand were printed the words "Ag Barnwarmer 48" made by joining ears of corn.

Many an Ag and Milling student received a wetting when they failed to comply to regulations concerning the proper garb for Barnwarmer week. It so happens the uniform was blue jeans, bandana, and shirt. Boy, how that water was cold.—D. W.

K-STATE SHOWMAN

(Continued from page 7)

of them help him in the fall to aid him in his efforts to produce winners.

At the shows, assistance to the regular staff comes from members of the senior livestock judging team, students in the Form and Function class, and animal husbandry majors with particular interest in this work.

When Crenshaw was asked who determined which animals should be prepared for the show ring, his smile

was one of evasion, or perhaps modesty. Under persistent questioning, George admitted that most of the decisions rest in his hands.

In explanation, George pointed out that, as herdsman, he is the only one who sees the cattle every day. He is first to see them when they are born and can follow their progress closely. Thus he has the opportunity to know their possibilities and limitations better than anyone in the department. Dr. A. D. Weber, head of the animal husbandry department, may make the final choice, but usually accepts George's judgment.

Die when I may, I want it said by those who knew me best, that I always plucked a thistle and planted a flower where I thought a flower would grow.—Abraham Lincoln.

Some peoples expenditures of speech are too great for their income of ideas.

A good memory test: Try to remember all the things you worried about last week.



Queens on parade before Ag Seminar.

Central States Seed Co.

BUYERS
REFINERS
SELLERS

of All Farm Seeds

115 North 3rd
Manhattan, Kansas

Ag Students Choose



YVONNE



MARY LOU HARWOOD

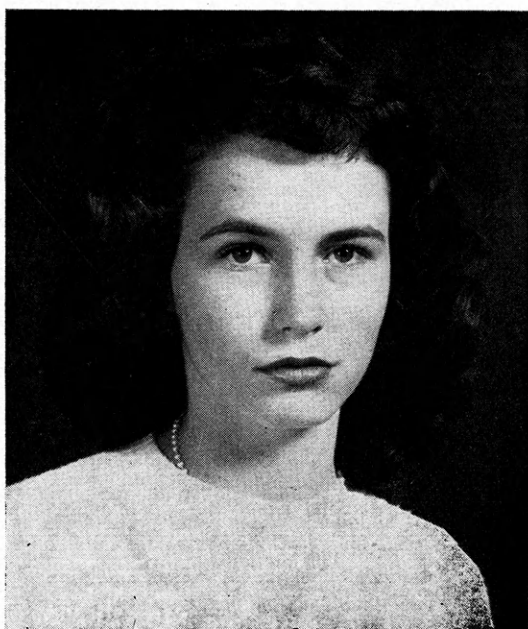


ELIZABETH DAVID



SWENSON

Barnwarmer Princess



VIRGINIA CHANCE



DARLENE THOMPSON

Farm Power Course Offers Valuable Practical Experience

By KARL E. WILL

Students who plan to go back to the farm after they graduate will be wise to include the three hour course of farm power in their list of electives.

This course offered by the Department of Agricultural Engineering and taught by Prof. Harold Kugler and Instr. Charles Riggs is designed to teach the fundamentals of operating and maintaining engines around the farm. It is designed primarily for future vocational agriculture teachers but would be of benefit to anyone interested in engines.

At the beginning of the semester, work is mainly fundamental things such as timing engines, finding markings on the flywheels, setting valves

to open at the proper time, learning how the engine operates, and finding the difference between the two stroke cycle and the four stroke cycle engines.

Along with all this work each student is given a job sheet for each job. On the job sheet are questions to be answered, correct procedures for doing the job, and any pertinent safety precautions that should be observed while carrying out the job. The questions are taken from the text used for the course, or from reference books found in the office at the barracks.

The second part of the work consists of two visits to each of four implement dealers in Manhattan. Here the boys learn the routine maintenance on the various makes and

models of tractors. Not only are they shown how to do the work, but they actually do the work.

This generally consists of such jobs as timing the tractor, checking and setting spark plug and ignition points, cleaning the air cleaner, adjusting the valves, cleaning and repacking the front wheel bearings, and making all the various 100, 250, 500 and 1000 hour check-ups.

Special time is given to an explanation of the various models that have hydraulic controls for attachments, and to the maintenance that can be done on them with the tools available in the average farm shop.

