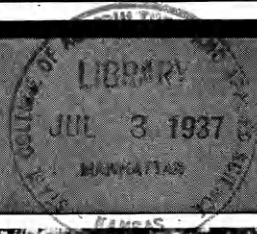


# THE KANSAS AGRICULTURAL STUDENT

MANHATTAN, KANSAS



VOL. XVI  
No. 4  
May 1937

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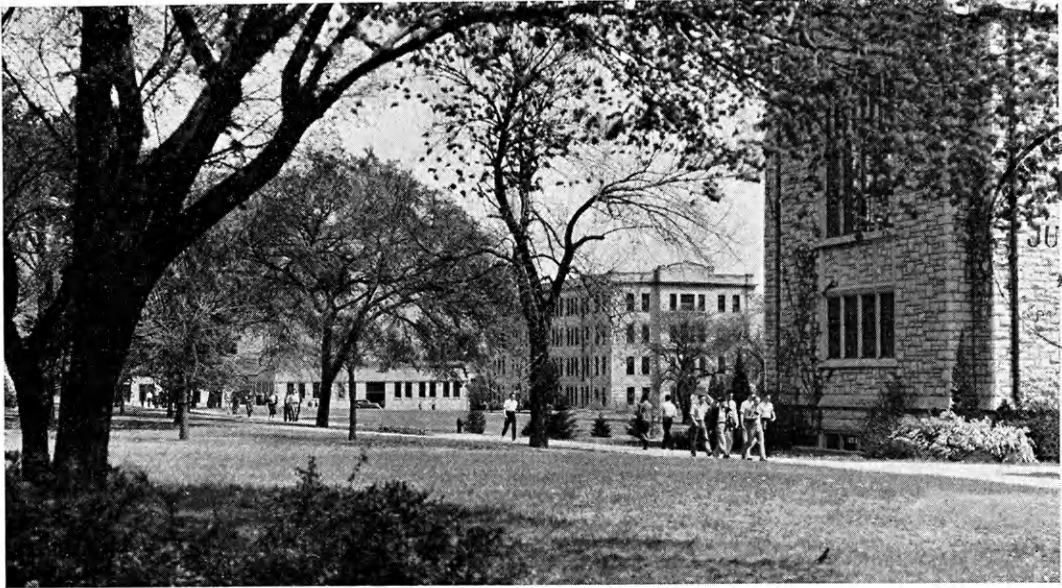
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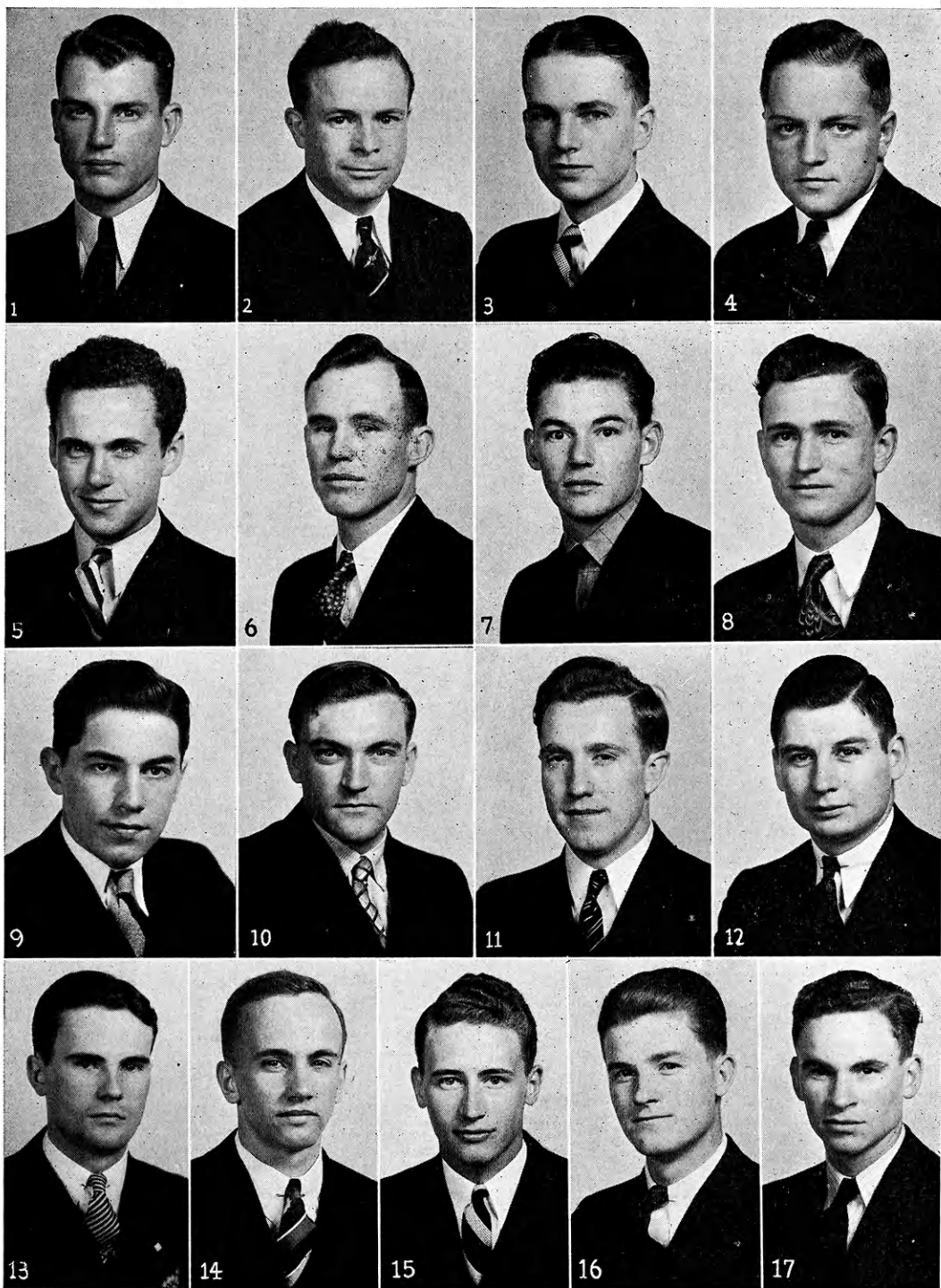
SPRING ON THE CAMPUS

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NEW MEMBERS OF ALPHA ZETA

Last semester 17 members were added to the rolls of Alpha Zeta, honorary agricultural fraternity. To be eligible for membership, students must rank in the upper two-fifths of their class, must possess high character, promise of leadership, and pleasing personalities. New members shown above are (1) Arthur F. Leonhard, (2) Linus H. Burton, (3) Vernon L. Doran, (4) Kenneth L. Nordstrom, (5) Kenyon T. Payne, (6) A. Eugene Harris, (7) R. Gordon Wiltse, (8) Harold J. Scantlan, (9) Joe M. Bonfield, (10) Darrell Morey, (11) Charles M. Loyd, (12) Kenneth A. Fisher, (13) Francis L. Blaesi, (14) James F. Mugglestone, (15) Ralph J. Hathaway, (16) Charles I. Kern, (17) Herman J. Reitz.

# Agricultural Division Graduates Will Scatter to Ends of the Earth

Max Dickerson, '37



When this year's crop of seniors in agriculture step up to the platform to get their diplomas there won't be any question in the minds of most of them as to what they are going to do next. A recent survey of the largest senior class in the division in the last 10 years shows that most of them have their futures mapped—and what a diversity those plans reveal!

For example, one graduate is a Rhodes scholar and will leave in the fall for Oxford University, England; another has gone on a trip to Africa; and in general it can be seen that before long the class will be well scattered over the whole United States, with a few representatives in foreign countries.

Degrees will be given to 88 seniors May 31, and 16 completed their work at the end of the first semester to win their diplomas in February. A poll of these 104 revealed that 19.7 percent are going into farm work directly, with 18.7 percent expecting to farm for themselves. Extension work, which will consist largely of the county agent type of work, interests 12.5 percent. Ten percent of the class have indicated that they were going to teach vocational agriculture, and 9.3 percent believe that they will continue studying for awhile—until they get master's degrees. These last named have accepted graduate assistantships or scholarships, including the one Rhodes scholarship; two graduate assistantships at Iowa State; one each at the University of Wisconsin, Pennsylvania State, Maryland University, and Michigan State College; and probably one in New York.

In a minor group, 5.2 percent are preparing for civil service work in soil conservation, range management, and

agronomy. The milling seniors who constitute 5.2 percent of the group expect to work in mills. Among these is one who will work for the Finger Lakes and Hudson Flour Mills, Inc., at Geneva, New York. Another will work for a milling company in St. Louis. Three and one-tenth percent are students taking a six-year animal husbandry and veterinary medicine course and will continue in veterinary medicine. Two percent will work for the Resettlement Administration. Three and one-tenth percent expect to engage in landscape gardening and floriculture work. In the other groups of one percent each, army, commercial work, banking, and national forest service are included.

There is a group of 12.5 percent that are undecided and do not know what line of work they will follow at present. The results cover more than 95 percent of those graduating and gives a clear-cut picture of what the agriculture seniors expect to do. This, however, is a relatively small number compared to the same periods of the previous five years.

More seniors are returning to the farm this year than at any time in the past five years. This indicates that farm conditions are such that the agricultural student has a better opportunity, in relation to other types of work he would otherwise do, to start farming and progress faster than he would have at any time in the past five years. This is probably true of other agricultural college graduates in the Middle West. As the number of college graduates who farm increases, the effect on American agriculture becomes more significant because both the obligations and opportunities of this group of farmers are greater than those of any other group.

# State Vocational Contests, Future Farmers' Congress Bring 700 to Campus

Roy Freeland, '37

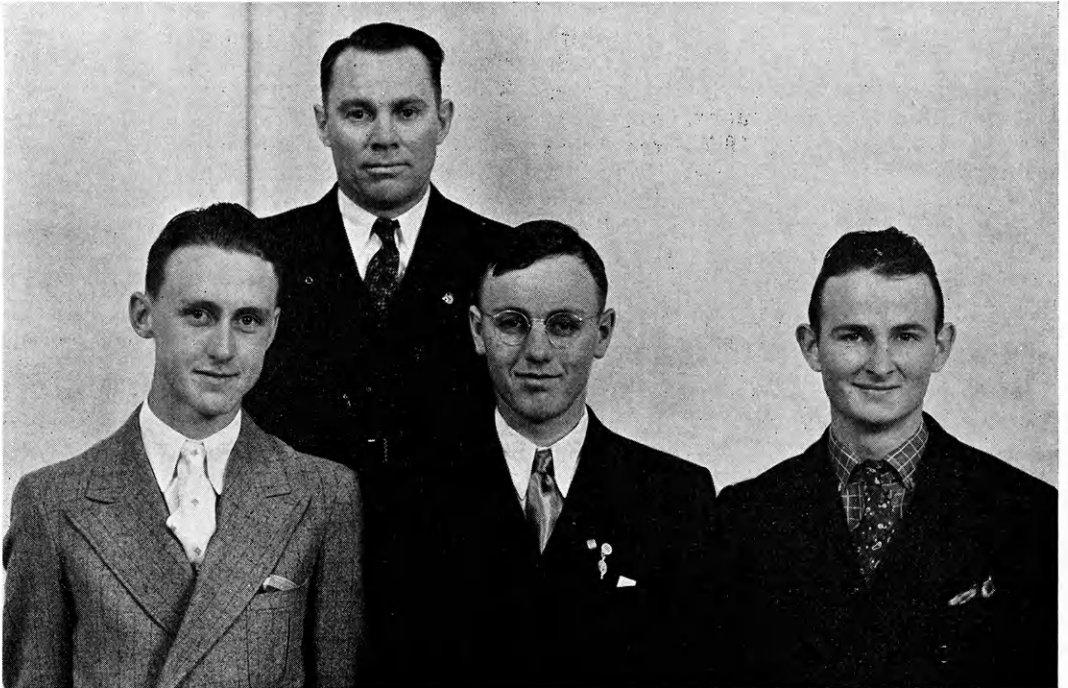
A sample of American rural youth passed in review on the Kansas State College campus when husky high school lads, representing 84 high schools from all corners of Kansas, competed in the annual state high school contest at Manhattan April 26 and 27. This year's event set a new record for number of entries, with 84 teams entered in the agricultural contests and 44 teams entered in the farm mechanics contests.

