

# KANSAS FARMER

For the improvement

of the Farm and Home

Volume 57, Number 29.

TOPEKA, KANSAS; JULY 19, 1919.

Established 1863

\$1 a Year

## Dairy Improvement by Co-operation

Average Initial Expense of \$30 Brought Service of High Class Bull

IN KANSAS we have not in the past taken the matter of dairy improvement seriously enough. On too many farms dairying has been regarded as only a side line and for that reason not worthy of serious consideration. Our ideas, however, are changing, and many who have maintained this attitude of indifference in the past are seeking to build up real dairy herds, install modern dairy equipment, and follow the most approved methods, even though dairying is still considered a side line. In reviewing the situation we find the need for better cows of paramount importance. The conditions and methods of bringing about improvement are well described by James R. Johnson of Canada, who writes on developing profitable dairy herds from unprofitable stock in a pamphlet issued by the agricultural extension division of the International Harvester Company. He says: "There are three big herds of dairy cows in Canada. In the first herd are all of the cows that pay for their feed and labor, and then yield a profit. This is the smallest herd of the three. Then there is a much larger herd, composed of cows that just about break even. Their milk is sold for about the value of their feed, and the farmer receives the calf and manure in payment for his labor. The biggest herd of all, however, is composed of the cows that do not even pay for their feed, and the owner has only their society as a return for feeding, milking and caring for those cows 365 days in the year."

If the average cow pays only for feed and in that average are all three of these herds, we can only conclude that there are many thousands of cow owners who must be paying their cows something for boarding with them.

**Better Cows the Remedy**  
"There is only one way out of the situation—better cows. The man with a tidy bank account—needless to say not accumulated from the profits of his herd—can go out and buy better, and this is probably the best way. Most of these poor-cow owners, however, cannot go out and buy good cows. They haven't the money in the savings bank, and the bank wouldn't lend them the money to buy half a cow, no matter how honest and industrious they might be. The solution usually given to this man is to buy a pure-bred sire and grade up his herd. Even this, however, may be difficult. A good sire would cost \$100, and probably more. Of course I know that wonderful results are figured for that expenditure of \$100. Figured correctly, \$100 means to many farmers whose incomes are small and the demands of whose growing families are ever increasing. In dozens of cases it would be hard even through the most rigid economy to find \$100 for a pure-bred sire."

Governments have recognized this

situation and have been active in placing sires of pure breeding in sections not already supplied, but they cannot go far toward meeting the great need of the country. My suggestion is the organization of co-operative breeding circles among the farmers.

### Many Cows, but Poor

"The co-operative creamery at Milaca is one of the largest, if not the largest, in the state of Minnesota. In spite of this fact, the great majority of the cows tributary to Milaca are of the most common type, and in many instances the dairymen have not been making as much money as the success of their creamery would lead one to believe. A couple of years ago E. L. Westover, then agricultural director of the Milaca High School, started an agitation for the improvement of these common cows by means of the co-operative purchase of pure-bred dairy sires. The idea took immediate hold upon the farmers to whom it was broached, and two successive meetings were called to afford discussion of the matter among all the dairy farmers of the community. As a result in February, 1913, the Guernsey and Holstein Breeders' Association of Millelacs County was organized."

"At the time of organizing, the membership consisted of thirty-five farmers having about 400 cows. Last year it had increased to fifty farmers with approximately 500 cows. The original idea was to bring in enough pure-bred bulls of one dairy breed to fill the needs of the entire membership, but an early difficulty presented itself, in that the members could not agree upon one breed. So a compromise was effected, and two breeds, Guernsey and Holstein, were in-

troduced into the community. It was decided that one bull should be purchased for approximately seventy cows, and acting upon the expectation of having about 800 cows in the association nine pure-bred bulls were bought. The district was divided into sections or 'blocks,' and one bull was placed in each block—five Guernseys and four Holsteins. With this arrangement no member of the association, whether he wishes to breed to a Guernsey or a Holstein, is more than one and one-half miles from the sire."

### Raising the Funds

"The bulls were purchased at well known breeding centers in Minnesota and Wisconsin, and varied in age from one to four years. The total purchase price was over \$1,300, the Guernseys ranging from \$110 to \$225 and the Holsteins from \$112.50 to \$150. Previous to buying the bulls it was arranged that each member would buy one share of stock, at a cost of \$2, for each cow he owned. With 400 cows in the association at the beginning the sale of stock amounted to only \$800, and it was necessary to borrow \$700 from the bank to make the purchase and bring the animals to Milaca. The next year an additional hundred cows increased the sale of stock \$200, and it was then decided to make a further assessment of \$1 per cow on all members of the association to cover the remaining \$500 of debt. Thus the total cost to the fifty members was \$1,500, or \$30 each for the part ownership of nine pure-bred bulls, the service of which, as will be seen, will extend over a period of eight to ten years. In addition, one dollar service fee is charged."

"The block system established is the most interesting feature of this association. There is a Guernsey circuit and a Holstein circuit, the former comprising five and the latter four blocks. These blocks, of course, overlap, but there is no mixing of breeds. At the end of every two years in both circuits each bull will be transferred to the next block, number one going to number two, and number two to number three, etc. Thus each member in the Guernsey circuit will have the use of five bulls over a period of ten years, and the members in the Holstein circuit will have the service of four bulls over a period of eight years. Should any bull prove unsatisfactory, he will be disposed of and a new one procured."

