

The KANSAS AGRICULTURAL STUDENT



VOL. IX, No. 4 MAY, 1930
MANHATTAN, KANSAS

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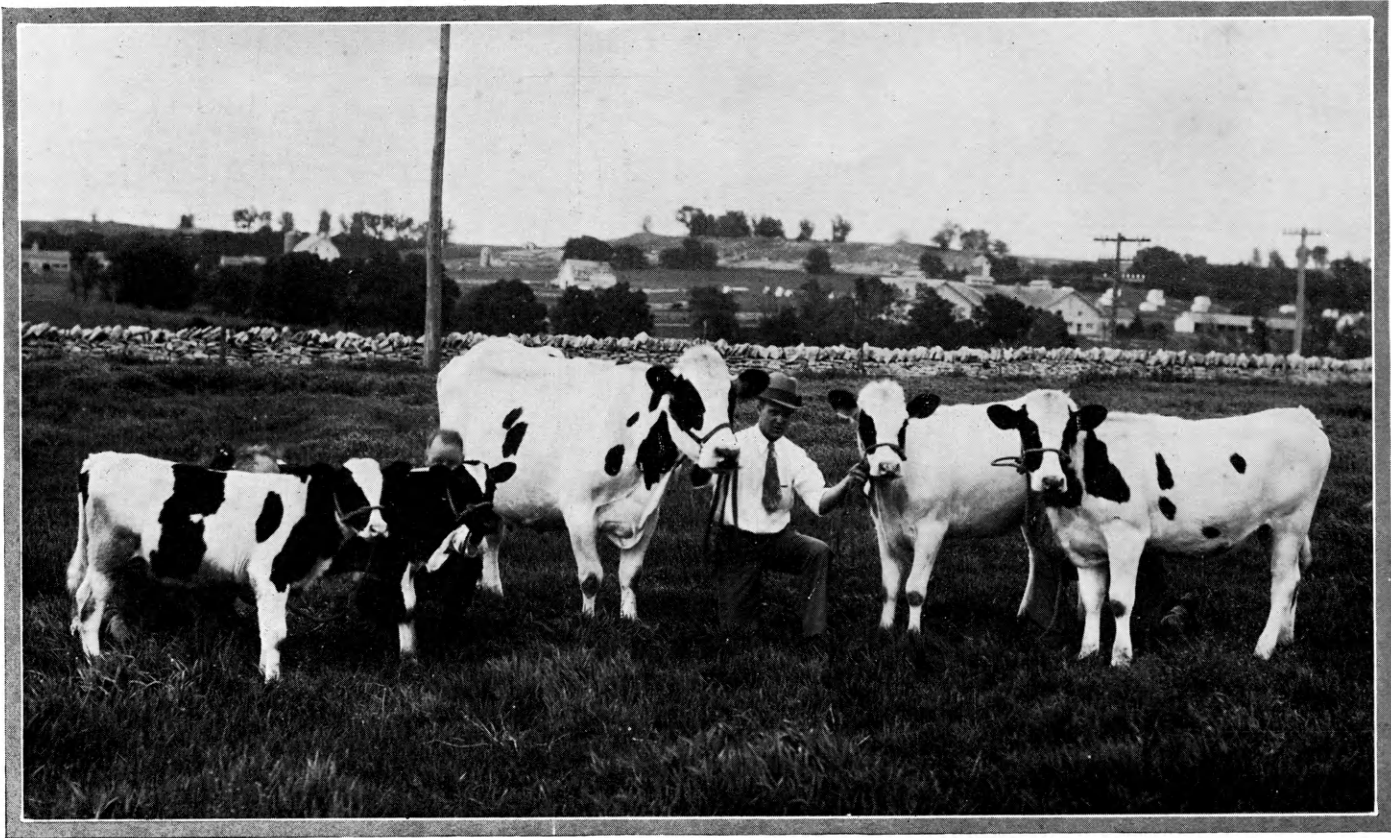
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EMPRESS STARLIGHT AND HER TWO PAIRS OF TWINS, THE PAIR TO THE RIGHT BEING ONLY 11 MONTHS AND 10 DAYS OLDER THAN THE PAIR TO THE LEFT

The Kansas Agricultural Student

VOL. IX

Manhattan, Kansas, May, 1930

No. 4

High Men in the K. S. A. C. Creep-Feeding Project

C. W. McCampbell

Head of Department of Animal Husbandry

During comparatively recent years many cattle feeders have started feeding calves as soon as they will eat and marketing them as finished fat cattle at 8 to 12 months of age. This method necessitates the maintenance of a cow herd and creep feeding the calves. Interest in creep feeding prompted the extension service of the college to begin a creep-feeding project in 1928. Approximately a score of feeders entered their cow herds in the project for 1929. Bruce Saunders of Holton was awarded first prize, and Fred Morgan of Alta Vista placed second. Statements of the work of this project as carried out by these two high men in 1929 will be of genuine interest to anyone interested in this phase of cattle feeding.

Holton, the home of Mr. Saunders, is in the Kansas blue grass region and Mr. Saunders depends upon blue grass for pasture. The average calving date of his calves was February 15, 1929. Creeps were provided and the calves had free access to grain at all times. They were weaned October 1 and full fed until November 4 (only 34 days), on which date they were shipped to the Kansas City market. They sold for \$16.25 per hundredweight, a new top for the year for all kinds and weights of commercial cattle. The selling weight was 668 pounds and the per head selling price \$108.55 at an average age of 8 months and 20 days. They dressed 59.9 per cent.

The total feed consumption per calf from birth to weaning (October 1), exclusive of grass and milk, was 13 bushels of corn. The total feed consumption per calf from birth until marketed was 17.3 bushels of corn, 50 pounds of mixed feed, 6 pounds of linseed

oilmeal, and 150 pounds of alfalfa hay. The total cost of this feed was \$17.87. Add to this feed cost \$3 to cover marketing and the total expense per calf becomes \$20.87. Subtract this total expense from the selling price per head, \$108.55, and \$87.68 per calf is left to apply on the cost of keeping the cow herd. Since Mr. Saunders raised and marketed a 100 per cent calf crop, \$87.68 represents the income per cow in his herd for the year 1929.

It is rather difficult to figure the exact cost of keeping a cow a year. Mr Saunders' figures are as follows:

Wintering

Alfalfa hay.....	\$10.00	
Winter pasture (blue grass)....	10.00	\$20.00
Summer pasture (blue grass).....	10.00	
Interest, taxes, and depreciation.....	7.50	
Bull service.....	2.00	

Total \$39.50

Subtracting the cow cost, \$39.50, as figured by Mr. Saunders from his gross income per cow, \$87.68, leaves a net profit of \$48.18 per cow. If one feels that more should be added to the cow cost considerable can be added and there will still be left a handsome profit on each cow. Mr. Saunders feeds his cows no grain—just blue grass pasture and alfalfa hay in the winter and blue grass pasture in the summer.

Mr. Morgan, who ranked second in the creep-feeding project for 1929, creep fed his calves, weaned them October 1, and full fed them until January 5 (96 days). They were sold on the Kansas City market January 6, 1930, for \$16.50 per hundredweight. The selling weight was 742 pounds per head, making the selling price per head \$122.43.

(Continued on page 101)

The Use and Misuse of Legumes

Raymond W. O'Hara, '30

Legumes are considered as soil improving crops and their production has been wisely recommended for this purpose. Many persons have assumed that the growing of a legume, even though the crop is cut for hay and removed from the field, will increase the nitrogen content of the soil and be of permanent benefit. Such a belief is not untrue in all cases, but it must be borne in mind that the mere growing of a legume, regardless of the method of handling the crop, will not insure an increase in the total nitrogen content of the soil.

The properly inoculated legume plant is able to obtain all the nitrogen it needs through the symbiotic relationship with the bacteria living in the nodules on its roots, provided suitable conditions are maintained. It has been demonstrated that inoculated plants given only a small quantity, or entirely deprived, of combined nitrogen in the soil, may develop equally well and at maturity contain as much nitrogen as uninoculated plants abundantly supplied with available nitrogen. Moreover, legumes are capable of utilizing nitrogen in quantities considerably larger than could possibly be obtained from ordinary soils for any appreciable length of time.

However, the fact that inoculated legumes can secure an abundance of atmospheric nitrogen does not mean that they will do so. Experiments conducted at the New Jersey Agricultural Experiment Station showed that both inoculated and uninoculated alfalfa and soybeans absorbed nitrate from the soil at practically the same rate. This means that legumes first utilize the available nitrogen in the soil and if the quantities thus obtained are not sufficient for their needs, inoculated legumes will secure additional nitrogen from the air. In all the New Jersey experiments, the amounts of nitrogen fixed were inversely proportional to the amounts of available soil nitrogen at the disposal of the plants. In other words, the more fertile the soil upon which the legume is growing, or the greater its supply of available nitrate, the less nitrogen will be fixed. On even a reasonably fertile soil, the quantity of nitrogen fixed

may not equal that in the tops of the plants, so that the removal of the crop for hay may result in a decrease in the total supply of soil nitrogen.

It will be readily seen that the effect of growing a legume crop upon the nitrogen content of the soil is dependent upon the per cent of the total nitrogen in the plant which has been obtained from the air, and also upon the per cent of nitrogen in the plant which is found in the tops compared to the per cent which is left in the roots and stubble when the crop is harvested for hay. The per cent of nitrogen obtained from the air varies widely, depending upon the crop, the fertility of the soil upon which it is grown, the thoroughness of inoculation, etc. Hopkins, of Illinois, estimated that on the average about one-third of the nitrogen contained in legume plants is taken from the soil and two-thirds from the air.

In an experiment with soybeans, Fred found that 87 per cent of the total nitrogen of the entire crop was secured from the air; also, 87 per cent of the total nitrogen was found in the tops, so that the removal of the crop for hay would not change the total nitrogen content of the soil. Smith and Robinson report that in inoculated soybeans, only 9 per cent of the nitrogen was found in the roots. In this case, if 87 to 90 per cent of the nitrogen of the crop was secured from the air, harvesting the crop for hay would result in a small loss of nitrogen to the soil. In another experiment it was found that 17 to 21 per cent of the total nitrogen of soybeans was in the roots, so that were 87 per cent of the nitrogen secured from the air, a 2½-ton crop would cause an increase of from 7 to 14 pounds of nitrogen per acre from the roots alone. In the New Jersey experiments the per cent of the total nitrogen in the plants which was obtained from the air varied from 93.1 to 77.7 per cent, as the application of nitrates was increased. The proportion of the nitrogen found in soybean roots and stubble averaged 8.4 per cent, there being no apparent correlation between the amount of available nitrate in the soil and the proportion of nitrogen in the roots. Therefore, only

when no nitrates were added and the nitrate content of the soil was very low could the production of a crop of soybeans for hay be expected to increase the nitrogen content of the soil.

As alfalfa is perennial and therefore has a more extensive root system, a much larger proportion, varying from 30 to 50 per cent, of the total nitrogen in the plants is found in the roots. In experiments involving varying applications of sodium nitrate, the per cent of nitrogen obtained from the air varied from 83 to 86 per cent, when only enough nitrates were supplied in the soil to produce the first crop and establish the nitrogen fixation process, to 14.4 per cent when an abundance of available nitrogen was supplied throughout the life of the plant. It is evident from these figures that the production of alfalfa for hay may result either in considerable gains in total soil nitrogen or in appreciable losses, depending upon the amount of nitrates supplied by the soil. Another factor is the fact that one root system produces many hay crops, so that the per cent of the plant's total nitrogen in the roots at any one time will be much higher than the actual per cent of the total nitrogen assimilated which actually remains in the soil. To offset the removal of hay crops, there is the continual sloughing off and decay of parts of the roots and the consequent return of nitrogen to the soil. Considering all factors, it is doubtful if the growing of alfalfa and removing the crop for hay will increase the total nitrogen content of the soil in many cases.