With sharp calculating eyes, the high school boys competed in judging livestock, dairy animals, poultry, and farm crops. College students and spectators stopped to look on with interest and admiration as they matched skill

in working with concrete, farm machinery, power, sheet metal, rafters, and forging.

First class oratory floated from the windows of west Waters Hall Tuesday morning when 18 young speakers spoke in the annual F. F. A. public speaking contest. According to the judges, Dr. C. V. Williams of the education department; Prof. Harold Howe of the agricultural economics department; and Leslie Blake, student in public speaking, it was a tough job to pick the winners. Harmon Bear of Abilene won first with his oration on "R. E. A. Power for American Farms."

One of the most colorful events of the two days' program was the annual



WINNERS OF 1937 VOCATIONAL AGRICULTURE JUDGING CONTEST

The Newton High School team which annexed the highest score in the entire contest. Left to right: Lauren Phillips, R. M. Karns, coach, Albert Martin, and Maurice Gates.

## VOCATIONAL CONTESTS

Future Farmers of America banquet given by the Manhattan chamber of commerce in the community house Tuesday night. More than 700 boys and instructors sat in long rows at the banquet tables and enthusiastically applauded the Solomon F. F. A. orchestra, directed by Paul R. Chilen. Business men, professors, and students crowded in the back part of the room to nod their approval of the music.

Joe Black, Sheridan, Wyoming, president of the national organization of Future Farmers of America, was the principal speaker. His address portrayed in a striking manner the enthusiasm of the Future Farmer movement. The Kansas Association of Future Farmers was organized in April, he pointed out, and there are now 126 F. F. A. chapters in the 131 vocational agriculture departments in the state. These chapters have a paid up membership of 2,663.

Another "scalp" was added to that long string at the belt of Ralph Karns, when the Newton High School team was awarded first place in the agricultural judging contests. First places in forging and power paved the way for another Oberlin victory in the farm machinery contests. Oberlin has held this honor rather consistently for a long period of years.

Forty-four outstanding boys were advanced to the State Farmer degree. New officers elected to head the Kansas Association of Future Farmers of America are Albert S. Coates, Shawnee Mission, president; Harmon Bear, Abilene, vice-president; Leonard Deets, South Haven, secretary; Gene Birdzell, Winfield, treasurer; Emil Heck, Lawrence, reporter; L. B. Pollom, Topeka, adviser; and A. P. Davidson, Manhattan, executive adviser.

Professor Davidson and Doctor Williams of the Kansas State College education department, and Lester B. Pollom, state supervisor of vocational education, were active in arrangements and plans for this annual event.

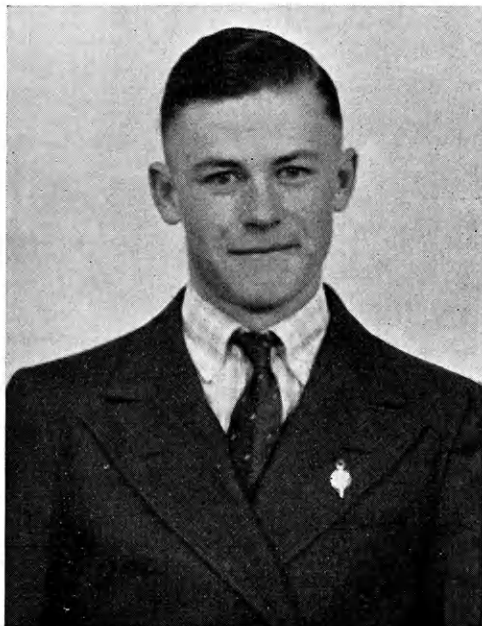
### STATE HIGH SCHOOL CONTEST

#### Ten High Individuals—Entire Contest

Name	School	Score	Coach
Loren McDonald.....	Fredonia	1,757.0	J. A. Watson
Albert Martin.....	Newton	1,751.0	R. M. Karns
Maurice Gates.....	Newton	1,734.0	R. M. Karns
Allen Honeyman.....	Fredonia	1,729.0	J. A. Watson
Lauren Phillips.....	Newton	1,722.5	R. M. Karns
Guy Jennings.....	Morrowville	1,711.5	I. E. Peterson
Clifford Case.....	Coldwater	1,711.0	LeRoy E. Mella
Frank Metzger.....	Coldwater	1,689.5	LeRoy E. Mella
Murray Kinman.....	Wamego	1,668.5	Harold Walker
Martin Sehrag.....	Moundridge	1,662.5	Earl H. Johnson

#### Ten High Teams—Entire Contest

School	Score	Coach
Newton.....	5,207.5	R. M. Karns
Fredonia.....	5,131.0	J. A. Watson
Coldwater.....	5,039.0	Leroy E. Mella
Lebanon.....	4,902.0	F. A. Blauer
Moundridge.....	4,870.5	Earl H. Johnson
Lawrence.....	4,862.0	William R. Essick
Morrowville.....	4,811.0	I. E. Peterson
Wamego.....	4,770.0	Harold Walker
South Haven.....	4,719.0	Harold L. Kugler
Miltonvale.....	4,668.0	H. Frederick Dudge



HIGH MAN!

Lauren McDonald, member of the Fredonia team, who achieved the highest individual score in the contests.

### Newton Takes Crops Judging Contest

This is the fifth consecutive year that the Newton High School team, coached by R. M. Karns, has won the crops judging contest. The individuals on this team placed first, second, and sixth in

## VOCATIONAL CONTESTS

the contest to give Newton a total score of 2,121 points; Coldwater High School, coached by L. E. Melia, the runner-up, compiled a total of 2,044 out of a possible 2,400 points. Albert Martin, Newton, had the highest individual score with a total of 718 points; his teammate, Lauren Phillips, was a close second with a total of 715 out of a possible 800 points. Fifty-one schools entered teams in the crops contest.

The placing of the first teams and individuals in the contest were as follows:

### High Teams

School	Coach	Score
Newton.....	R. M. Karns	2,121
Coldwater.....	L. E. Melia	2,044
Fredonia.....	J. A. Watson	2,034
Lebanon.....	F. A. Blauer	1,904
Lawrence.....	William R. Essick	1,900
Morrowville.....	I. E. Peterson	1,865
Oberlin.....	L. R. Chilson	1,855
Wamego.....	Harold Walker	1,815
South Haven.....	H. L. Kugler	1,800
Moundridge.....	E. H. Johnson	1,783

### High Individuals

Contestant	School	Score
Albert Martin.....	Newton	718
Lauren Phillips.....	Newton	715
Clifford Case.....	Coldwater	714
Loren McDonald.....	Fredonia	699
Allen Honeyman.....	Fredonia	694
Maurice Gates.....	Newton	688
Frank Metzger.....	Coldwater	685
Guy Jennings.....	Morrowville	668
Murray Kinman.....	Wamego	661
Lloyd Russell.....	Lebanon	660

### Farm Mechanics Contest

For the fifth consecutive year, the team representing the Decatur County Community High School, Oberlin, took top honors in the farm mechanics division of the state high school vocational agriculture contests.

The Decatur County team, coached by Lester Chilson and T. Jorgenson, amassed a score of 9,167 points out of a possible 12,000, in a battle of skill in agricultural engineering and shop work. The contest involved demonstration of handling of farm power and farm machinery, concrete, welding, roof framing, and sheet metal work. Members of the winning Decatur County team were Elbert May and Elwood Mines.

Blue Rapids High School coached by M. O. Castle was second and South

Haven High School coached by H. L. Kugler placed third, with scores of 7,721 and 7,667.

Team	Individual Score	Team Score	Coach
Decatur County H. S. ....	.....	9,167	Lester Chilson T. Jorgenson
Elbert May .....	4,460		
Elwood Mines .....	4,507		
Blue Rapids H. S. ....	.....	7,721	M. O. Castle
Rollin Fincham .....	4,241		
Harry Craft .....	3,479		
South Haven H. S. ....	.....	7,667	H. L. Kugler
Howard Bacon .....	3,926		
Lee Wise .....	3,741		



### DIVISIONAL WINNERS

Top: Decatur County Community High School, Oberlin, which took first place, for the fifth consecutive year, in the farm mechanics contest. Left to right: L. R. Chilson, coach, Elbert May, and Elwood Mines.

Center: First in poultry judging was the Waterville High School team. Members, left to right: Lowell Blaser, H. E. Frank, coach, Raymond Fincham, and Melvin Nelson.

Bottom: Olathe High School was first in the dairy contest. Members are, left to right, Glenn Ewing, E. L. Raines, coach, Raymond Zimmerman, and Glen Houston.



## FATTENING LAMBS IN SORGHUM BELT

### Olathe Wins Dairy Contest

Olathe High School's dairy judging team took first place in the dairy division of the state high school vocational agriculture contest with a score of 707 points, and Glen Houston, Olathe, was the high individual of the contest, with a score of 285 points, winning for him the gold medal offered by the Kansas State Dairy Club. E. Lee Raines coached the Olathe team.

The placing of the teams in the dairy division was as follows:

High Teams		Score
School	Coach	
Olathe High School.....	E. Lee Raines	707
Shawnee-Mission H. S. ....	H. D. Garver	685
Moundridge H. S. ....	Earl H. Johnson	664
Winfield H. S. ....	Ira L. Plank	637
Inman Rural H. S. ....	Fred Schultis	636

High Individuals		Score
Contestant	School	
Glen Houston.....	Olathe H. S.	285
Charles Christian.....	Shawnee-Mission H. S.	250
Bob Machin.....	Wamego H. S.	243
Owen Tucker.....	Winfield H. S.	233
Loyal Eckert.....	Kiowa H. S.	230

## Fattening Lambs in the Grain Sorghum Belt

R. F. Cox

In Charge Sheep Investigations

Approximately 200 lamb feeders from different parts of the Plains region gathered at the branch experiment station at Garden City April 10 for the fourth annual Lamb Feeders' Day, which marked the completion of four years of experiments with feeds produced in the grain sorghum belt of the Great Plains.

A few of the results are summarized below:

1. Wheatland milo grain produced somewhat larger and more economical gains in this test than either Dwarf Yellow milo or sumac grain. This does not conform to the result obtained in a previous test of the two former, and cannot be considered conclusive. Last year Dwarf Yellow milo proved to be more efficient than Wheatland. There

probably is little if any difference in the feeding value of the two.