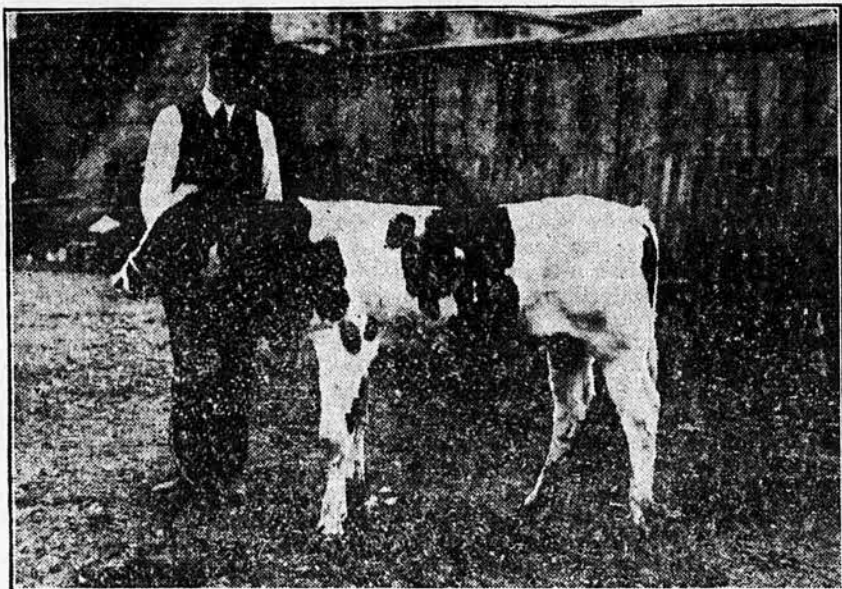
"The board of directors designates the place in each block for stabling the bull, which must be free from disease and have clean, sanitary surroundings."

"As caretaker of the bull, these members are paid \$50 a year, but have no privileges over the other members as to his services. In each block a director is also appointed, who is responsible for the proper stabling and care of the bull in his block. It is his duty to see that the bull is kept in a strong, vigorous and healthy condition, on a suitable ration, with sufficient yardage to afford ample exercise in the open air, and that he is not permitted to run with the herd. Each block director must also inspect the herds in his block at least once in two months."

"I notice that the average farmer in this association had just ten cows. His initial expenditure, therefore, was just \$30, and that expenditure brought him the services of a first class sire, not for two years or at most four, as is ordinarily the case, but for the entire serviceable life of the bulls purchased. Instead of having the feeding of his own sire, the cost is distributed over half a dozen farmers. Does not this system reduce the cost of herd improvement to a minimum?"

Agriculture represents the greatest capital, the most people and the greatest area of any enterprise in the world, but the lack of an organization has made the farmer dependent. He is no longer independent, and is affected by market fluctuations and changing political and economic conditions. If the farmers of the country can speak in a trumpet tongue to the members of congress, they will get the legislation they so badly need. In this serious and trying period of reconstruction, there is a greater need for farmers to organize than ever before. —Senator Gore.

It is a common custom to give the boy the poorest tool about the place. This practice should be changed and the beginner should have the best implement.



THIS FINE YOUNG BULL WAS BROUGHT TO A KANSAS COUNTY FOR CO-OPERATIVE USE IN A BOYS' AND GIRLS' DAIRY CLUB



**20th Century BAG HOLDER**  
New - Different  
Saves Labor and Time

Users say - "At last a Real Bag Holder"

**AGENTS WANTED**

## HOTEL KUPPER

Eleventh and McGee Streets  
KANSAS CITY, U. S. A.



Located in center of shopping district, convenient to car lines, stores, and all points of interest. Direct car line to stock yards. The hotel of quality, comfort and refinement.

European Plan, \$1.00 to \$2.50 per Day.

Cafe in Connection.

KUPPER-BENSON HOTEL COMPANY

Walter S. Mars, Manager

**MILWAUKEE HONORBILT**  
CUSTOM MADE

For style and comfort wear

**Mayer HONORBILT SHOES** For all the family

Ask your dealer for Mayer Shoes. Look for the trademark on the sole.

F. Mayer Boot & Shoe Co.  
Milwaukee, Wis.

**My Straw Spreader insures Your Wheat!**

25,000 NOW IN USE

**MANSON CAMPBELL**  
Detroit - Kansas City - Minneapolis

## Tractor Experience in Ohio

FARMERS considering the purchase of tractors are justified in asking for all the information available as to the results other farmers are getting in the use of power farming outfits. They want the experience of other men in similar circumstances to their own. Some interesting results have recently been published on tractor experiences in Ohio. This state is still in the primary grade in tractor farming, but the experience of its tractor farmers, of which there are estimated to be about five thousands, are worth relating to the farmers of Kansas.