Such statements and conclusions should not discourage the production of legumes on Kansas farms. If the nitrogen content of the soil is only kept constant or even if small losses occur, the production of legumes is much to be preferred from the standpoint of conserving soil nitrogen than grain crops, which are sure to remove considerable quantities of this valuable plant nutrient. Crops grown after legumes nearly always give greater yields due to the increased quantities of available nitrates brought about by the decay of legume roots in the soil, whether the total nitrogen is increased or not. With the constantly decreasing nitrogen content of

our cultivated soils, the question of available nitrogen, which can be immediately utilized by the plant, is of more vital concern to the farmer than the total nitrogen contained in the soil.

The utilization of legumes for purposes other than hay offers possibilities of adding nitrogen to the fields. If animals are pastured on legumes, nearly all the nitrogen of the entire crop is returned to the soil, as about 87 per cent of the nitrogen consumed by live stock in their feed is excreted in the manure. The plowing under of a legume as a green manure crop is a rapid method of building up the soil nitrogen supply. Even where the crop is cut for hay and fed to live stock, as much as 70 per cent of the nitrogen in the hay may be returned to the soil by careful utilization of all manure. Such a system offers one of our most practical methods of maintaining soil fertility.

While the growing of a legume without any consideration of its use does not mean that the soil will be improved, the production and careful utilization of good crops of legumes are a distinct aid in maintaining the productivity of land. These valuable feed crops offer possibilities that should not be overlooked by Kansas farmers.

CREEP-FEEDING PROJECT

(Continued from page 99)

They dressed 59.1 per cent.

Most of the Morgan calves were dropped in January and February and the feed consumption per calf from birth to weaning, exclusive of milk and grass, was 10.5 bushels of corn. The total feed consumption per calf from birth until marketing was 32.23 bushels of corn, 75 pounds of cottonseed meal, 450 pounds of alfalfa hay, and 60 pounds of prairie hay. The total cost of feed consumed was \$33.81. The total expense per calf was \$33.81 for feed and \$3 to cover marketing costs, or \$36.81. Subtract this total expense from the selling price per head, \$122.43, and \$85.62 per calf is left to apply on the cost of keeping the cow herd.

Mr Morgan figured his per head cow costs as follows:

Wintering

Silage, 4,500 pounds at \$4 per ton \$9.00

(Continued on page 126)

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OPPORTUNITIES FOR AGRICULTURAL GRADUATES

What are the opportunities for a young man trained in agriculture? This is a question asked by hundreds of young men finishing high school this year who are looking forward to further training in college. The answer is that agriculture apparently promises more opportunities in the future than it presents today or has presented in the past. The young man beginning the preparation for his life's work who was raised on a farm and who has had the advantage of his father's training, guidance, and experience will choose wisely if he decides to continue to train himself for a life of opportunity and service in agriculture.

It has been said by those who are students of agricultural history that there has been no period of time when there was as rapid educational development among rural people as during the past quarter century. This development is the result of the far-sighted policy on the part of our federal and state governments which has established agricultural colleges, agricultural experiment stations, agricultural extension service, and instruction in agriculture of a practical nature in federal and state supported high schools.

These accomplishments were not accidental or matters of chance, but were brought about as a result of the insistent demand upon the part of the people.

This desire for education and service has created a demand for professional workers trained in agriculture, competent to give this type of instruction and capable of rendering these services. Since the number of young men who are now training themselves in agriculture is not keeping pace with the prospective demand, there will apparently develop a more acute dearth of professional workers in agriculture in the near future than exists at this time.

It is expected that within the next ten years 200 vocational agriculture teachers will be needed in Kansas and that to maintain this personnel will require annually at least 40 graduates in agriculture. Public extension work in agriculture will within 10 years have a personnel of 175 with an annual requirement of not less than 30 graduates. Business serving agriculture is drawing more heavily each year upon the graduates of agricultural colleges for trained personnel. Many graduates are now entering this field of service. Approximately one-third of the agricultural graduates return directly to the farm.

This proportion should not diminish. Therefore, any young man now finishing high school with a background of agricultural experience and an interest in college training in agriculture should not hesitate to choose to study agriculture in college. The opportunities in this field appear to be exceptionally promising for the future.

—L. E. Call, Dean
Division of Agriculture

ASK FOR A COLLEGE CATALOGUE

The college catalogue for 1930-'31 came from the press early this month. It is a book of 342 pages. Naturally the cost of such an annual publication is such as to preclude general distribution. However, everyone interested should and may have a copy available. A postal card request will bring results promptly.

Agricultural curricula, courses offered in departments strictly agricultural, and other information pertaining primarily to college work in agriculture are discussed under the heading, "The Division of Agriculture," pages 100 to 126 of the catalogue.

The two most popular agricultural curricula are the Curriculum in Agriculture and the Curriculum in Agricultural Administration. These are curricula providing 40 to 50 per cent of the work in elective groups and thus adaptable to meet scores of objectives and different individual needs. A limited number of substitutions are also permissible, especially in the Curriculum in Agriculture, to meet certain well defined objectives.

Typical suggested curricula fully outlined to show possible choices of electives to provide training for a score or more of different purposes are available on request. The list includes outlines of the Curriculum in Agriculture adapted to provide **Special Training** for:

1. Power farming.
2. Diversified farming or county agricultural agent work.
3. Live stock farming.
4. Poultry production.
5. Dairy production.
6. Crop production.
7. Soil management or soil research.

8. The technical phases of the business side of agriculture.
9. Horticultural extension service and practical fruit growing.
10. Vegetable gardening and floriculture.
11. The production, processing, and distribution of meats.
12. Marketing poultry products.
13. The manufacturing of dairy products.
14. Insect control or entomological research.
15. Professional work or graduate study in pomology.
16. Animal breeding.
17. Professional work in plant breeding.
18. Professional work in pasture improvement.
19. Research or control work in plant pathology.
20. Agricultural chemistry.

Typical curricula are also outlined in the Curriculum in Agricultural Administration adapted to provide **Special Training** for:

1. Large scale farming where the business problems are outstanding.
2. Rural financing.
3. The teaching of vocational agriculture.
4. Agricultural journalism.
5. A business dealing primarily with grain or grain products.

If some of these or other related agricultural objectives interest you as a prospective student or in behalf of some prospective student, write for a full set of the outlines or for any one or more which you would like to receive. Write for a catalogue also if you haven't one at hand. Address, Dean, Division of Agriculture, K. S. A. C., Manhattan, Kansas.

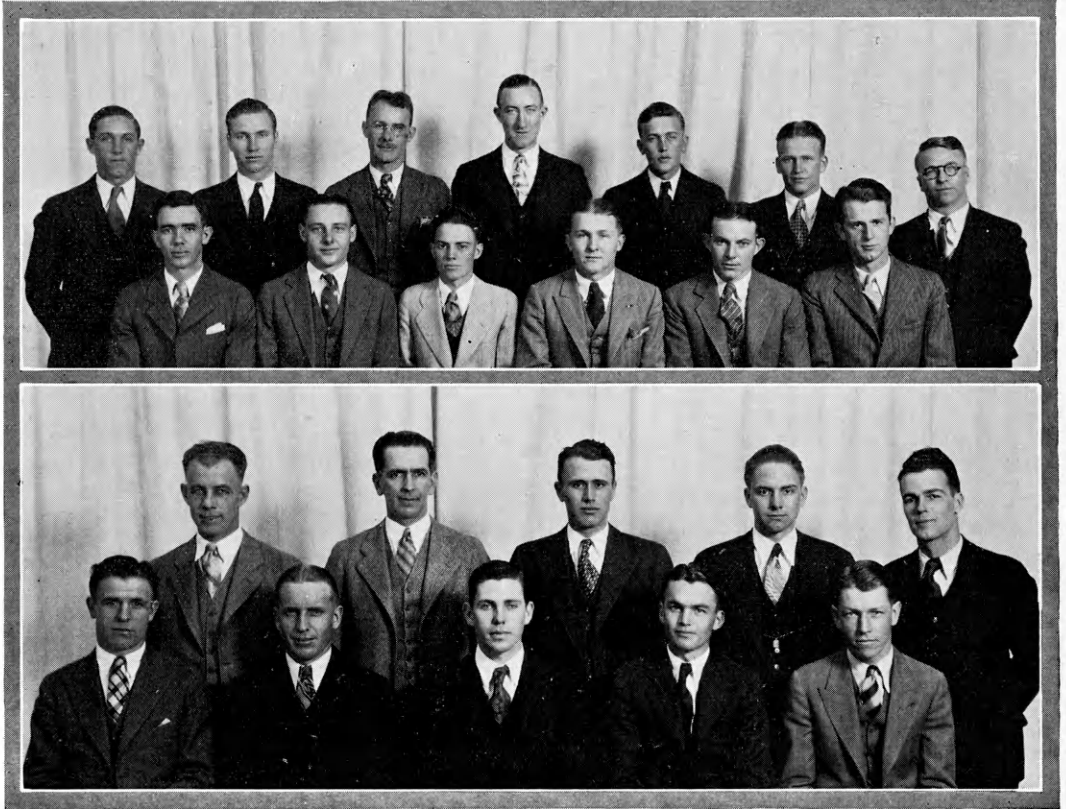
PRESENT AND PROSPECTIVE ENROLLMENT IN AGRICULTURAL CURRICULA

The year 1929-'30 has been a good year for the Division of Agriculture in Kansas State Agricultural College. Our total enrollment for the year was 461 compared with 421 for the college year 1928-'29. The increase practically all came in the lower classes, the majority being in the freshman class. For both

semesters the total number taking out a freshman assignment for the first time was 156, compared to 140 for the previous year.

Fifty-nine young men will be graduated with the degree bachelor of science in agriculture May 29, 1930. The same number were graduated at a corresponding commencement in 1929. The summer session of 1929 added

The senior class for next year will probably be about the same size or even smaller than the senior class this year. We will do well if we have as many candidates for the degree bachelor of science in agriculture in 1931 as we had in 1930. The classes of 1932 and 1933, however, should show distinct increases over previous classes. We are hoping that



AGS ELECTED TO ALPHA ZETA IN 1930

Upper group, those elected in the first semester: Seated, left to right—Leland M. Sloan, John L. Wilson, Miner R. Salmon, Ralph F. Germann, William G. Nicholson, and Kenneth M. Gapen. Standing—Alonzo Lambertson, Alva M. Schlehuber, Henry W. Gilbert, George D. Oberle, Ray M. Hoss, Carl Williams, and Harvey E. Hoch. Lower group, those elected the second semester: Seated, left to right—Charles Mantz, Frank Zitnik, Charles W. Nauheim, Jay R. Bentley, and John B. Hanna. Standing—Warren D. Moore, Raymond G. Frye, W. Loy McMullen, Will M. Myers, and H. Leonard Stewart.

seven to the list of agricultural graduates, making the total number for the year, 66. According to present plans, nine young men should be graduated from the division July 31, 1930, at the summer school commencement, thus making the total number of 1930 graduates 68.

our freshman class next year will start out 200 strong instead of 150 strong as did the freshman class last September.

