

# The KANSAS AGRICULTURAL STUDENT



VOL. X, No. 3      MARCH, 1931  
MANHATTAN, KANSAS

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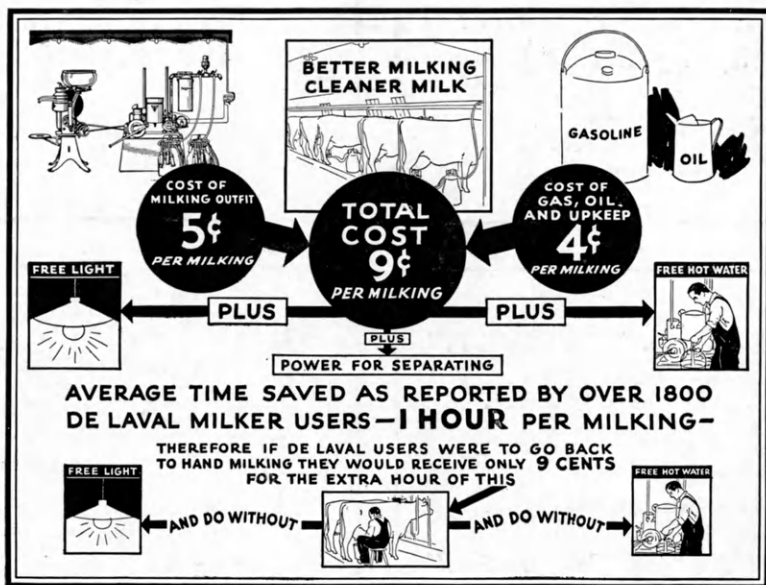
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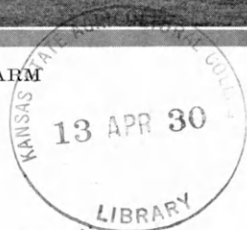
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A SCENE ON THE ANIMAL HUSBANDRY FARM



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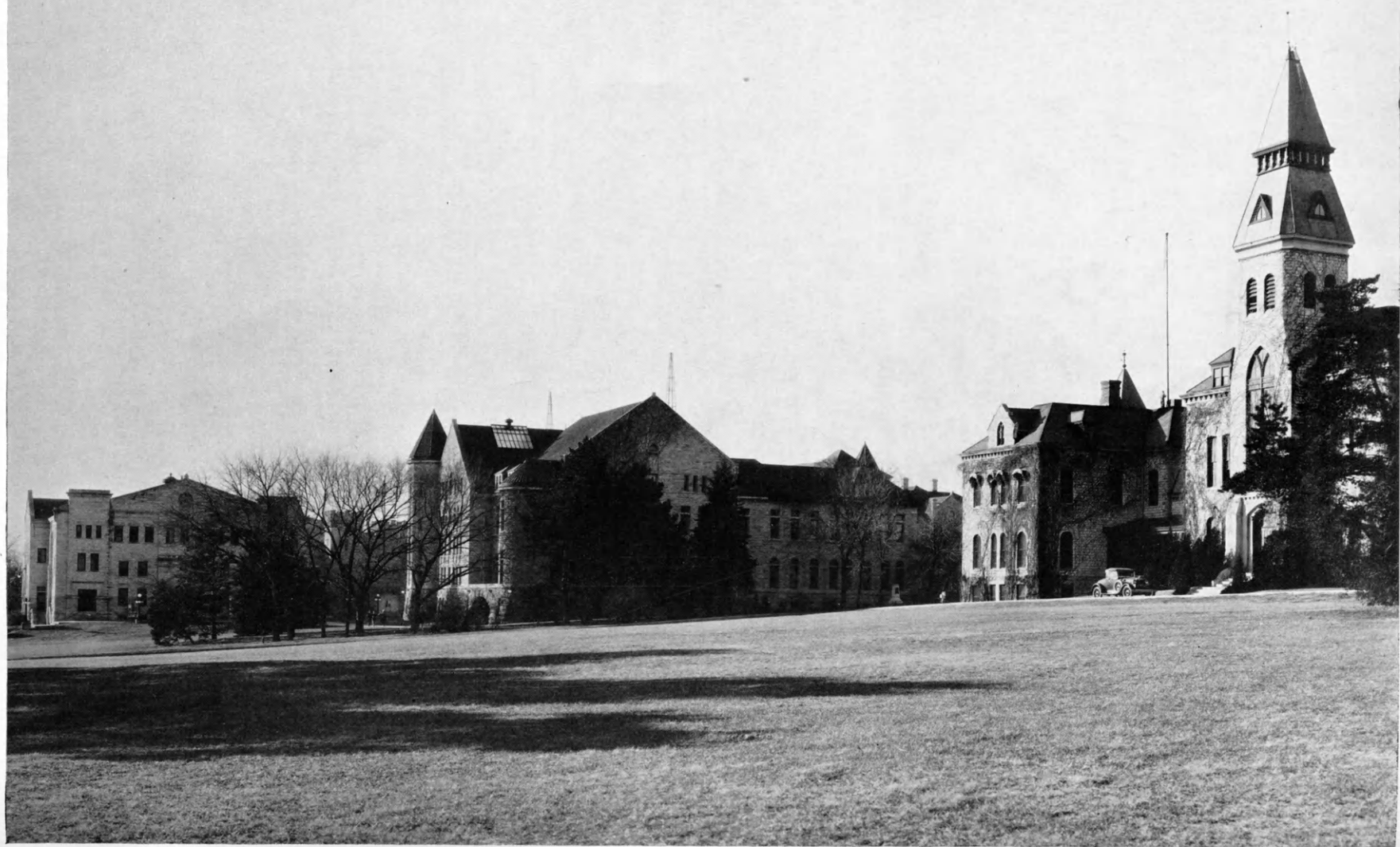
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# The Kansas Agricultural Student

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Manhattan, Kansas, March, 1931

No. 3

## Elements of Rural Progress<sup>1</sup>

F. D. Farrell, *President*

Kansas State College of Agriculture and Applied Science

For our present purpose we may define rural progress as changes in the countryside that increase the happiness and security of the people who live there. These changes may be physical, biological, economic, or social or a combination of two or more of these. It is important to recognize that not all changes constitute progress.

The rate of rural progress manifests extreme variation in different communities, in different nations, and even among individual farmers. Illustrations of this extreme variability are shown in comparisons between different communities, different regions, and different races of people. As an example, a striking comparison might be made between certain large districts in India where natural conditions favor agriculture, but where hopeless poverty and squalor prevail, and any one of many districts in the American Middle-West with its efficient and intelligent rural population.

Frequently striking contrasts can be found on two sides of a barb-wire fence in our own Middle-West. A farm family on one side of the fence has a good home, a fine home atmosphere, and is reasonably prosperous economically, while the family on the other side of the fence is bankrupt, both financially and spiritually.

Why do these differences exist? Why is it that some individuals or groups engaged in agriculture fail to make progress while others, often in the same community, progress at a high rate? In short, what are the dominant elements of rural progress? If I can suggest a few of these elements perhaps my doing so may suggest most of the others.

In thousands of instances it is clear that

the explanation of the differences referred to does not lie in the laws of the country, in the markets, in the transportation facilities, in the taxation system, in the educational facilities, in the soil, or in the climate. Vast differences in the rate of progress are found in places where all these things are the same, as for instance in each of many typical middle-western rural neighborhoods. I do not imply that all these things except the climate are not susceptible to improvement nor that improvements are not needed. But I do say that these things are not sufficient to explain the wide differences in the rates of progress that are to be observed.

The more one considers the evidence the more he is convinced that at least some of the basic elements of rural progress lie in the character of the people themselves; that the most commonly dominant factors are human factors. I am sufficiently impressed by the importance of these human factors to limit my present discussion to them as elements of rural progress. Perhaps the title of my paper should be "Human Elements in Rural Progress."

I should like to consider with you some of the human qualities that commonly are present when individuals, communities, and even nations and races achieve a high rate of rural progress. Some of these qualities are listed below:

1. Discontent.—Complete contentment is fatal to progress. The naked savage sunning himself contentedly in an African jungle may be happy but he is anything but secure and he certainly does not make progress. The same may truthfully be said about the "hill billies" in certain sections of the United States. Many of these people are lovable and interesting but they are not progressive and their lives usually are the reverse of secure.

1. Address delivered at general assembly, Farmers' Week, Ohio State University, Columbus, February 3, 1931.

America was settled by people who were discontented in Europe. The American Middle-West was settled and developed chiefly by people who were discontented with conditions farther east. Contented people would have stayed quietly at home on the Atlantic seaboard or in Europe.

It is impressive to note the extent to which people in the American Middle-West—who are famous if not, indeed, notorious for their susceptibility to discontent—actually achieve progress in times of adversity. In my opinion one of the best measures of rural progress is the condition of the rural home. Other things equal, a rural community in which the farm homes have heating and lighting systems, water systems, and modern bathing facilities is more progressive than another rural community in which the homes do not have these conveniences. In the state of Nebraska, during the first five years of what is perhaps the greatest agricultural depression this country has ever experienced, thousands of farmers made great progress in the improvement of their homes. This is indicated by the following figures which show changes in certain features of farm life in Nebraska between 1920 and 1925:

	1920	1925	Per cent increase
Farm homes with water systems .....	5,718	12,482	118
Farm homes with heating systems .....	5,301	9,262	75
Farm homes with lighting systems .....	5,648	10,584	87
	1923	1925	
Farm homes with modern bathing facilities....	5,554	7,629	37
Farm homes with radio sets .....	567	12,682	2,137

There were corresponding changes in Kansas and I have no doubt in Ohio and other middle-western states. Faced with economic adversity, these people paid special attention to that which matters most in agriculture, namely, the farm home. They were discontented with their environment and they exerted themselves to improve it.

The first requisite for getting better things is to want them. But, of course, discontent with things as they are in the countryside is not in itself sufficient to bring changes that increase the happiness and security of the people concerned. To bring these changes requires that other elements of rural progress

be brought into play.

2. Open-mindedness.—People whose minds are closed cannot progress. Progress requires a willingness, even an eagerness, to entertain new ideas and to encourage discovery of new facts even at the risk of having long-standing prejudices destroyed. Rural people in the American Middle-West are more happy and more secure than millions of people in certain other places, in India, for example, or in Morocco, not chiefly because of favorable soil and climate, not chiefly because of the laws under which Middle-Westerners live and the markets to which they ship their goods, but chiefly because they would not be content to live as rural people live in India and in Morocco and because, unlike the Moroccan who discourages the discovery of new facts, the Middle-Westerners encourage discovery. Their long-continued generous support of their colleges of agriculture and their agricultural experiment stations is in strange contrast to the attitude of the people of certain large regions in Morocco where, according to a friend of mine who wrote me from there, "Nothing has been allowed to be originated for a thousand years."

3. Self-reliance.—The spirit of the pioneer (the person who attempts and achieves new adventures and thereby leads in progress) is essentially a spirit of self-reliance. The typical pioneer places his dependence chiefly in himself, in his own efforts. On the other hand, backward peoples throughout history commonly have looked to their pagan gods or to their stars for their success. But progressive peoples have been like the Greek hero who "prayed for help and straightway answered his own prayer." The people who have developed western America have been notably self-reliant.

Self-reliance implies a belief in the survival of the fittest. One of the conspicuous facts of plant and animal life is that in the long run those individuals or those races that survive are those that are best fitted to survive; those that in one way or another are able to cope successfully with the problems of their environment. The same principle applies to men and to rural communities. People who do not accept this principle are likely to be fatalists as are many of the backward

(Continued on page 92)



# The Influence of Bluestem Grass on the Color of Beef<sup>1</sup>

Bruce R. Taylor, '31

Discrimination against dark-cutting beef by consumers and retailers is the result of an old prejudice. The dark has been attributed to age, color, breed, sex, disposition, slaughtering methods, and feed. The last explanation, feeds used, is offered probably more often than any other and grass is blamed more than any other single feed.