Generally speaking, there is very little sales talk entering into the words of the various dealers and the boys are cautioned not to make fun of any of the tractors, regardless of their personal preference. The men who give the instructions at the shops are generally mechanics of the dealers, or they may be branch men from Kansas City or

(Continued on page 21)



Wilbur Cox, service manager of the K. C. Tractor and Implement Co., Kansas City, Mo., explains the adjustment and operation of a carburetor to a farm power class.



*There's something here
no photograph could show*

Pictures could convey a clear idea of the buildings of Standard Oil's new research laboratory at Whiting, Indiana. We could also photograph the many new types of equipment for up-to-date petroleum research that are housed in the laboratory, one of the largest projects of its kind in the world.

Or we could photograph the men who work here, many of whom have outstanding reputations in their fields. For many years, Standard Oil has looked for and has welcomed researchers and

engineers of high professional competence. We have created an intellectual climate which stimulates these men to do their finest work.

But no photograph could show the basic idea that motivates Standard Oil research. It is simply this: our responsibility to the public and to ourselves makes it imperative that we keep moving steadily forward. The new Whiting laboratory is but one evidence of Standard Oil's intention to remain in the front rank of industrial research.

Standard Oil Company

(INDIANA)

910 S. MICHIGAN AVENUE, CHICAGO, ILLINOIS



STANDARD
SERVICE



Welcome to the Sosna Theatre in Aggieville

Continuous shows every day
from 1 p. m. Phone----2990

Admission 12c and 50c

We present a major first run
attraction every Thursday thru
Saturday and Sunday through
Wednesday.

GOVERNMENT GIFT

(Continued from page 6)

at Fort Reno, Okla., she is also 7 years old.

Ultimus is found in the third cross of her pedigree, with her sire being the well known horse High Line by High Cloud. High Line and High Cloud have both proved themselves in the stud by producing successful offspring for the race tracks and remount replacements. Ultimus is by Commando, a combination rarely found in the third and fourth cross of the average thoroughbred.

Professor Cathcart stated that the two mares will be used for class instruction and for breeding purposes. Recently, Agnolla was mated to Sergeant Donaldson, a thoroughbred horse that has a Man-O-War dam. Sergeant Donaldson was never raced, but as a sire produced several winners at big races. A colt having Sergeant Donaldson as a sire and Agnolla as a dam should be a good start for a thoroughbred enterprise, Cathcart explained.

Thoroughbreds are a distinct breed of horses, says Cathcart. They are used

as race horses, hunters, jumpers, and as pleasure riding horses. A track rule limiting racing to thoroughbreds has tended to promote the industry.

A total of 137 race tracks within the United States received authority to operate during 1948. This creates a requirement and demand for about 100,000 thoroughbred race horses.

During the summer and fall yearling sales in Kentucky last year, a total of 750 yearlings were sold for an average price of more than \$5,000, with the top individual selling for \$43,500. Some horses sell for three or four hundred thousand dollars after they become successful as runners or at stud. The record for winnings by an individual horse at the race track is held by a thoroughbred named Stymie, with winnings of more than \$900,000.

If you ever get to thinking you are indispensable, just consider what happened to the horse when the tractor came along.

A rabbit hasn't a tail at all—just a powder puff!



**FACTORY
AUTHORIZED**
ALL LEADING MAKES

• The world's leading pen makers have made us their authorized service station.

• Genuine parts and factory trained service on Parker, Sheaffer, Eversharp and all other makes.

• A small adjustment may quickly put your pen in perfect condition. Bring it in today!

Palace Drug Store
Aggieville

LOANS

to finance the Livestock and Crop operations
of the Farmer

Manhattan Production Credit Association

112 So. 3rd.—Phone 2226

KANSAS HYBRIDS ASSN.

Seed Stocks Grown in Kansas

FOR KANSAS ADAPTED HYBRIDS

Please write for information on

"HOW TO GROW YOUR OWN HYBRID SEED CORN"

Seed available for the 1949 planting season

K 2234, K 2275 white, K 4, popcorn, U. S. 13,
K 1585, K 1583, K 1639, K 1784 yellow

Phone 5358

Manhattan, Kansas



Mrs. William H. Billings

Ag Enrollment Reaches New All-Time High

By DOUGLAS GEORGE

The ag school is bulging at its seams this fall. According to Mrs. William H. Billings, Dean Mullen's new secretary, 1,368 students are enrolled as "Aggies" for the current semester.