AG PHI KAPPA PHIS OF 1930

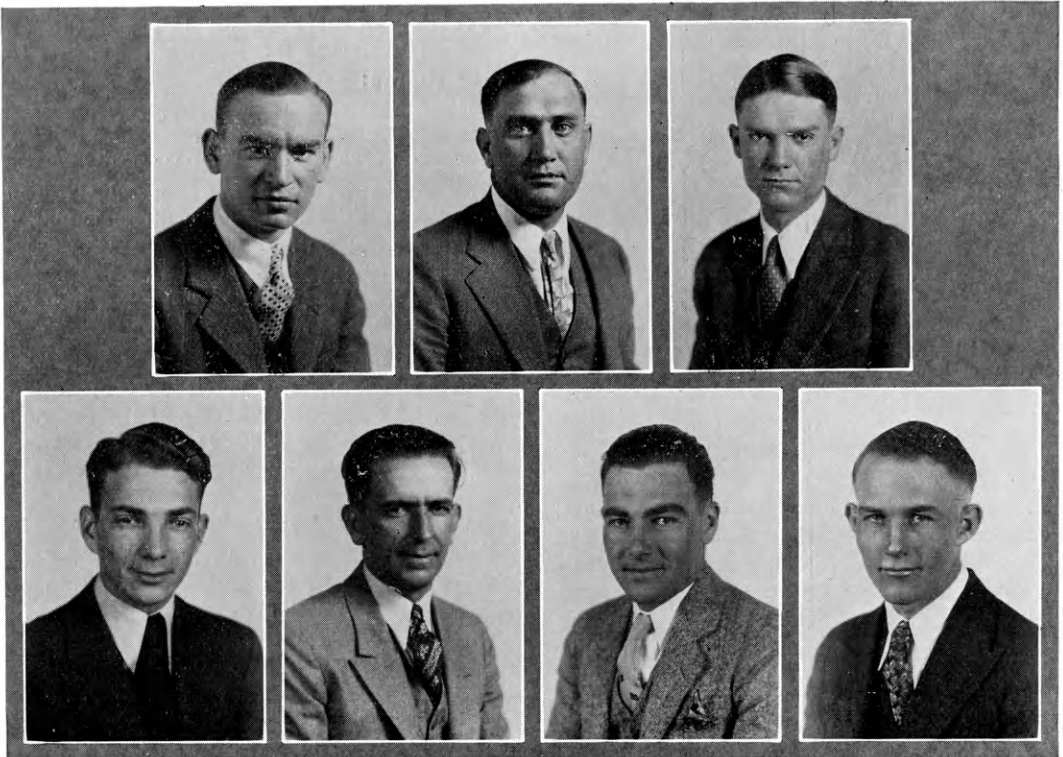
Phi Kappa Phi is an honorary scholastic society that seeks out and gives special recog-

dition to those who, as shown by their college work, have high mental ability.

Two elections to membership are made each year. During the fall semester those ranking in the upper 5 per cent of their class are chosen; during the spring semester the next highest individuals are chosen to bring the total up to 10 per cent of the senior class.

The seven men shown in the accompanying

in scholarly endeavor, but they have been active in extra-curricular activities as well. Two have been members of live stock judging teams; two, members of the dairy cattle judging teams; two have represented the college in grain judging; one, in meats judging; and one, in poultry judging. Along with the work have been departmental club activities, other professional societies, social organizations,



AG PHI KAPPA PHIS

These are the top-notchers in scholarship in the class of 1930, Division of Agriculture, K. S. A. C. Top row, upper 5 per cent, left to right: Louis P. Reitz, John J. Curtis, and Raymond W. O'Hara. Bottom row, left to right: Oliver G. Lear, Raymond G. Frye, Walter P. Powers, and Fredrick H. Schultis.

illustration are the high men scholastically among the Ag seniors of 1930. Those elected in the fall were: J. J. Curtis, Toronto; R. W. O'Hara, Blue Mound; and L. P. Reitz, Belle Plaine. Those elected in the spring were: R. G. Frye, Freeport; O. G. Lear, Stafford; W. P. Powers, Netawaka; and F. H. Schultis, Sylvan Grove.

Not only have these men been outstanding

etc., all representative of well-rounded college training.

ALPHA ZETA

The Kansas chapter of Alpha Zeta holds one election to membership each semester. As a minimum requirement for membership a student must have completed three semesters of college work with an average scholar-

ship high enough to place him in the upper two-fifths of his class. Obviously, two-fifths of the members of each class are not elected to membership in Alpha Zeta. Additional qualities are considered. A man must be prominent in at least one activity and thus give promise of leadership. He must be congenial and likeable, and have other qualities that fall under the criteria of character. Election, therefore, to membership in Alpha Zeta is to be coveted.

Those elected to Alpha Zeta during the spring semester were:

Seniors

- Raymond G. FryeFreeport
- Charles MantzPratt
- Warren D. MooreCopeland

Juniors

- John B. HannaClay Center
- W. Loy McMullenOberlin
- H. Leonard StewartVermillion
- Frank ZitnikScammon

Sophomores

- Jay R. BentleyFord
- Will M. MyersBancroft
- Charles W. Nauheim ...Hoyt

—L. P. R., '30

SOPHOMORE HONORS

We are all interested in the high students—the scholastic leaders in each class. The results of the figuring of averages of the high sophomores of the Division of Agriculture will be announced on commencement day as usual, the upper 5 per cent of the class being granted sophomore honors. Those to receive these honors, their credits earned, their honor points, and their average scholarship standing to date are as follows:

Name	Credits	Honor	
		Points	Average
Will M. Myers.....	51	140	2.74
Charles W. Nauheim....	49	124½	2.54
R. Boyd Cathcart.....	46	111	2.41
Jay R. Bentley.....	49	116½	2.30
Tom D. Dicken.....	47	108½	2.30
Leland M. Sloan.....	66	147	2.22

AG ASSOCIATION OFFICERS

At the last meeting of the Ag Association, officers for 1930-'31 were elected as follows:

- William G. Nicholson, Neal.....President
- Keith B. Dusenbury, Anthony....Vice President
- Earl B. Regnier, Spearville.....Secretary
- Ebur S. Schultz, Miller.....Treasurer

The Ag Fair board chosen for the 1931 Ag Fair is as follows:

- Fulton G. Ackerman, Lincoln.....Manager
- Will M. Myers, Bancroft.....Asst. Manager
- Bruce R. Taylor, Alma.....Treasurer
- Charles W. Nauheim, Hoyt.....
-Fourth Member of the Board

Mr. Ackerman was regularly promoted from assistant manager to manager. Mr. Taylor was likewise a member of the board for the 1930 fair.

For the Ag Barnwarmer this fall the Ag Association elected the following students to be in charge:

- H. Leonard Stewart, Vermillion.....Manager
- W. Loy McMullen, Oberlin.....Asst. Manager
- George S. Brookover, Eureka.....Treasurer

The Ag Association annually elects also the editor-in-chief and the business manager for the Ag Student. For 1930-'31 the association elected:

- Alonzo Lambertson, Fairview...Editor-in-Chief
- Carl Williams, Dodge City....Business Manager

All of these men are known as men who get things done. The spirit of cooperation and boosting was never better in the division and the outlook for 1930-'31 is full of promise for an outstanding year.

THE NEW AG STUDENT STAFF

Next year the Kansas Agricultural Student is certain to be in the hands of a group of as good leaders in the division as could have been selected. The new staff is as follows:

- Alonzo Lambertson, Fairview...Editor-in-Chief
- Charles W. Nauheim, Hoyt....Associate Editor
- Carl Williams, Dodge City....Business Manager
- Gaylord R. Munson, Junction City.....
-Asst. Bus. Mgr.

- Ralph F. Germann, Fairview.....College Notes
- Laurence A. Peck, Soldier.....Alumni Notes
- John B. Hanna, Clay Center.....Farm Notes

Departmental Staff

- Harvey E. Hoch, Alta Vista.....
-Agricultural Economics
- Will M. Myers, Bancroft.....Agronomy
- Bruce R. Taylor, Alma.....Animal Husbandry
- Richard W. Stumbo, Bayard..Dairy Husbandry
- Wilmer A. Meyle, Holton.....Horticulture
- Leroy A. Wilhelm, Arkansas City.....
-Poultry Husbandry

F. J. Habiger, '99, who was cited as a Kansas Master Farmer in 1928, is farming near Bushton.

COLLEGE NOTES

PECK AND THOMSON WIN AGGIE DAIRY JUDGING CONTEST

Lawrence A. Peck, Soldier, and Arthur C. Thomson, McCune, were the winners of the Student Dairy Judging Contest held at the college Saturday, April 12. Peck, a junior in agricultural administration, won the senior division award with a score of 983 out of a possible 1,200 points; Thomson, a freshman, defeated the other entrants of the junior division with a score of 1,070 out of the same possible score.

Seventy-four students took part in the contest, making it one of the largest contests of this nature ever featured in K. S. A. C. The contestants were classified according to the training they had received in dairy judging. All students who had or were taking the course offered in advanced dairy judging were entered in the senior division, while those who had not received such training were entered in the junior division. Eight classes of dairy cattle were judged and reasons were given on four of them.

The high honors in each division carry with them the award of a silver loving cup; that of the senior division being awarded by the Beatrice Creamery Company's branch office at Topeka, Kan., and that of the junior division being awarded by the Fairmount Creamery Company at Omaha, Nebr. The K. S. A. C. Dairy Club, sponsoring the contest, obtained some thirty other selected prizes which were awarded for lower placings.

Other winners in the senior division in order of their rank were: George Gillespie, Welda; K. V. Engle, Abilene; Ebur S. Schultz, Miller; Will M. Myers, Bancroft; Harold B. Harper, Fort Scott; J. A. Terrell, Syracuse; H. A. Goff, Manhattan; Joe H. Greene, Beverly; Carl Williams, Dodge City; and Dick A. Dodge, Manhattan. Other winners in the junior division in the order of their rank were: Forrest E. Booth, Fairview;

F. Dean McCammon, Oronoque; Ben C. Kohrs, Dalton; Raymond A. Johnson, Yates Center; Raymond J. Cohorst, Marysville; Earl H. Johnson, Norton; C. Gross Page, Norton; C. Raymond Hogle, Miller; Elery L. Collins, Fontana; and Dallus D. Alsup, Frontenac.

Myers was high individual in the judging of Ayrshires, scoring 295 out of 300 points, with Raymond J. Cohorst second. George Gillespie was first on Guernseys with a score of 285 out of 300, and Terrell was second. Booth placed first on Holsteins with 292 points, while Thomson was second with 290 points. Thomson was also high on Jerseys, scoring 280 points, with Raymond A. Johnson second.

A desk pen set, offered for high man on reasons, was won by Terrell, who made a score of 345 out of a possible 400. Other ranking men on reasons were Myers, 338; Schultz, 327; and Engle and Leonard A. Rees, 305.

The contest prizes were presented at a banquet given by the Dairy Club on April 22. The banquet was a new event in the Dairy Club program, the purpose of which was both to award the prizes and recognize the out-going seniors of the Department of Dairy Husbandry. It is thought the banquet will be made an annual event hereafter.

—R. W. S., '31

STUDENTS' CROPS JUDGING CONTEST

In the twelfth annual Students' Crops Judging Contest held Saturday, April 26, 1930, William J. Braun of Council Grove won first place in the senior division, W. M. Myers of Bancroft won first place in the junior division, and Lester R. Chilson of Oberlin won first place in the freshman division. Large silver loving cups donated by the Kansas City Board of Trade were given to the winners in the senior and in the junior divisions.