The fact that there are approximately 1,000,000 head of cattle marketed annually off Kansas bluestem pastures, and that these cattle have often been discriminated against on the basis that grass cattle cut dark has led to considerable discussion in recent years. Is there just reason for discrimination against cattle marketed off Kansas pastures? To secure positive information on the subject the Agricultural Experiment Station of Kansas outlined and began work on a research project four years ago. The object of the project was to determine: (1) Does beef produced on Kansas bluestem pasture cut dark? (2) What influence if any do supplemental feeds have upon the color of grass-fat beef? (3) The relation of color to the quality and palatability of meat. (4) What produces the characteristic red color in beef?

Each year since the experiment was started 18 to 24 head of three- and four-year-old Texas cattle have been selected from herds of such cattle grazed on the bluestem pastures in the vicinity of Manhattan. These cattle were handled in various ways for a definite period and then slaughtered by the Agricultural Experiment Station meat laboratory where various observations were made. Color readings were made by use of the Munsell color wheel and a meat color scale prepared and recommended by the United States Department of Agriculture. This method offers an accurate means of comparison between readings.

Readings were made at four different intervals on each of four cuts, the rib, the cross arm, the inside round, and the outside round. The intervals of reading were: (1)

Immediately after cutting. (2) Thirty minutes after cutting. (3) Three hours after cutting. (4) Twenty-four hours after cutting.

The first year (1926-'27) twenty head of Texas cattle were grazed on the station pastures. Lot 1 had access to bluestem pasture only. Lot 2 had bluestem pasture plus 4 1-2 pounds of corn per head per day. Lot 3 had bluestem pasture plus 4 1-2 pounds of cottonseed meal per head daily. It was concluded that corn and cottonseed meal in the amounts fed had no appreciable effect upon the color of meat either before or after cutting.

The following two years were devoted to determining the color of beef fattened on bluestem grass. Very little variation was found in the color readings of the various cuts and none were found to be objectionable from a color standpoint.

In the spring of 1929 the cattle were again divided into three lots. Lot 1 was full fed on bluestem grass hay in dry lot; lot 2 was full fed ground shelled corn on bluestem grass pasture; and lot 3 was pastured on bluestem grass pasture without supplement.

The conclusions indicated by the four years work are as follows:

1. The color of beef brightens very materially after cutting. During the first few minutes the brightening is very rapid, and continues for a period of about three hours. Therefore, the color of any kind of beef should not be measured at the time of cutting because all beef will be classed as dark unless permitted to brighten.

2. There is relatively little variation in color or degree of brightening between the various cuts studied and therefore any one of these cuts, but preferably the rib, may be taken as a standard measure of color.

3. Based on the readings of the 74 cattle studied during the four-year period, cattle pastured on bluestem grass do not produce dark-cutting beef. (None of the carcasses were found undesirable in color.) This statement is made with a full appreciation of the

1. The writer is indebted to Prof. D. L. Mackintosh for the information contained in this article.

(Continued on page 88)

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### THE 1931 AG FAIR CALLED OFF

For the past ten years, the Division of Agriculture has proved its loyalty, its wealth of leadership, and its undisputed reputation of almost perfect cooperation in its annual Ag Fair. Most of the freshmen know little of this celebration, where everyone works and likes it, but the upperclassmen have come to look forward to the fair with an anticipation of expending a lot of energy for some good fun and an opportunity to show others what they can do. The fair has become a tradition on the Aggie campus.

Despite the advantages to the students of the division, all phases of the proposition must be considered. Foremost among the reasons for not holding the fair this spring is the general depression. Practically all fairs and activities of that character held this school year have lost money. In the second place it is thought by some that the Ag Fair must be changed a lot in principle in order to make a go of it and no one is able to recommend the feasible change. Owing largely to unfavorable weather the past few years, the fair has not been a success financially. The books still show a reasonable balance on hand, but rather than risk this balance in an

exceptionally unfavorable time it has been decided to discontinue the fair, temporarily. Several connected with it are rather disappointed, and rightfully so, after having done some work on it already, yet they loyally yield to the consensus of opinion.

To the older men in the division, it seems most unfortunate to discontinue the fair, but after everything is considered, it is obvious that in the best interests of the whole division, the decision is based on good judgment and sound reasoning.

### STUDENT JUDGING CONTESTS

It has been said that a man is known by what he makes of his opportunities. Each year students in agriculture have in the student judging contests a most valuable opportunity to add to their knowledge of the various phases of practical farming, an opportunity accepted by a large number. The training is competitive in nature and affords actual application of ideas taught in school, similar to solving problems encountered later in practical farming.

Each department of the Ag division has its own separate contest, sponsored by the student organization of that department. The

contests are divided into senior and junior groups so as to provide fair competition. In each contest attractive prizes are awarded for winners and runners up. Competition is keen and the winning of a high placing is recognized as a signal accomplishment.

It behooves every Ag, if he is to make the most of his college work, to compete in these contests, and in order to compete successfully, he must train himself. Start now, all you Ags, to study your old judging notes and brush up on the requirements of the various contests. The crops contest is scheduled for Saturday, May 9; the dairy judging contest for April 25; and the animal husbandry contest for May 2.

### QUESTIONS AND ANSWERS

The readers' attention is called to the "Questions and Answers" section of this issue. It is our thought that such a section may be presented frequently with large in-

terest to our readers. Much of the agricultural information presented is timely and right up to the minute. In using this form of presentation we are endeavoring to make the information easily accessible to those interested. Several readers of our December issue have reported they found it so.

Many of the questions are taken from letters received during the last 30 days and answered by members of the staff of the Agricultural Experiment Station. Others are adapted from information supplied through conference or correspondence during recent weeks by members of the college faculty and station staff.

We are especially proud of information in this issue. More than a dozen vital agricultural subjects are discussed in a pointed and reliable way. For this the staff of the Kansas Agricultural Student desires to thank those who have made the contributions.

## Consider the Twig

John A. Andrew, Jr., M. S., '31

"As the Twig Is Bent So the Tree Inclines"  
As the Student Is Bent So His Education Inclines.

Why does an orchardist plant certain apple trees and give them especial care and attention? The answer is—to realize the most from his investment.

An orchardist usually sets out one- or two-year-old trees. A one-year-old tree consists of one whip which is four to six feet high. A two-year-old tree consists of one main whip which is from four to seven feet in height along which numerous branches are developing. At this stage, the orchardist may train the tree into any shape which he desires. Trees trained at this age will be very productive.

The orchardist selects the soil, the location, and the varieties of apples for his orchard. In addition, he sees that the trees receive the proper cultural and pruning practices.

A fertile soil is essential in order that the tree may make a vigorous growth. An extensive framework of branches is developed and the tree's bearing capacity is increased. Trees planted in an unfertile soil are short lived and unproductive.

Now, why does a student come to college? This question is most difficult to answer. Most of them come to college to receive a broader education so that they may be best fitted for their life's work.

A student should be as fit to enter college as a tree should be to be planted. When a student enters college he begins a new life. He must adapt himself to his new location and environment in order to begin a successful career. If he fails to meet the requirements of the college he is forced to leave.

If a student survives the "pruning out" period in college, his chances for success are quite favorable. At this time he selects some specialized line of work. His future success after he once gets started depends upon the foundation which he has already established.

A college student should consider that doing just enough to get by is not the quickest way to success. Trees in many orchards also produce just enough fruit to pay their way, but they are not a success.

The student, as well as the tree that takes advantage of its environment, receives the best as well as gives the best.

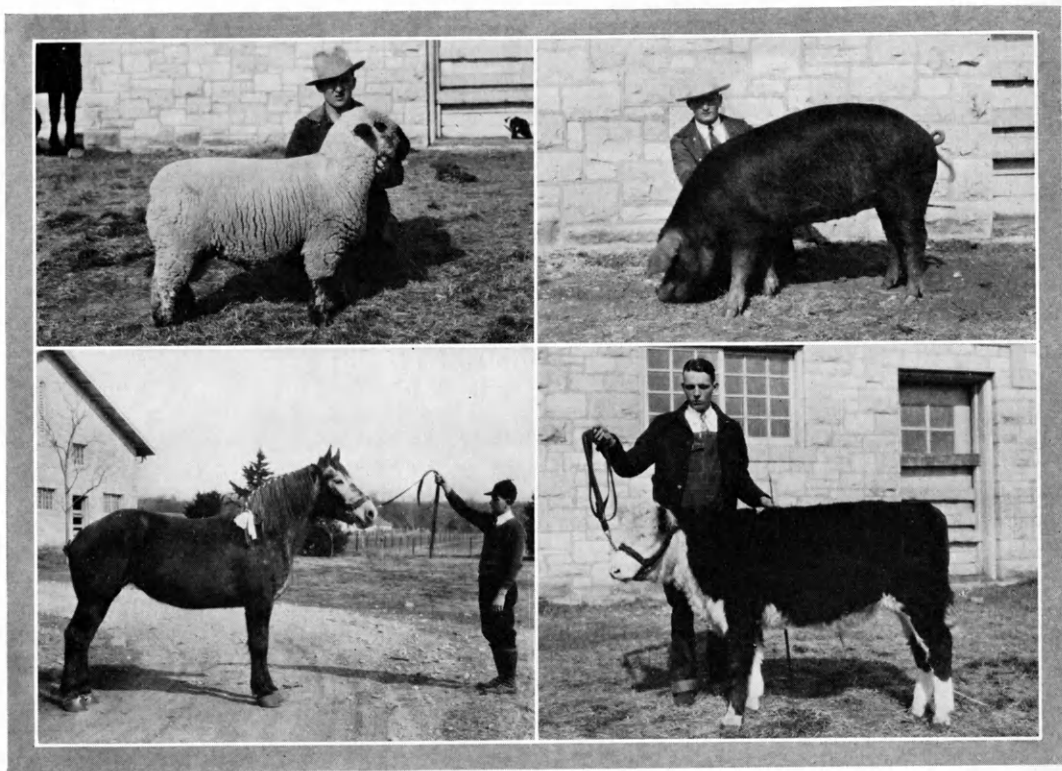
# The Little American Royal

John L. Wilson, '31, and Frank Zitnik, '31

Live stock shows have long been utilized in attracting the public eye to the live stock industry, and so it was on Thursday night, February 5, 1931, when a capacity crowd overflowed the college judging pavilion to witness "Our Own Little American Royal Live Stock Show" culminating two weeks' activities of the students in fitting and training college live stock. Real showmen com-

senting the trophies complimented both winners on their meritorious work.