2. So far as is known this is the first test ever conducted in which fattening lambs were full fed for any considerable length of time on sumac grain. Sumac grain proved to be approximately equal to milo in this test. Further experimental work must be done on these two types of grain before definite conclusions can be drawn.

3. Deferring grain feeding for 30 days at the beginning of the feeding period had no significant effect on the total gains made by lambs, compared with full feeding of grain from the start. Such a practice did result in a saving of grain, an increased utilization of roughage, and consequently cheaper gains.

4. In each of the four tests of the practice of deferred grain feeding the grains have been approximately the same, but the cost lower than where full grain feeding was followed. Furthermore, this is a safer way to start lambs on feed, and has the added advantage of utilizing the maximum of roughage and the minimum of grain in lamb fattening rations. This practice is recommended to Kansas feeders.

5. Ground sumac stover produced slightly larger gains than ground milo stover. Both roughages were full fed. The lambs fed sumac roughage ate approximately 50 percent more than those receiving milo stover. This resulted in a decidedly larger feed cost per pound of gain for the sumac fed lambs.

6. Lambing down sorghum crops appears to be an expensive and wasteful practice, where the grain yield of the crop is sufficient to warrant harvesting.

D. Z. McCormick, '21, county agent at Council Grove, Kansas.

B. M. Anderson, '16, is assistant secretary of the American Hereford Breeders' Association, Kansas City, Mo.

# THE KANSAS AGRICULTURAL STUDENT

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## RURAL YOUTH DEMONSTRATES COMPETENCE

If we can judge all rural youth by the vocational agriculture boys who assembled on our campus for the state high school contest April 26 and 27, American agriculture will surely be able to keep her head above water. We take off our hats to them, not only because they are good judges of agricultural products and are well trained in farm mechanics work, but also because they are informed on present day agricultural problems and know how to talk about them.

The annual F. F. A. public speaking contest has become a source of entertainment and education for anyone who is fortunate enough to attend. The participants are more than orators. They understand their subjects thoroughly and do a good job of answering questions about the different topics.

Judging from the way they conducted their meetings and handled their business matters, the farming industry is due for some rapid progress in establishing itself on a businesslike basis

that will compare with any industry.

Future Farmers, it was a pleasure to meet you! It is encouraging to take a look at the sturdy backbone of future American agriculture. You are a challenge to all of us to bend to our work with added zeal and enthusiasm. We look forward to meeting you again next year.

## SENIOR REMINISCENCE

Four years ago we wore freshman caps and dodged "K" Club paddle slingers. Today, we wear caps and gowns and dodge insurance salesmen. In 1933 we read the newspaper to see if Pop-eye won his last fight and 1937 finds us scanning the "want ads." Four years ago we paced the streets of Manhattan looking for a job so that we might eat, sleep, and buy textbooks. Now we are again wearing out our shoe soles looking for a job to pay our college debts and start a family budget.

Four years ago, most of us felt just a wee bit timid as we embarked upon the turbulent waters of college life with all its frills and thrills—its tests

## EDITORIALS

and trials. Today, we feel timid again as we face a larger and, we are told, a sterner institution—the world.

We have seen three long rows of friends and pals change the tassels from the right to the left side as they stepped off the stage proudly clutching sheepskins which represented four years of college work. We have envied them each time.

Now it is our turn to walk in that line. It is our time to march to the majestic strains of good old "Pomp and Circumstance" as we form a line from Nichols Gymnasium to the stadium. It will send memories of four years throbbing through our veins—memories of those three classes ahead of us and memories of our associations with you who will follow during the next three years.

Yes, we had to work while here, but we enjoyed it. We have less money than when we came and most of us still must work after we leave, but say, you can't find a one of us who would sell that sheepskin and what it represents. We have something that can never be taken away from us. We are proud of it and we don't mind saying so.

Sorry, but there's a lump in our throats. We tried to hide it by being just half-serious but—oh well! Good-bye, folks, and here is a good firm handshake for you. Here's luck to you—and us.

---

### THE VALUE OF HONOR SOCIETIES

The several honorary organizations on our campus recently have elected new members, focusing attention on a rather limited number of students who have shown outstanding scholarship or ability in some activity. The question naturally arises in the minds of many: Are these organizations and the recognition that they give to college students worth while?

This question has two sides. Some think, and with provocation, that honors showered on a college student may elevate his opinion of himself beyond

reasonable self-confidence. There is some evidence that a certain number of students are satisfied with the outward trappings that recognition brings, and cease striving for higher attainment. If this were the ultimate of recognition, then it certainly could be termed detrimental. The man who feels that recognition makes him superior to his fellows is doomed to lose friends and happiness.

That is the darker side. The brighter is the example of the student who comes to college with the serious purpose of equipping himself better to meet the problems of life. He studies industriously to obtain as much knowledge as he can. He mingles with fellow students and joins organizations which appeal to his interests. He learns to know students outside of his field of work, as well as those within it, and thus broadens his viewpoint. He recognizes the value of health and competition, and enters into athletics, if he is able. He strengthens his religion by faithful service to Christian organizations.

Should not the student who tries to develop his knowledge, skill, and character in this way receive some recognition over his classmates who have failed, or who have not tried? Is not the encouragement given by recognition worth while if it stimulates him to continue as he has started?

There are honor societies at Kansas State College which recognize qualities of leadership, character, and service, as well as superior scholarship. Certainly the person who has been outstanding in developing these traits has made a worthy accomplishment. He has taken a big step toward laying a firm foundation for his later life.

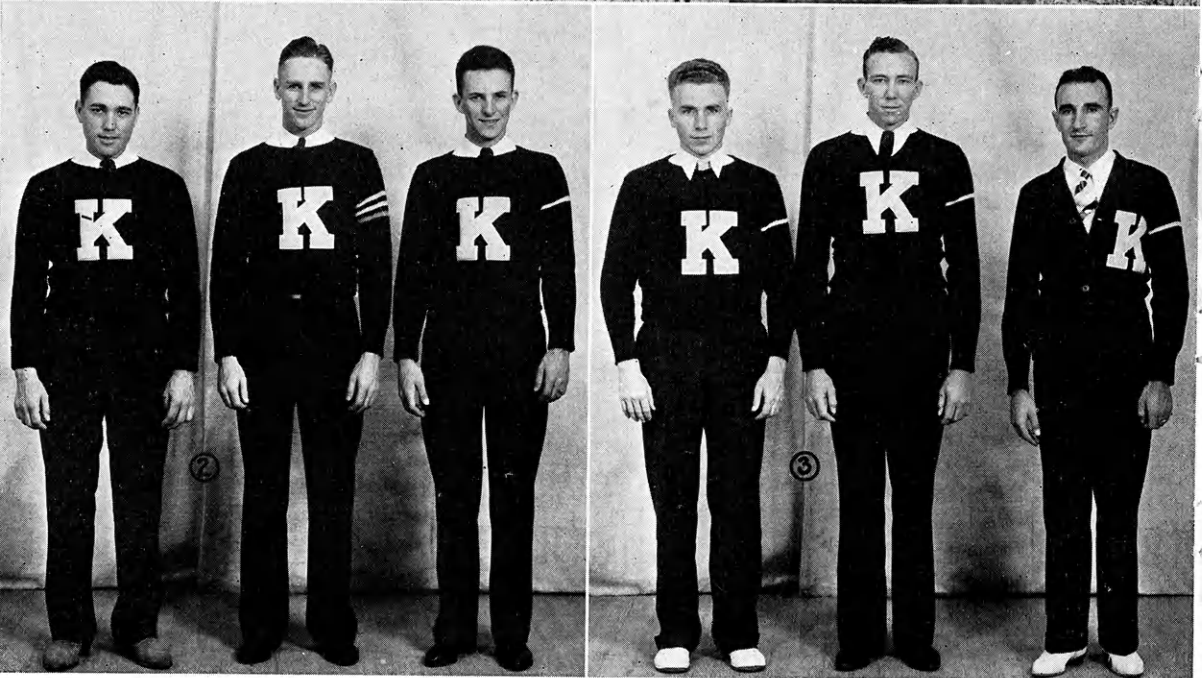
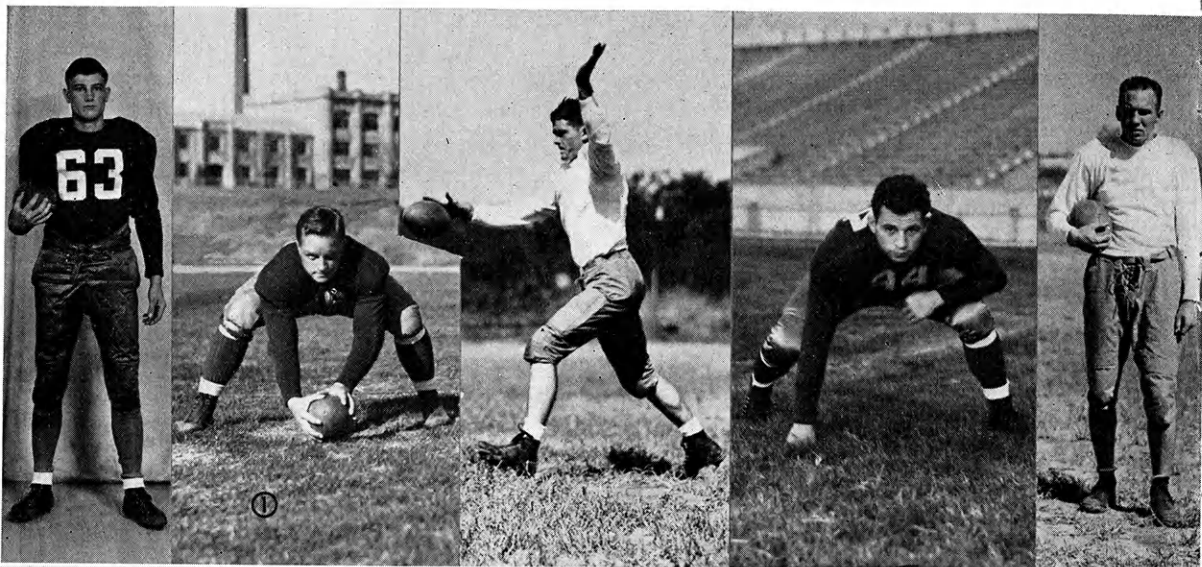
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R. C. Rogler, '32, has an extensive cattle ranch near Matfield Green, Kansas.

R. W. Taylor, '15, now is manager of the Dan Casement farm near Plainville, Ohio.

# Many Students of Agriculture Develop Outstanding Leadership in Work and Activities Not Agricultural

*The following students of the past school year are examples.*



(1) AG STUDENTS WHO WERE MEMBERS OF THE 1936 VARSITY FOOTBALL TEAM

Left to right: Emile F. Kientz, Kenneth L. Nordstrom, William A. Hemphill, Rolla B. Holland, Oran F. Burns.

(2) AGS ON THE BASEBALL TEAM AND (3) THE TRACK TEAM, 1937

Left to right: Howard C. Myers, Frank H. Cooley, Meade C. C. Harris, Raymond W. Isle, J. Elbert Johnson, Lewis Sweat.