In the senior division Ebur S. Schultz of

Miller placed second, L. M. Sloan of Leavenworth, third, Alva M. Schlehuder of Durham, fourth, George D. Oberle of Carbondale, fifth, and Francis J. Raleigh of Clyde, sixth. J. E. Taylor of Manhattan was first in judging, Francis J. Raleigh of Clyde, first in grading, and William J. Braun of Council Grove, first in identification.

In the junior division O. M. Hardtarfer of Lawrence placed second, Luther A. Jacobson of Horton, third, F. R. Freeman of Kirwin,

both identification and grading.

The Students' Crops Judging Contest is sponsored by the Klod and Kernel Klub of the college. The prizes given were contributed by organizations interested in promoting the study of farm crops. The contest is divided into three divisions so that men who have had equal training are placed in the same group. Fifty-seven students entered the contest. The scores made this year were exceptionally high, showing that much



THE 1930 AG FAIR BOARD

From left to right: Francis J. Raleigh, manager; S. Roger Stewart, treasurer; Bruce R. Taylor; and Fulton G. Ackerman, assistant manager.

fourth, T. R. McCandless of St. John, fifth, and Sterle E. Dale of Protection, sixth. Harland Stevens of Rossville was first in judging and W. M. Myers of Bancroft was first in both grading and identification.

In the freshman division C. Gross Page of Norton placed second, Raymond J. Cohorst of Marysville, third, and Glenn S. Fox of Rozel, fourth. C. Gross Page was first in judging and Lester R. Chilson of Oberlin was first in

work was done by the contestants prior to the contest.

—J. J. C., '30

TENTH ANNUAL AG FAIR

"All right, all right, make way for the 1930 Ag Fair parade—step right this way for the black-face minstrel show just inside the second door of the west Ag building—up two flights for the follies, see the chorus dance



DEPARTMENTAL FLOATS AND SCENES IN THE AG FAIR PARADE

and sing—in the north pavilion is the dance and in the south half are located all the educational exhibits.” These and more humorous cries were heard on the north end of the Kansas State Agricultural College campus from noon until midnight on Saturday, May 3, 1930, by the members of the Ag Fair ballyhoo committee.

Although there was a small deficit for the performance as a whole, psychologically speaking, the 1930 Ag Fair was a success, according to Francis J. “Pat” Raleigh, student manager, in charge of the tenth annual one-day celebration. The follies, the minstrels, the concessions, and the side-shows made fairly good financial returns. Even though there was a competitive student varsity held Saturday evening, the Ag Fair dance was crowded. This year’s dance platform was laid in the north half of the judging pavilion as insurance against the annual soaking which the dancers have invariably received.

Featuring the 1930 Ag Fair were the afternoon attractions held on the intra-mural baseball field, northwest of the main buildings. These consisted of an old Ford race, a riding contest for women, and a push-ball game between specially selected teams taken from the agricultural and engineering divisions. The push-ball game developed into an interesting and hard-fought battle, according to the onlookers. The final score was a tie, 1 to 1.

The parade, starting at the east Ag building at 11:30, passed through Aggieville and the chief business streets of Manhattan. It was led by the K. S. A. C. band and contained 11 floats, arranged by various departments in the agricultural division and those closely associated. Comments from students and towns-people who have witnessed previous Ag Fair parades gave credit to the student committee chairman for arranging a complete and unusual parade.

Debunking Dr. J. R. Bunkley, Mill Bank, Kan., was the theme of the follies show. The minstrels, a black-faced sketch, was an organized joke book. Both Gapen and Reitz, coaches of the two shows, have had considerable experience along these types of burlesque entertainment.

A cup was given the department having

the best educational exhibit—judgment being based on general educational values and completeness. The cup was won by the Department of Agronomy.

As for attendance, one cannot say that it was the largest in history, but it was receptive to all the offerings of the agricultural students.

Individual mention of hard work is not necessary because without exception, every Ag Fair committeeman shouldered his burden without an argument. “Credit should also be given,” said Dean L. E. Call, “to the other students who assisted in making the shows, the stages, the booths, and the fair in general what it was.”

The student committeemen are as follows:

Educational Exhibits...	Harland Stevens, L. M. Sloan
Follies	K. M. Gapen
Minstrels	L. P. Reitz
Afternoon Attractions..	J. A. Terrell, Carl Williams, Alonzo Lambertson
Parade	R. W. O'Hara, Leonard Stewart
Concessions	C. P. McKinnie, E. H. Johnson
Publicity	M. R. Salmon, A. H. Ep- erson, W. M. Myers
Side Shows	W. D. Moore, J. K. Kim- ball
Signs	E. A. Templeton, J. R. Bentley
Police	E. O. Habiger
Ferris Wheel	H. F. Axtell, A. M. Schle- huber
Saloon	G. C. Isaac, S. E. Alsop
Eats	W. P. Powers, L. A. Eastwood
Dairy Counter	R. W. Stumbo, J. G. Bell
Lights	J. W. Decker, L. A. Jacobson
Dance	R. M. Hoss, G. S. Brook- over
Ballyhoo	J. E. Taylor, J. D. Smer- chek
General Fence	J. H. Greene, T. D. Dicken
Crazy House	M. M. Taylor, L. A. Peck
Live Stock Show	W. G. Nicholson, E. S. Sullivan
Striking Machine	B. C. Kohrs, R. B. Cath- cart
Transportation	H. L. Fry, J. S. Boyer
Guide Book	G. D. Oberle, H. R. Brad- ley

—K. M. G., '30

Henry Rogler, '98, of Matfield Green, is in the cattle business. He has two hundred heifers of his own and is also looking after sixteen hundred others.

THE STATE HIGH SCHOOL VOCATIONAL AGRICULTURE JUDGING CONTEST

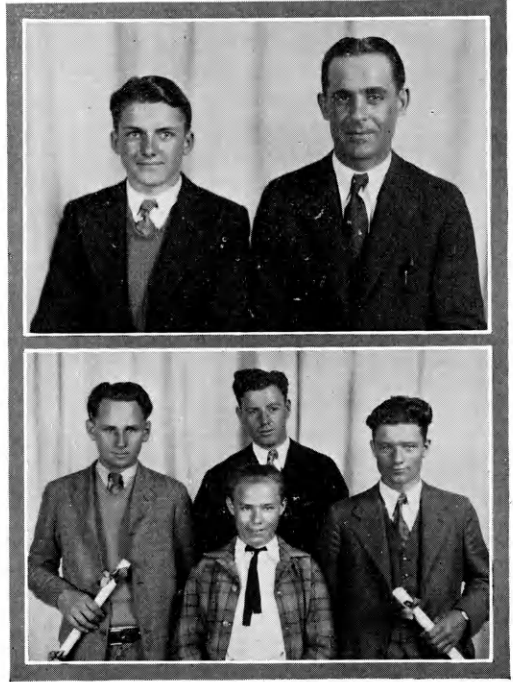
The tenth annual State High School Vocational Agriculture Judging Contest was held Monday and Tuesday, April 28 and 29, 1930. The contest this year showed a material increase in size in spite of unfavorable weather and road conditions, proving the increasing popularity of the contest and showing the determination of the contestants and their coaches to take part in worth-while activities. Last year 71 schools were entered and 213 contestants took part in one or more of the four sections of the contest. This year 80 schools took part in one or more sections of the contest, though one school entered but two students, thus making the total number of entrants 239.

The contest was divided into four sections. Section I, Dairy Husbandry Judging, consisted of placing and writing reasons for four classes of dairy cows. Section II, Animal Husbandry Judging, consisted of placing two classes each of horses, beef cattle, sheep, and swine, and writing reasons on one class of each kind of animals. Section III, Grain Judging, consisted of the identification of grain and forage crops, weeds, weed seeds, and plant diseases; commercial grading of wheat, oats, barley, grain sorghums, shelled corn, and rye; and judging the seed and market value of alfalfa seed, ear corn, and wheat. Section IV, Poultry Judging, consisted of placing four classes of poultry for past production and a written examination covering several of the standard breeds of chickens.

In Sections I and II, 50 points were allowed for placings, and 50 points for reasons, making a total possible score of 400 points in Section I, and 600 points in Section II. In Section III there were eight classes, each given an allowance of 100 points, making a total of 800 points. In section IV, 75 points were allowed for each class and 100 points for the examination, making a total of 400 points. This would make a possible individual total of 2,200 points for the entire contest, and a possible team total of 6,600 points.

Prizes were awarded to the team and to the individual making the highest score in the entire contest, and to the teams and in-

dividuals making the highest scores in each section of the contest. Ribbons were awarded the first five teams and individuals in each case. Therefore, each team and each individual showing outstanding ability in the entire contest or in any section of it received proper recognition. The President's prize—a parchment certificate—awarded the team making the highest score in the entire contest was



WINNERS IN STATE HIGH SCHOOL JUDGING CONTEST

Above: Lewis Evans of Washington, high contestant in the entire contest, scoring 1,604 out of a possible 2,200 points, and H. H. Brown, coach. Below: The winning team from the Chase County Community High School (Cottonwood Falls) and H. L. Murphey, their coach. From left to right the three students on the team are: Dave Sharp, Bernerd Hodgkins, and Loraine Burns.

won by the Chase County Community High School, H. L. Murphey, coach, competing against 51 teams throughout the entire contest. The Dean's prize—a parchment certificate—awarded the individual making the highest score in the entire contest was won by Lewis Evans, Washington High School, H. H. Brown, coach, competing against 161 individuals throughout the entire contest.

Teams and individuals ranking first to tenth in the entire contest with their scores are given in the accompanying table.

The team ranking highest in each section of the contest received a parchment certificate from the department sponsoring that section of the contest. These certificates were won by teams as follows: The Dairy Department prize was won by the Chase County Community High School, H. L. Murphey, coach, competing against 74 teams; the Animal Husbandry Department prize was won by the Hill City Rural High School, S. S. Bergsma, coach, competing against 74 teams; the Agronomy Department prize was won by the Wamego High School, H. A. Myers, coach, competing against 61 teams; and the Poultry Department prize was won by the Lawrence High School, W. R. Essick, coach, competing against 63 teams. The teams ranking first to fifth in each section with their scores are given below.