To get the experience of actual users of power farming outfits, questionnaires were sent out to the tractor users of Ohio by the tractor engineering department of the State University in co-operation with the Ohio department of agriculture. The complete answers to all the questions asked were received from 790 men. In making the final summary a great many incomplete returns were not included. The first point of interest is to see what these tractor owners have to say about their machines and the uses to which they may be put. It should be kept in mind constantly that the results listed represent the testimony of nearly 800 men from nearly every county in the state. It is also well to remember that twenty-seven different sizes of machines are represented, although only thirteen different makes covering nineteen different sizes are used in the general summary. Replies on the ones omitted were so few in number that they were not considered even fairly representative.

The first question asked was "Does the tractor reduce the amount of man labor required on the farm?" Six hundred and nine tractor users stated that it did, and ninety that it did not. This means that 88 per cent of those replying figured that their expenditure for labor was materially lessened. Some even said that their labor requirements were reduced a half, and others said they were doing twice as much work as they formerly did.

Ninety per cent of the tractor users stated that the cost of operating their farms had been decreased by the use of their tractors. A few reported that the cost of operation had increased and a few others said there had been no notable difference.

There was a question bearing on the reliability of the machine and 86 per cent of those replying said that their tractors had proved reliable. This may well be considered a large proportion, in view of the fact that many of the outfits were undoubtedly in the hands of poor and inexperienced operators.

In replying to the question, "Can the tractor be expected to replace horses?" 75 per cent reported that it had done so and that they now owned fewer horses than they did before the tractor was purchased. On an average the replies showed that two horses were replaced by two-bottom rigs, and two and one-tenth horses by three-bottom rigs. The larger the farm, the greater the number of horses replaced. The average size of farms using two-bottom outfits was 153 acres; three-bottom rigs, 183 acres. Forty per cent of those using the two-bottom size of tractor said they would get a larger size is purchasing another outfit. This would seem to indicate that farmers are generally likely to purchase a machine too small for the uses to which they expect to put it.

The number of days of the year these Ohio farmers used their tractors, according to the reports, varied from thirty-two to ninety-two. The average number of days for all machines of all makes was sixty-two.

Of the farmers reported, all are using their tractors for plowing and fitting the seedbed. Twenty-six are cutting hay, 246 pulling the wagon and hay-loader, 244 cutting wheat or oats, 324 grinding, 319 filling silos, 106 baling hay, 110 threshing grain, and quite a large number using them for miscellaneous pur-

poses. These replies would indicate that farmers are beginning to learn how to use their tractors so as to get the most out of them. It seems to be conceded that those who are making the largest use of their machines report the highest degree of success.

The average area plowed daily by the two-bottom rigs was five and a half acres, and 7.13 for the three-bottom rigs. Of the outfits using gasoline, the average amount consumed to the acre was a little less than 2.5 gallons, and of kerosene three gallons.

The results of this Ohio investigation have not been officially published as yet by the university, the facts given being gleaned from an article in an agricultural publication by H. C. Ramsower of the department of agricultural engineering in the Ohio State University. Mr. Ramsower makes the following suggestions to those expecting to make purchases of tractors in the near future, and who are also planning to attend tractor demonstration

"Observe with great care the relative ease with which tractors pull their loads. What is the rating? How many plows are being pulled? Does the motor seem to labor under its load or does it give evidence of reserve power?"

"Is there noticeable slippage of the drive wheels? If so there is lack of traction, which might be due to lack of weight or to poor design of lugs, granting that the footing is reasonably good.

"Observe the ease with which the operator handles his machine. Are two wheels in the furrow or are all wheels on the land? If the latter, does side-draft seem to continually pull the front wheels toward the furrow?"

"Is the operator placed in a comfortable position? Is he protected in any way from dust and dirt?"

"Do you see gears exposed where they will collect dust and mud or are they enclosed?"

"Does the tractor seem to pack the soil either when plowing or when working on plowed land? Do the traction lugs seem to be effective in preventing packing of the soil as well as in giving traction?"

"Does the machine have a neat finished appearance giving evidence of good materials and good workmanship? Can it be adapted to different kinds of work?"

"Observe the number and size of fitting tools which the tractor seems to pull easily."

"Observe the work done by the different plows and note the attachments with which each is equipped. Also, study the harrows and other tools shown."

"The man who stands around on the head-lands and talks to his neighbor will learn but little from the demonstration. On the other hand, if he comes wearing an old pair of shoes, so that he is not afraid to walk on plowed ground, and follows the machines, making detailed comparisons as he goes from one to the other, he will leave with a much better knowledge of the comparative merits of the machines shown."

Dean A. A. Potter, of the division of mechanic arts, of the Kansas Agricultural College has been elected vice-president of the Society for the Promotion of Engineering Education. The society is international in scope, having a membership of 5,000 leading educators in Europe, America and Asia. W. W. Carlson, associate professor of shop practice at the college, recently was appointed on the committee of mechanical engineering in the society.

Tenants should make their plans to buy homes as soon as they earn enough to make a small payment on land. This is a good way to save money—pay it on a home. Remember that legislation cannot earn homes. Every man must earn for himself. Most of the men now owning homes earned them—very few inherited them. Others can and others will buy and pay for farms.