## NON-AGRICULTURAL ACTIVITIES

### GENERAL INFORMATION

This list of students is not complete. It does not attempt to include all students who might be mentioned because of having done creditable work. It includes typical men or key men as far as possible. It aims to present a large variety of activities or class work and always to select outstanding men. The division of the students into 18 groups is arbitrary.

#### (1) AG FOOTBALL MEN

**Emile F. Kientz** with three years of training in the Manhattan High School, has been a member of the football squad since entering college. He received his freshman numeral in '34, and his first letter in '35. A broken collarbone kept him from lettering in '36. He thus has two years of competition left and he will be a strong contender for an end position.

**Kenneth L. Nordstrom**, Norton, received his freshman numeral in the fall of '35 and his first letter in the fall of '36. He has both weight and speed and is altogether a promising football center.

**William A. Hemphill**, Chanute, has a splendid three-year record in football. He also lettered in boxing and three times in track. He will certainly do superior work in the end position in his final competition next fall.

**Rolla B. Holland**, Iola, Class of '37, is a football player and all-round student of whom every person familiar with K. S. C. athletics may be proud. He was elected captain of the 1936 team and was placed on every All-Big Six team selected for the season. He is considered by many of the coaches in the conference as being the finest guard that ever played for Kansas State. Assistant Coach Stan Williamson says, "It would be asking too much to ever hope to coach a finer football player than Rolla Holland."

Mr. Holland is having an unusual experience just now because of having been selected to accompany a load of Holstein cattle for the Carnation Milk Company, Carnation, Wash., to Johannesburg, Union of South Africa. He was scheduled to leave May 5, going via Cape Horn. He plans to work a few weeks in South Africa

to obtain interesting and accurate information. By his return he will complete a tour of the world. This is a fine prize trip which no one is better qualified to handle than Rolla Holland.

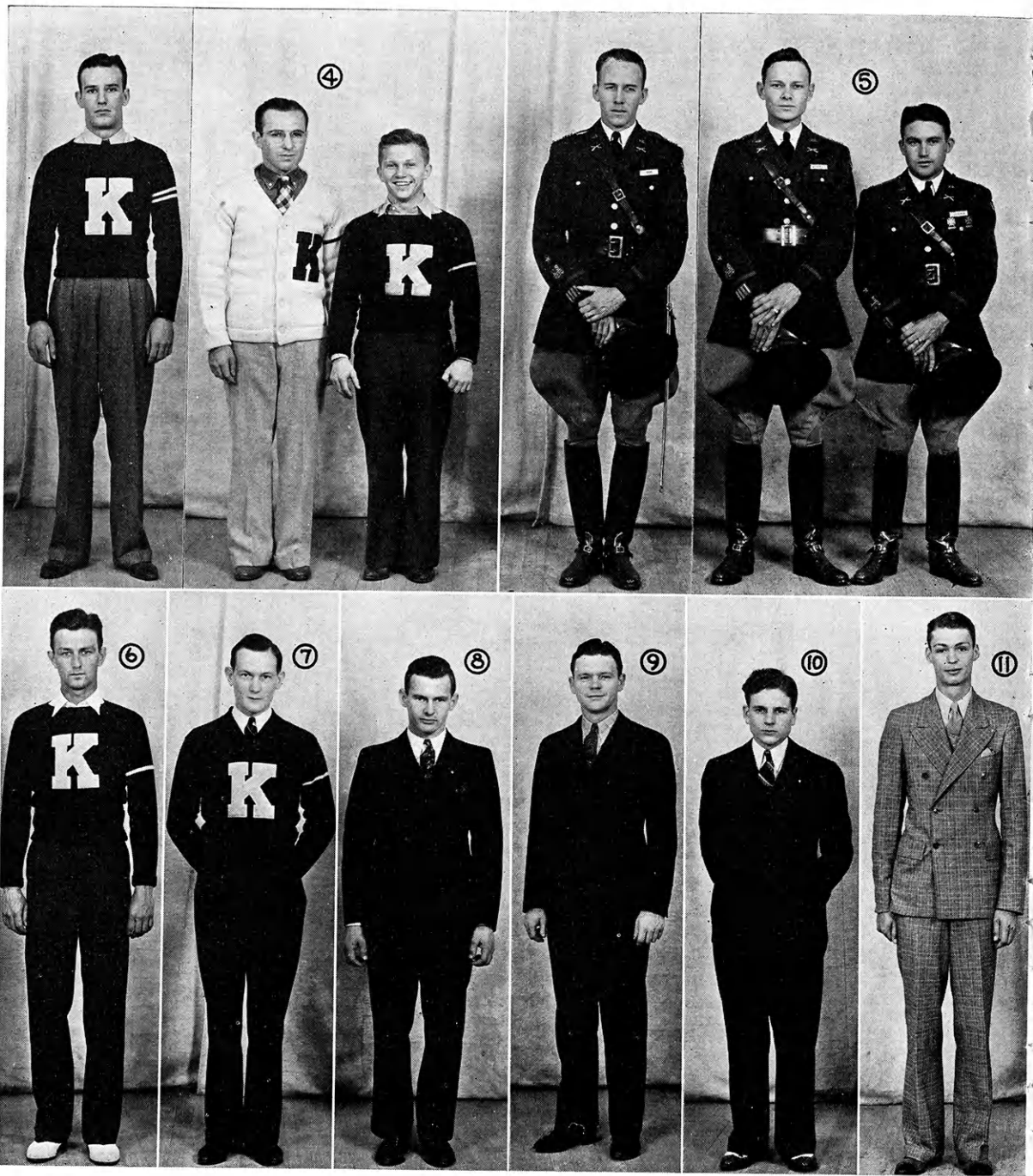
**Oran F. Burns**, Topeka, Class of '37, has a three-year record in football. He received his freshman numeral in the fall of '33 and letters in the fall of '34 and '36. He was usually found in the end position. (His military record will be noted later.)

#### (2 AND 3) AGS IN BASEBALL AND TRACK

(2) **Howard C. Myers**, Abilene, **Frank H. Cooley**, Goff, **Meade C. C. Harris**, Tecumseh, are the representatives of the Division of Agriculture on the 1937 K. S. C. baseball team. Myers is a two-letter man. Four years prior to his college record he was a member of various Ban Johnson leagues. He expects to compete for his third letter in the spring of 1938. Cooley, who will receive his degree this spring, is captain of the team at the present time. He has had an excellent record as pitcher, winning at the present writing 11 out of 14 games. He won one letter in basketball and prior to his college days had three years' experience in Ban Johnson leagues. Harris is shortstop on the present team. He has also competed in the all-school boxing tournament, winning in the 145-pound class. He is an honor student.

(3) **Raymond W. Isle**, Independence, **J. Elbert Johnson**, Winfield, **Lewis Sweat**, Cedar, are the Ags on the track team. Isle is a high school two-letter man in football and track, a two-letter track man in junior college and also in K. S. C. Johnson was a varsity track man both in 1936 and 1937. He tied for first place in the Nebraska dual meet of 1936. Sweat, Class of '37, is a three-letter track man. He runs in half-mile, mile, and 2-mile events. Besides winning the three regular track letters he has won two letters in 2-mile races. He was a member of the 2-mile relay team which won in Chicago this spring.

(4) Among the minor sports of interest to K. S. C. men is wrestling. The Division



(4) WRESTLERS AND (5) LEADERS IN THE K. S. C. INFANTRY

Left to right: Forrest R. Fansher, Carl S. Warner, Fred W. Leimbrock, Oran F. Burns, Lyman C. Calahan, Clark B. Stephenson.

Other leaders: (6) Joe A. Eckart, (7) Robert J. Anderson, (8) Paul W. Hodler, (9) Vernal G. L. Roth, (10) James F. Booth, (11) Robert B. Jaccard.

## NON-AGRICULTURAL ACTIVITIES

of Agriculture regularly contributes a good quota. This year the Ags in wrestling were: **Forrest R. Fansher**, Hutchinson, **Carl S. Warner**, Whiting, **Fred W. Leimbrock**, Wichita. Fansher won his numeral in the spring of '34 and a K in '35 and another in '36. He tied for the Big Six championship in '35. Warner is a two-letter man in wrestling. He won the Missouri Valley championship in the 134-pound class this year and has been elected captain of the team for next year.

Leimbrock is in the 118-pound class. He won second in his class in the Missouri Valley contest in 1936 and Valley championship in 1937. He was school champion as a freshman. He also won the diving championship in 1937 and second place in 1936.

(5) Military Science is required of all able-bodied men in K. S. C. Almost all of the Ag students are enrolled in infantry. In their work they win as many honors and special points of recognition as are won by any similar number of students on the hill. The three highest ranking individuals during the past year are listed and their pictures presented with this report. They are **Oran F. Burns**, Topeka (see "Ag Football Men"), **Lyman C. Calahan**, Abilene, and **Clark B. Stephenson**, Sedan.

A saber was awarded to Cadet Captain Oran F. Burns in recognition of his having been the outstanding Cadet Captain in the infantry, in command and executive ability in his unit.

Captain Calahan was advanced to the rank of Regimental Adjutant, indicating honors to him similar to those won in all his classes and activities.

Captain Stephenson was advanced regularly in his work in the infantry. As a sophomore he was Corporal, as a junior, 2d Lieutenant. The first semester of his senior year he was 1st Lieutenant and the last semester, Captain. His platoon was chosen to give the close order drill for the annual inspection.

### (6) AND (7) TENNIS AND SWIMMING

(6) **Joe A. Eckart**, Topeka, has shown up as the leading tennis player in the division. He lettered in tennis in 1935-'36

and 1936-'37, being No. 2 the first year and No. 1 the second.

(7) **Robert J. Anderson**, Lyons, chose swimming as his athletic activity. He won his freshman numeral in 1935-'36 and was awarded a letter in 1936-'37 by placing first in the dual meet with K. U.