Mrs. Billings, whose husband is a freshman Ag from Nortonville, has been busily compiling this fall's enrollment total. The dean's secretary, who worked for the War Department in Japan for two years, and incidentally met her husband there, replaced the beloved Mrs. Musil last spring.

The enrollment total of more than 1,300 compares to the 1,246 figure that set an all time record for the ag school a year ago. Last fall was the first year the number had ever exceeded the 1,000 mark.

In less than four years, enrollment has increased by 32 times the all time low of 41 students who registered in the spring of 1945.

This record breaking number is nearly twice as large as the pre-war high of 715 students who studied agriculture in the fall of 1939. Fifteen years ago 277 students, or only one-fifth of the present number, were in the college agriculture departments.

The freshman class this year with 390 members leads the sophomores by four. Last year there were 402 frosh and 385 second year men. The upper-

(Continued on page 19)

LISTED IN
DUNCAN HINES'

*"Adventures in Good
Eating"*

Hotel Gillett
Dining Room

You'll Like the Food
and the Service

WE FRAME PICTURES

*200 Molding Samples
to Choose from*

We make frames
and mats to fit the
individual picture.

**Aggie Hardware
& Electric Co.**

G. W. GIVIN

1205 Moro

Phone 2993

SECURITY NOW Full Service Policy

**Reduction in Rates
Since July 1**

SEE your State Farm agent today! He can tell you why all Insurance is NOT alike... why **State Farm Mutual Automobile Insurance** is best for you. Get the facts today, tomorrow may be too late.

**LIFE INSURANCE
SURE**

We have one of the best

**Geo. F. C. Hoerner
AGENT**

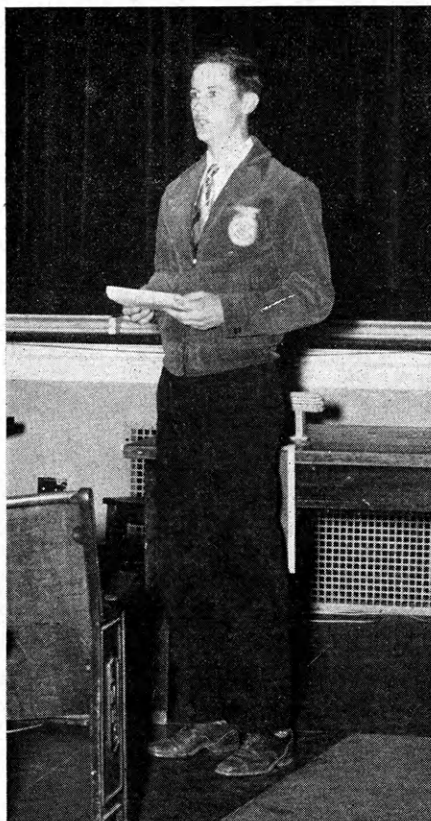
Union National Bank—Room 20
PHONE 3039

IT'S THE CAMPUS BOOK STORE

for all College
Books and Supplies

PLUS—
*that friendly
college atmosphere
we know you'll like*

•
CAMPUS
BOOK STORE



An FFA officer giving views on his chapters program at the Lawrence district leadership school.

F. F. A. Leadership Schools Urge Chapters to Build Worthwhile Work Program

By MERLE HOWES

Each year district Future Farmers of America leadership schools are conducted in Kansas to train F.F.A. officers so that they may continue to merit the confidence of state and national leaders. These schools are organized and scheduled by A. P. Davidson, executive adviser of the Kansas association. They are held in the early fall to train new officers for the coming year.

Through contests, the schools encourage ritual improvement and a wider F.F.A. knowledge. The officers exchange ideas on building a worthwhile work program in their chapters.

Kansas has always been proud of the fact that 100 percent of the local officers comprising the Kansas association can creditably open and close a formal meeting without the use of an F.F.A. manual. This performance is a challenge to all officers and gives them an opportunity to make a worthwhile contribution to their chapter.

Building and executing an interesting program of work is the aim of all F.F.A. chapters. In the leadership schools, ideas are exchanged by the officers on how they can build a better program for their local chapter. A sound work program and high ritualistic performance are two important items that win respect for a local chapter.

"Test your F.F.A. knowledge" is the title of an examination given the contestants. It is based upon the 15-year history of the Kansas association, the official F.F.A. manual, and issues of The Kansas Future Farmer Newsletter of the past year. The officers must also be informed concerning the purposes and functions of the national organization of Future Farmers of America.