HIGH TEAMS IN EACH SECTION OF THE CONTEST

High School	Sec.	Score	Coach
Chase Co. Com. H. S.	I	929	H. L. Murphey
McDonald R. H. S.	I	897	C. K. Fisher
Clay Co. Com. H. S.	I	895	Edwin Hedstrom
Washington H. S.	I	884	H. H. Brown

Saffordville H. S.	..	I	884	P. W. Russell
Hill City R. H. S.	..	II	1,312	S. S. Bergsma
Ottawa H. S.	.....	II	1,260	C. O. Banta
Frankfort H. S.	...	II	1,217	H. F. Irwin
Clay Co. Com. H. S.	..	II	1,186	Edwin Hedstrom
McDonald R. H. S.	..	II	1,173	C. K. Fisher
Wamego H. S.	.....	III	1,732	H. A. Myers
Lawrence H. S.	.....	III	1,592	W. R. Essick
Decatur Co. Com. H. S.				
		III	1,579	S. H. Howard
Manhattan H. S.	...	III	1,566	H. W. Schmitz
Ottawa H. S.	.....	III	1,500	C. O. Banta
Lawrence H. S.	.....	IV	864	W. R. Essick
Chase Co. Com. H. S.	..	IV	857	H. L. Murphey
Norton Com. H. S.	..	IV	833	L. B. Neuman
Beverly R. H. S.	....	IV	828	W. W. Humphrey
Ottawa H. S.	.....	IV	828	C. O. Banta

The college departmental clubs gave medals to the individuals making the highest score in each section of the contest. The Dairy Club medal was won by Iver Wickstrum, Clay County Community High School, Edwin Hedstrom, coach, competing against 226 individual contestants in Section I. The Block and Bridle Club medal was won by Roy Forgy, Hill City Rural High School, S. S. Bergsma, coach, competing against 226 individual contestants in Section II. The Klod and Kernel Klub medal was won by James Mansfield, Wamego High School, H. A. Myers coach, competing against 187 contestants in Section

HIGH TEAMS IN THE ENTIRE CONTEST

High School	Score					Coach
	I	II	III	IV	Total	
Chase Co. Com. H. S.	929	1,168	1,478	857	4,432	H. L. Murphey
Ottawa H. S.	807	1,260	1,500	828	4,395	C. O. Banta
Lawrence H. S.	828	1,027	1,592	864	4,311	W. R. Essick
Wamego H. S.	773	978	1,732	789	4,272	H. A. Myers
Carbondale R. H. S.	857	1,124	1,464	803	4,248	E. I. Chilcott
Decatur Co. Com. H. S.	858	1,076	1,579	681	4,194	S. H. Howard
Hill City R. H. S.	852	1,312	1,385	582	4,131	S. S. Bergsma
Newton H. S.	808	1,153	1,483	658	4,102	R. M. Karns
Washington H. S.	884	1,151	1,441	620	4,096	H. H. Brown
McDonald R. H. S.	897	1,173	1,367	635	4,072	C. K. Fisher

HIGH INDIVIDUALS IN THE ENTIRE CONTEST

Contestant	Score					High School	Coach
	I	II	III	IV	Total		
Lewis Evans	333	431	576	264	1,604	Washington H. S.	H. H. Brown
Bernerd Hodgkins	329	408	546	269	1,552	Chase Co. Com. H. S.	H. L. Murphey
Loraine Burns	324	352	537	303	1,516	Chase Co. Com. H. S.	H. L. Murphey
Don Shade	294	373	517	311	1,495	Ottawa H. S.	C. O. Banta
Charles Cooper	299	361	524	310	1,494	Carbondale R. H. S.	E. I. Chilcott
Willett Taylor	307	343	563	260	1,473	Lawrence H. S.	W. R. Essick
Robert Griffith	264	430	488	283	1,465	Hill City R. H. S.	S. S. Bergsma
Lawrence Kramer	279	407	535	244	1,465	Newton H. S.	R. M. Karns
Edward Woodsum	245	464	495	259	1,463	Ottawa H. S.	C. O. Banta
Edward Cooper	281	387	518	272	1,458	Carbondale R. H. S.	E. I. Chilcott

III. The Poultry Club medal was won by Walter Heck, Lawrence High School, W. R. Essick, coach, competing against 197 individual contestants in Section IV. The individuals ranking first to fifth in each section of the contest with their scores are as follows:

HIGH INDIVIDUALS IN EACH SECTION OF THE CONTEST

Contestant	Sec.	Score	High School
Iver Wickstrum..	I	335	Clay Co. Com. H. S.
Lewis Evans....	I	333	Washington H. S.
Bernerd Hodgkins	I	329	Chase Co. Com. H. S.
Roy Forgy.....	I	326	Hill City R. H. S.
Roy Jackson.....	I	325	McDonald R. H. S.
Roy Forgy.....	II	468	Hill City R. H. S.
Edward Woodsum	II	464	Ottawa H. S.
Gerald Long....	II	446	Frankfort H. S.
Dale Westervelt..	II	436	Columbus H. S.
William Bentley..	II	436	Manhattan H. S.
James Mansfield..	III	608	Wamego H. S.
Lewis Evans....	III	576	Washington H. S.
Glen Paxton.....	III	564	Wamego H. S.
Willett Taylor...	III	563	Lawrence H. S.
Pat Farrell.....	III	560	Wamego H. S.
Walter Heck.....	IV	333	Lawrence H. S.
Norman Frank...	IV	316	Norton Com. H. S.
Don Shade.....	IV	311	Ottawa H. S.
Charles Cooper...	IV	310	Carbondale R. H. S.
Harold Borck.....	IV	308	Blue Rapids H. S.

The increasing size of this contest is giving its sponsors some concern as to how they are going to continue to handle it successfully. However, the fact that they have successfully conducted these contests is ample proof that they will be able to meet new situations in coming contests.

The reasons given in certain sections of the contest were much better than in some of the past contests, and the written examination in the poultry section showed some improvement. Better work on the part of the coaches is thought to be responsible for the greater part of this improvement, and also the fact that more weight was given to reasons in this contest than has been given in the past.

This year for the first time, moving pictures were taken of the contest. It will be of interest to many of the coaches and contestants to know that these films will be shown during the annual conference for vocational agriculture teachers June 30 and July 1 and 2, and at the state fairs next fall. It is also possible that these films may be available for showing at various high schools during next

school year, to give prospective contestants more information about the contest before they actually take part in it.

— R. G. F., '30

FARM SHOP CONTEST

The state farm shop contest held at the same time as the state high school judging contest, April 28 and 29, was won by McDonald Rural High School with a total of 891 points. High school teams from Oberlin, Beloit, Wakefield, Norton, Colby, Carbondale, Macksville, Lebanon, and Blue Rapids placed in order named. Claude Bell and Elmer Halligan of McDonald were the high individuals in the contest.

The shop contest consisted of two parts, one sponsored by the Department of Shop Practice and the other by the Department of Agricultural Engineering. In the former the work consisted of welding two irons together; laying out common rafters to fit a specified pitch of roof; and mixing and placing concrete in small pasteboard cylinders—these samples being afterward tested for strength. In the latter, the contestants were required to time a stationary gasoline engine, identify a number of common articles used on the farm, and take a written examination covering a large number of facts relating to farm machinery.

—J. G. G., '31

BLOCK AND BRIDLE CONTEST

Will M. Myers, Bancroft, and Velton A. Stewart, Manhattan, won first place in the senior and junior divisions, respectively, in the twenty-seventh annual Block and Bridle Judging Contest held at the college May 10, 1930. The prizes were awarded the following Monday night at a recognition banquet.

Two classes of each kind of live stock, sheep, swine, beef cattle, and horses were judged, oral reasons being given in the senior division and written reasons in the junior division. This probably explains the reason for higher scores in the junior division than in the senior. Myers scored 533 out of a possible 600, and was awarded the silver loving cup given by the Daily Drivers Telegram.

(Continued on page 128)

The Fight for More Profitable Dairying

D. M. Seath, M. S., '30

In a fight there is action. Such action often yields disastrous results. The fight that the Dairy Improvement association is carrying on for the Kansas dairyman, however, is not producing such results. In fact, the service rendered by the 22 associations operating in Kansas during the past year saved the members \$45,000 on only two items; namely, culling out the unprofitable cows and checking the loss of butterfat from cream separators. The saving on these two items alone returned to the members 180 per cent on their money invested. Other benefits derived would make the per cent returned much greater.

A look into the history of this organization, which has been so generous in returns to its members, reveals that the first Kansas Dairy Herd Improvement association was organized in 1913. This was just seven years after the work was inaugurated in the United States—credit for the first association going to Michigan. The growth of this cooperative testing work was slow in Kansas and the records show that in 1925 only eight associations were in operation. Since then, however, the work has gained in popularity with the result that 22 associations finished the work in 1929 and 24 are in operation now. This means that approximately 600 Kansas farmers, who own over 9,000 cows, are having their cows tested once a month in an effort to improve the efficiency of their herd. In the United States, around 1,100 Dairy Herd Improvement associations are in operation, doing work for over 26,000 owners, who milk a total of about 470,000 cows.

The cow tester who visits each member of his association once a month is the true promoter of this dairy fight. On these visits he not only weighs and tests the milk, but he also computes the cost of the feed for each cow, tests the efficiency of the separator, and leaves the owner a complete record of his dairy business with recommendations as to how he can change his feeding, breeding, and management methods in order to make more money. Perhaps one or more of his cows are not paying for their feed and should be consigned to the butcher. Such was the

case with 950 cows, representing 11.3 per cent of the total number in the associations of Kansas last year. Selling these cows saved 1,425 tons of hay, 4,275 tons of silage, and 950 tons of grain, valued at \$42,750, which would have been required to feed these unprofitable cows each year they were kept.

County agricultural agents also play an important part in promoting Dairy Herd Improvement association work. They help secure members when the associations are organized and assist the testers in making monthly and yearly reports. An example of this publicity, which plays such an important part in letting everyone know just what is being accomplished, is found in the last yearly report from Johnson county. It tells that 27 per cent of the cows were culled as unprofitable. It also shows that the high herd in their association returned \$96.67 more per cow above feed cost than did the low herd. The Harvey county report demonstrates the results of continuous testing. Those who had tested for three years or more received \$8.56 more profit per cow a year than did those testing for a shorter period. These are only a few of the stories being told in the publicity being prepared by the county agricultural agents in their efforts to spread the testing gospel to new dairy farms.

J. W. Linn and J. C. Nisbet, Kansas dairy extension specialists, who have charge of the work over the entire state, also hold an important place in this fight for more profitable dairying in Kansas. They not only perform the task of finding and training testers and furnishing record books and supplies for the associations, but they also keep a summary of the records for the entire state. The last yearly summary, which was mailed to every association member in the state, showed among other things that 372 of the cream separators tested during the year were losing their owners a total of \$2,040.33 annually. This represented a preventable loss that in most cases was soon corrected when the owners made certain adjustments in their machines.

Pure-bred dairy sires are also coming into

(Continued on page 124)

FARM NOTES

PHENOMENAL ACHIEVEMENTS OF A COLLEGE DAIRY COW

Some day when a fitting monument is dedicated to the really great cows of the Aggie dairy herd, the name of Empress Starlight will be chiselled in large letters in the column of honors. For it is doubtful if there is another cow in the herd that can present such a brilliant record of achievements as both a breeder and producer as that of this seven-year-old Holstein cow which has just added another page to her history of popularity.

A phenomenal instance connected with Starlight's history occurred on December 28, 1929, when she gave birth to a pair of strong and healthy bull calves. But that is not the most interesting point. What makes this unusual occurrence more interesting is the fact that on January 18, 1929, or only 11 months and 10 days previous, she had given birth to a pair of fine twin heifers.

Both sets of the twins are in the best of health, and of good Holstein type. All four calves are still owned by the college and give promise of four outstanding additions to the college herd. (See frontispiece.) The two sets of twins were sired by different bulls, the first set being sired by Canary Paul Vale Walker, and the second set by Emperor Varsity Piebe. Both of these bulls are college sires and have some outstanding daughters in the college herd.

Not only has Empress Starlight given birth to four living calves in less than one year, but she had previously mothered three other fine calves. She dropped her first calf on February 27, 1926. She is thus the mother of seven calves in three years, ten months, and one day.

Moreover, Starlight, who was born on January 29, 1923, was calved by Canary Paul Stars, who was herself one of a pair of twin heifers; and who as a two-year-old made an official record of 12,582 pounds of milk con-

taining 409.22 pounds of fat. Starlight's sire was Canary Paul Emperor, a son of Carlotta Empress Fobes, who was the first cow in Kansas to make more than 1,000 pounds of butter in one year, this record being made while she was in the K. S. A. C. herd.