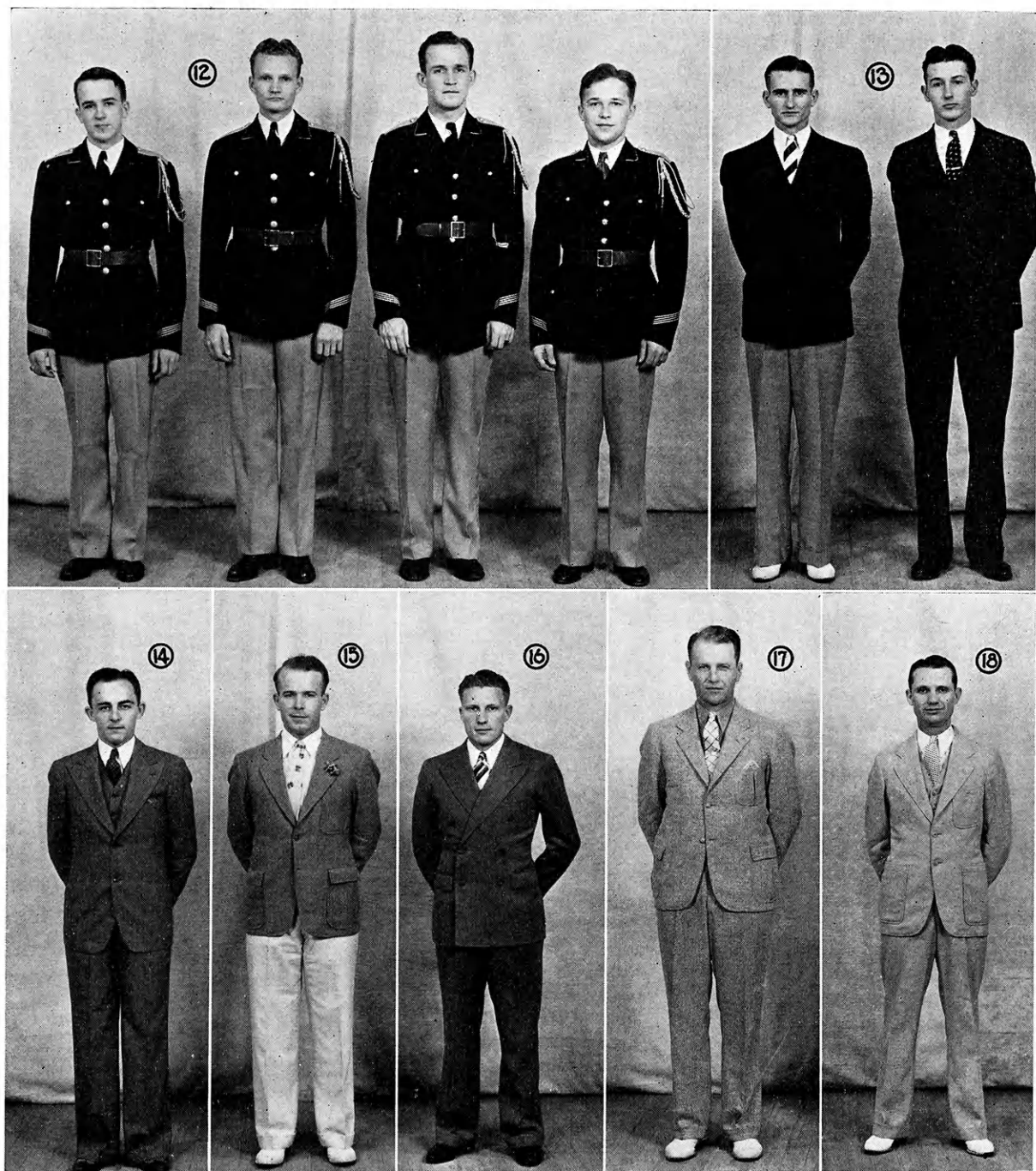
### (8), (9), (10), AND (11) AGS IN PUBLIC SPEAKING

(8) **Paul W. Hodler**, Beloit, (9) **Vernal G. L. Roth**, Emporia, and (11) **Robert B. Jaccard**, Manhattan, are all members of Pi Kappa Delta, honorary forensic fraternity. Hodler has been on the debate squad two years and has not only been a successful debater but has rendered valuable assistance in the preparation and conduct of radio programs.

Roth was president of the Kansas Rural Life Association in 1936 and at the present time is national president of the youth section of the American Country Life Association. He is editor of "Who's Who?" for 1936-'37, and has won numerous contests and recognitions in student activities too numerous to mention in the space allowed.

Jaccard holds the record in participation in intercollegiate debates. He has participated in more than 30 of these debates. He has debated before civic clubs, chambers of commerce, farm bureaus, and high school assemblies. He gave an address before the Unitarian Forum in Topeka on "The College Student's Viewpoint on Everyday Happenings." His debate work has taken him into five states. He is possibly the only student on the campus who holds the Pi Kappa Delta degree of honor for excellence in debate.

(10) **James F. Booth**, Fairview, has been in K. S. C. only one semester but he has made a record that is both snappy and brilliant. In high school he carried leading parts in both junior and senior class plays. He played the leading role in a production by Baker players at Baker University, Baldwin. His outstanding work in dramatic performance to date is playing the role of Dr. Finley in the recent Manhattan Theatre production "Yellow Jack." He has unusual dramatic ability.



(12 AND 13) AG STUDENTS IN MUSICAL ORGANIZATIONS

Left to right: Lewis Kidder, James C. Strong, Eugene C. Roe, Robert W. Wichser, Harold G. Todd, Gerald E. Denny.

Other leaders: (14) George W. Aicher, (15) Clarence L. Bell, (16) Fred L. Fair, (17) Milton C. Kohrs, (18) Roy H. Freeland.



## NON-AGRICULTURAL ACTIVITIES

### AGS IN MUSIC

(12) **Lewis Kidder**, Pittsburg, **James C. Strong**, Moran, **Eugene C. Roe**, Manhattan, and **Robert W. Wichser**, Beardstown, Ill., are members of the college orchestra and band. Kidder is a sophomore but attended Pittsburg Teachers College last year. Both years he has been a member of both orchestra and band. Strong, Class of '37, had two years in the Iola Junior College band and orchestra and two years in K. S. C. band and orchestra. He has been a member of the Moran city band for eight years. Roe has been three years a member of Kansas State band and orchestra. Wichser is a freshman. He has played a trumpet in the college band and orchestra the past year. He also played in the high school band during his junior and senior years. The band of which he was a member entered the national contest in Cleveland, Ohio, in 1936.

(13) **Harold G. Todd**, Longford, and **Gerald E. Denny**, Elmo, are the Ag representatives in the men's glee club. Todd has been a member of the glee club two years. He sang the leading part in "An Act of Up-to-date Grand Opera" in 1936 and was a member of the college quartette in 1937. He sang in his high school quartette during his junior and senior years.

### STUDENT LEADERS

(14) **George W. Aicher**, Hays, (15) **Clarence L. Bell**, McDonald, (16) **Fred L. Fair**, Alden, (17) **Milton C. Kohrs**, Elmo, and (18) **Roy H. Freeland**, Effingham.

Aicher has been a splendid leader in Y. M. C. A. work. He was vice president in 1935-'36 and president in 1936-'37. He is a member of Dynamis, all-college honorary fraternity, is an honor student, and has shown marked leadership during his first two years in college.

Bell has earned diversified honors in various college activities. He is an honor student from every slant. His leadership in Dynamis, all-college honorary fraternity, has been especially

marked. He was vice president of the organization during his junior year and has been president the past year.

Fair is unexcelled in religious leadership. He is president of the college men's Bible class of the Baptist student council and Baptist Young People's Union. In the summer of 1936 he was a delegate to the Student Volunteer Convention at Lakeside, Ohio. He is an honor student and a high-class leader in all his work.

Kohrs is an exceptional all-round leader. He won freshman numerals in both basketball and football and has won three letters in intramurals. By fine leadership, hard work, and ability, he is recognized as an outstanding leader in intramural athletics.

To list the activities in which Freeland has had a conspicuous part would require more space than allowed. He is an honor student and his progress regularly surprised his instructors. It seems most appropriate to select his improvement in radio performance as most worthy of comment. In giving a series of radio programs he demonstrated a peculiar knack for writing the homely human interest touch into his scripts. His interests extended far beyond the bounds of his class work and one could easily tell by his discourse that he understood their relationship.

### LOOK! LISTEN!

The 33 men whose pictures have been presented are making or have completed exceptional college records. They are all students of the Division of Agriculture. It is a splendid thing, however, for men with ambitions for professional careers to have, also, a hobby or an avocation. It will contribute toward their usefulness in society and may even make a financial contribution in their lives.

The Division of Agriculture always encourages activities such as here presented among its students. If you desire breadth of training, administrators in the agricultural division will assist you in planning a curriculum that will really include lines of work that you would do well not to overlook.

# Student Life at Kansas State College Has Few Dull Moments

Waldo Poovey, '38

Football, basketball, and baseball . . . track meets . . . varsity dances . . . student elections . . . judging contests . . . lectures . . . assemblies . . . parties . . . steak fries . . . quizzes . . . term papers . . . "cram" sessions . . . classes, classes, and classes . . . these are the things that make student life what it is at Kansas State College. It's not all work, and it's not all play; most students strive to enter into a varied and interesting assortment of extra-curricular activities to supplement their academic work.

Starting in the fall are the varsity dances which remain perhaps the most popular student diversion throughout the year; and incidentally, the "swing" music of Matt Betton's varsity orchestra makes dancing the best of pleasures. The agricultural students usually open their social season with a dance, the renowned "Ag Barnwarmer," sponsored by the Agricultural Association. For two days preceding the Barnwarmer every ag student blossoms out in "barnyard tuxedos" (commonly called

overalls back home). It is the lily pond or the stock tank for any ag student who attempts to disregard this popular tradition. At the dance itself the girls wear gingham dresses, and those who don't know the latest steps need not be wallflowers, because of several barrels of cider and hundreds of doughnuts that are furnished as refreshment.

Saturday afternoons during the fall usually find the whole student body in Memorial Stadium watching such players as Sam Francis and Lloyd Cardwell of Nebraska; George Hapgood of Kansas University; or Elder, Holland, and Ayers of Kansas State matching skill and power on the gridiron.

If students don't like football, there are plenty of other forms of entertainment. The two-mile track squad isn't bad. They usually furnish plenty of excitement between halves at the football games. During the winter months there is indoor track, swimming, wrestling, and basketball. If the chemistry, botany, zoology, and other troublesome (but necessary) courses aren't bother-

ing too much, it is a great deal of fun to watch Frank Groves do his fancy pivot shots, or see some student break the local pool record in the free style swim.

For those not interested in varsity composition, the intramural competition offers a chance to work off any surplus energy. The various clubs, fraternities, and religious groups all have teams that



A BUSY MOMENT IN "LAB" . . .

## STUDENT LIFE AT K. S. C.

furnish each other with plenty of competition, and furnish plenty of entertainment for the spectators. Softball, baseball, swimming, track, touch football, golf, tennis, ping-pong, boxing, and wrestling are all included in the intramural competition. These events in which varsity letter men cannot compete usually bring forth some remarkable talent.

In the school program the various judging teams play an important part. Besides serving an educational purpose, these teams offer opportunities for the students to take some enjoyable trips. Each year the junior livestock teams go to Denver and Fort Worth, and the senior livestock team goes to Kansas City and Chicago. Anyone lucky enough to make the dairy cattle team gets a trip to the Dairy Cattle Congress at Waterloo, Iowa, and the National Dairy Show. Men interested in dairy products have a chance to make a team which travels extensively. This team went to New Jersey for their contest last fall. The crops and meats teams make trips to Kansas City and Chicago, and usually a poultry team competes at Chicago.

The students in each department in the Division of Agriculture have a club to further the interests of the students majoring in the respective departments. These clubs sponsor the student judging contests. The Dairy and Block and Bridle Clubs sponsor the showing contests in the "Little American Royal" each year. Last February, during the show, people were turned away because of insufficient room at the "Royal." It is a coveted honor to be "grand champion showman" of this event.