**WITTE**  
2 H.P. ENGINE  
PULLS 2 3/4  
\$39.00

Our 34th Year

Direct from Factory to You  
ALL SIZES AND STYLES  
2, 3, 4, 6, 8, 12, 16, 22 and 30 H.P.  
**LOW PRICES**  
Don't wait if you need an engine for any purpose. NOW is the time to get a Life Guarantee Against Defect. Big surplus horse-power. Above price includes engine complete on skids, ready to operate when you get it. Safe delivery guaranteed. Immediate factory shipment. Write for big, new catalog of these wonderful engines.

**WITTE ENGINE WORKS**  
1401 Oakland Ave. KANSAS CITY, MO.  
1601 Empire Bldg. PITTSBURGH, PA.

**GALLOWAY**  
NEW 1919 MASTERPIECE

**AN ENGINE SENSATION**  
Gives seven actual horse power for the price of six. Portable or stationary. Valves extra heavy counter-balanced fly wheels. Part standardized and interchangeable. Bore, long stroke, heavy weight. Built-to-last extra cost supplies time not spent on buying other models.

Direct from Factory  
You save through low prices. Engines shipped by points save you freight.  
Free Book About Galloway Engines. Write for it. Pumping and Sawing. Write for it. Book. Save money. Write for it.  
WM. GALLOWAY & CO.  
Box 215 - WATERLOO, ONT.

**Let 'er Rain!**

If you've a lot of work to do, wear Tower's Fish Brand Reflex Slicker.

The coat that keeps out all the rain. Its flex edges stop water from dropping from running in at the front.

Protector Hat, too.

Satisfaction Guaranteed  
Send for free catalog  
**A. J. TOWER CO.**  
BOSTON

**BALE HAY NEW WAY**  
No Blocks—No Bale Ties—2 Men  
Save 40 per cent on baling cost. Figure your saving by using straight wire. No Bale Ties. Get wire to the new method introduced by the marvelous new patent Self-Threading Hay Press. No blocks or bale ties to handle—save the pay of two men. Make baling hay for others. Write for free catalog showing this wonderful new press. Write today—NOW!  
Threader Press Mfg. Co., 337 Ottawa St., Leavenworth, Mo.

**\$22.00 Sweep Feed Grinder**  
We manufacture all sizes and styles. It will pay you to investigate. Write for catalog and price list.

**CURRIE WIND MILL CO.**  
610 E. Seventh Street, Topeka, Kansas.

— OTTAWA —  
**Business College**  
OTTAWA, KANS.



Editorial, Advertising and Business  
Offices, Topeka, Kansas

Entered at Topeka Post Office  
as Second Class Matter

Published Weekly by The Kansas  
Farmer Company, at Topeka

# KANSAS FARMER

THE FARM PAPER OF KANSAS

G. C. WHEELER, EDITOR

REPRESENTATIVES: E. HATZ SPECIAL ADVERTISING AGENCY

New York: 15 Madison Square, North

Chicago: Harris Trust Building

Kansas City, Mo.: 1402 Waldheim Building

San Francisco: Monadnock Building

SUBSCRIPTION RATES: One Year, \$1.00; Three Years, \$2.00.

Established by First State Board  
of Agriculture, 1863

Member Audit Bureau of  
Circulations

Oldest Agricultural Publication in  
Kansas

## MEAT PRICES

Another page of this issue appears  
from the Department of Ag-  
riculture which is worthy of careful read-  
ing. It has to do with the situation as  
the beef-making industry of the  
country. War has thrown out of ad-  
vantage all our industries and it is not  
easy matter to get back to normal  
relationships. In the case of the meat  
industry, or at least the beef end of it,  
producers at the present time are  
suffering such losses that the business  
is in danger of being greatly contracted  
in the near future. It is stated that a  
demand for beef must be created  
in order to use up the product at such  
a price as will keep the business going.  
In a previous issue, a sys-  
tematic campaign of advertising has al-  
ready been started to increase consump-  
tion. The value of beef as food is to be  
promoted, but the figures given by the  
Department of Agriculture are not con-  
vincing to causing the housewife to go  
to the butcher and order beef  
in larger quantities. If some of this  
city money could be directed to  
showing the exact facts as to prices,  
the wholesale costs are at a given  
time and what the various cuts should  
be for over the counter after allowing  
for margin to the retail dealer and  
butcher, it might be helpful in in-  
creasing consumption.

The situation is such as to point to a  
need for some sort of federal regulation.  
There are vigorously opposing the idea  
of using every possible argument to  
show that they are not in any sense to  
be for conditions. The facts are,  
however, that the business of handling  
meats and other food products has de-  
veloped into such a gigantic industry  
that it can no longer be conducted as a  
private affair. The railroads  
years fought the demand for federal  
regulation. Packers might well study  
the history of the conflict between our  
transportation companies and the peo-  
ple who were demanding some sort of  
control. An early recognition of the  
needs of the public and an effort to co-  
operate in the matter of federal regula-  
tion might save the packing industry  
from going through a disastrous period  
as the result of drastic legislative re-  
strictions and limitations.