This year 10 district schools have been conducted throughout Kansas. Each was addressed by one of the state association officers and a member of the advisory staff from Kansas State College.

Too many people itch for what they want, but won't scratch for it.

A Voice for Organized Agriculture

Farmers can protect agriculture's historic tradition of freedom and independence, and they can bring about national farm policies that will preserve the nation's greatest source of wealth—the soil—for the welfare of future generations.

Acting as individuals, farmers have comparatively little influence. Acting together in the best interests of the nation, they are a powerful force!

•
KANSAS
FARM BUREAU

AG ENROLLMENT

(Continued from page 17)

class members show the big increase. Last year there were 225 juniors while this fall there are 348. The senior class with 234 shows an increase of 100 students over last year.

There were 93 two-year enrollees a year ago as compared to 110 this year. There are seven special students this fall, which is the same number as last.

About one third of the students are in the general agriculture curriculum. These students are either majoring or intend to major in animal or dairy husbandry, or agronomy. There are 201 taking Ag Administration, while Ag Education enrollment ranks third with 184. Soil Conservation is next with 84, followed by Milling Administration with 49, Milling Technology with 40, Floriculture and Ornamental Horticulture with 39, Landscape Design 27, Dairy Manufacturing 23, and Ag Journalism 22.

If a man gets his nose broken in two places he ought to stay out of those places.



The one who checks absentee slips, and helps with the enrollment and reassignment, is Mrs. Bess Decker, a newcomer to Dean Mullins' office.

In preparing this, the first issue of the school year, the staff has gained considerable experience in feature writing, editing, copy reading, make up work, photography and engraving, accounting, and solicitation for advertising and subscriptions. We hope this experience will help us better the magazine for the remaining issues. We will welcome any constructive criticism.—M. C.

Stevenson's

All Outdoor

Wear

Everything from

LEVI'S to

McGREGOR-CORDUROY

Pants and Jackets

Pendleton Wool Shirts

and fine

Leather Jackets

Wear A Stetson

Hart
Schaffner
& Marx

•
BOTANY
500

•
KNOX HATS

•
JARMAN SHOES

Don and Jerry
CLOTHIERS
309 Poyntz

A Complete Foundation

The Kansas agricultural student builds a strong foundation. Your training prepares you to meet the problems of your technical field. You are developing the ability to integrate the facts, ideas, and philosophies which are taught in the classroom.

Farming is a business in which the financial safeguard provided by life insurance is just as important as in any other field. A knowledge of the functions and capabilities of a sound life insurance program will assist you in building a complete foundation for successful farming.

KANSAS FARM LIFE INSURANCE COMPANY

Farm Bureau Building

417 Humboldt St.

Manhattan, Kansas

Make Our Flowers Your Habit

CORSAGES



ANNIVERSARY FLOWERS



GIFTS FOR ALL

MARGARET'S Flowers & Gifts

Aggieville

Phone 3314

We Have Everything
to Meet Your
Photographic Needs

•
24 Hour Service
on *PHOTO FINISHING*



WRIGHTS

303 Poyntz

Phone 4061

Manhattan, Kansas



A feature of the Rock Springs 4-H camp is a string of Palomino horses which are used for recreational purposes.

ROCK SPRINGS

(Continued from page 9)

Approximately 30,000 4-H members and leaders have "camped" during the past ten years. Some of the popular activities carried on at Rock Springs and other camps are swimming, music, handicraft, judging work, nature study, vesper services and various forms of recreation such as horseback riding, ball games, and dancing. Camping enriches the enthusiasm for club work in a manner that has no substitute.

More than \$88,000 has been raised by 4-H club wheat and harvest festivals, socials, cake walks and other activities, and donations. Twenty-five thousand dollars was given by the Sears-Roebuck Foundation. This money is to be used to construct permanent improvements. A caretaker's

house and a swimming pool were constructed last spring. Most of the farm and household equipment at the camp has been donated by various companies and firms interested in the rural youth advancement.

There is a growing national emphasis on camping as a means of recreational, health, and leadership programs which will give youth the vision, knowledge, and training necessary for the democratic leaders of tomorrow. Rock Springs is the focal point of camp programs for all Kansas counties and may well become one of the nation's outstanding leadership training centers.