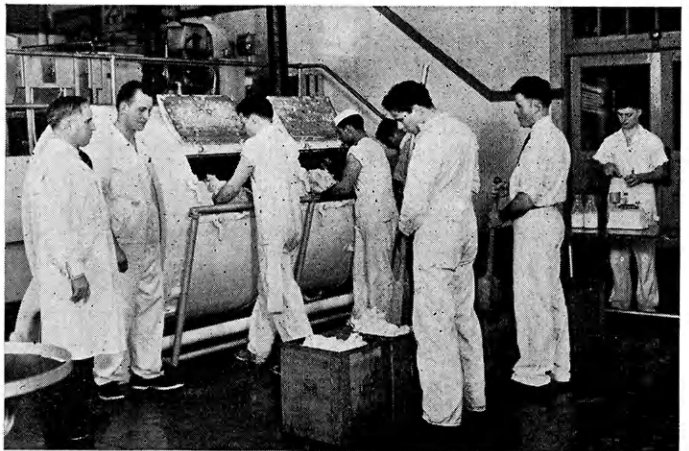
For the students who do excellent work in their academic courses, there are the various honor so-



... SOME WASH DISHES



... A BIT OF ARMY LIFE



... LEARNING MODERN CREAMERY METHODS

## GAMMA SIGMA DELTA ELECTS

cieties. Alpha Zeta honors the undergraduate agriculture students and does much to stimulate the work of the division. Phi Kappa Phi, Gamma Sigma Delta, Dynamis, and other such organizations are active in the field of honor societies, and the student who meets their requirements has a record

of which to be proud.

Many students are not financially able to go to school without working. This fact does not impair in the least their social position in any way. Many work on NYA, some find employment at the college barns, others work in the various offices on the campus.



DANCING AT THE "AG BARNWARMER"

## Gamma Sigma Delta Elects

H. A. Borgelt, '37

Gamma Sigma Delta, the honor society of agriculture, seeks to encourage high standards of scholarship and worthy attainment in all branches of agricultural science and a high degree of excellence in the practice of agricultural pursuits. Those elected to membership must be in the upper 15 percent of the senior class in standard agricultural colleges, or graduate students of outstanding ability in the various fields of agriculture or related sciences. Seniors and graduates elected to membership must not only be of high scholar-

ship but must also possess personal qualities and give promise of leadership in teaching, research, or in noteworthy service along agricultural lines.

Last year there were 13 seniors elected, while 14 members were selected for the school year of 1936-37. Those elected this year are Horton M. Laude, Manhattan; Oren J. Reusser, Wellington; Clarence L. Bell, McDonald; Lyle M. Murphy, Manhattan; Fred L. Fair, Alden; Frederick G. Warren, Beverly; Roy H. Freeland, Effingham; Wilton B. Thomas, Clay Center; Marion C. West, Blue Mound; Harold A. Borgelt, Zenda; Earl F. Parsons, Max, Nebr.; James C. Strong, Moran; Clare R. Porter, Stafford; and J. William Patton, Hiawatha.

# Kansas State College Has a Hearty Welcome for 4-H Club Members

Alfred G. Schroeder, '37

From a quiet and happy home under the blue skies in the sunflower state comes a young person driven in quest of knowledge to the halls of Kansas State College to scratch his name at the top in the roll of competition. He has developed the four H's—head, heart, hands, and health—and lived up to the motto, "To Make the Best Better."

Many students upon entering college are not accustomed to the situation in which they find themselves. It is here that the Collegiate 4-H Club serves as a refuge. Among the members of this organization you will discover many old friends. Of the 3,651 students enrolled at Kansas State College last fall, 49.3 percent of the agricultural students, 34.8 percent of the home economics students, and 16.3 percent of the students in all other divisions were former 4-H Club members. This is 25 percent of the total number in college or approximately 900 students. The collegiate club is composed of 350 members selected from this group.

While the major purpose of the collegiate club is that of keeping the light of 4-H achievement glowing through social and co-operative efforts, there are other functions equally as important. It serves as a nucleus of the Kansas Rural Life Association. It sponsors the publication *Who's Whoot*, the state 4-H yearbook, which is edited and published by a staff of selected members from the club.

Each fall the campus awaits the arrival of new students with 4-H experience to partake of its beauty. Large, artistically built stone buildings, books of fact and theory, and other necessary classroom conveniences are all here at Manhattan, but without the students in search of knowledge they are useless. Courses in all phases of work in agri-

culture, home economics, engineering, general science, and veterinary medicine are taught at Kansas State College.

The Collegiate 4-H Club has an annual fall mixer soon after enrolment to which all former 4-H members are extended invitations. As further assistance the old members of the club help the new students in finding their way around and making them feel at home. It is the intention of the club to have a social gathering at least once a month.

Noteworthy achievements of former 4-H members are recognized. The *Who's Who Among American Colleges and Universities* honors several members each year. The student governing association is well represented with former club members. Vernal Roth, Emporia, was elected president of the youth section of the American Country Life Association at the conference in Kalamazoo, Michigan, last August. Clare Porter, Stafford, and Joe Wetta, Colwich, were members of the committee that appeared before Governor Huxman in support of a new chemistry building for Kansas State College.

Financial limitations on the part of many students make it necessary that they work their way. Through previous relations with the college, while in 4-H work, the incentive to continue with education is developed. Thus former club members financially handicapped realize the value of an education to such an extent that many work part time as well as develop into campus leaders.

Kansas State College extends a hearty welcome to former 4-H club members, not only because it is the home of the state 4-H movement, but because the typical 4-H students represent leadership.

# Students Test Their Skill in Judging Crops and Livestock

Spurred on by many glittering awards, the desire to test their skill in judging, and a keen spirit of competition, a large number of students entered the annual judging contest series for students held on the campus April 24, May 8, and May 15. A total of 293 entries was recorded for the three contests, and prizes such as a \$50 scholarship, silver trophies, a cream separator, electric clippers, gold medals, and subscriptions to magazines found winners.

A description of the contests and the names of the winners follow:

## Crops Judging Contest

W. R. Allen, '38

The annual students' crops judging contest was held Saturday, May 8, in east Waters Hall, with 71 students competing. Prizes contributed by twenty-one business firms throughout the country consisted of \$45 in cash; three silver trophies, one for the high man in each of the three divisions of the contest; medals; valuable merchandise; and a \$50 scholarship awarded by the Kansas City board of trade, to be divided equally between the two high men of the senior division.

The contestants were divided into three divisions, depending upon training they had received in crops. Those in the freshman division had taken no college work in crops. Those in the junior division had taken or are taking Farm Crops, and those in the senior division had taken or are now enrolled in Grain Grading and Judging. There were 16 in the senior division, 46 in the junior, and 8 in the freshman.

The possible score for the contestants in the junior and senior divisions was 1,020, and for the freshman division was 660. The high ranking men were:

	Score
<b>Senior Division</b>	Alvin Law.....923
	Wayne Freeman .....903
	William Allen .....902
	Wayne Tjaden .....895
	Dewey Axtell .....885
Dean Dicken .....864	
<b>Junior Division</b>	E. L. Cyphers.....880
	B. E. Soderblom.....834
	Lloyd Wildman .....812
	Wilbur Alvey .....802
	Carl Claassen .....799
Irwin Miller .....791	
<b>Freshman Division</b>	Harold Fox .....612
	John Dean .....573
	James Booth.....538
	James Peddicord .....496
	E. B. Kinkaid.....492
T. V. Martin.....480	

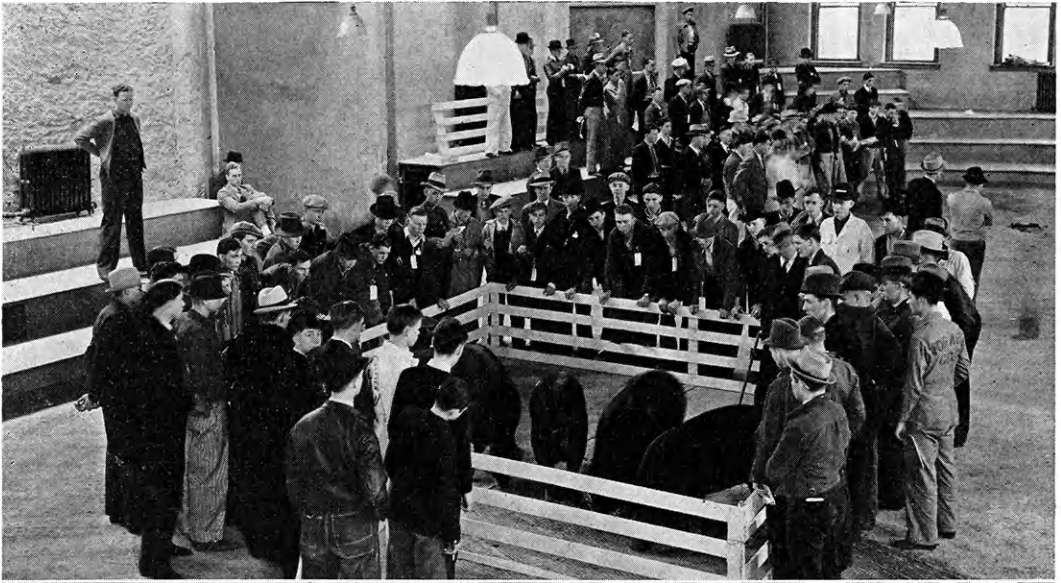
The contest was sponsored by the Klod and Kernel Klub, Kansas chapter of the student section of the American Society of Agronomy, in co-operation with the faculty members of the agronomy department. Kenneth Fisher, Newton, was student manager of the contest, and was aided by Darrell Morey, Robert Latta, and Dean Lerew. All were members of the 1936 crops team. Profs. C. D. Davis and J. W. Zahnley, instructors in crops, played a large part in putting on the contest and were in no small part responsible for its success. Professor Zahnley is coach of the crops teams and has done excellent work in that regard.

## Student Dairy Judging Contest

Harold Scanlan, '37

Arthur Jacobs, Harper, and Fariand Fansher, Manhattan, were the winners of the two divisions of the student dairy judging contest held April 24. Jacobs won the senior division which includes contestants who have had advanced work in dairy cattle judging. He was awarded a cream separator valued at \$50. Fansher was awarded an electric clipper valued at \$17.50 for winning the junior division.

There were 19 students in the senior division and 48 in the junior division.



STUDENT JUDGERS LOOK 'EM OVER DURING THE BLOCK AND BRIDLE CONTEST

The high men of the contest were:

	Score
<b>Senior Division</b>	Arthur Jacobs .....1,005
	Howard Meyer .....967
	Carol Coleman .....945
	Carl Claassen .....937
	Richard King .....915
<b>Junior Division</b>	Farland Fansher .....979
	Emerson Cyphers .....948
	J. R. Brainard .....904
	Jim Booth .....898
	M. W. Smerchek.....896

### Block and Bridle Judging Contest

George Aicher, '39

Elmer Dawdy, Washington, and Ray Cudney, Trousdale, were winners in the senior and junior divisions, respectively, of the thirty-fourth annual Block and Bridle student livestock judging contest held in the college

## STUDENT JUDGING CONTESTS

judging pavilion Saturday, May 15. Dawdy was presented with a gold medal awarded by the National Block and Bridle Club, and Cudney received a silver loving cup given by the American Royal and the Kansas City Stockyards. Both were given a free subscription to a national livestock magazine.

Following the customary procedure, the contest was divided into two groups, the senior and the junior divisions. The former group, numbering 33 students, included those who had had advanced work in livestock judging, and the latter division, numbering about 122 students, included all other contestants.

Each contestant placed eight classes of livestock, including two classes each of draft horses, beef cattle, sheep, and swine. In the senior division the classes consisted of four animals and oral reasons were given. Contestants in the junior division placed three animals in each class and wrote reasons on four classes.