Maneuvering for some advantage in  
the next presidential campaign seems to  
be of greater importance in the opinion  
of some of our partisan leaders than im-  
partial and non-partisan consideration of  
the world peace treaty which has just  
been submitted to the senate for ratifi-  
cation. The League of Nations idea  
is to be beyond the ken of some of  
those who are most violently denounc-  
ing the treaty. The human mind is  
staggered in the endeavor to sense  
what has happened in the last five years.  
The world has so shrunk in size as to  
make it impossible for any nation, how-  
ever great, to live in isolation. The  
most difficult after all is that the  
world is a material way has developed  
with amazing rapidity while the moral  
development has lagged behind. In ma-  
terial progress we have gone a long way  
toward civilization, but in our passions and  
base natures we are still too much  
like the primeval man. The League of  
Nations is a sincere effort to take a big  
step in advance, recognizing the univer-  
sal brotherhood of man and striving to  
bring justice and righteousness as the  
basis of international relation-  
ships, instead of force. While admit-  
tingly imperfect in many respects, the

world settlement, as drawn up in the  
formal treaty which Germany has al-  
ready ratified, is probably the best  
which can be expected at the present  
time. If this country should refuse to  
ratify and accept responsibility as a  
world power in the effort to raise inter-  
national relationships to a higher plane,  
there seems no other outcome than the  
whole world will slip back to a condi-  
tion too awful to contemplate. With-  
out this country, there can be no league  
of nations. It is a question to be set-  
tled absolutely without party bias or  
prejudices, and there are evidences that  
the people are more ready to view the  
matter in this light than some of our  
so-called national leaders.

The clamors of city people who work  
on a seven or eight-hour schedule seem-  
ingly have had more weight with Presi-  
dent Wilson than the unanimous expres-  
sion of the farmers of the country in  
the matter of the so-called Daylight-  
Saving law. This attempt to change  
nature's laws was from the start a  
source of real economic loss as well as  
a constant annoyance to country people  
who have always worked by the sun and  
never thought of such a thing as re-  
stricting a day's labor to eight hours  
during the busy season. Farm work of  
all kinds is seasonal in character. It  
must be performed in harmony with  
natural laws and conditions. The farm-  
ing population will resent the action of  
the President in vetoing the bill provid-  
ing for a return to a standard time  
more nearly in harmony with the sun.

## ORCHARD TOUR

Orchardists of Kansas are waking up  
to the importance of the fruit industry  
of the state. It has already been dem-  
onstrated that a tour taking in the best  
orchards is a most effective means of  
arousing enthusiasm in this neglected  
industry. Such a trip is now being  
planned to take place September 1 to 5.  
The trip will be made in autos and will  
cover the best orchard sections of the  
state. It will start from Halstead in  
Harvey County and the best and most  
profitable orchards of the Arkansas Val-  
ley will be visited. The party will then  
jump by rail to Franklin County and  
visit orchards in that section, proceeding  
north to the fruit-growing districts of  
the counties to the north of the Kaw  
Valley. E. G. Kelly, extension entomol-  
ogist of the Agricultural College, has  
the details of the tour in charge. Those  
who plan to take in any portion of the  
trip should notify Mr. Kelly in order  
that he may make proper arrangements  
for the comfort and convenience of all  
who may care to go. It will be a trip  
well worth while for those especially in-  
terested in the fruit growing possibili-  
ties of Kansas. The detailed schedule  
will be announced later.

## FARM BUREAU ADVERTISING

Farm bureau publications should not  
accept advertising is competition with  
local papers, is the opinion formulated  
by the American Association of Agricul-  
tural College Editors at its seventh an-  
nual meeting held last month at Co-  
lumbus, Ohio. College editors repre-  
senting twenty states were present at  
this conference. A formal resolution  
was adopted recommending that county  
farm bureau publications refrain from  
handling such advertising. It was  
pointed out that inasmuch as farm bu-  
reaus are largely dependent upon the lo-  
cal press for co-operation in giving pub-  
licity to announcements of their activi-  
ties, it would be wise to avoid creating

resentment and eventually organized op-  
position to farm bureau work which  
might develop if this sort of competition  
continued. We mention this action of  
the agricultural editors because it raises  
a question to which the average farm  
bureau member has probably given little  
thought. The local press could not ex-  
ist and be a forceful agent in promoting  
the general public welfare without its  
advertising patronage. The entrance in-  
to the advertising field of publications  
having their overhead expense paid, in  
part at least, out of public funds intro-  
duces unfair competition.

There is another angle to this adver-  
tising proposition, and that is the use of  
public funds to advertise free or at low  
rates the property of one class of citi-  
zens to the exclusion of others. The  
question has been publicly discussed in  
Ohio and V. H. Davis, chief of Ohio's  
bureau of markets attempts to defend  
the practice of free advertising by ex-  
plaining that it is limited to farm prod-  
ucts and farm supplies, but in no way  
limited to any particular class of people.  
The editor of the National Stockman  
and Farmer points out that the thing  
that will bring this free advertising into  
disrepute is that farm property is being  
advertised free of charge by the state of  
Ohio which denies to the owners of any  
other than farm property the same privi-  
lege. The state has no right or obliga-  
tion to advertise any private property  
or enterprise at public expense, and it  
also has no right to discriminate in fa-  
vor of owners of farm property and  
against owners of other property.

"In his argument for discrimination,  
Mr. Davis cites the work of our experi-  
ment stations, agricultural colleges, ex-  
tension men, etc., as examples of special  
services for the benefit of the farmer,"  
says the editor of the National Stock-  
man and Farmer.