The Little American Royal is staged by the students of the College of Agriculture under auspices of the Block and Bridle Club and the Dairy Club. It originated in 1924 as a parade of prize-winning live stock before the Farm and Home Week visitors. In 1926 the Aggie Dairy Show, a fitting and showing con-



CHAMPION ANIMALS AND THEIR SHOWMEN IN THE ANIMAL HUSBANDRY SECTION OF THE FITTING AND SHOWING CONTEST

Upper: George Washington, winner of the Weber sheep medal and his champion sheep, and George M. Fletcher, winner of the Carlson hog medal and the hog he fitted and showed. Lower: Harold L. Kugler, winner of the Channon medal and the champion mare he showed, and Robert M. Hodgson, winner of the Anderson medal and grand champion of the animal husbandry section of the contest, with the steer he fitted and showed.

peted on this eventful night and when the championships were awarded, Robert M. Hodgson, Little River, was first in the animal husbandry, and the dairy championship went to Ted R. McCandless of St. John. Dean L. E. Call of the Division of Agriculture in pre-

test of dairy cattle was started, and in 1929, a contest in preparing horses, sheep, beef cattle, and hogs for the show ring was instituted and the two contests were combined as the Little American Royal Live Stock Show, making it preeminently a students' fitting

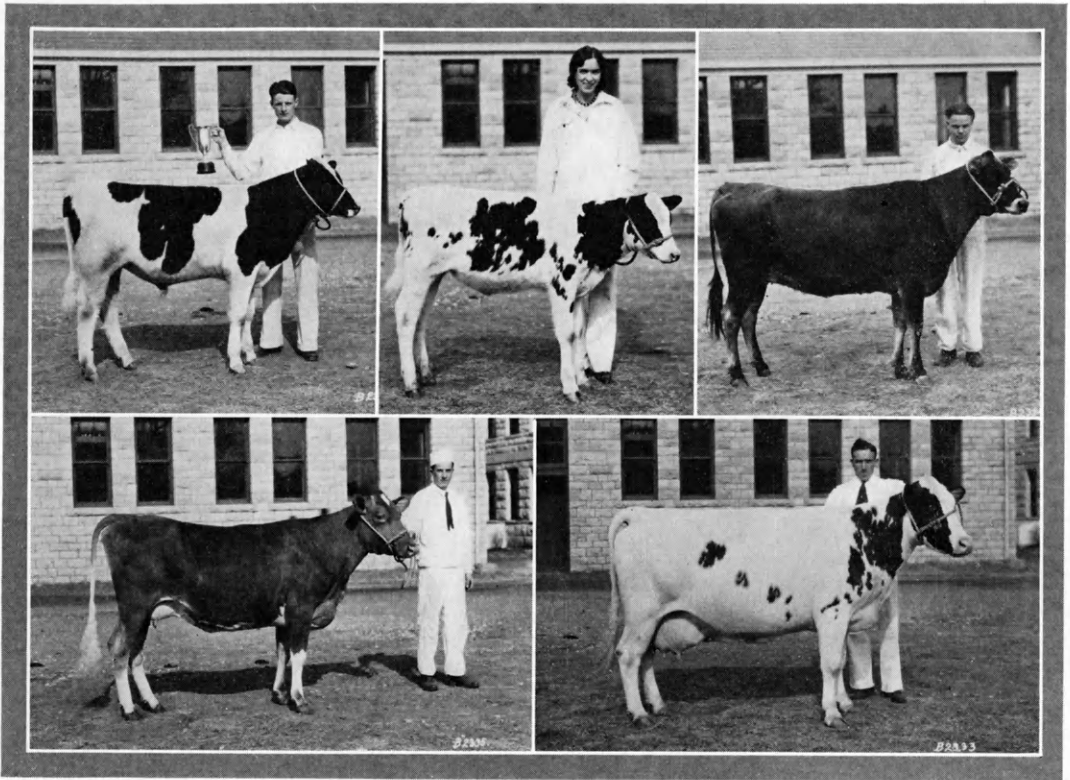


contest. The show assumed larger proportions in 1930. This year it was decidedly the most prominent feature of the Farm and Home Week program. The historic purple K that adorns the arena on the night of the show has become emblematic of its success as a Kansas Aggie project.

When the bugle sounded they brought on the horses and the show began with William G. Nicholson, '31, Eureka, master of ceremonies and E. A. Stephenson, '28, judge. Harold L. Kugler, Abilene, winner in the

the Dave Carlson hog medal over 21 contestants. In beef cattle competition, Robert M. Hodgson, Little River, winner of the steer class, merited the B. M. Anderson cattle medal showing over W. Loy McMullen, Oberlin, winner of the bull class, and Arlyn E. Conard, Timken, winner of the heifer class.

In final event of the animal husbandry show medal winners competed for grand champion showman honors, Hodgson in beef cattle, Washington in sheep, Kugler in horses, Fletcher in hogs. Judge E. A. Stephenson de-



#### CLASS AND BREED CHAMPIONS IN THE DAIRY SECTION OF THE FITTING AND SHOWING CONTEST

Upper: Ted R. McCandless, winner of the bull class and grand champion of the dairy section, and the Holstein bull he fitted and showed; Miss Esther Ward, reserve champion in the dairy section, and the Holstein heifer, Tiny Inka, she fitted and showed; and Dallas D. Alsop and his champion Jersey. Lower: Orville F. Denton and his champion Guernsey, and Kermit V. Engle and the Ayrshire with which he won for that breed.

mare class, and Harry E. Eshelman, Sedgwick, winner of the colt class, competed for the Carl Channon Medal, Kugler winning. George Washington, Manhattan, won the A. D. Weber sheep medal over 13 contestants. George M. Fletcher, Pawnee City, Nebr., won

clared Hodgson's steer the best fitted he had seen and Robert the best showman. With this recognition went the grand championship award, a silver trophy presented by the American Royal Live Stock Show at Kansas City.

Dean Call presented the trophy and medals to the winners and the ring was cleared for the dairy show. The contestants in the animal husbandry show adjourned to the meats laboratory where eats awaited them. At this meeting winners made stump speeches and judge Stephenson complimented all concerned on their successful show, and so another animal husbandry live stock show sponsored by the Block and Bridle Club and its alumni went down in history.

The dairy club program followed immediately on the termination of the animal husbandry contest. Five perfectly fitted dairy animals representing the breed champion showmen and the champion bull showman paraded in the finals of the Aggie Dairy Show, each endeavoring to add that extra touch of finish which distinguishes the winner from the loser in such a contest. Mr. E. M. Harmon, associate editor of *Successful Farming*, in judging the contest finally selected Ted R. McCandless, St. John, champion bull showman as the one who best combined a perfect job of fitting with the best possible presentation of the animals he showed, and awarded to him the grand championship honor.

McCandless, a junior in agricultural administration, showed the Holstein bull calf from K. S. A. C. Evening Star, one of the good producers in the college herd. At the start of the contest two weeks before, even the judges had not suspected that a rough untrained bull calf could be presented as such a smooth, sleek, well mannered gentleman as he appeared in the ring. Incidentally the triumph of the bull in this year's contest makes the second successive year that the masculine sex has won, last year's winner having been Strathglass Elmbur, now Ayrshire herd sire at the college.

Despite the fact that bulls have been successful in winning over their feminine competitors, when it comes to showmen, the ladies come into their own. At least that was the case this year when Miss Esther Ward, Osawatomie, showed Tiny Inka, five months old Holstein heifer, to the reserve championship of the show. Miss Ward, the first and only co-ed ever to compete in the contest, is a freshman in Home Economics and Nursing, and entered the contest because as she describes it, "It will be an interesting and novel

experience." Having been raised on a California orange ranch, this is Esther's first experience with live stock and she found it both entertaining and educational. Tiny Inka, her understudy, is incidentally one of the best bred Holsteins in the college herd, being the youngest daughter of Inka Hijlaard Walker, the famous 15-year-old foundation cow who has ten female descendants in the herd.

When champions compete against champions there are always champions which cannot win. Likewise it was no discredit to the work of the other breed champion showmen that they could not be awarded first honors, for Orville F. Denton, Denton, Guernsey champion; Dallus D. Alsup, Pittsburg, champion Jersey showman; and Kermit V. Engle, Abilene, who won premier Ayrshire honors, received favorable comment from the judge and spectators alike.

A total of 43 contestants competed in the 1931 show under the managership of Harold B. Harper, Manhattan. Animals were drawn on January 17 by the competing showmen, who fitted and trained their animals during the next two weeks. The preliminary showing was held on February 4, before the Dairy Day visitors of Farm and Home Week, in which the four breed champions and the bull champion were selected on the basis of 50 per cent on improvement made in the appearance of the animal, and 50 per cent on the ability of the contestant to present his animal to the best advantage.

Following the contest, Prof. J. B. Fitch, head of the Department of Dairy Husbandry, introduced the members of the dairy cattle and dairy products judging teams. Next a fine example of production and reproduction was introduced into the ring in the form of Inka Hijlaard Walker, 15-year-old Holstein cow and her 12 descendants now in the college herd. During her life Inka has produced 60 tons of milk, or 79 times her own body weight. Then came the final event of the evening, a parade of all contestants in the dairy show, which concluded the 1931 Little American Royal.

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Francis W. ImMasche, '29, is in the employ of Armour's Live Stock Bureau, Union Stock yards, Chicago, Ill.

# COLLEGE NOTES

## SUCCESSFUL YOUNG ALUMNUS RETURNS TO THE COLLEGE

A. D. Weber, '22, M. S., '26, associate professor of animal husbandry, University of Nebraska, has been appointed to the position of professor of animal husbandry left vacant by the resignation of Prof. H. E. Reed. The chief responsibility of Professor Weber will be the beef cattle work, both the research work in the Agricultural Experiment Station and the instructional work in the college.

An article in Vol. I, No. 2, of the Kansas Agricultural Student, issued March, 1922, under the heading, "A Stock Judging Champion," gives the following regarding Arthur D. Weber's work as a college student:

"The second high man in the intercollegiate judging contest at Chicago this year was Arthur D. Weber of the Kansas team. As it happened he was also high man in the United States, being beaten only by a member of a Canadian team. This is the highest honor ever won by a member of a stock-judging team representing K. S. A. C., and it was won by a native Kansas boy, educated in his own state and winning his place by virtue of his work and training in K. S. A. C.

"Mr. Weber was born on a farm near Horton. By outside work he met his necessary expenses both in high school and in college. He began his training at the college by leading a champion steer around for exercise. His next job was feeding experimental steers. His biggest achievement in this line was the show herd steers he fitted and showed for the college at the American Royal and International Live Stock shows in the fall of 1920. This proved to be one of the best show herds the Kansas State Agricultural College has ever sent out, and much credit is due to Mr. Weber.

"The record of Mr. Weber in stock-judging contests is almost perfect. In May, 1920, he was second in the annual students' stock-judging contest and won first in the dairy-

judging contest the same year. He was high man in the contest of 1921, and in the student's judging contest held at the Kansas Free Fair in Topeka in September, 1921, he maintained his record by again winning first.

"The Department of Animal Husbandry has come to rely on Weber. He has made good repeatedly judging live stock at county



ARTHUR D. WEBER

fairs. No serious complaint has ever been made of his placings which shows that the knowledge and training he has gained are 100 per cent practical. Not only has Mr. Weber won highest honors in stock judging but he has been an honor student throughout his four years of college work and takes an active part in college affairs. He is a member of Alpha Zeta and Farm House fraterni-

ties, president of the Block and Bridle Club, and his essay on 'Live Stock as a Factor in Eliminating Waste in American Agriculture' was highly commended in the Saddle and Sirloin Medal Essay Contest at Chicago this year."

His excellent scholastic record is further attested by the fact that after the above article was written Mr. Weber was elected to membership in both Gamma Sigma Delta and Phi Kappa Phi, honorary scholastic societies.

For about a year after graduation Mr. Weber was manager of a stock farm in Missouri, handling pure-bred beef cattle and pure-bred hogs and was one of the leading winners at the American Royal Live Stock Show. He was a member of the K. S. A. C. faculty in the Department of Animal Husbandry from 1923 to 1926, resigning to accept a position in the Department of Animal Husbandry of the University of Nebraska. After five years of outstanding service in Nebraska he is resigning his Nebraska work to accept a merited promotion in his chosen field in his alma mater of his native state.

Doctor McCampbell, head of the Department of Animal Husbandry, says of Professor Weber: "He is a brilliant thinker, an interesting writer, an able investigator, an inspiring teacher, and has keen insight into and appreciation of the problems of animal husbandry. His return to the Kansas College of Agriculture is a piece of good fortune for the state of Kansas as well as the college."

#### THE JUNIOR LIVE STOCK JUDGING TEAM WINS SECOND AT DENVER

The Kansas College of Agriculture junior live-stock judging team, coached by Prof. F. W. Bell, placed second in the intercollegiate judging contest held at the National Western Live Stock Show in Denver during the week of January 17 to 24, 1931. The Kansas team lost to Nebraska by a 49-point margin.

The contest is divided into two sections—five classes of fat stock in one section and five classes of breeding stock in the other. The Aggies placed first on fat stock and second on breeding stock. They placed second on sheep, third on cattle, fourth on horses, and first on hogs. Kansas had four men place in the first seven in the judging of all classes

of hogs.