What adds more interest to the story of this cow's achievements is the fact that she has two outstanding production records herself. In her first lactation period she completed an A. R. record of 11,272.6 pounds of milk, containing 405.08 pounds of fat. In her third lactation period she raised her record to 16,130.6 pounds of milk and 543.43 pounds of fat. Furthermore, during her second and her fourth lactation periods, Starlight made exceptionally good herd-test records, and is now being tested again.

—R. W. S., '31

FUTURE FARMERS OF KANSAS

The annual meeting of the Future Farmers of Kansas was held Wednesday, April 30, 1930, following the State High School Vocational Agriculture Judging Contest, with representatives from forty local chapters present. Boyd Waite, president of the state organization, and the only Vocational Agriculture student in Kansas who has attained the degree of American Farmer, presided. The successful candidates for the degree of State Farmer as announced at this meeting were: Lewis Evans, Washington; John Flanigan, Washington; Wayne Jacobs, Harper; Kenneth Waite, Winfield; and Wayne Scott, Wellsville. These candidates were selected on the basis of four major points: (1) Project achievement, (2) supplementary farm practice, (3) scholastic attainment, and (4) evidence of leadership.

Officers for 1930-'31 were elected as follows: President, Lewis Evans, Washington, high individual in the State High School Vocational Agriculture Judging Contest; vice-

president, Byron Brownell, Concordia; secretary-treasurer, Morris Humes, Beloit; and recorder, Frank Sawyer, Atwood.

The F. F. A. public speaking contest, sponsored by Senator Capper, was held Tuesday morning. With seven schools competing, Kenneth Waite of the Winfield High School won first place, and Forrest Trager of the Shawnee Mission High School won second. The F. F. A. movement in Kansas is becoming quite active and many new chapters will be organized during the next school year.

—R. G. F., '30

“HERSHEY”

“Hershey” is nothing more than proso, proso millet, or hog millet, which has been known since pre-historic times. It has recently been falsely exploited as an excellent dry-land crop. Hershey is not a sorghum. It is a species of millet and is not related to the sorghums.

Proso is used chiefly as a catch crop, but other crops are more productive in Kansas when used for this purpose. In nearly all localities where proso is grown, the average yield in pounds of grain per acre is less than that of wheat, oats, or barley. Proso is less resistant to severe drought than well adapted varieties of other grains and is oftentimes a complete failure where wheat or barley produces a fair crop. Proso is easily killed by hot winds, very often being killed before it produces seed, even where there is available moisture in the soil. It cannot be regarded as a safe crop during extremely dry seasons in the western part of the Great Plains.

Proso shatters easily when ripe and must be handled carefully to prevent loss. It makes poor-quality hay. The stems are coarse, woody, and hollow. Both stems and leaves are covered with hairs which shows clearly why cattle do not like it. The Department of Agronomy has been growing proso for the last 15 years for classroom purposes and in only about one year out of three or four have they got their seed back. In most years the crop has perished from heat or chinch bugs.

In sections of the Dakotas and Minnesota where the weather does not get so hot and where sorghums cannot be grown, proso may

have a place as a supplementary grain crop, but experimental evidence to date indicates it has no place in Kansas.

—G. D. O., '31

SUGGESTIONS ON CREEP FEEDING

1. Creep feeding simply means providing a means whereby calves following cows may have free access to grain at all times. Various types of equipment are used for this purpose. The most common is a self-feeder surrounded by a fence that will allow the calves to go through the fence to the self-feeder and keep the cows away from it.

2. Early calves properly creep-fed are fat enough and heavy enough to command good prices from the packers at weaning time. It is, however, usually advisable to full feed from 30 to 90 days after weaning.

3. Early calves are essential to success in creep feeding for at least two reasons. First, the owner has a chance to teach calves to eat grain before the cows go to pasture and when the cows go to pasture the calves will be looking for the grain. It is sometimes almost impossible to teach late calves, dropped after the cows go to pasture, to eat grain from a creep. Second, early calves will develop considerably more weight and finish at little more cost than the late calf.

4. Coarsely ground barley, kafir, milo, feterita, or corn and oats half and half is a good grain ration to use during the first half of the creep-feeding period. Later the oats should be discontinued because of their bulk. If oats are not available on the farm none need be fed at any stage of the feeding period.

5. Creeps and feeders should be located where the cows and calves spend their leisure time. This will insure greater consumption of grain by the calves and the more grain the calves eat the more profitable this method of feeding will be.

6. Creep feeding is an intensive method of production and requires careful attention to details. The feeders must never become empty. Dirty, sour, or wet feed must never be allowed to accumulate in the feeder. The smaller the unit and the better the grass the easier it is to make creep feeding a success. This does not mean, however, that one can-

not succeed with larger units.

7. Good breeding is absolutely essential to success in creep feeding. Poorly bred calves will not command the price that makes creep feeding profitable in the case of well-bred quality calves.

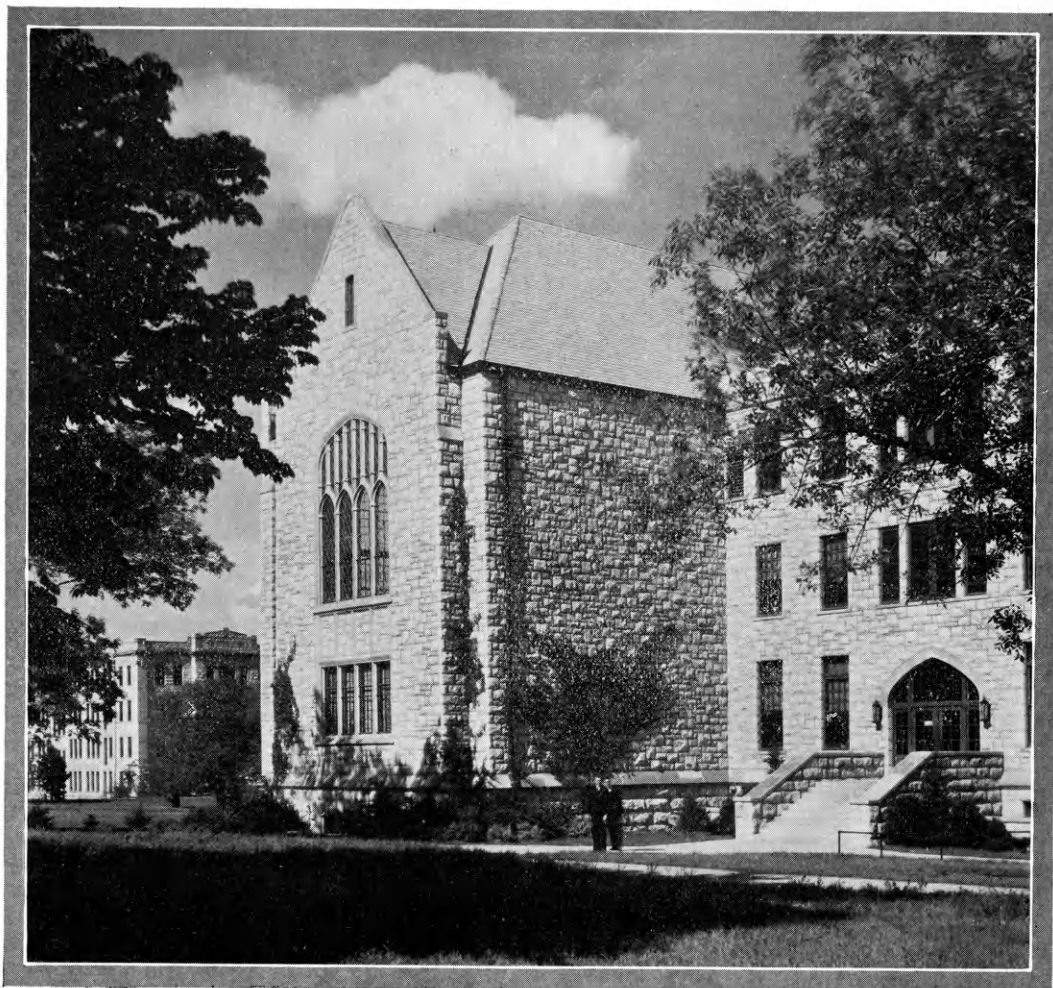
—C. W. M., '10

EARLY POULT MORTALITY

Management influences in no little manner early mortality in young turkeys, even more

so than in baby chicks. How can this early mortality be reduced to a minimum? The Agricultural Experiment Station has for the past four years endeavored to work out a "fool proof" plan of management. The 1930 results are very gratifying indeed.

It appears that the young poult inherits all the vices known to chicks and several others in addition. Impaction of the gizzard and small intestines during the first three weeks causes more deaths than all other



FRONT VIEW OF A PORTION OF K. S. A. C.'S FINE CENTRAL LIBRARY

In the background to the left may be seen a front view of the east wing of the Agricultural Hall.

factors combined. The young poult insists upon making a meal of any fibrous material that is within its reach. Litter from the floor, ravelings from the brooder canopy, or stemmy green feed passes down through the digestive tract to lodge in the gizzard and small intestines—death results.

Piling or crowding is serious in the brooding of chicks. This vice reaches the climax in the artificial brooding of poults. Turkeys are easily frightened and stampeded. They do not recover their senses so quickly as baby chicks. When the stampede is over, the lifeless bodies of suffocated poults are strewn in the corners of the house.

In the station flock this summer, of 341 poults hatched, 19 or 5½ per cent have died up to four weeks of age. No mortality was due to impaction or piling. Such results would indicate that the brooding management was probably as "fool proof" as could be.

These poults were brooded in lots of 50. Each lot was confined for four weeks in a compartment 3 feet wide, 3 feet high, and 7 feet long located 2½ feet from the floor. The floor, sides, ends, and tops of each compartment were constructed of portable hardware cloth frames. The entire room was heated by a brooder stove and the heat distributed by an air circulating tube. A temperature of 90 degrees 2 inches from the floor of the compartment was maintained for the first four days. This was reduced to 86 degrees by the end of the second week and then gradually dropped to 80 degrees by the end of the fourth week when the poults were placed on range.

With such a system of management, there is no danger of losses from impaction except where green feed is fed. There is no straw, peat, litter, or ravelings for poults to use in committing suicide and, since all the green feed they received was in the form of 5 per cent alfalfa leaf meal in the mash, this danger was eliminated. Should the poults have stampeded or piled at night, no serious losses would have occurred, for were they not confined in a wire frame home open on the bottom, sides, ends, and top?

—H. M. Scott, M. S., '27

TERRACING LAND FOR ORCHARDS

Agriculturists are coming more and more to realize that large quantities of soil and plant nutrients are lost by soil erosion and that this is as true of orchard soils as it is of soils on which field crops are grown.

Clean cultivation plus cover crop is the system of soil management recommended for orchards in Kansas and the adjoining states. When the soil is free of a mat of vegetation, heavy rains will cause serious washing even on land that is relatively level. Very little land with a small degree of slope is used for orchards, most trees being set on hill sides. Obviously, the greater the slope the more serious the washing will be.

A combination of three factors, namely, clean cultivation, heavy rains, and sloping land, go to make up a problem that is costly unless it is properly handled. Land that is too steep to permit cultivation is best managed under a sod mulch, but this practice is not satisfactory, because the grass robs the trees of moisture and nutrients. A better plan is to terrace the land before setting the trees and to cultivate it as recommended by the best orchardists.