"Not at all. Appropriations for these  
activities are based on the sound princi-  
ple that the welfare of the whole people  
will be promoted by greater and more  
economical food production. All classes  
share in the fruits of such appropria-  
tions, which cannot be justified on any  
other grounds. As Mr. Davis truly says  
this work 'has meant an assured supply  
of food products to the public at rea-  
sonable prices.' Consumers, and that  
term includes everybody, are just as  
much concerned in the increase of pro-  
duction as are farmers, which is the rea-  
son for the expenditure of public funds  
in such work. It is wrong to assume  
that these institutions and activities are  
for the sole and special benefit of farm-  
ers, for they are not, and their use of  
public funds cannot be justified on any  
such theory. Finally, let us say that  
our sole interest in this matter and our  
purpose in discussing it is to avoid such  
mistakes in agricultural service as will  
ultimately injure that service. Agricul-  
ture faces even now the danger of a re-  
action in public sentiment which may  
carry away not only its mistakes but  
things which are of real value to farm-  
ers and the public."

## BETTER WHEAT FARMING

Great pressure has been brought to  
bear to increase wheat production during  
the past two years. As a result wheat  
farmers of Kansas increased their acre-  
ages to the extent that we are now har-  
vesting the largest crop in point of acre-  
age and probably in yield that has ever  
been harvested in this state. We can  
hardly expect the acreage of the wheat  
in the next few years to equal that of  
the past year. With all guarantees off  
and no special call for large wheat pro-

duction, it is to be hoped that all over  
the state careful attention will be given  
to getting back into systems of farming  
which will not be one-sided or involve  
too much risk.

In reducing wheat acreage, it will not  
be out of order to follow a little better  
method in preparing land and seeding  
the wheat. The acre yield has quite a  
bearing on the bushel cost of production.  
Yields of ten or twelve bushels to the  
acre are seldom profitable. On another  
page of this issue we print valuable facts  
relative to increasing production by bet-  
ter methods. The argument is some-  
times advanced that a small crop brings  
more money than a bumper crop. This  
may be true in some instances, or when  
considering a crop as a whole. The man  
harvesting one hundred acres of wheat  
going fifteen bushels to the acre can al-  
most count on having a greater net re-  
turn, however, from his work than the  
one having a yield of only ten bushels  
to the acre for the same acreage. The  
extra cost of doing the things that in-  
sure the larger yield do not equal the re-  
turn from the increased production. The  
point we are getting at is that in reduc-  
ing acreages it will be a good plan to  
follow as closely as possible the meth-  
ods that have been tested and tried and  
found to result in producing a greater  
return to the acre. fi fi fi fi

## LESS WHEAT NEXT YEAR

A greatly reduced wheat acreage will  
be put out in Barton County this fall,  
says T. W. Thordarson, agricultural  
agent of that county. The labor situ-  
ation will be largely responsible for this  
reduction in wheat acreage. The present  
crop with its rank growth of straw is  
costing heavily in proportion to the  
probable yields. Barton County, says  
the agricultural agent, has long held the  
record of being one of the banner wheat  
counties of the United States. Approx-  
imately 300,000 acres are in wheat this  
year. Farmers have invested heavily in  
improvements and some luxuries, expect-  
ing a bumper crop. Their expectations  
will be greatly reduced and the serious  
labor problem, bringing excessive ex-  
penses, has given the large wheat farm-  
er an impressive lesson that single-crop  
farming is not as profitable as one might  
think.

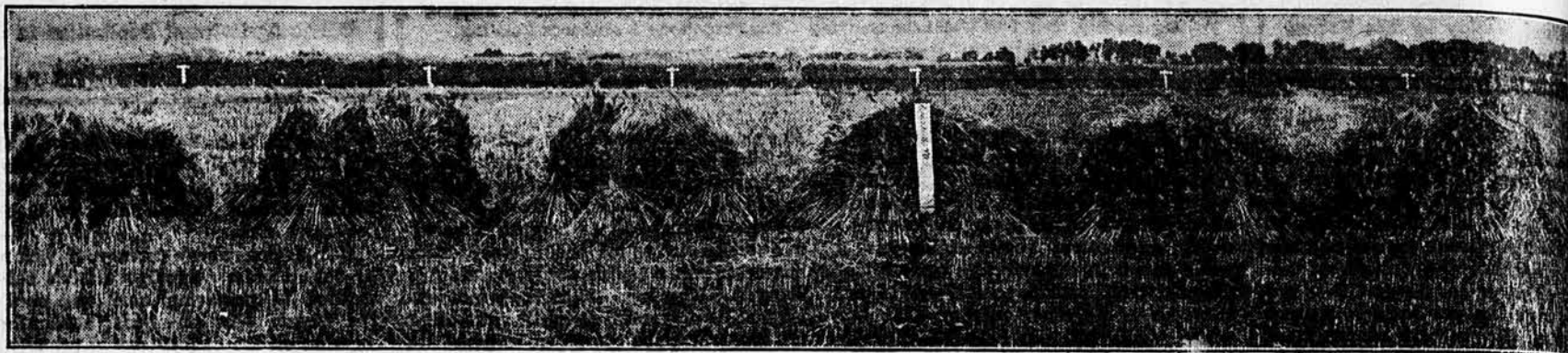
Barton County needed over six thous-  
and men for two weeks during the har-  
vest season. This seasonal demand for  
labor has become more serious each year  
until this year when it has reached its  
climax. Wheat growers were at the  
mercy of the imported laborers, and only  
through the efforts of the farm bureau  
co-operating with the federal labor of-  
fices was a crisis averted. On top of all  
the labor troubles, the present indica-  
tions are that the wheat which just a  
short time ago promised twenty-five or  
thirty bushels to the acre will come  
nearer averaging fifteen. Mr. Thordar-  
son says that many farmers on the  
street are saying that they are through  
with the big wheat crop and all its la-  
bor worries, and he is predicting that  
less than half of last year's wheat acre-  
age will be sown this fall. We have  
been told by farmers in Shawnee County  
that they do not expect to put out an  
acre of wheat next fall.