In the individual honors, Robert O. Blair won first place and a cash prize of \$25 in the judging of all classes of stock. He made a score of 714 points out of a possible 800. Lawrence D. Morgan placed fifth with a score of 697 points. His prize was \$5. F. Dean McCammon placed sixth with a score of 690 points. The team was composed of the following students:

Robert O. Blair.....	Coleman, Tex.
Boyd R. Cathcart.....	Winchester
F. Dean McCammon.....	Manhattan
Lawrence D. Morgan.....	Manhattan
Ralph C. Munson.....	Junction City
Ralph O. Snelling (alternate).....	West Point, Ind.

The teams competing and their scores were: Nebraska, 3,360; Kansas, 3,311; Colorado, 3,250; Utah, 3,233; Wyoming, 3,156; and Missouri, 3,153. In 1929 and again in 1930 the Kansas team won first place in the Denver contest. In the individual honors an Aggie has been at the top for the past three years. Had the Aggie team won the contest this year they would have gained possession of the silver loving cup offered by the Denver Live Stock Exchange. To gain permanent possession of this cup a team must win first place three years. Nebraska and Kansas are now tied in the contest for the cup with both teams having won first place in two contests.

The Denver contest deserves a word of comment in that it was a smooth-running, well-organized contest. It was one of the nicest contests that a student judge will ever have the opportunity to work in, and the management certainly deserves a lot of credit for the way it was conducted.

On the trip to Denver the team visited the Colorado Agricultural College at Fort Collins, and worked on their college live stock. The team also had the pleasure of seeing some of the best herds in the middle west while at the show. There were 60 carloads of bulls, and more than 400 carloads of feeder steers which the Kansas team had the pleasure of seeing while attending the show. The team thus had the opportunity of seeing and judging many representative animals of present-day live stock. Such a trip is a real education, and also enables one to come in contact with some of the leading live-stock men of the country.

—F. D. M., '32.



**NEW BOOK BY PROFESSOR ROGERS**

"JOURNALISTIC VOCATIONS: A Beginner's Guide to Editorial Work, Advertising, Circulation, Free Lance Writing, Publicity, and Related Fields," by Charles Elkins Rogers, professor of journalism in Kansas State College of Agriculture and Applied Science (D. Appleton & Co., New York).

The study of vocations is of great importance and should be of large interest to young people. The effort put forth to help them find their best niche vocationally is increasing steadily from year to year. This book by Professor Rogers, recently off the press, is an excellent handbook for one phase of this work—a study of the "journalistic vocations."

More than a dozen more or less distinct journalistic fields are discussed. Each is presented in a direct and comprehensive way. The work requirements are stated plainly and honestly and the qualifications, preparation, and rewards are presented fairly and as specifically as possible. In short the book presents a fine, concise survey of the journalistic field as a whole.

It should also be noted that the book presents the agricultural phases of journalism. The community newspaper and the agricultural press come in for adequate consideration. The author contends that while agricultural journalism is no more logically a profession than daily newspaper work, agricultural journalists in larger proportion than ordinary journalists, "regard their vocation as a profession." He stresses the importance of scientific and practical training in agriculture for agricultural journalism and says, "In no field of journalism is leadership more apparent than in agricultural journalism."

The book is a valuable contribution to the literature on vocational guidance, so important to young people, as well as a careful preliminary survey of journalism for those who want to prepare for one of the journalistic vocations.

—H. D.

**STATE HIGH SCHOOL JUDGING CONTESTS**

The eleventh annual state high school contest in the judging of farm products will be held Monday and Tuesday, April 27 and 28. Practically all departments of vocational agriculture in Kansas high schools will likely enter teams of three members each. Entries for the contest close April 20 and should be

made to Prof. A. P. Davidson of the Department of Education.

The same entrants must go through the entire contest, placing classes of (1) beef cattle, horses, hogs, and sheep; (2) dairy cattle; (3) grain; and (4) poultry. However, high schools that do not find it possible to send a team to compete may enter one or two individuals who will have equal chances with others in winning individual prizes.

Prizes will be awarded to the team making the highest general average in the entire contest, to the team making the highest general average in each of the four sections of the contest, to the individual making the highest general average on all classes in the contest, and to the individual making the highest general average in each of the four sections of the contest. Ribbons will also be awarded not only to the first five high teams and the first five individuals in the entire contest but also to the first five teams and the first five individuals in each of the four sections of the contest.

The sixth annual state contest in shop work and agricultural engineering will be held at the same time as the contest in the judging of farm products, Monday and Tuesday, April 27 and 28. The contest will be divided into six sections and Kansas high schools are invited to enter teams of two members each. Entries should be made to the Department of Shop Practice on or before Saturday, April 25, 1931. Write that department also for further information.

**PROFESSOR REED RESIGNS**

Prof. H. E. Reed has resigned from the Department of Animal Husbandry of the Kansas College of Agriculture to accept a position in the foreign service of the Bureau of Agricultural Economics of the United States Department of Agriculture. His leaving Kansas will be a great loss to animal husbandry work since he is recognized as one of the outstanding animal husbandry workers of America.

Professor Reed came to K. S. A. C. with an unusually strong background of experience and accomplishment in animal husbandry lines. He was graduated from the University

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# FARM NOTES

## WINNERS IN STATE WHEAT PRODUCTION CONTEST

Arthur J. White of Coldwater, Comanche county, was recently acclaimed the state wheat champion of Kansas for 1930. Mr. White was selected as champion from a group of forty-two county champions who were selected as county wheat champions when the 1930 Santa Fe and Rock Island Wheat Festival Trains visited their counties last summer.

In winning first place, Mr. White was awarded a cash prize of \$300 and a silver trophy. Guy D. Jossierand of Copeland, Gray county, was awarded second prize, \$200, and E. H. Hodgson of Little River, Rice county, third prize, \$100. The cash prizes and championship trophy were awarded by the Kansas City, Mo., Chamber of Commerce.

The wheat championship contest is one of the features of the Wheat Belt Program that concluded five years of activity in promoting a program for improved farming for the Kansas Wheat belt. The state wheat champions named for each year of the five-year period are:

1926 Albert R. Schlickau, Haven, Reno Co.  
1927 Herman Praeger, Claflin, Barton Co.  
1928 W. A. Barger, Garfield, Pawnee Co.  
1929 Tom L. Bair, Minneola, Clark Co.  
1930 Arthur J. White, Coldwater, Comanche Co.

Mr. White lists the most important things in wheat production as follows:

1. Plowing early.
2. Keeping volunteer wheat down.
3. Seeding at the right time but not too early.
4. Using good seed, rye-free, smut-free or treated, graded, certified, or standard and adapted varieties.

He often follows the combine with a one-way plow and then plows with a mould-board plow. Some years when he can, he uses the mould-board plow right behind the combine. He cultivates the plowed ground with a duck-foot cultivator or with a one-way plow, whichever does the better job.

Mr. White believes in summer fallow and says that one-third of the straight wheat land

should be fallowed every year. He had 140 acres in summer fallow in 1930 and 275 acres in 1929. He handles his summer fallow by one-waying or disking to kill the first weed crop. This is followed by the mould-board plow in June, using the duck-foot cultivator after the plowing to control weeds up to planting time. His acre production for four years before the wheat program started exceeded the average county yield by only 2.58 bushels, but since the program started in 1926 he has exceeded the county average by 8.3 bushels an acre. The 525 acres of wheat he raised in 1930 yielded an average of 19.53 bushels an acre—more than twice the average acre wheat production for his county. His state championship sample of Black-hull wheat tested 13.25 per cent protein and 63.3 pounds to the bushel. —J. B. H., '32.

## THE KANSAS BLUE RIBBON CORN SHOW

Any winner of a blue ribbon in a county or community corn contest last fall could enter a 10-ear sample of his blue ribbon corn in the state blue ribbon corn show held in connection with Farm and Home Week, February 3 to 6, 1931. There were two classes of corn in the contest—yellow corn and white corn. The following tabulation gives first to fifth placings in each class:

### YELLOW CORN

First, J. Lee Laptad.....	Lawrence
Second, Virgil P. Rush.....	Severance
Third, O. J. Olson.....	Horton
Fourth, Aaron Strahm.....	Sabetha
Fifth, McCollm Brothers.....	Emporia

### WHITE CORN

First, H. E. Staadt.....	Ottawa
Second, Clark Work.....	Humboldt
Third, T. C. Dodd.....	Linn
Fourth, A. R. Quinett.....	Ames
Fifth, Frey Brothers.....	Manhattan

Mr. Laptad's sample of yellow corn was given the edge over Mr. Staadt's white corn. Therefore, Mr. Laptad was awarded sweepstakes and the silver loving cup.

—R. F. G., '31.

### KANSAS CHALLENGES THE WORLD IN CORN PRODUCTION

Virgil P. Rush of Severance, Doniphan county, was again recognized as state corn champion at the Farm and Home Week program held February 3 to 6, 1931. This is the third time Mr. Rush has won the title of state corn champion, winning in 1926, 1929, and again this past year, 1930.

Since the corn show began five years ago Mr. Rush has had a yield of over one hundred bushels per acre each year. This is a record on which Kansas wishes to challenge the world. Mr. Rush is the only corn producer in Kansas to be a member of the hundred bushel corn club every year since it started, five years ago.

Other producers who ranked high this year in the corn contest were H. E. Staadt of Ottawa, and H. N. Compton of Willis.

The requirements for a corn champion take in a group of things that the college as well as individuals over the state consider as basic practices for producing a high yield along with quality of grain. Some of the things considered are the yield of a five-acre plat and rating of the contestant in previous years. The contestant is required to exhibit a bushel sample at various county fairs, as well as a 10-ear sample to be sent to the college during Farm and Home week. —R. F. G., '31.

### WHAT ABOUT "GROHOMA"?

In answer to the question, "Is Grohoma a crop for Kansas," Dr. John H. Parker, plant breeder at the Kansas Agricultural Experiment Station, speaking at the meeting of the Kansas Crop Improvement Association held at Manhattan, February 4, 1931, said, "We doubt it."

Grohoma is a new sorghum produced by Fred Groff of Britton, Okla., who was formerly a carpenter but is now a farmer plant breeder. Its supposed origin, according to Mr. Groff, was a bud or graft of kafir or feterita on Ribbon "cane," a sweet sorghum.

The seed of Grohoma was formerly sold at \$2 per pound but now is advertised at \$1.50 per acre and one pound of seed is recommended per acre. Seed of standard varieties of sorghum can be purchased for 3 to 5 cents a pound.

Many wild claims are being made for the new crop such as:

1. By actual test it has yielded two to five times as much as kafir, milo, or feterita.
2. It yields from 100 bushels per acre in dry seasons to over 200 bushels per acre in favorable seasons.
3. It is the greatest drought resister known.
4. It requires only one pound of seed per acre.



VIRGIL P. RUSH

5. It is almost hail and wind proof.

Sorghum specialists in the United States Bureau of Plant Industry call many of these claims sensational and inaccurate and consider that the stories of the origin of Grohoma are fantastic.

The real origin of Grohoma was probably a natural cross between feterita and some variety of sorgho. The new crop shows the variability and some of the vigor characteristic of crosses. In variety tests on fourteen stations in the Southwest in 1930, Grohoma

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# QUESTIONS & ANSWERS

## FARM & COLLEGE

**Q.** When is the proper time to burn pastures?

**A.** Pastures should be burned early in the spring before the native grasses start growing and after the danger of severe freezing weather is over. This in an average year is about the middle of March. The burning should be done shortly after a rain in order to prevent soil burning and to reduce the damage to the forage grasses to a minimum. —A. E. Aldous, Professor of Pasture Management.

**Q.** Are prospects for good egg prices next fall sufficiently encouraging to justify one who is properly equipped to fill his laying houses with early hatched pullets?

**A.** Unless all signs fail, market eggs should be worth considerably more next fall and winter than they were for the corresponding period last year. The receipts of market poultry in the eastern markets since January 1 have been unusually heavy. The caution with which packers are entering the storage season and the general lack of interest among farmers in rearing chicks is evidence of a shortage of potential layers next fall. The man who has been successful rearing poultry in the past will, in our opinion, be fortunate if he can fill his laying houses next fall with March and April hatched pullets. —L. F. Payne, Professor of Poultry Husbandry.