You can send a message around the world in one seventh of a second but it may take several years to force a simple idea through a quarter inch of human skull.

THE Kansas Poultry Improvement Association

MANHATTAN, KANSAS

"Working to Improve Kansas Poultry"

OFFICIAL STATE AGENCY

Authorized by the Bureau of Animal Industry, U. S. D. A. to supervise Poultry Improvement work in Kansas under the NATIONAL POULTRY IMPROVEMENT PLAN.

Ask Your County Agent

U. S. D. A. Miscellaneous Publication No. 300
Gives the Plan in Detail.



FARM POWER

(Continued from page 14)

St. Louis. They give the material in a very practical way, and are always willing to answer questions. It is to their advantage to give out this material, especially during years like the last few, because any of this type of work the farmers can do will leave more room in their shops for more major repair work, which is always in demand when new tractors are scarce.

After the four weeks spent with the implement dealers, a week is given to information about rubber tires for tractors, and a write-up of the material received from the dealers. Professor Kugler wants, especially every student enrolled in agricultural education, to keep this information and make it part of his permanent file of reference material for use in teaching.

Next comes the care and maintenance of batteries, generators, starters, distributors, and spark plugs. In handling these items the class usually is divided into teams, each team working on a different topic each class meeting. Each team is responsible for getting their material to work on.

When batteries are studied, the battery is removed from the car, cleaned, tested for dead cells and strength of electrolyte solution, and then charged if necessary. Along with this, material is given to each person on the construction and operating principle of the battery.

Generators and starters are handled as one unit. The brushes are checked, the commutators are cleaned and turned if needed, and the bearings are checked. If the bearings need replacing, new ones are obtained and installed.

When the day for distributors comes up, the fun really begins. The distributors are removed from the car, cleaned and the points checked. If new ones are needed they are installed, or the old ones cleaned. Then the points are set. When the distributors are all reassembled they are put back in the cars, in approximately the correct position. Then the engine is timed.

Spark plugs always are most surprising to work on. You think they are working, but when you test them you may find you need all new ones. The plugs are cleaned by a sand blast, then they are checked to see how they

fire under pressure equal to the compression of the engine.

After all of these things are completed the major topic of the semester begins. Boys who think the "old bus" needs an overhaul can bring in their cars and give them a complete overhaul. This usually consists of grinding the valves, adding new piston rings, putting in new bearing inserts or removing a few shims from the bearings, and may include reboring the cylinders. Also included may be body and brake work.

As for tools, there may be a limited supply, but there is a wide variety for various uses. Included in this variety are the usual run of hand wrenches and various special tools such as reboring tools, cylinder hones, ring groove cleaners, ridge removers, wrist pin reamers, valve grinders, and valve refacers. Nearly any tool that is needed can be found.

Of course when the boys get the engine back together after an overhaul, there is plenty of speculation as to whether or not it will run. It usually does, though, and generally sounds much better.

HIDES WOOL FURS SHEEP PELTS

Kansas Hide &
Wool Co.

2nd and Osage
MANHATTAN, KANSAS

TEN YEARS of PROGRESS

This month our company passes that mile post marked "ten years in business." It is a proud moment for us, for a glance at the accomplishments proves that these have been ten years of progress.

We gratefully pause to pay tribute to the thousands of Farm Bureau members whose faith, courage and loyalty have built this company from a small beginning of less than 2,000 policyholders to a point where it now has over

65,000 ACTIVE POLICIES

FARM BUREAU MUTUAL
INSURANCE COMPANY

Manhattan, Kansas

*Fine Gifts
in Jewelry*

DIAMONDS—WATCHES
JEWELRY

BRACELETS *stone set
filigree
identification
watch*

Waldemars—Knives
Key Chains

Use Our Lay-Away Plan

Expert
Watch Repairing and Engraving

DOOLEY'S

Jeweler

Aggieville

THE JOY OF BEING AN EDITOR

Getting out this magazine is no picnic.

If we print jokes, people say we are silly.

If we don't they say we are too serious.

If we stick close to the office all day,

We ought to be out hunting news.

If we go out and try to hustle,
We ought to be on the job in the office.

If we don't print contributions,
We don't appreciate the genius;
And if we do print them, the paper is filled with junk.

If we edit the other fellow's write-up we're too critical;

If we don't we're asleep.

If we clip things from other papers,

We are too lazy to write ourselves,

If we don't we are stuck on our own stuff.