True economy does not consist in sav-  
ing money at the expense of health or  
by an unreasonable expenditure of time  
or strength, for health and strength and  
a little leisure for the higher things of  
life are worth more than money. It  
never pays to get along without proper  
equipment for your work.



# EARLY WORK THAT COUNTS

Increasing Wheat Yields by Better Methods Reduces Bushel Production Cost



WHEAT ON ONE-FOURTH-ACRE PLOT, EXPERIMENT STATION FARM, MANHATTAN, PLOWED SEVEN INCHES DEEP JULY 15; YIELD, FORTY BUSHELS TO THE ACRE.—PRODUCTION FROM SIMILAR PLOT PLOWED SEPTEMBER 15 CONTAINED IN THREE SHOOKS; YIELD, SEVENTEEN BUSHELS TO THE ACRE

IT IS a most fortunate coincidence that the measures found most successful in controlling Hessian fly are also best for producing a good wheat crop. Hessian fly is likely to cause serious damage next year, and it is always in order to grow the wheat crop as economically as possible from the standpoint of bushel cost. Many feel that with all government guarantees and restrictions removed this will be more than ever necessary in the production of next year's crop. The wheat farmer can well afford to consider carefully all the improved and tested methods for increasing acre yields and decreasing the unit cost of production.

In the tests made by the Kansas Experiment Station, extending over a long period of years, first and foremost in importance are the results obtained from working the wheat ground early. It is reported in Bulletin 219, "Growing Wheat in Kansas," that at Manhattan plowing seven inches deep July 15 has given the highest average yield of any method. The average yield for seven years is 22.1 bushels per acre as compared with 20.7 bushels for plowing seven inches deep August 15, and 14.8 bushels for plowing seven inches deep September 15. In other words, plowing in July or the first half of August, as compared with plowing September 15, has increased the average yield nearly six bushels per acre.

For those plots where the ground was plowed only three inches deep, the difference between early and late plowing is somewhat less, but still enough to demonstrate the value of early plowing.

In the experiments at Hays the average yield per acre has been about four bushels more on early plowing is nearly six bushels per acre. At Hays listing and summer fallow have given somewhat better yields than early plowing. Where it is not practicable to use these methods, as discussed later, early plowing can be expected to yield from three to six bushels per acre more than late plowing.

#### Disking Immediately After Harvest

Disking immediately after harvest—July 15 in the experiments—followed by plowing in August or September, has given practically as good results as plowing early. Comparing the plots plowed September 15 with those plowed at the same time but not disked immediately after harvest, disking has increased the yield 4.4 bushels per acre.

Disking is believed to benefit the crop mainly by preventing the growth of weeds, which exhaust the available moisture and plant food. It also aids in getting the soil in condition to absorb rain, and is beneficial in keeping the ground in condition to plow.

#### Disking After Plowing

In the experiments at Manhattan the ground, in all plots but one, has been worked with a disk after plowing. One plot which has been regularly plowed seven inches deep August 15 has not been worked until a month later. This

practice has resulted in a loss of 1.5 bushels per acre as an average for seven years.

Probably the principal object to keep in mind in working the ground after plowing is to control weeds and get the land in good condition for seeding. More work than is required to accomplish this is unnecessary. In fact, in Western Kansas too much work may actually be detrimental in getting the soil too fine and in a condition to blow in high winds.

#### Depth to Plow for Wheat

In the experiments at Manhattan in which the wheat has been grown continuously on the same land, seven-inch plowing has given better yields than three-inch plowing. When plowed in July, the average difference in favor of the deeper plowing is only 1.2 bushels.

At average prices, the difference for the plots plowed in September is no more than enough to pay the extra cost of the deeper plowing.

In those experiments in which the wheat is grown in rotation with corn and oats, three-inch, seven-inch, and twelve-inch plowing have given practically the same yields. Thus, as an average for five years, three-inch plowing has produced 26.4 bushels per acre, seven-inch plowing, 25.5 bushels, and twelve-inch plowing, 26.1 bushels. The differences are probably less than the experimental error.

As a whole, these experiments seem to show that deep plowing—i.e., six inches or deeper—is advisable only when the ground is plowed reasonably early and the wheat is grown continuously on the same land or after other small grain crops. When grown in rotation with an intertilled crop for which the ground is plowed reasonably deep, deep plowing for the wheat usually will not pay.