Terracing land for fruit growing does not differ from the same operation for field crop production, unless in the former the work must be done more thoroughly because of the permanence of the enterprise. Stated briefly, the following are important steps to be observed:

1. Lay out the lines accurately and at the proper grade.
2. Place the terraces as far apart as possible.
3. Build them with broad bases to make maintenance easy and tillage possible.
4. Provide for adequate outlets.
5. Make fills across gullies one-third to one-fourth higher than the ridge on either side.
6. Check the terraces carefully before leaving the job to be sure they are properly constructed.
7. Make subsequent repairs as they are needed.
8. After each rain remove the soil that is washed into the ditches.

The trees may be set by following a definite plan such as the square or hexagonal system, or they may be planted on the contour. The desirability of one over the other

depends upon the grower's choice. If the first plan be followed, trees here and there will have to be set out of line or omitted entirely to make terracing maintenance operations possible.

At present few orchard sites have been terraced, but this practice promises to be valuable. The fruit growers who have terraced the land before setting the trees are well satisfied with the results. A visit to the terraced cherry orchard on the horticultural farm of the Kansas Agricultural Experiment Station would be well worth while for any orchardist who contemplates work of this kind.

—Arthur Meyer, M. S., '30

OLEOMARGARINE VERSUS BUTTER

Should there be legislation against the manufacture or sale of butter substitutes? If any product cannot stand upon its own merits, why should it be protected by law? There are many things to be said on each side of the question. This is fundamentally an agricultural country, national prosperity depending primarily upon the condition of agriculture. Dairying is one of the basic agricultural pursuits. By using vegetable oil, produced by foreign labor, in the manufacture of butter substitutes, the dairymen of America are forced into competition which is impossible for them to meet.

Wisconsin, one of our leading dairy states, forbids the manufacture of oleomargarine. Many other states have attempted to legislate against the manufacture or sale of butter substitutes.

One often hears statements, especially in small towns, to the effect that the oleomargarine on the market is much more palatable than the type of butter that is available. This is probably true in many instances. Butter is a perishable product. If it is not of the highest quality it cannot withstand the conditions prevailing in the average country store. It may remain in this store from one to two weeks, or even longer, in some cases, and quite commonly there is no refrigeration.

Under such conditions the patrons cannot be criticized for using butter substitutes. The

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whole question reverts back to the dairyman. If he is to guard his industry the production of a high-quality product must begin with him. In line with this the time between production and consumption should be shortened in every way possible.

—C. L. Smith, M. S., '30

HIGH POINTS OF ADVANCED FARM ORGANIZATION CLASS TOUR

The party of 18, Prof. Morris Evans of the Department of Agricultural Economics in charge, left Manhattan Monday morning, April 14, at 7 o'clock. The first farm visited, that of I. E. Holm at Dwight, Morris county, was remarkable for the large profit which was made by a rather small business. In 1929 Mr. Holm secured a return of 18 per cent on his investment. The principal sources of income were from sales of dairy products, hogs, and poultry and eggs.

Toward evening a short stop was made at Robert H. Hazlett's establishment, known as Hazford Place, just out of Eldorado. This was not a scheduled stop but proved very interesting. The farm is remarkable for the exceptionally high quality of Hereford cattle. There are enough barns, silos, and other buildings in a well arranged group to make a small town.

On Tuesday morning the group paid a visit to the Mason orchards at Belle Plaine. The operator, L. M. Mason, '17, in one of his ventures a few years ago cleared \$10,000 on a rented orchard in one year. Two years later he purchased 160 acres with this same orchard on it, 40 acres of it bearing, for \$20,000.

A remarkable sight to those of the party from other parts of the state, was a string of empty wheat cars on a siding between Harper and Anthony. There were about 11 miles of them, totalling over 1,100 cars.

A piece of machinery at one farm which elicited some comment was a feed grinder mounted on a model T Ford chassis. The grinder was so placed that its main shaft was directly in line with and attached to the drive shaft of the Ford. A transmission was placed between the drive shaft of the car and the grinder to make possible greater variation

in speed.

The size of business on some of the farms visited may in a measure be indicated by the fact that on two of them the operator owned and operated an elevator of 8,000-bushel capacity for his own private use.

On the Henry Duwe farm, southeast of Anthony, the dairy cows were of the Brown Swiss breed. This breed has not gained very much prominence in Kansas, but those in Mr. Duwe's herd were above the average in producing ability.

Mr. E. H. Hodgson, '01, one of the men selected as a Kansas Master Farmer in 1928, turned his training to account shortly after graduation. He has a barn 80 feet long, 50 feet wide, and 20 feet from the ground to the top of the corner posts. The timbers used in the structure came direct from the mills in Louisiana, and cost only \$13 a thousand when purchased. Mr. Hodgson designed the barn himself and built it in 1902. He cut the joists on all the timbers and mortised them together.

The W. H. Burke feed yards are near Little River, Kan. They are quite extensive, Mr. Burke having an investment of \$80,000 in cattle. He has some Angus on feed but his cattle are mostly Herefords.

The trip was concluded by a visit to the Fort Hays Agricultural Experiment Station on Friday morning and a return to Manhattan. The points of most particular interest at the Fort Hays station were the soil runoff plats and the soil erosion work in charge of Mr. R. H. Davis, '27, and the dry-land experimental work in charge of Mr. A. L. Hallsted, '03.

Other points of interest on the trip were the big lake at Cheyenne bottoms, the Eldorado lake, the oil fields of southern Kansas, and perhaps above all others, the friendliness and interest with which the class was received at every stop.

—C. P. M., '30

THE HODGSON FARM

The C. H. Hodgson farm of Little River, Rice county, has 1,700 acres of pasture, 525 acres of crop land, and 25 acres of timber. With this balance in acreage, the farm is



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An interesting illustrated booklet that fully describes all these features and operating advantages is available by writing.

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well diversified. Of the 525 acres in crops last year, 250 acres were in wheat, yielding 12½ bushels per acre; 70 acres were in corn, averaging 32 bushels per acre; 10 acres were in oats, averaging 20 bushels per acre; 75 acres were in alfalfa, yielding 1½ tons per acre; 70 acres were in corn for silage, averaging 10 tons per acre; 40 acres were in cane for hay, yielding 4 tons per acre; and 10 acres of Sudan were used for pasture. These crops were grown in rotation, with alfalfa as the legume. The average acreage and yields were greater on the Hodgson farm than for the county.

Cattle production is the principal live stock enterprise on the farm with a cow herd of 112 cows which calve in the spring. The calves are fed out as yearlings. There are also 5 cows kept for milk and a few cattle are purchased each year to be fed out, making the total number of head kept approximately 250. A flock of 150 chickens is kept on the farm and 12 horses are kept for farm work. Only a few hogs are kept as a usual practice.

Electric motors furnish power on the farmstead and tractors do most of the field work. Most of the wheat was harvested with a combine, though some was bound in order to furnish straw for the live stock. The most outstanding feature on the Hodgson farm is the amount of equipment used and its adaptation to the farm enterprises.

THE MASON FARM

On the farm of L. M. Mason, '17, of Belle Plaine, Sumner county, the major crops are apples, corn, sweet clover, and wheat. At the present time Mr. Mason has 160 acres of orchard, 38 acres of which are 35 years old, and 60 acres 30 years old. He has 45 acres just coming into bearing and 15 acres not yet of bearing age. The one hundred acres of old orchard are decreasing in yield very rapidly but by the use of manure and ammonia sulfate for fertilizers, Mr. Mason has an average yield of 25,000 bushels a year. In 1927 his orchard produced 35,000 bushels.

Corn has not been a very important crop in this section but Mr. Mason has found a way to make raising corn profitable. He grew sweet clover on part of one field to build up

the soil. The ground where the sweet clover was grown raised over twice as much corn to the acre for three consecutive years as the ground where no sweet clover had been grown, last fall being the third crop harvested off the land. The yields were 22 bushels to the acre where no sweet clover had been grown and 47 bushels to the acre where he had grown sweet clover. He has fifty-three acres of sweet clover this year.

—M. J. K., '30

SHEEP FIND FAVOR ON A FEW KANSAS FARMS

F. W. Dusenbury of Anthony, Harper county, has found that his little flock of sheep require very little care, will eat weeds in the pasture that other stock will not touch, and bring in a nice little income.

Three years ago Mr. Dusenbury bought a car of western ewes. He bred them to a pure-bred Shropshire ram and saved the best ewe lambs for his flock. Last year they sheared 12 pounds of wool per ewe and by the middle of April this year 36 of the 47 ewes had 42 lambs. The other 11 ewes were to lamb soon.

Through the winter they were fed 3 pounds of silage and 1 pound of corn and oats mixed per ewe per day. They pastured on wheat part of the winter. The only equipment used for the sheep were an open shed and a tight fence around the pasture. Returns per dollar invested in the sheep were quite gratifying.

—C. C. T., '30

SUMMER FARM MANAGEMENT TOURS

That agricultural economists of Kansas State Agricultural College are firm believers in the saying "the pen is mightier than the sword" is shown in the announcement that the third series of annual farm management tours will include routes in 14 Kansas counties beginning the third week in July and continuing off and on during the entire summer. As was the arrangement during the two previous years, the county agricultural agent of each of the counties visited will plan the trip through his county but the program of all the meetings will be in charge of Prof. I. N. Chapman, extension farm management

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In addition to this service, the du Pont Company offers you, free, two booklets. The first of these booklets, "AGRITOL, for Field Clearing" gives you detailed information about AGRITOL . . . the most effective explosive for stump and boulder blasting. The second booklet, "Ditching with Dynamite," tells you how to blast new ditches, clean out old ones, change channel streams, drain swamp lands . . . with du Pont Ditching Dynamite, an explosive made especially for ditch blasting.

If you need assistance for solving an explosives problem you may have . . . or you desire the two free booklets . . . write direct to Agricultural Extension Section.

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EXPLOSIVES

specialist, assisted by Prof. Morris Evans of the Department of Agricultural Economics of K. S. A. C.

Riley, Dickinson, and Morris counties will be visited during the third week in July. McPherson, Rice, and Harvey counties will be toured in August. Farms in Harper and Sumner counties will be visited in September and in Ottawa and Clay counties during the latter part of July. A tour of Johnson county will be made during the latter part of the summer. From one to three days will be needed for each of the five trips—about one day being spent in each county, as a rule.

"Our stops are usually made at farms that have a fairly settled type of farming," said Professor Evans in explaining the purpose of the farm management tours. "We go out to a farm where financial records have been kept for from 1 to 8 years and make a detailed study of two features of the farm: First, the organization which includes acres, kinds, and varieties of crops and numbers, kinds, and breeds of live stock. Second, the operation which includes methods of seedbed preparation, seeding, cultivation, and harvesting methods for crops, and methods of feeding, selection, culling, and breeding for live stock. In addition, there is a third phase which is a combination of the two types of investigation—marketing of both crops and live stock," he added.

When the studies of the individual farms are made, from one to three items of importance are selected to be stressed and emphasized in the discussion after the trip over the farm is completed. Financial and crop records for the farm are shown at the discussion and suggestions are asked for from the listeners. The two specialists make the final suggestions for each of the farms, after making notes of the good and bad points observed along the way while inspecting the farm. The owner is called upon to tell about the farm. Blanks are given the farm cooperators accompanying the tour, upon which to tabulate the operations of the various departments of the farm under analysis. These blank forms afford the tourists a chance to make the notations necessary to understand the explanations of the farm methods made in the discussions.

In arranging the trip through his county, the county agricultural agent has all the co-operators meet at a designated place. The trip is often made in a bus. It is expected that several busses will be needed in many of the counties to be visited this summer.