The high ranking men in each division, and each kind of livestock in each division, are given in the following tabulation:

### ENTIRE CONTEST

			Score
<b>Senior Division</b>	}	Elmer Dawdy.....	532
		Waldo Poovey.....	530
		Dean Dicken.....	530
<b>Junior Division</b>	}	Ray Cudney.....	522
		James Tomson.....	521
		Sidney Brown.....	516
<b>Ayrshire Breed</b>	}	Emerson Cyphers .....	278
		Harold Gray .....	274
<b>Holstein Breed</b>	}	Farland Fansher .....	277
		L. L. Sramek .....	257
<b>Guernsey Breed</b>	}	J. R. Brainard .....	263
		L. L. Sramek .....	237
<b>Jersey Breed</b>	}	John Duitsman .....	292
		Jim Booth .....	290

### SENIOR DIVISION

<b>Beef Cattle</b>	}	Elmore Stout.....	146
		Elmer Dawdy.....	145
		Charles Pence.....	144
<b>Draft Horses</b>	}	George Works.....	137
		Roland Elling.....	132
		Elmer Dawdy.....	132
<b>Sheep</b>	}	Dean Dicken.....	143
		Gus Overly.....	143
		Fred Fair.....	136
<b>Swine</b>	}	Elmer Dawdy.....	147
		Waldo Poovey.....	147
		Fred Fair.....	143

### JUNIOR DIVISION

<b>Beef Cattle</b>	}	Jess Cooper.....	144
		William McCune.....	143
		Everett Oyster.....	143
<b>Draft Horses</b>	}	Ronald King.....	144
		James Tomson.....	142
		Robert McClymonds.....	131
<b>Sheep</b>	}	Harold Jones.....	139
		Chester Gantz.....	138
		John Martin.....	138
<b>Swine</b>	}	Mack Yenzen.....	148
		Ralph Gross.....	147
		W. Robinson.....	147

Prizes were awarded at a meeting Tuesday evening following the contest. Prof. F. W. Atkeson, who talked on "Livestock Production in the West," was the principal speaker of the evening. Following his talk Prof. F. W. Bell commented briefly on the significance and the outcome of the contest. Willis R. Wenrich, president of the Block and Bridle Club, awarded the prizes.

Since it is the policy of the club to return all entry fees to the contestants in the form of prizes, many other prizes were awarded. Besides the gold medal and the trophy presented to the two high men, the following prizes were awarded: Silver medals to second place winners in each division; bronze medals to third place winners in each division; neckties to second and third place winners in each division; one-dollar bills for those ranking fourth to eighth in the senior division and fourth to fifteenth in the junior division; neckties to the three high men in sheep judging in the junior division; and subscriptions to various livestock and farm publications for those placing among the three high in each class of livestock in each division.

Ronald Curtis, '31, is in soil conservation work at Salina, Kansas.

H. H. Brown, '28, is teaching vocational agriculture at Manhattan High School, Manhattan, Kansas.

William R. Yerkes, '35, is landscape architect for the Wagner Nurseries at Hutchinson, Kansas. He also is working with the United States forest service.



# Plant Breeders Seek New and Better Grasses for Kansas

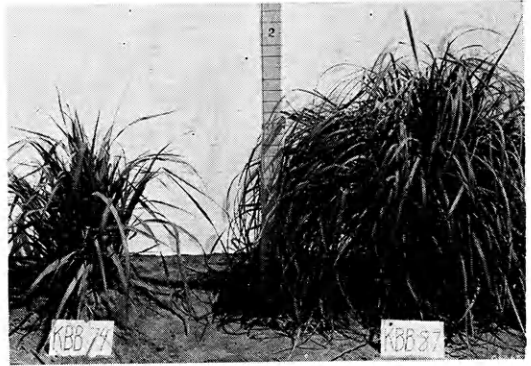
Darrell Morey, '37

During the recent years of drought and dust in Kansas attention has been focused on the conditions of grazing land both in eastern and western Kansas. Marginal land, broken out during the war, has been blowing and is slow to come back into natural vegetation. It is desirable to keep up the carrying capacity of permanent pastures and at the same time to control erosion and keep a good perennial cover on the land. Much work has been done along the lines of weed and brush control and livestock management in pastures, but a relatively new line of attack is now being instituted at the Kansas Agricultural Experiment Station, Manhattan.

Dr. A. E. Aldous, professor of Pasture Improvement, Kansas State College, in 1935 started a grass breeding program for the improvement of pasture plants. The nursery where the major part of the work is being done occupies six acres, is irrigated, and contains approximately 18,000 individual grass plants. This grass breeding nursery was established on the agronomy farm to develop better adapted grasses for different parts of the state and ones which could be successfully used in a reseeding program.

At the present time there is no grass which is suitable for reseeding purposes in western Kansas. In the grass improvement program an attempt will be made to develop grasses which can be successfully used in the arid, blow areas of western Kansas.

Native species are being tested because they have shown adaptability to Kansas conditions, they live longer than tame grasses, and because they furnish excellent forage at the most desirable time. Selections were made in



STRIKING VARIATION IS SHOWN BY BIG BLUESTEM IN THE TESTING PLOTS

1935 of 300 plants of big bluestem (*Andropogon furcatus*), 300 plants of little bluestem (*Andropogon scoparius*), 50 plants of side oat grama (*Bouteloua curtipendula*), 50 plants of blue grama (*Bouteloua gracilis*), 25 plants of switch grass (*Panicum virgatum*), 25 plants of Indian grass (*Sorghastrum nutans*), and 850 plants of buffalo grass (*Bulbilis dactyloides*).

These grasses were planted in the nursery in the spring of 1935 and each was given an identification number. Notes were taken on each individual plant and forage and seed qualities were compared. As a result of these experiments 25 big bluestem plants, 15 little bluestem plants, and 10 each of the other species were selected as seed parents with which to continue the propagation and selection the next season. A striking variation was noted within the different species due to a highly heterozygous condition brought about by cross pollination in nature. Big bluestem plants varied from two to seven feet in height; some plants yielded at the rate of 10 pounds of seed per acre while others yielded 550 pounds of seed; some plants stooled

1. Credit for material upon which this article is based is gratefully acknowledged to Dr. A. E. Aldous of the agronomy department, Kansas State College.

## PLANT BREEDERS SEEK NEW GRASS

out to 10 stems while others in the same species had as high as 90 or more stems per plant. Variations also were noticed in earliness of heading, in leafiness, and in many other forage qualities.

In 1936 seeds from the plants selected for desirable characters the previous summer were planted early in flats in the greenhouse. In the spring these seedlings were planted in the nursery, using 25 or 30 seedlings from each parent plant. Notes were taken on these plants to determine their qualities and to see how much variation could be expected in the second generation. The plants within some of the better later maturing strains were found to vary within relatively narrow limits and as a rule bred fairly true to the parent type. Self pollination by bagging the heads was attempted with the *Andropogon* grasses but was only partially successful in 1935 but fairly successful the following year. All species except switch grass (*Panicum virgatum*) seem to be naturally cross pollinated.

A considerable amount of work is being done also with tame grasses. Brome grass (*Bromus inermis*), Kentucky bluegrass (*Poa pratensis*), and crested wheatgrass (*Agropyron cristatum*) all are being selected and tested to improve them for Kansas conditions. Tame grasses have been found to vary enough to make selection for desirable characters an important phase of the Kansas grass breeding program.

What are the desirable characteristics in a grass species for which Doctor Aldous and his "grass men" are searching? In the first place it is important to start with a species which is adapted to a wide range of climatic and soil conditions. The selected strains should give a higher yield than the mixture of types now found in pastures. They should be very leafy, highly palatable, and nutritious, and not coarse and stemmy. It is desirable under Kansas conditions to grow a grass which seeds

late in the season and one which does not have a dormant season in midsummer. Grasses should set seed before frost and produce plenty of seed to perpetuate the strain. These qualities are what the grass breeders at Kansas State College desire in a strain of grass.

The next step in the grass breeding program after desirable strains have been selected is to isolate these strains and get them to breed fairly true for the desired characteristics. Then it will be necessary to grow seed enough to use in experimental and increase plots. The last and most important step in the grass breeding program will be the testing of various strains for yield, palatability, drought resistance, and adaptability to soil, climate, and grazing conditions.

To accelerate the program grass nurseries have been established for selecting and testing western Kansas grasses at the Hays and Garden City branch experiment stations, and test plots have been established at Colby.

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## Agricultural Organizations Elect Officers for 1937-38

New officers for the Agricultural Association, organization of agriculture students; Kansas Agricultural Student, quarterly publication for the Division of Agriculture; and the departmental clubs have been elected for the 1937-38 school year.

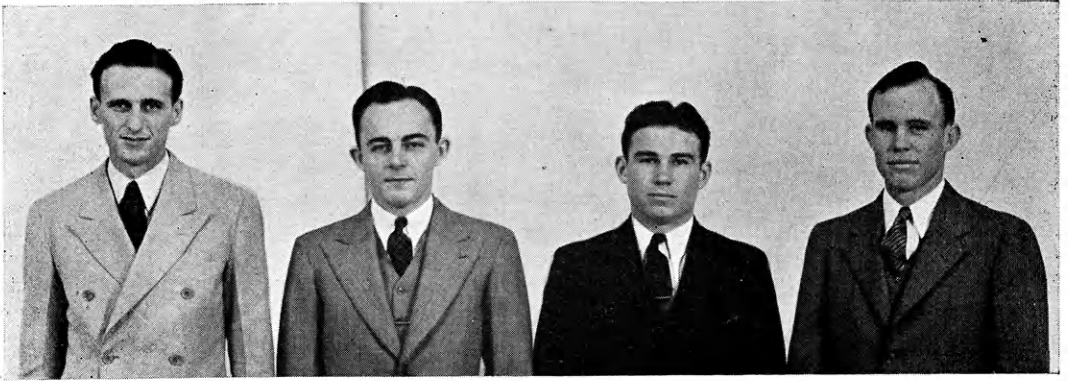
### Agricultural Association

Elmer Dawdy, Washington, will serve as president of the Agricultural Association. Other officers are George Aicher, Hays, vice-president; Roland Elling, Manhattan, secretary; and Eugene Harris, Grinnell, treasurer.

### Kansas Agricultural Student

Waldo Poovey, Oxford, was elected editor of the Ag Student; Emmett Hannawald, Pratt, was selected to be the business manager. Departmental staff

## ORGANIZATIONS ELECT



NEW OFFICERS OF AGRICULTURAL ASSOCIATION

Left to right: Elmer Dawdy, Washington, president; George Aicher, Hays, vice president; Roland Elling, Manhattan, secretary; and Eugene Harris, Grinnell, treasurer.

members are selected by these officers next fall.

### Agricultural Economics Club

Newly elected officers of the Agricultural Economics Club are Eugene Harris, Grinnell, president; Louis Brooks, Scott City, vice-president; Carl Miller, Manhattan, recording secretary; Peairs Wilson, Anness, corresponding secretary; and Leonard Schruben, Hoxie, treasurer.

### Klod and Kernel Klub

Those serving for Klod and Kernel Klub are William Allen, Cummings, president; Wayne Freeman, Kirwin, secretary; and Rodney McCammon, Esbon, treasurer.