**Q.** How long after hens have been isolated in a breeding pen must one wait to be certain of good fertility?

**A.** One week's time should be sufficient in most cases. If the females have been kept with other males previously and one wishes to be absolutely certain of the ancestry of the offspring, no eggs should be saved for a period of three weeks. Even though the females had been kept with other males previously, after a week's interval practically 95

per cent of the eggs will have been fertilized by the new male. —D. C. Warren, Professor of Poultry Husbandry.

**Q.** What is the relation of net farm income to the per cent of the crop area in legumes?

**A.** In a study of 2,622 farm records from central and eastern Kansas over the six-year period, 1922 to 1929, it was found that net farm income increases as the per cent of crop area in legumes increased. On those farms with no legumes, the average income was \$1,795; on those with 1 to 15 per cent of the crop area in legumes, the income was \$1,972; with 16 to 30 per cent, the income was \$2,530; and with 30 per cent or more, the net income was \$2,685. While each group shows an increase the greatest increase comes from the second to the third group. That is, the greatest advantage in increasing legumes seems to come somewhere between 15 and 30 per cent of the total crop area. Apparently the per cent may be carried higher with good results on small farms than on medium- or large-sized farms. If legumes constitute a larger per cent of the crop area, especially on the larger farms, the type of farming is usually somewhat changed and the success of the enterprise depends more particularly upon special conditions. —J. A. Hodges, Assistant Professor of Agricultural Economics.

**Q.** When are wheat prices going to reach bottom?

**A.** Most frequently in a period of declining wheat prices such as that which we have been in since April, 1928, the extreme low is reached in one of the five months—June, July, or August, when new winter wheat begins to move, or September or October, when the new spring crop is moving. In 10 cases out of 12 since 1894, the bottoms of the de-



clining price periods were finally reached in one of the five months named.

With present wheat supplies, favorable growing conditions to date, and a market already 20 to 25 cents above other world markets, and with Liverpool wheat prices the lowest they have been since back in the sixteenth century, the probable low point in our own wheat prices is a few months ahead. —R. M. Green, Professor of Agricultural Economics.

**Q.** What is the outlook for the production of sour cherries in eastern Kansas?

**A.** Now is probably a good time to plant sour cherry trees in eastern Kansas due to the fact that the damage caused by cherry-leaf-spot has killed many cherry trees in this section in recent years. This disease may be controlled readily by the proper use of sprays. The cherry market is and probably will be for the next few years sufficiently high to enable the producer to make money. —W. F. Pickett, Assistant Professor of Horticulture.

**Q.** How may objectional feed flavors and flavors from certain pasture weeds be controlled in milk?

**A.** Feed and weed flavors are imparted to milk mainly through the body of the cow. All feeds that are apt to taint milk should be fed after milking. This applies to green soiling crops, most roots, and strong silage. Weed flavors of which wild onion, French weed, and ragweed are particularly objectionable, can be controlled to some extent by removing the cows from the infested pasture several hours before milking. —W. H. Riddell, Assistant Professor of Dairy Husbandry.

**Q.** Why would not cottonseed meal be a good protein supplement for milk cows in winter? I never see it recommended anywhere. Is it because of any undesirable taste or odor in the milk or what is the objection to it?

**A.** Cottonseed meal is very generally used as a protein supplement and is generally one of the cheapest sources of protein for dairy cattle. However, when neither silage nor legume hay is used in the ration linseed oil

meal would be preferred. It is supposed to be a little more laxative than cottonseed meal. In the college dairy herd we are using half cottonseed meal and half linseed oil meal as the protein supplement in the ration.

—J. B. F.

**Q.** Is sweet clover hay good for dairy cows?

**A.** In the college dairy herd we have fed sweet clover hay to dairy cows in comparison with alfalfa hay and, while the sweet clover is not so valuable as alfalfa, good quality sweet clover hay is very satisfactory. The value of sweet clover hay for milk production depends to a great extent upon the quality of the crop.

—J. B. F.

**Q.** Will kafir fed to milk cows cause them to go dry?

**A.** Kafir grain when ground is practically equal to corn chop as a feed for dairy cows and kafir stover is equal in value to corn fodder. I would not hesitate to feed either the grain or the stover. —J. B. Fitch, Professor of Dairy Husbandry.

**Q.** Have the cooperative laws of Kansas been revised recently?

**A.** Yes. The 1931 session of the Kansas legislature revised "the cooperative marketing act of 1921," which is the act under which many Kansas cooperative associations were organized.

—G. M.

**Q.** What are some of the more important provisions included in the new law?

**A.** The revised law provides that 10 persons who are producers of agricultural products may form a cooperative corporation; it permits cooperative associations to own stock in subsidiary corporations; it gives cooperatives the legal right to do business with non-members; and it provides that dividends on both common and preferred stock of cooperatives shall be limited to 8 per cent —G. M.

**Q.** How may an existing cooperative secure the benefits of this revised law?

**A.** An organized association may secure the benefits of this act by filing with the Secretary of State a written application stating that by a majority vote of the stockholders

the association has decided to accept the provisions of the revised law. —George Montgomery, Assistant Professor of Agricultural Economics.

**Q.** What effect will the resignation of Mr. Alexander Legge, chairman of the Federal Farm Board, have upon the probable future policies and plans of the Federal Farm Board?

**A.** Mr. Legge came to the Farm Board as an outstanding business man. His knowledge of cooperative marketing did not come from an intimate contact with cooperative marketing organizations. As president of the International Harvester Company, Mr. Legge had been dealing with business problems of a magnitude which was on a par with the problems confronting the Federal Farm Board. He has had a keen, sincere, sympathetic interest in agriculture and has worked diligently and effectively to improve the position of agriculture through the efforts of the Farm Board. In his resignation, agriculture loses from the Farm Board a friend who has done much to help further the work of the Board and to improve the status of agriculture.

Mr. J. C. Stone, who has been appointed chairman to succeed Mr. Legge, has a background in cooperative marketing experience. It is to be expected that Mr. Stone's policies will center, to a larger extent, around the development of cooperative marketing and that somewhat less attention will be paid to stabilization efforts. Mr. Stone is a leader of outstanding ability and it is fortunate that a man of his qualifications and experience was available to succeed Mr. Legge.

It is probable that the program of the Federal Farm Board will not be changed materially, with the exception that much less emphasis will probably be placed on stabilization operations. —W. E. Grimes, Professor of Agricultural Economics.

**Q.** What one factor could ruin the beef cattle business of the United States more surely and more quickly than any other?

**A.** Admitting live stock and meat into this country duty free. Argentina with her cheap land, cheap labor, low standards of living, cheap transportation, and splendid herds can

produce and deliver in New York an excellent quality of beef, cheaper than can a Kansas producer. Furthermore, the tremendous exportable surplus available for foreign markets is indicated by the fact that Argentina not only has a beef cattle population approximately 50 per cent greater than ours but also 4,000 beef cattle for every 1,000 human population compared to 250 beef cattle for every 1,000 human population in this country. Similar conditions exist in Brazil, Australia, and several other beef-producing countries. Our security lies in tariff and embargo. —C. W. McCampbell, Professor of Animal Husbandry.

**Q.** How should the sow be fed when the pigs are weaned?

**A.** If the pigs have become accustomed to eating from a creep, weaning is not a difficult period. The sow's ration should be decreased several days before the pigs are weaned in order to diminish the milk flow. Dry oats or a limited amount of corn are good feeds to use for a few days after the pigs are weaned. If the udder gets very full it is sometimes advisable to turn the sow in with the pigs once a day for a few days. However, this is only necessary in exceptional cases. —C. E. Aubel, Associate Professor of Animal Husbandry.

**Q.** What are the best methods of preventing soil erosion?

**A.** Keep the land in a growing crop as much of the time as possible. Plan the rotation so that corn will be followed by small grain and sod legumes such as clover or alfalfa. Very steep land should be kept in permanent sod. The rotated land should be terraced and when the land is in cultivated crops the rows should run across the slope approximately with the terraces. Small grain drilled across the slope is also more effective than when the drill rows run with the slope. When land is being fallowed leave the surface as rough as possible and do the working approximately across the direction of the slope. —F. L. Duley, Professor of Soils.

John C. Keas, '25, is a dairy farmer in Atchison county. His address is Farmington.

# Kansas Dairy Production Winners

Harold B. Harper, '32

Recognition was given to the outstanding dairymen of Kansas at the 1931 Farm and Home Week dairy-day program in the presentation of 216 Honor Roll certificates to the owners of herds averaging over 300 pounds of butter fat in the Kansas Dairy Herd Improvement Associations. The Washington County Association led all others in the state with 23 of its members receiving certificates, closely followed by Geary-Clay with 22 members. The Kansas dairymen achieving this goal met the requirements in the association year ending within 12 months previous to July 1, 1930.

The Honor Roll certificates are awarded by the National Dairy Association for the purpose of encouraging a higher average butter fat production in the future, as well as an honor for those who have produced the best results during the previous season. Recognition of the fact that high production goes hand in hand with economical production has led to the stimulation of the breeding, feeding, and weeding methods that are bringing about the accomplishment of this goal in dairy herd improvement work.

The honor of having the highest producing herd in the state of Kansas went to R. L. Evans, Darlow, a member of the Reno-Harvey-McPherson Association. His herd of eight Holsteins produced an average of 554 pounds of butter fat during the year. The second high herd was that of Leslie Roenigk of Clay Center, with an average of 538 pounds per cow on a herd of nine Holsteins. The third high average was that of H. D. Marts of Milford, with 12 head of Holsteins averaging 467 pounds.

In considering the highest average production, the association herds are divided into four groups according to the number of cows in the herd. The highest production of any herd containing 25 or more cows was won by the St. Joseph Home at Abilene, with an average production of 403 pounds of butter fat on 30 head of Holsteins. Second in this class was the herd of 53 Holsteins owned by T. C. Porter and Sons of Kansas City, with a 395-pound average.

In the division including herds from 15 to 24 cows, Ernest Raymond of Leavenworth ranked first with an average of 395 pounds of butter fat, followed by the Frey Brothers of Manhattan with their Jersey herd averaging 392 pounds. Leslie Roenigk and H. C. Marts had the high herds in the 9- to 14-cow class, while the smallest division of five to eight cows was won by R. L. Evans. Second place in this class went to Jim Carnahan, Clay Center, on a herd of seven Ayrshires which averaged 464 pounds of butter fat.

Recognition was also given to the high herd in each breed of cattle. The high herd of Brown Swiss, and incidentally the only one in the state which was in a Dairy Herd Improvement Association at this time, was that of Henry Dewe of Freeport, whose 11 cows averaged 352 pounds of butter fat. Guernsey honors went to J. R. Brainard of Carlyle with seven cows averaging 358 pounds. The highest-producing Jersey herd with a 453-pound average on 10 head was owned by Fletcher Kistler, Uniontown. Jim Calahan had the high-producing Ayrshire herd and R. L. Evans won the honor for the Holstein breed.

A special distinction was given to the owners of Holsteins in the form of the Dingman Trophy cups given to the high herd of this breed in each division. The winners of these awards were:

## CLASS

5-8 cows .....	R. L. Evans, Darlow
9-14 cows.....	Leslie C. Roenigk, Clay Center
15-24 cows.....	Ernest Raymond, Leavenworth
25 or more cows.....	St. Joseph Home, Abilene

The cups were presented by Mr. Charles Dingman of the Guaranty Security Life Insurance Company of Topeka, who is a former Holstein breeder. The award of these cups has stimulated much interest in testing among the Holstein breeders.