Now, like as not, some guy will say

We swiped this from some magazine.*

*We did!

There's No Substitute
for a Good
PHOTOGRAPH

Everyone should have
one on hand for any
eventuality.

Studio Royal

1200 Moro

Dial 3434

Hey
FELLOWS

NEED A
BOOK
or
A PENNANT
or a
GISMO
for that
Lab?

**College Book
Store**

Nearest the College

**Kansas Wheat Products
World Famous**

Top Varieties—Pawnee, Comanche, Wichita

Good Production and Handling Operations

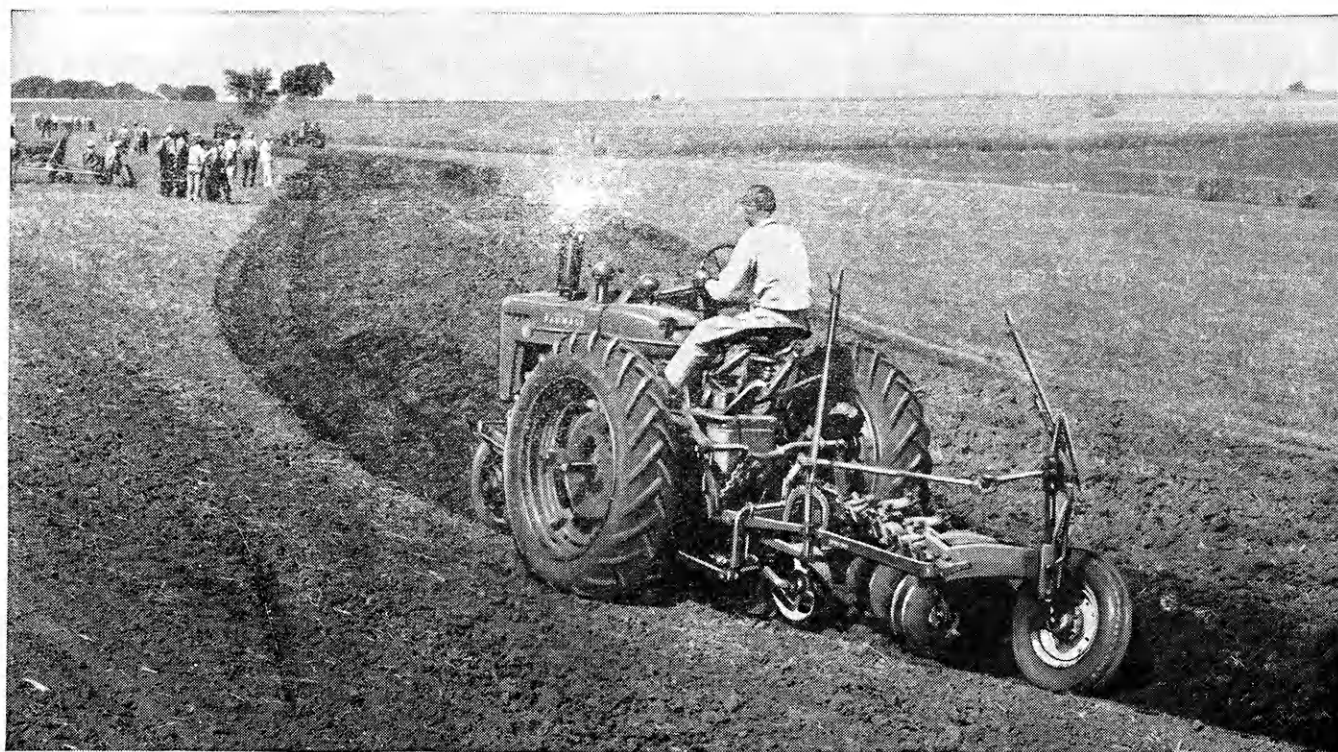
Excellent Milling and Baking Methods

Have given them an Enviably Reputation

LET'S RETAIN IT

**Kansas Wheat Improvement
Association**

Manhattan, Kansas



Your Farm Equipment at Home Can Conserve Soil... Save Cash

The dramatic Face-Lifting demonstrations, presented by Soil Conservationists, reveal a quick panorama of the program's scope. In one action-crammed day, an erosion-gutted farm is reclaimed and prepared for conservation farming.

There you see the big Diesel crawlers with bulldozers or carry-type scrapers doing the heavy work—filling deep gullies, straightening creek channels, grubbing stumps. Then you watch Whirlwind terracer outfits, along with Diesel-powered motor graders, build terraces speedily.