### Block and Bridle Club

Block and Bridle members elected Willis Wenrich, Oxford, president; Roland Elling, Manhattan, vice-president; Kenneth Johnson, Norton, secretary; and Joe Lewis, Larned, treasurer.

### Horticulture Club

The regular election of Hort Club officers is not to be held until the new semester. Those now serving are Wayne Whitney, Ogden, president; Linus Burton, Belle Plaine, vice-president; Orville Hodson, Argonia, secretary-treasurer; and Willard Sainer, Bison, program chairman.

### Dairy Club

Elmer Dawdy, Washington, will serve as president of the Dairy Club for 1937-38. Willard Davis, Halstead, was elected vice-president, and Noel Robb, Niotaze, secretary-treasurer. The program committee consists of Verlin Rosenkranz, Washington, and Jim Cavanaugh, Dodge City.



NEW AGRICULTURAL STUDENT HEADS

Waldo Poovey, Oxford, (left) will be editor of the Agricultural Student during 1937, and Emmett Hannawald, Pratt, will be business manager. Staff members will be appointed by them next fall.

Merle Mundhenke, '29, is farming near Lewis, Kansas.

Ralph Sherman, '24, is assistant chief of one of the entomological stations in New Jersey. He is in charge of Japanese beetle control work.

# New Method Enables Fall Forecasts of Kansas Wheat Yields

George Montgomery, '25

*Assistant Professor, Economics and Sociology*

A forecast of the size of a wheat crop is of interest to many groups of persons. A good crop forecast must be accurate and it must be timely. Unfortunately, the longer crop estimates are made before harvest the less accurate they tend to be. For this reason crop forecasters are constantly seeking information that will make their forecast more accurate, and will permit making a forecast earlier in the season.

For a number of years, forecasts of the size of the wheat crop, both governmental and private, have included reports of seeded acreage and condition in December, and reports of condition and estimated production in each of the pre-harvest months of April, May, and June. These reports with the exception of the December report of seeded acreage are based largely on a summary of the observations and judgments of a large number of local crop reporters or correspondents. Estimates or reports of this type have two major shortcomings: They are not available until the wheat plant has developed to a stage where its growth and condition are an indication of its yielding ability, and the condition or appearance of the wheat plant in the early spring does not take into consideration such important yield-determining factors as depth of soil moisture, ability to withstand excessive temperatures, and susceptibility to rust epidemics.

In recent years some progress has been made in including additional sources of information in forecasts of crop production. The chief development along this line has dealt with the relationship between the depth of soil moisture at seeding time and the yield in the succeeding harvest. The use of information of this type as a basis of estimating yield is a result of experi-

mental work at the Hays, Colby, and Garden City experiment stations where some reliable relationships between the amount of water in the soil at seeding time and the yield at harvest have been established. These relationships have suggested the possibility of using soil moisture as an indicator of wheat yields in western Kansas.

Since records of the depth of penetration of soil moisture are not available, except for experimental areas, it is necessary to rely upon other measures of available moisture. The only records for the entire state available for a series of years are the records of rainfall. During the last several years there have been established some relationships between the amount of precipitation prior to seeding and the harvested yield which give promise of being reliable in forecasting production. These relationships were established for each of 53 counties in central and western Kansas by making "dot charts." The chart for each county shows the amount of rainfall during the critical period each year and the yield the following harvest. In most sections the important period of rainfall is September, October, and November. In some counties, it was found that the relationship could be improved by adjusting the amount of precipitation by the condition of the crop as reported on December 1.

On the basis of the relationships established for 53 central and western Kansas counties, a 1937 production of 120 million bushels is indicated. If the other areas of the state have an average yield, the acreage seeded last fall would produce about 50 million bushels. Adding these two figures indicates a Kansas production of 170 million bushels

## BLOCK AND BRIDLE BANQUET

for 1937. Similar forecasts made on this basis in past years have been reasonably accurate and in some cases have been quite close to the final production.

Forecasts of this type give promise of having some degree of reliability in those areas where the amount of soil moisture is a limiting factor in wheat yields. Forecasts based upon statistics of rainfall or soil moisture have the advantage of giving an indication of pro-

duction much earlier in the year than is possible where observation of the growing crop is the basic source of information. However, estimates of yield based upon rainfall are not suggested as substitutes for established systems of crop forecasting; rather they are offered as a supplementary source of information and as a method of estimating production prior to the release of forecasts based upon condition of the growing crop.

### Turkey for Block and Bridle

Roy H. Freeland, '37

Four fat roasted turkeys, donated by E. C. Robbins' Ranch, Belvidere, were a big attraction for 45 student and faculty members of the Kansas State College Block and Bridle Club at their annual banquet in Pines Cafe March 18.

L. C. Williams, assistant dean of extension at Kansas State College, was the principal speaker. He talked on "The Block and Bridle Club and the Extension Service."

Clarence Bell, McDonald, was in charge of unveiling a portrait of the late H. L. Tod of Maplehill, formerly one of the leading cattle feeders of Kansas. The portrait will be added to the Block and Bridle picture gallery of famous livestock men.

The history of the Kansas State College animal husbandry department was discussed by Boyd Cathcart, a member of the department. Fred Fair, Alden, president of the club, acted as toastmaster.



BLOCK AND BRIDLE CLUB BANQUET

# Cattlemen Hear About Ration Experiments At 25th Annual Feeders' Day

Roy Freeland, '37

Frank Farley Jr., '39

Cattlemen of Kansas had their day at Kansas State College Saturday, May 8, when more than 1,000 producers congregated for the twenty-fifth annual Cattle Feeders' Day presented by the animal husbandry department. Features of the program were a review of the past quarter of a century in livestock production, and a discussion of the latest wrinkles in feeding methods as disclosed by the college experiments.

One of the high points of the program was a talk by Prof. A. D. Weber, in charge of beef cattle feeding investigations at the college, who discussed results of tests in feeding molasses. Best results from feeding molasses are obtained when it is used as a partial substitute for corn in the fattening ration, he said, or else used rather liberally during the early part of the feeding period and then replaced wholly or to a considerable extent by corn and other concentrates.

Professor Weber said that in most cases, molasses-fed cattle will consume almost as much corn as steers not fed molasses. About seven pounds of molasses for each head daily is the amount that was fed to fattening cattle in Kansas during the past winter. Self-feeding molasses to yearling steers resulted in the consumption of between five and ten pounds per head daily, where little or no corn or other grain was fed.

"Self feeding is a popular and practical method of feeding molasses," he said. "The usual procedure is to hand-feed molasses a few days and then allow the cattle free access to it in a tank or feed bunk. Some feeders have allowed free access to molasses without any preliminary feeding period and no harmful effects were noted. Keeping water over the molasses to prevent smearing was successfully practiced by

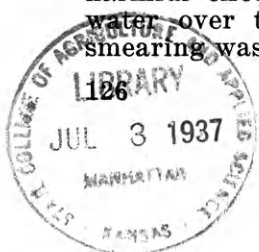
a few feeders. Another common method of feeding is to pour the molasses over silage, or over straw or other roughages. No trouble has been reported in getting cattle on full feed with molasses and they apparently do not tire of it."

Results of Professor Weber's work, and that of many feeders, indicate that molasses causes cattle to drink more water than do most other feeds. Molasses has caused scouring in many cases when fed heavily, but this trouble has seldom been reported where less than about eight pounds per day were fed.

"Molasses, as a feed, is low in protein and should be fed with some protein supplement. The sugar in molasses is digestible and accounts for 85 percent of its energy value. Contrary to common opinion, the sugar content of molasses cannot be determined by viscosity or thickness, as viscosity is determined by the combined effect of its sugar, moisture, ash, and organic non-sugar content. De-gumming may account for the fact that some lots of molasses flow much more freely than others.

"Molasses should be worth approximately 70 percent as much per ton as corn if total digestible nutrients are used as a basis of value. Feeding tests indicate this figure to be very nearly correct in actual practice. When used as a complete substitute for corn, it is worth only about 60 percent as much per pound. If used as a partial substitute for corn, the replacement value of molasses ranges from 70 to 100 percent of corn, but is usually about 80 percent.

For summer feeding of molasses, the following mixtures were suggested: Ground wheat 37.5 percent, ground corn 37.5 percent, and molasses 25 per-



## 25TH CATTLE FEEDERS' DAY

cent; bran, ground grain, and molasses; equal parts of cottonseed hulls and molasses; ground shelled corn and molasses; and ground oats and molasses.

John W. Briggs, Protection, president of the Kansas Livestock Association, presided at the morning and afternoon sessions, which included a number of interesting and informative discussions. The deferred system of full feeding was recommended by Dr. C. W. McCampbell, head of the animal husbandry department, in a talk on "Utilizing Grass in Fattening Young Cattle for Market." The system, as outlined by Doctor McCampbell, includes wintering the calves well on a ration of five pounds of corn, one pound of cottonseed meal, two pounds of alfalfa, and full feeding of silage. Following this the calves should be grazed from May 1 to August 1 without grain, and then full fed in a dry lot for 100 days, on a ration of ground shelled corn, alfalfa hay, and one pound of cottonseed meal. Doctor McCampbell emphasized the necessity of well-bred steer calves for this system of feeding.

W. A. Cochel, editor of the Weekly Kansas City Star, speaking on "Changes That Have Taken Place in Cattle Feeding Methods During the Past Twenty-five Years," said: "Livestock is the best means of converting soil-conserving crops into cash. It will probably be true 25 years hence that the well-managed livestock farm will be least subject to erosion, produce the largest yields per acre of crops harvested, will contribute less to surplus crops on the world markets, and maintain the highest standard of farm living, just as it has for the past 25 years.

"The tendency will continue to be more toward production of beef than speculative feeding, as the records show that in the most trying times the man who has been able to furnish a breeding herd with ample pasture in summer and cheap roughage in winter, and grain for finishing his calves,

lambs, or pigs at the earliest possible age, has recorded a profit each year. Those who have varied from this method, filling feed-lots with purchased livestock or have depended entirely upon the purchase of feeds, have encountered many years when profits were on the wrong side of the ledger. Keeping enough livestock to utilize feeds produced and producing enough feed for livestock carried, make a balanced livestock and crop unit which gives all of the profit of growing feeds and producing livestock to the man who is able to balance his operations successfully."

L. E. Call, Kansas State dean of agriculture and director of the Kansas Agricultural Experiment Station, opened the afternoon program with a talk on "Livestock in a Land Use Program for Kansas." He said the problem of using land in a manner that will retain its productivity is one of the most pressing agricultural problems, and that it has been brought most nearly to a successful solution in those countries that have developed their livestock industries the most completely.

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J. B. Angle, '19, is farming near Courtland, Kansas, and is a noted pure-bred hog breeder.

John R. Wood, '16, farms near Clifton, Kansas, and is a member of the State Legislature.

Marion Noland, '35, is 4-H Club leader of Sedgwick County, and located at Wichita, Kansas.

George Washington, '32, employed on the E. L. Adams Rice Farms near Durham, California. This rice ranch is recognized as one of the largest of its kind in the world. Tractors are used extensively and new methods of rice growing are in regular practice. One new practice now used there is the sowing or broadcasting of rice by airplane at planting time. Mr. Adams also maintains an extensive livestock program, with emphasis placed on sheep production.

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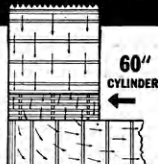


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