The presentation of the 216 Honor Roll certificates this year marks another step in the progress of Dairy Herd Improvement Association work in Kansas. This is the largest number that has ever been presented as only 169 were presented in 1930 and 152 in 1929. The past few years have also noted a rapid

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# Tame Pastures for Eastern Kansas

Jay R. Bentley, '32

A large per cent of the land used for pasture in Kansas is unfit for cultivation. This land will never be improved by cultural practices of any kind because of its rough and rocky nature, and can be improved and maintained largely by conserving the natural species of grass now found on it. This can best be done by proper stocking, and by use of proper grazing systems. In addition to this land there are over one million acres of permanent tame pastures in the eastern part of the state. There is also an equal acreage of poorer, run-down farm land in this same region that is now being used for growing various cultivated crops that could undoubtedly be improved and made much more profitable by planting it to mixtures of grasses and legumes and using for pastures.

Most of the land now used for tame pastures is worth more than the native pasture lands and to justify its use for this purpose it should be made proportionately more productive. This can be accomplished mainly by (1) growing forage species that are best adapted to the section where they are planted; (2) using proper methods of seeding and seeding at the proper time; (3) planting mixtures of the different tame pasture forage species that will give the highest yield throughout the grazing season, as well as being palatable and nutritious; and (4) taking proper care of these tame pastures to maintain their productivity.

All the tame perennial grasses that are adapted for seeding pastures are native of other countries where growing conditions are more favorable than exist in the major portion of Kansas. Their successful use is therefore restricted to about the eastern one-third of the state where the annual rainfall averages more than 30 inches. In some instances their production may be extended west of this rainfall belt along the stream bottoms

where growing conditions are more favorable as a result of richer soil and the availability of additional moisture. In addition to the moisture supply, soil conditions, temperatures and humidity, and length of the growing season are important factors governing the adaptability of tame forage species for pastures in eastern Kansas.

Pasture forage plants are divided into two general classes: Grasses and legumes. The grasses are subdivided into annuals and perennials. The perennial grasses can be classified as bunch grasses and sod grasses. The bunch grasses include those that have a bunched habit of growth; such as, orchard grass, timothy, and tall oats grass. If the crop is to be used for pasture it is desirable to plant a sod grass to fill in between the bunches to prevent erosion and to provide additional forage. Kentucky bluegrass, brome grass, and red top are examples of sod-forming grasses. Grasses of this kind are well adapted to pasturing because they produce an even sod and have strong vegetative methods of reproduction. Other grasses that can be used in seeding pastures in this state include meadow fescue and Italian and perennial rye grass.

Legumes are essential in tame pastures for they add greatly to the nutritive value of the feed as well as adding to the fertility of the soil. The clovers best adapted to use in pasture mixtures include sweet clover, white clover, Alsike, and red clover, and in the southeastern part of the state Lespedeza.

To obtain the highest yield at all times during the grazing season as well as obtain the greatest feeding value of the forage produced, a mixture of several grasses and one or two legumes should be planted. The mixture should also include sod-forming grasses with the bunch grasses to produce a good turf. It should also include rapid-growing grasses to supply feed and to keep down weeds while the more permanent grasses are becoming established.

The eastern or humid part of Kansas can be divided into four general regions each having sufficient difference in soil or climate

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1. For further details in regard to these mixtures, descriptions of the grasses, and information on planting, fertilizing, and care and management, the reader is referred to Bulletin 253 of the Agricultural Experiment Station on "Tame Pastures in Kansas," by A. E. Aldous and J. W. Zahnley. Requests for copies should be addressed: Agricultural Experiment Station, Manhattan, Kan.



# The Kansas Sunflower Testing Association

Harold B. Harper, '32

Increased production of milk from fewer cows is the slogan for members of the Kansas Sunflower Testing Association. Eleven years of effort have proved conclusively to these men that testing as a means of progress is well worth while.

The Kansas Sunflower Testing Association was organized by the Department of Dairy Husbandry eleven years ago. Membership is comprised of the state institutional herds of Kansas. The work is supervised by Mr. Monroe Coleman who in turn is responsible to Mr. H. J. Brooks, in charge of official testing in Kansas. Much credit for the success and progress of the association is due Mr. Coleman. Two years ago when the National Dairy Show committee offered a trip to the National Dairy Show at St. Louis to the Dairy Herd Improvement Association tester in the United States who obtained the greatest number of dam and daughter comparisons, Mr. Coleman, tester for the Sunflower Association, won the distinction. It is such work as this that has put the Sunflower Association on the map, according to Mr. H. J. Brooks.

In the association there is a total of 1,478 head of cattle of which 671 head, or 45.1 per cent, are pure bred. All of the members of the association are using pure-bred sires so the number of pure-bred individuals is constantly on the increase. Better feeding is another means by which the group has raised its standard. A protein roughage such as alfalfa, supplemented by the necessary concentrates to insure both economy and increased production, is fed at all times. Culling the low producers, nonbreeders, and all that prove defective in any way make up another side of the program. Thus by selective breeding, proper feeding, and regular weeding the Sunflower Testing Association expects to improve to the "nth" degree, mathematically speaking.

The average production per cow in the Sunflower Association last year was 326.8 pounds of butter fat from 9,307 pounds of

milk. Despite the increased number of cows from year to year the average production of butter fat has also increased, which bears out the statement that the association is really progressing. The cows in the association produced milk valued at \$186,778 during the past fiscal year. Only \$77,778 was expended for feed, leaving a return above feed cost of \$108,840, or \$2.39 for every \$1 invested in feed.

Pure-bred sires of proved ability are used by several of the members of the association. A proved sire is one on which there is a daughter-dam study of not less than five pairs, irrespective of whether the sire made an increase or a decrease in production in his daughters as compared with their dams. Each year several sires are purchased and used enough to obtain a limited number of daughters for the daughter-dam comparison. If a sire shows a favorable increase in the production of his daughters over their dams he is then used to further the standard of high-quality producers. Those sires not qualifying are sold to the butcher. Seven herd sires were sent to the chopping block during the past association year because of inferior quality, old age, or sterility.

One of the big events for the superintendents and herdsmen of the various institutions is the annual state herdsmen's short course held at Manhattan. This meeting comes in March and serves as an inspiration for the members in their new year's work. Reports of progress for the current year are announced and study for future progress is in vogue. Last year prominent speakers addressed the group and discussed such matters as calf feeding, test cow feeding, udder troubles, pasture supplements, fitting and showing, pedigree study, and many other subjects of value to progressive dairymen.

Ralph F. Pettit, '30, is manager of a dairy farm belonging to ex-Governor Reed at Parsons, Kan.

# The 1930 Beef Production Contest

C. T. Herring, '32

Creep-feeding calves and marketing them as prime baby beeves soon after they are weaned proved to be highly profitable in the 1930 Kansas beef production contest, according to the results which were announced February 5, 1931, during the annual Farm and Home Week.

The object of these contests, of which the 1930 contest was the third, is to stimulate the production of baby beeves and thereby call attention to the possible profits in beef cattle production on Kansas farms. The ultimate purpose of this is not only to increase the immediate farm income, but also to utilize more of the farm feeds and return the fertility to the soil. The extent to which the contests are succeeding is attested not only by the profits received by the contestants but also by the increasing numbers of entries. In the first contest in 1928 only two farmers entered. There were 51 entries in the 1930 contest.

Any Kansas farmer with a herd of cows producing 10 or more calves, with calving dates between January 1 and May 1, 1930, was eligible to enter this contest. The contest awards were made on a basis of average daily gains from date of birth, quality and finish as indicated by the dressing per cent and government carcass grade, the cost of gain and the beef herd management practice used, including care of the herd, per cent of calves saved, and quality of the herd.

The contest was divided into two sections, one for previous cash prize winners in which medals were given as prizes and an open division for all contestants who had not been cash winners in previous years. Cash prizes for the second division were \$200 for first, \$150 for second, and \$100 each for third, fourth, and fifth places, with the specification that the money was to be applied toward the purchase of registered bulls.

The winners in both sections of this 1930 contest and some of the chief points from the records of their winning herds are given in the accompanying tabulation. Bruce Saunders who was awarded second place and the silver medal in the first section was the winner of the 1929 contest. All the winning

herds in both sections of the contest were Herefords except those of Mr. Schuetz and Mr. Dietrich, which were Aberdeen-Angus.

Prof. J. J. Moxley, extension live stock specialist, who had direct charge of the contest, states that these calves were generally market toppers on the days they were sold.

Kansas farmers following this so-called bluestem system of beef production have developed a number of practices considered essential in the economical production of baby beeves. Good-type, quick-maturing breeding stock must be had. This stock can be wintered on low-priced farm roughages, which would probably be wasted otherwise. It is desirable that the calves be dropped in January, February, or early March so that they will be eating grain before they are turned on pasture. The cows should be well fed after calving so they will give plenty of milk and when the pasturing season begins care should be taken not to overstock the pasture. Creeps should be placed in the pasture where the cows loaf, which is usually near the watering place. The calves will then get grain frequently. The usual ration for these calves is a good grade of shelled or ground corn, supplemented by the cow's milk only. Good calves and good feed are essential. The calf should not know what hunger is.

The bluestem system and contests are sponsored cooperatively by the Kansas State College of Agriculture and Applied Science, the Kansas City, Mo., Chamber of Commerce, the Kansas City Stock Yards Company, the Kansas City Live Stock Exchange, and the live stock breeders' associations for the Hereford, Aberdeen-Angus, and Shorthorn breeds. The cash awards are provided one-third by the Kansas City Chamber of Commerce, one-third by the Kansas City Stock Yards Company, and one-third by the breed association in accordance with the breed of pure-bred bulls selected by the winners.

The figures on the opposite page facilitate comparisons. It should not be overlooked, however, that variations in selling price were due more to market fluctuations than to differences in the quality of the calves.

## HIGH POINTS IN THE RECORDS OF WINNERS IN THE KANSAS BEEF PRODUCTION CONTEST, 1930

First or Previous Winners' Section	Rank	Num. calves fed	Av. daily gain (Lbs.)	Av. age when sold (Days)	Av. weight when sold (Lbs.)	Selling price per cwt.	Dressing per cent	Govt. grade of meat <sup>1</sup>	Selling price per head	Production cost p'r head <sup>2</sup>
Fred Morgan, Alta Vista.....	1	17	2.18	291	716	\$13.50	58.30	Choice to prime	\$96.66	67.88
Bruce Saunders, Holton.....	2	11	2.15	294	712	14.00	59.65	Choice	99.68	59.81
H. E. Doverspike, Cottonwood Falls.....	3	43	1.80	269	566	10.65	57.10	.....	60.28	47.82
Second Section										
John Dickson, Miller.....	1	20	1.97	329	728	12.00	59.16	Choice	87.36	67.58
Oscar Schuetz, Horton.....	2	11	2.37	280	744	13.00	56.16	Good to choice	96.72	51.43
August Dietrich and Son, Carbondale.....	3	16	1.85	333	695	12.25	57.80	.....	85.14	55.06
Melvin Nelson, Herington.....	4	32	2.21	295	733	11.81	59.02	.....	86.61	42.86
Leslie Brannan, Timken.....	5	28	2.00	303	691	11.50	58.90	.....	79.47	44.67

1. There are five grades of slaughter beef as designated by the government: Prime, choice, good, medium, and common.  
 2. This item includes total cost on cow of producing calf and cost of feeding calf.

## WHAT ABOUT GROHOMA?

(Continued from page 79)

made the lowest yield in seven of them. It was not the highest-yielding variety in any of the tests.

As observed at the Kansas Agricultural Experiment Station, Grohoma somewhat resembles kafir, has long, rather loose heads very poorly filled at the base. The seeds are brown and bitter and the stalks are not juicy but are slightly sweet. Grohoma is susceptible to kernel smut, is medium late, and not adapted to combine harvesting.

The Kansas Agricultural Experiment Station does not consider Grohoma an exceptional crop and certainly would not recommend it for large acreages or at the present exorbitant prices charged for the seed. Dr. Parker said, "Our advice to the Kansas farmer is to be 'from Missouri' and to plant the well known standard varieties of kafir, feterrita, milo, and sweet sorghum, until your station tests show that Grohoma or other new varieties are actually superior and worth the money."