On your farm, you can do your own "face lifting," with Farmalls and *regular farm equipment*. Fitting contour strips for cropping. Preparing

waterways for grassing. Renovating old pasture sod. Proving what conservationists teach: *that the farmer's own equipment can follow-up to develop a conservation program now—and make it succeed from then on.*

All 5 Farmall sizes, and their full lines of matched, quick-change equipment, practically equal their level land performance on contoured slopes. Nimble steering enables you to cultivate winding rows with accuracy; pin-point turning simplifies the point-row problem. Hydraulic implement control by finger-tip touch—and the speed of interchanging Farmall implements—add to the ease and economy of diversified farming.

*Only International Harvester builds
McCormick-Deering Farmall Tractors.*

*Listen to James Melton on "Harvest of Stars"
every Wednesday evening over CBS.*



This modern building symbolizes the expanded service facilities of IH dealers throughout America.

INTERNATIONAL HARVESTER

180 NORTH MICHIGAN AVENUE

CHICAGO 1, ILLINOIS



The Last Word



Experimentation Provides Data

"You're paying for it, why not get the benefits?" The above question refers to the wealth of information which is available for the asking from the agricultural experiment stations of the various states and from the U. S. Department of Agriculture.

The most important function of these institutions is the developing and testing of new or improved crops, livestock, equipment, and new methods of production. The Department of Agriculture employs thousands of persons and spends millions of dollars in these various fields. This manpower and money is not wasted but could and should be utilized more. For example, the development of new varieties of wheat has put more extra money into the farmers' pocket since their development than has been removed in the form of taxes for support of all the experiment stations since their beginnings.

The application of lime and fertilizers to a soil which has not been tested for acidity and available nutrients is comparable to taking medicine without the advice of a doctor, yet thousands of farmers have applied thousands of tons of lime and fertilizer not knowing for sure what their fields actually needed. This hit-or-miss method continues to be used despite the fact any county agent or experiment station will test any soil sample brought or sent to them—and usually free of charge.

Experimentation is expensive and time consuming. Few farmers have time to carry on such experiments to any great extent. This task is for the experiment stations, but farmers should get the results of these tests and put them to practical use.

The agricultural scientist follows the scientific approach sincerely and competently. He is free to tell the truth as he sees it—free of personal prejudices and of political or social pressure. His work has been tested by free and open criticism from com-

petent colleagues in the same field.

There seem to be two main reasons why farmers do not utilize a larger proportion of the available information: First, the results have not been brought to their attention; second, they dislike to make any changes in their established way of farming.

Farm writers usually publicize new or much improved practices, but full information can seldom be obtained from magazines. It must be read in the bulletin or leaflet form.

The dislike for change can be corrected only by a modification of the attitude of the individual farmer. The success of a friend or neighbor usually will influence the set-tight type of farmer.

Many farmers have increased their earnings by keeping in close contact with current research and adapting it to their individual situations. Those farmers who do not follow this practice should do so as soon as possible; then they will no longer be paying for something and receiving no benefit from it.—M. C.

READER SURVEY

The Ag Student staff would like to conduct a reader survey. By this method it will allow us to determine what you, the reader, enjoy reading, what we, the staff, should omit and what we should print more of in our forthcoming issues.

Why not drop any suggestion—either constructive or destructive—in an envelope and mail it to the magazine? Or better yet, bring it to the office. Help us out—we don't claim to be professionals! Besides, one of you may be sitting in this same spot soon. By doing your part, there will be printed a higher standard magazine more fitted for the school of agriculture.

Perhaps you know of a story we overlooked or which wasn't handed in by someone. Maybe you would like to see your name in print. If so, hand in the article and we'll look it over. But don't forget, we want your ideas regarding the magazine.—D. W.



Perfect Blue White DIAMONDS

- Free from carbon spots and flaws—
- Beautiful color—
- Full cut and perfectly proportioned for greatest possible brilliance—
- All of which means **QUALITY** in Diamonds—
- And **QUALITY** is our pride and satisfaction will be your pride thru years to come should you select a **REED QUALITY DIAMOND** for HER.
- Mountings—a big selection we have—and—we mount the diamond for you in this store—ourselves.

REED'S TIME SHOP

SOSNA THEATRE BLDG.

AGGIEVILLE