Last year during a three-day tour of Cloud, Ottawa, and Dickinson counties, more than 1,000 persons listened to the graphically presented analyses of the 11 farms visited. They learned that a lead pencil can be developed into one of the most profitable tools on a farm. More than 600 Kansas farmers have already learned that farm leaks may be plugged and returns increased by the proper use of farm account books.

At the noon-day stops this summer increased use will be made of a feature inaugurated during one of last year's tours—that of having a prominent Kansan speak at the discussion. In doing this, it is necessary to shorten the trip around the farm, but the specialists consider this worth while from the cooperator's viewpoint. For example, Congressman Strong spoke to the touring farmers in Cloud, Ottawa, and Dickinson counties. Other speakers on the noon programs were the president and vice president of the Kansas Bankers Association.

In making these trips through Kansas counties, the tourists find out more than just the fact that accounts pay for themselves. They find out what their neighbors are doing—how much corn, wheat, and sorghum is showing a profit and what classes of live stock are paying for themselves or making a profit for the producer.

—K. M. G., '30

PROFITABLE DAIRYING

(Continued from page 114)

more prominent use according to the report which showed that 157 head had been purchased by the members during the year and that 25 of these replaced scrubs. Mr. Linn and Mr. Nisbet are both strong boosters for the continuous use of good pure-bred sires in the association herds. They say that the Dairy Herd Improvement association is proving that it is easier and cheaper to breed producing cows than it is to buy them. This year they are organizing a "400-pound Bull



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Club." In order to qualify for such a club the dairyman must either have a sire out of a dam with a 400-pound butterfat record or the sire himself must be the father of a 400-pound daughter.

Proved bulls are also receiving recognition by these extension dairymen. To qualify for this a bull must have sired six or more daughters whose records exceed those of their dams. To have this comparison the dairymen must obviously belong to a Dairy Herd Improvement association over a long period of time. Such a comparison shows that many sires in use are doing thousands of dollars worth of harm annually. On the other hand many are found to be extremely valuable. One of these profitable sires was found in the case of Chief's Raleigh's Sultan, whose eight daughters averaged 108 pounds of butterfat more than their dams' average. This was all the more remarkable in face of their dams' high average of 367 pounds of butterfat per year.

Good feeding has been found to play a very important part in profitable dairying. A Dairy Herd Improvement association member has the advantage over the ordinary dairyman in that he has the combined help of the cow tester, county agricultural agent, and the dairy extension specialists in solving his feeding problems. With their suggestions as to efficient and economical rations, plus the accurate check furnished by the production and cost accounts on each cow, he is in a position whereby it is possible for him to reduce his cost of production to the lowest possible figure. Such cases were reported in Allen county by three herds which were in the association work three years and were able to increase their income \$51 a cow over what it was when they started testing.

With the many advantages and added profits being realized by the members of the Dairy Herd Improvement associations, it is little wonder that this work is gaining in popularity. The 24 associations now operating extend into 53 counties. Many of these counties which are now grouped with one or more other counties for one association are making plans to have their own separate testing group. Other counties that have never before had this work are now organiz-

ing associations.

All this activity seems to indicate that the fight is progressing. Such a spirit has never prevailed before and men who are close to the work predict that much more will be accomplished in the future by this good "Old Aggie Fight."

CREEP-FEEDING PROJECT

(Continued from page 101)

Alfalfa at \$8 per ton.....	4.00	
Cottonseed meal, 40 pounds, at \$2.50 per cwt.	1.00	
Corn stalks at 50c per acre.....	1.00	\$15.00
Summer pasture (bluestem grass).....		10.00
Interest, taxes, insurance, etc.		9.00
Depreciation per cow		5.00
Bull service		3.00
Total cost per cow.....		\$42.00
Cow cost per calf (95 per cent calf crop)		\$44.21

Subtracting Mr. Morgan's cow cost (non-producers included) from the gross return per cow (\$85.62 — \$44.21) leaves a net profit of \$41.41 per cow. During the winter Mr. Morgan runs his cows in stalk fields and feeds silage and alfalfa hay with a bit of cottonseed meal about calving time.

These two men represent two distinct types of live stock farming, for blue grass is a tame pasture crop and bluestem is a wild pasture crop. Blue grass may serve as a winter pasture but bluestem is only a summer pasture. Each man, however, accomplished his results by following good but practical methods of management and using good bulls on good useful grade cows.

This splendid project is directed by Mr. J. J. Moxley, live stock extension specialist of K. S. A. C.

L. L. Davis, '27, M. S., '30, is in charge of experiments with cereal crops at Aberdeen, Idaho.

P. C. Mangelsdorf, '21, is in charge of small grain and sorghum investigations for the Texas Agricultural Experiment Station. He is in charge of the soft wheat experiments at Denton. It is expected that a new station in connection with this work will be established at Amarillo for experiments with hard red winter wheat varieties.

Marketing Kansas Hogs in California

James T. Newton, M. S., '31

California as a possible outlet for Kansas hogs has been considered only in recent years. It received its greatest recognition shortly after the World War, when in the vicinity of Los Angeles alone the number of packing establishments increased from two to twenty, and Los Angeles and other western markets were classed among the 67 principal markets by the United States Department of Agriculture, Crops and Market Reports.

The practical application of placing Kansas hogs on the California market would be affected by freight, feed in transit, losses, death, and shrinkage. The total cost of placing Kansas hogs on the California market, using as a basis shipments from Kansas City to Los Angeles, and considering freight, feed, and losses from shrinkage and death in transit would be very close to \$1.55 per hundredweight. That is, the California price would have to exceed the Kansas City price by \$1.55 per hundredweight to allow shippers to break even on the California market.

It may readily be seen that the western market must exceed the Kansas market by considerably more than \$1.55 per hundredweight to induce even the most speculative speculators to attempt to ship to a California market. Investigation shows that the California market exceeded the Kansas market by more than \$1.55 in 50 months out of the 120 months from 1920 to 1929, inclusive. California markets exceeded Kansas markets in price by \$2 or more per hundredweight 27 times in the same period of time, and in December, 1921, exceeded the Kansas City market price by \$3.25 per hundredweight, allowing the shipper a profit of approximately \$272 per single-deck car, 80 head per car at an average of 200 pounds per head. Investigation also shows that the average number of times each month over a 10-year period in which the California price spread exceeded the Kansas market was: November, 7 times; December, 6 times; August, 5 times; October and January, 4 times each; September and June, 3 times each; February, 2 times; and May, April, and July, 1 time each. This indicates that November and December are the

months offering the greatest possibilities for marketing Kansas hogs in California.

"To what extent is this situation being used by shippers?" is the question usually asked when this problem is being discussed. This question will be answered quoting figures from United States Department of Agriculture yearbook, 1928, and reports from monthly bulletins of United States Department of Agriculture, Crops and Markets from 1920 to 1929.

The total receipts at nine western markets for 1928 were 1,903,000 hogs; total slaughter for the same period 1,148,000. While the total number of hogs on farms January 1, 1928, in five principal western states was only 1,130,000. The receipts exceeded the number on hand January 1, 1928, by 598,000 and the total number slaughtered exceeded the number on hand by 9,000, or basing the estimate on the number slaughtered under the inspection of the Bureau of Animal Industry, United States Department of Agriculture, which is annually about 80 per cent of total slaughtered, it is found that the slaughter exceeds production by 127 per cent, which is 5 per cent above average for 1923 to 1927 at all markets, indicating that about 70,000 hogs a year have their origin outside these Western states.

The type of hogs that is demanded by the packer at western markets varies in weight from 180 to 225 pounds. It is this factor that has confined shipments to order buyers at river markets, chiefly Omaha, Kansas City, and Oklahoma City, who were able to buy and sort for any special order demanding a particular type of hog or weight.

The present set-up of the Federal Farm Board, through its national live stock marketing agencies and shipping associations, can make it possible for the Kansas farmer to fill such orders, as mentioned in the preceding paragraphs, through proper distribution.

Suppose that a shipping association in Kansas notifies the central marketing association that it has several carloads of hogs available. The central market association

being familiar with marketing conditions and knowing, at that particular time, the spread between California and Kansas prices will allow shipment to western markets for a certain type of hog, can notify shipping associations of the fact allowing such associations to sort and grade hogs to fill the order. This allows the farmer to take advantage of conditions that will bring the best return for his better hogs and yet receive the regular market price for any inferior hogs that he might have.

Just how many hogs could be handled by such western markets, using San Francisco and Los Angeles as an example? The average monthly slaughter for these markets is 24,000 per month over a period of 10 years, 1920 to 1929. The smallest number slaughtered for any one month in the 10-year period at these two markets was 9,000 and the maximum for same period of time was 63,000 per month, showing that it might be possible for western markets to absorb from 15,000 to 25,000 hogs per month from river points, at the time when such markets are receiving their largest shipments and prices are on a downward trend. This condition usually occurs in November and December which has been the time when the price spread between Kansas City and western markets was the greatest.

BLOCK AND BRIDLE CONTEST

(Continued from page 113)

Stewart scored 552 for first in the junior division and received a silver cup from the Block and Bridle Club.

Silver medals for second and third places in the senior division were awarded to George S. Brookover, Eureka, with a score of 530, and L. A. Eastwood, Summerfield, with 503. Medals for second and third of the junior division were awarded to D. H. Bowman, Manhattan, on a score of 542 and S. L. Franz, Soldier, with 540. Others in order of placing were: Senior division, B. R. Taylor, Alma, fourth; Sam E. Alsop, Wakefield, fifth; W. G. Nicholson, Neal, sixth; R. S. McCoy, Cedar Vale, seventh; R. G. Frye, Freeport, eighth; Ben C. Kohrs, Abilene, ninth; Carl Williams, Dodge City, tenth. Junior division, I. B. Hawk, Manhattan, fourth; R. P.

Peyton, Topeka, fifth; E. H. Regnier, Spearville, sixth; R. A. Johnson, Yates Center, seventh; L. R. Daniels, St. Francis, eighth; L. A. Wilhelm, Arkansas City, ninth; and John Hamon, Valley Falls, tenth.

The winners of each class of live stock, who were awarded fountain pens by the Block and Bridle Club, were:

Senior Division

Beef cattleL. F. Taylor, Ashland
SwineB. R. Taylor, Alma
Sheep William Chapman, Wichita
HorsesGeorge S. Brookover, Eureka

Junior Division

Beef cattleW. J. Braun, Council Grove
SwineE. H. Regnier, Spearville
SheepL. A. Wilhelm, Arkansas City
HorsesV. A. Stewart, Manhattan

—W. G. N., '31

Harold A. Pennington, '09, is operating a general farm near Hutchinson.

W. W. Wright, '17, M. S. '29, is superintendent of schools at Hope, Kan.

Fred Carp, '18, of Carp Bros., of Wichita, is handling twelve thousand hogs each year. Mr. Carp buys all his hogs and also all the feed.

L. M. Mason, '17, of Belle Plaine, is operating a 100-acre orchard. In addition he is farming 240 acres of wheat. Mr. Mason bought 160 acres of land in 1928, 40 of which are in orchard and 120 in farm land.

E. H. Hodgson, '01, of Little River, was cited as a Kansas Master Farmer in 1928. In 1929 he was Rice county wheat champion. Mr. Hodgson has three hundred and fifty head of cattle at the present time. He is a member of the advisory committee of Grain Stabilization Corporation.

Ernest L. Adams, '07, Chico, Calif., is manager of a 2,000-acre rice ranch on Butte creek, Butte county. This location is about 100 miles north of Sacramento. Mr. Adams has been one of the most prominent and successful rice growers for a number of years. At the present time he is president of the Rice Growers' Association of California.

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