—W. M. M., '32.

## DAIRY PRODUCTION WINNERS

(Continued from page 83)

growth in the number of dairymen reached through the associations. In 1924, 12 years after the beginning of the work in Kansas, there were eight associations reaching 184 herds that totalled 2,680 cows. Since then the growth has been steady until in 1930 there were 25 associations including 634 herds composed of 9,524 cows.

The average production of the Dairy Herd Improvement Association cow in Kansas is 293 pounds of butter fat. When this is compared to the production of 135 pounds of fat for the average Kansas cow there can be no doubt as to the efficiency of the associations in increasing production. Prof. J. B. Fitch of the Department of Dairy Husbandry of the college makes the statement that an increase in the average production of all herds means greater net profit to the dairymen of the state. Certainly the Kansas Dairy Herd Improvement Associations are doing their share to increase the profits of the Kansas dairyman.

# Feeding Low-priced Wheat in the Dairy Ration Proves Economical

Chester G. Thompson, '32

Ground wheat proved to be a satisfactory substitute for corn in a dairy cow's ration consisting of silage, alfalfa hay, and grain, in an experiment recently completed by the Department of Dairy Husbandry of the Kansas Agricultural Experiment Station. Due to the low price of wheat this year, many farmers are finding it more economical to feed than to sell and are endeavoring to substitute it for other carbonaceous concentrates. Realizing the need of more data in regard to the possibilities of wheat in the dairy ration, this fall the department conducted a further experiment along these lines in direct charge of Prof. F. B. Wolberg.

The ration used in the experiment was the standard 4-2-1 mixture of corn, bran, and oil meal, respectively. It was fed with silage and alfalfa hay. Two lots of four cows each were fed in the trial, one lot receiving the standard grain mixture, while the other was receiving a mixture in which wheat had been substituted for the corn, making a ration of 4 parts wheat, 2 parts bran, and 1 part oil meal. (Thus the grain mixture was by weight either 4-7 corn or 4-7—almost 60 per cent —wheat.)

The trial covered 90 days, being divided into three periods of 30 days each. During the first and third periods Lot 1 received the corn ration and Lot 2 the wheat ration. During the second period the rations of the two lots were reversed and Lot 1 received wheat while Lot 2 received corn. A period of 10 days was allowed to change the cows from one ration to the other in each case, making the trial proper cover three periods of 20 days each.

Results of the trial showed that there was practically no difference between the feeding value of the wheat and the corn rations. The wheat ration was just as palatable, produced as much milk and butter fat, and there was practically no difference between the two as to maintaining the body weight of the cows.

Before starting the main experiment, a preliminary trial was made to determine what

form of wheat would be most palatable to the cows. Sixteen heifers receiving alfalfa and cane silage, were allowed free access to the wheat prepared in four different forms: Finely ground, medium ground, coarsely ground, and in the whole grain. Records were kept of the form selected first by the heifers, the time required to clean the various kinds up, and the evident palatability of each form. Medium-ground wheat proved to be the most satisfactory because it did not become so gummy in the mouths as the finely-ground wheat, and it was more readily eaten than the coarsely-ground and whole wheat. The whole grain was almost invariably the last form to be chosen by the heifers.

From this experiment it may be concluded that a farmer is justified in using up to 55 or 60 per cent wheat, preferably medium ground, in the grain ration of a dairy cow, provided she is receiving silage and alfalfa hay in addition to the grain mixture. This ration should prove a good method of reducing production costs for dairymen who have a surplus of wheat on their farms.

The experiment is being repeated using other lots of milk cows.

## COLOR OF BEEF

(Continued from page 69)

fact that there is a wide difference of opinion between individuals as to when beef is dark or acceptable. In all carcasses studied only the ultra-critical could have found fault with more than two or three carcasses.

4. Supplemental feeds increased the degree of finish of cattle grazed on bluestem pasture, but had no influence on the color of meat.

5. Bluestem grass pasture without supplement produced a more desirable grade of beef than corn and bluestem grass hay in the dry lot.

6. Cooking tests demonstrated that beef produced on bluestem grass pasture is highly palatable, rich in flavor, and very desirable in aroma. Tenderness tests both before and

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# What Can the Poultryman Do About Low Prices for His Products?

C. D. Gordon, M. S., '31

The reason for a slump in the consumption of poultry and eggs is not all due to the depression of business. The poultryman is not making his product attractive. There are several ways in which this situation can be overcome. There are few foods, of equal worth, that can be bought as cheaply as poultry products today, and yet other commodities are being used in preference to them.

The poultryman must begin producing quality instead of quantity. Quality will make the consumer eat enough poultry and eggs to cause their consumption to become a habit. Quantity will sell better after the quality has been raised.

The first requisite of quality is uniformity. If the housewife uses eggs and likes them she wants to be sure she can get the same uniform good quality again. If her second purchase is not up to her expectations she will choose some other food next time and a booster for the poultry products slips away. This matter of uniformity is an important one from the standpoint of both housewife and hotel. Guests will notice the slightest variation in size of their portion of chicken, and hesitate about ordering again.

Hotel chefs and restaurants express satisfaction with frozen poultry, because it is the only kind upon which they can depend for the uniformity of size and quality which modern catering demands. Freshly dressed poultry direct from the farm is hard to obtain at a definite time and then it is never so uniform or so easy to prepare as a nice box of frozen inspected birds.

If chickens are fed in a haphazard manner and housed in the same way, the poultryman can expect little profitable return from his careless efforts. Supplying good feeds at regular scheduled feeding periods and good all around care so that the birds are comfortable at all times will go a long way toward making poultry keeping a profitable undertaking. Rather than hold a large group of birds on half feed, the poultryman would do well to cut his flock in half, selling the poorer birds

and give the remainder the care they need in order to produce a satisfactory carcass or No. 1 eggs.

The producer should know what the market wants and when it wants it. He should know his eggs and poultry meat, and at all times be ready to exert himself in supplying conditions of production, handling, and marketing which will fulfill all the requirements necessary for an attractive display of his produce before prospective consumers.

Nature has supplied the egg with a shell, the thickness of which depends greatly on the feed and care of the bird producing it. The shell being porous, nature has made provision against excessive evaporation of the moisture within the egg. When the egg is laid, a thin film of mucilaginous substance is deposited on it. This dries quickly and seals the pores, partially protecting the edible portion of the egg from contamination by foreign substances. It also gives to eggs the characteristic surface appearance known as "bloom." Within the shell the egg is further protected from outside contamination by an inner and an outer shell membrane. Since nature goes so far to help the poultryman out in his effort to give the public an attractive health-giving product, it behooves that poultryman to gather and store his eggs carefully if he is to preserve nature's gift.

Uniformity is the result of competent grading. This matter need not be a costly one if the organization doing it is supported by enough members. For a number of years the farmers of my home county in New Jersey have been exchanging their eggs with local merchants for other produce. It meant a double profit for the merchants and no premium for good quality eggs. An egg was an egg regardless of how it was produced. About August 1, 1930, the Flemington Auction Market was organized. At first the organization was small, but the results have brought many new supporters. All eggs are sold at auction direct to buyers from New York and vicinity. The following is a list of

# The Best Annuals are always built with Specialized Service



## Burger-Baird Engraving Co.

GRAPHIC ARTS BUILDING  
KANSAS CITY, MISSOURI

prices paid to egg producers at the auction  
October 3, 1930:

WHITES	High	Low	Average
New Jersey Fancies .....	\$0.58½	\$0.56½	\$0.57
New Jersey Medium Fancies .....	.52½	.47½	.48½
New Jersey Grade A.....	.55½	.52½	.53½
New Jersey Grade A Mediums .....	.50½	.45½	.47
Pullets .....	.30	.24	.26
Peewees .....	.24½	.21	.22

BROWNS			
New Jersey Grade A .....	.49	.48	.48½
Mediums .....	.42	.40	.41
Pullets .....	.29½	.27½	.28
Peewees .....			.22

About November 1, a top price of 76 cents per dozen was reached, for the best eggs. To show that this has all come about by organization and grading so that the poultryman is paid for just what he produces, I might say that these prices are probably the best received for eggs in that section for several years. All members seem very enthusiastic, and the success of the organization so far is of special significance at this time of low prices for eggs. The prices received show that buyers are still willing to pay good

prices as long as they can be sure of what they are getting.

There are several advantages to selling poultry by grades. First, the price per unit is greater. Second, the advertising value a section will get from being known as a producer of good eggs and poultry. Third, an increased incentive to trapnest and cull out all birds not laying a satisfactory per cent of large eggs, and the ensuing increased value of eggs and birds for hatching and breeding purposes.

Grading preserves quality because generally the route to the consumer is more direct. This is absolutely necessary because, after all, what good can be derived from producing quality if the route over which it must travel before it reaches the consumer is a matter of too long a time? A great deal of handling and holding under all weather conditions will only result in the further deterioration of the product's being handled in such a manner. If many producers will stop to think it over they will have to admit that the old methods by which poultry has been marketed have been very careless and wasteful.

The poultryman may say he is too far from the best poultry markets. Why are the states of California, Arizona, Nevada, Oregon, Washington, New Mexico, Wyoming, Colorado, Utah, Montana, and Idaho receiving higher average prices for eggs throughout the year than the states of the Middle West? One answer is cooperation and strict rules regarding grading and handling of eggs in transit so they can produce a brand of eggs second to none. The Pacific Egg Producers organization can put eggs, coated with an oil process to keep their food value intact, on the New York market within a week after they have been laid. There are several grades, but every egg in a case and every case in a car of firsts is exactly like its neighbor in uniformity of size, color, and condition. "P. E. P." means quality and uniformity plus, and for this reason these eggs are quoted above the eggs from the Atlantic Coast states during a part of the year and are practically equal in price during the whole year.

F. Dale Wilson, '28, is doing graduate work in the Oregon Agricultural College.

## TAME PASTURES

(Continued from page 84)

to justify making differences in the mixture of species planted. The plantings to be used on these regions are as follows:<sup>1</sup>

**Glaciated Soils in Northeastern Kansas**

	Lbs. per A.
Brome grass .....	6
Orchard grass .....	4
Timothy .....	3
Meadow fescue .....	3
Kentucky blue grass .....	2
Sweet clover .....	4
Red clover .....	2
Total .....	24

**North Central Kansas**

	Lbs. per A.
Brome grass .....	10
Orchard grass .....	6
Perennial rye grass or meadow fescue .....	4
Sweet clover .....	4
Total .....	24

**East Central Kansas**

	Lbs. per A.
Orchard grass .....	6
Meadow fescue .....	6
Red top .....	6
Kentucky blue grass .....	2
Alsike clover or sweet clover .....	4
Total .....	24

**Southeastern Kansas**

	Lbs. per A.
Orchard grass .....	6
Meadow fescue .....	4
Red top .....	5
Kentucky blue grass .....	3
Alsike clover or sweet clover .....	2
Korean Lespedeza .....	2
Total .....	24

The main requirements in obtaining a stand of grasses are good seed and a good seed bed. Grass seeds are light and difficult to clean and therefore contain chaffy seed and impurities and seeds that will not grow. The best grade of seed is usually the cheapest in the long run.

It is very essential that the ground be in the best of condition before seeding. Grass seeds are small and contain a very small amount of reserve food for the young plant which is itself very delicate. The ground should be well supplied with moisture and available plant food, and in such physical condition as to make possible thorough shallow uniform covering of the seed. To be in the best condition the land should be plowed at least two or three months before seeding so that it will have plenty of time to settle and to store moisture. The surface should

## “YOUR NOSE KNOWS” WHEN THINGS ARE CLEAN

**The sense of smell is generally a fairly accurate indication of the efficiency of cleanliness.**

The sense of smell is a fairly accurate way of judging the efficiency of dairy cleansers. Washed surfaces which are not sweet smelling or absolutely odorless are actually not clean.

Dairy products of all kinds are easily affected by odors, and their market value seriously lowered. It naturally follows that cleaning materials which leave odors on washed surfaces are not profitable in dairies, creameries, and cheese factories.

For more than 30 years leading members of the Dairy Industry have found that Wyandotte Cleaner and Cleanser leaves washed surfaces absolutely odorless. Wyandotte washed surfaces are free from all foreign matter and also free of unrinsed cleaner. In addition, every pound of Wyandotte gives you a maximum amount of cleaning with a minimum of time and labor. Wyandotte gives quality cleaning at low cost.

Dairy authorities report that a cleaner which gives economical service should have other advantages aside from its ability to leave washed surfaces odorless. When they list their added advantages Wyandotte is found to more than meet their requirements.

Leading dairy supply jobbers in the United States and Canada will supply you Wyandotte Cleaner and Cleanser—one of the products of The J. B. Ford Company, Wyandotte, Michigan.

be mellow and loosened to a depth sufficient to cover the seed but below it should be firm enough to afford a good root hold for the young plant. Experience has shown that early fall or about September 1 is the best time to seed tame pastures, as this gives the plants an opportunity to become well established before the hot dry weather of the following summer. If moisture conditions are not favorable for seeding in the fall, it may be done in the early spring. For conditions in eastern Kansas seeding about 24 pounds per acre gives the best results for tame pasture mixtures.

The productivity and life of the tame pasture can be maintained by avoiding over grazing or too early grazing in the spring. The yield may also be increased profitably by an application of barnyard manure, or on some lands commercial fertilizers, mainly nitrates and phosphates. The growth of grass on old tame pastures in some types of soil may be stimulated by harrowing or disking in the early spring.

#### PROFESSOR REED RESIGNS

(Continued from page 77)

of Missouri in 1914 and at once became manager of a large estate where both pure-bred and market live stock were handled on a large scale and while he managed this farm it became famous for its prize winners and market toppers. The estate was sold in 1921 and Professor Reed came to K. S. A. C. for a short period of service in the Division of College Extension. He then went to the University of Arkansas as associate professor of animal husbandry. In 1923 he returned to K. S. A. C. as a member of the faculty of the Department of Animal Husbandry. One of his responsibilities was supervision of sheep work and he became recognized as the foremost authority of the country on sheep production. Practically all the leading sheep shows in the country have demanded his services as a sheep judge and at the Kansas National Live Stock Show at Wichita he built up the third largest sheep show in the country.

Last summer Professor Reed was transferred from the sheep to the beef cattle work of his department. Besides being a practical live stock man he is an able investigator and an inspiring teacher.

#### COLOR OF BEEF

(Continued from page 88)

after cooking varied widely. However, the beef produced on bluestem grass as compared with that produced on bluestem grass supplemented with corn, or corn and bluestem grass hay in the dry lot, was ranked as most desirable.

7. Beef fattened on bluestem grass with or without supplement can be ripened successfully, and the quality and palatability thereby improved.

The experiment is not as yet completed but insofar as the factors studied thus far are concerned, cattle fattened on Kansas bluestem grass pastures do not produce dark-cutting beef, but do produce a highly palatable and desirable class of meat.

#### ELEMENTS OF RURAL PROGRESS

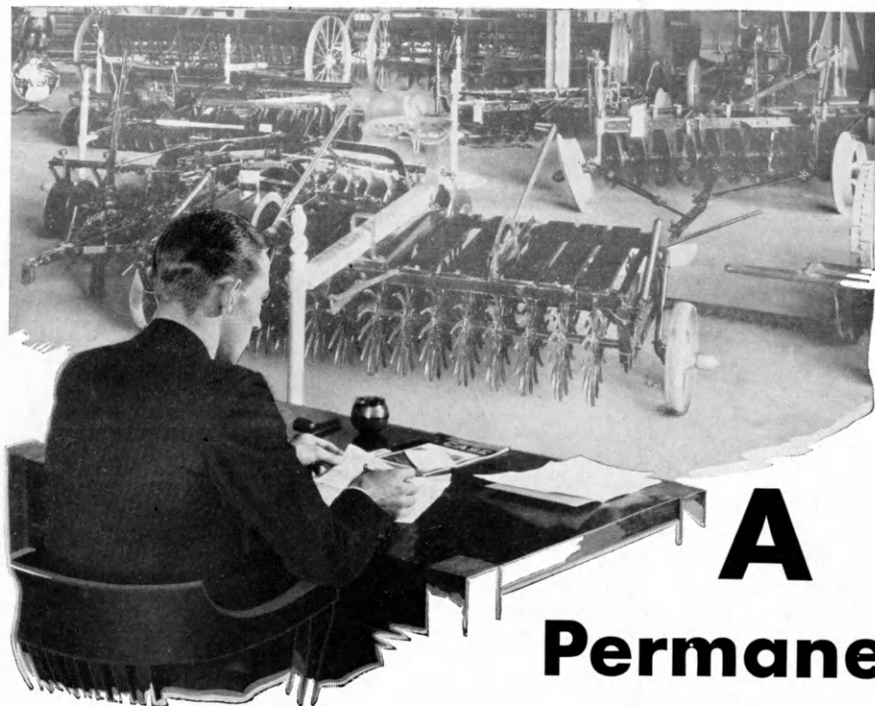
(Continued from page 68)

peoples of the world. Belief in this principle underlies the strong support provided by progressive people for education, especially technical education. The people of Ohio support their college of agriculture largely because it helps them to abide by the principle of the survival of the fittest. It helps them to make themselves more fit to overcome the obstacles that lie in the path of rural progress.

4. Ability to Meet Changing Conditions.—“The world do move.” Life might be easy if conditions never changed but it would be the reverse of interesting. Yet there seems to be a human tendency to seek complete rest; to look forward to a time when struggle will cease to be necessary and when conditions to which we have become accustomed will be inexorably fixed. But there is no complete rest so long as there is life. People or communities who refuse to accept this fact make little progress. Either they stand still or they retrogress while the rest of the world moves on.

Many farmers and some rural communities, even in the Middle-West, make futile attempts to avoid the results of changes in fundamental conditions. Such people or communities include those who keep scrub live stock, or use poor seed, or place all their dependence in a single crop or in a single live stock enterprise, or neglect crop rota-





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# CASE

tion and the conservation of the soil, or refuse to follow modern methods of controlling weeds, insect pests, and diseases of plants and of animals, or to practice modern methods of marketing.

But progressive individuals or communities recognize the futility of resisting fundamental changes and seek to adjust themselves to those changes. It seldom is easy to make the necessary adjustment but one must choose between making an adjustment and making a failure.

5. A Cooperative Spirit.—One of the most important elements of rural progress is the cooperative spirit. As civilization becomes more complex there is increased interdependence. Rural communities that make progress develop much cooperative activity. In such communities farmers work with one another to accomplish what they cannot do well or cannot do at all working individually; and groups of farmers work with people from the towns to accomplish what a farm group cannot well do by working alone. Rural people in America long since learned the advantages of cooperation in providing for schools and for local government. More recently they have begun to cooperate effectively in providing good roads and in the production and marketing of agricultural commodities. In almost innumerable instances involving either agricultural production or agricultural marketing it has been proved beyond question that, under certain conditions that are by no means uncommon, cooperation is feasible and that it does not destroy self-reliance but rather strengthens it. An increase in wise and effective cooperation is one of the outstanding features of rural progress the world over.

6. A Preference for Simple Living.—Farm life, if it is to be both happy and secure, usually must be comparatively simple. Moreover, it must be as little as possible commercialized. The more happiness and security a farmer can obtain without the expenditure of money the more likely he is to obtain them. Country life is attractive to so many people that the world never has a shortage of farmers; it often has a surplus, from the purely economic point of view. Because of this fact financial profits of good farming

seldom have been, and are not likely often to be, equal to the profits of equally good performance in the industries and commerce. This fact doubtless underlies a statement made by Ralph Waldo Emerson in a speech about the farmer: "His entertainments, his liberties, and his spending must be on a farmer's scale, and not on a merchant's." In detail, Emerson's statement may be a little out of date, but in principle it still is sound. People who do not honestly prefer simple living should not live on farms. People who do prefer it usually are able in the long run through the practice of good farming to provide that type of living with corresponding happiness and security.

One cannot long consider either happiness or security without considering the meaning of wealth. A common conception is that wealth consists of ability to buy things. Under this conception he is most wealthy who can buy the most things. But Henry D. Thoreau held a quite contrary view. He said that wealth consists of ability to do without things; and that he is most wealthy who can do without the most things. Somewhere between these two extremes each of us can find his own working definition of wealth. I should define it, nontechnically, as ability to satisfy one's wants.

And I know, as you know, that the people who have the most money are not the most happy. If only the possession of money insured happiness, millionaires and their wives and families would all be happy, and the rest of us probably would be the reverse. But we know that the possession of money does not insure happiness. We know that many of the most effective causes of happiness are things which cannot be bought with money; vigorous health, genuine friends, a zest for life and work and play, and numerous other precious possessions. The more clearly one recognizes this fact the more clear it becomes that a preference for simple living is a sensible preference and the more practical that preference appears to be as an element of rural progress.

7. Sales Resistance.—To be secure economically and to exercise a preference for simple living one must have vigorous sales resistance. Not long ago a boy in a Sunday

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# EXPLOSIVES

school class included "sales resistance" in his list of the cardinal virtues. As the technique of salesmanship "improves" the person lacking sales resistance becomes increasingly helpless. We must learn to buy intelligently and thoughtfully rather than emotionally or for the purpose of ridding ourselves of high-powered salesmen. There is reason to believe that sales resistance is better developed in the countryside than in the cities. Several bankers have told me that their urban patrons have been more victimized by excessive practice of installment buying than their rural patrons have. I think there is no doubt that intelligent sales resistance is an important element of rural progress, especially when we regard the latter from the standpoint of happiness and security.

8. Recognition of Rural Social Values.—One of the greatest futilities is to progress economically but to retrogress socially. Social decay does not always follow economic prosperity but it follows it often enough to prove that social progress does not necessarily follow economic prosperity. We all need to recognize consciously that we work and strive so that we may live better rather than that we live solely that we may work and strive.

If we live badly we are poor no matter how much money we have. Notwithstanding some evidence to the contrary, farmers of the Middle-West are recognizing more and more this principle of progress. They are building better homes and providing better home conveniences and comforts. They are demanding and getting more and better education for themselves and for their children. They are building better roads and using more comfortable methods of transportation. In short, they are living better.

All over the Middle-West there is a growing appreciation for beauty and a consequent increase of interest in the arts. This is notably true as it relates to the art of music. Most rural high schools now have orchestras, glee clubs, choruses, or other musical organizations. Many of them have active dramatic and literary societies. There are encouraging indications of a growing interest in good literature, in painting, and in architecture. We think and talk increasingly of better interior decoration in our homes and of more and

better gardens. All these changes constitute genuine rural progress.

The rural districts of America are potential centers of interest in beauty. It is to these rural communities—to the soil—that we must look for much of what is best in American aesthetics. The reason for this is indicated in Mr. H. W. Davis' poem, "Let There Be in America:"

"Let there be in America  
 A Beauty from the soil  
 A Truth from meadows and fields of grain.  
 "In city populous and cramped,  
 In town upstart and city-tending,  
 Man lives with man,  
 And works and plays with man-made things,  
 And thinks by man-made creeds.  
 Man—at every turn—  
 Finds only man  
 And puny works of man.  
 "In field and grove and stream,  
 On farmland, wasteland, prairie,  
 Man meets not man so much as God,  
 And learns to know and reverence  
 Whole-heartedly God's law.  
 Not only sustenance,  
 But peace and faith  
 Come from the field.  
 "Let there come of America  
 A Beauty born of the soil  
 A Truth upsprung from meadows and green fields."

The human qualities that I have discussed seem to me to have been among the elements of rural progress in the past. Indeed, I am convinced that qualities like these are among the dominant elements of rural progress. I am unable to see any reason why they should not be expected to dominate in the future.

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