#### Subsoiling for Wheat

Early fall plowing with subsoiling once in three years at Hays has given an average gain of 3.1 bushels per acre as compared with early fall plowing without subsoiling. Subsoiling has not been included in the experiments at Manhattan and Colby. In other experiments in various parts of the United States subsoiling has seldom given enough larger yield to pay for the extra cost. Undoubtedly the value of this practice will vary with different crops and different methods of farming. Probably it will prove most valuable on the heavier types of soil. Since there is some question as to the advisability of subsoiling, it should be tried out in a small way before being adopted as a general practice.

#### Listing in Place of Plowing

Early listing in all tests has given better yields than late plowing and at Hays has given better yields than early plowing. The difference at Hays in favor of listing as compared with early fall plowing is 2.5 bushels, and as compared with late fall plowing 6.4 bushels per acre. The yield for listing is about three bushels per acre less than for summer fallow.

Usually the advantage for listing is

not so great as shown in these experiments. On the large fields of the Fort Hays Experiment Station Farm, where wheat has been grown in rotation with other crops, listing has not given such large yields in comparison with other methods.

Listing is advantageous principally because it is a rapid and economical method of preparing the ground. A large acreage can be covered in a given period of time, and hence more ground can be stirred earlier in the season than if plowed. This often permits one to stir all the ground when it is moist and in good condition, when, if it is plowed, some of it could not be worked until it had dried out.

Where one has a large acreage to put into wheat, listing is a good method to follow. However, the fact should be kept in mind that ground listed late makes a very poor seedbed.

Double listing, i.e., listing early and splitting the ridges a month later, has given no higher yields at Manhattan than single listing. It is a more expensive method, and in Central and Western Kansas, is likely to so dry out the ground that a good seedbed cannot be secured.

It is not advisable to list ground in the same direction year after year. In such cases the lister has a tendency to follow the old furrows. It is a good plan where listing is the common practice, to plow the ground occasionally.

#### Stubbling in Wheat

In Western Kansas where the rainfall is light it is not necessary to plow each season for wheat. Ground that has been well plowed in the past and is loose and mellow can often be prepared for wheat with a disk or may even be sown in the stubble without any preparation. The standing stubble protects the young growing wheat, catches and holds snow, prevents blowing, and frequently produces a crop when other so-called better methods fail.

This method of seeding is satisfactory only when the ground has been well prepared in preceding years. For this reason, it should not be followed many years in succession or on ground that is hard and weedy. Because of the ease and cheapness with which wheat can be seeded by this method, and because good crops are frequently produced by it, there is a tendency to follow the practice continuously, which gives unsatisfactory results.

#### Summer Fallow

Summer fallow consists in cultivating the ground and permitting it to lie idle for a season in order to conserve moisture for a crop the following year.

At Hays this method has given an average yield of 10.7 bushels more per acre than late fall plowing, and 5.4 bushels more than early fall plowing. At Colby this difference has been 9.2 bushels and 2.9 bushels respectively in favor of summer fallow.

The chief objection to fallow is the cost. The ground must lie idle a year,

and somewhat more work is required to keep the weeds under control. If ground that is sown to wheat could be plowed or listed early in the summer, i.e., before August 15, summer fallow probably would not pay. This, however, is usually not possible. When summer fallowing is practiced, a portion of the ground can be plowed in the spring or other convenient time, thus distributing the labor over a greater portion of the year.

If judiciously handled, summer fallow need be but slightly more expensive than other methods of preparing the ground except for the interest on the value of the land for the idle season. The yield secured on summer fallow in the western third of the state are usually equal or larger than with usual methods of preparation to justify its use quite extensively.

#### Blowing of the Soil

One of the difficulties of growing wheat in Western Kansas is the blowing of the soil in late winter and early spring. The damage is caused by the exposure of the roots to the air and by the rapidly moving dirt particles cutting off or badly injuring the plants.

Damage most frequently occurs on summer fallow, in corn stubble fields and other fields that have been cultivated so much that the surface soil is very fine and dry.

The best way to prevent blowing is to keep the soil as rough and cloddy as possible consistent with a good seedbed. The use of the smoothing harrow should be avoided except immediately after plowing, when the ground is very rough. Also, the disk should be used sparingly on land that is inclined to blow.

Ordinarily, if land is worked enough to control weeds, no further cultivation is necessary. Recent experiments show that for Central and Western Kansas a disk mulch is not necessary to conserve moisture, as many think. If water once gets into the soil in this area it usually stays there until removed by plants—either weeds or a growing crop.

On fields that tend to blow regardless of the preparation of the ground, a dressing of straw will prevent blowing at least to some extent. It will also benefit the wheat by reducing the injury from winter killing. The straw may be put on with a straw spreader at the rate of one-half ton to one ton per acre. If a disk set straight and weighted will then run over the ground, the straw will be partly forced into the ground. More than one ton per acre should not be spread or it will retard the wheat in the spring and reduce the yield.

Blowing can also be largely prevented by cultivating at right angles to the direction of the wind. A satisfactory way to do this is to use a corn cultivator removing about two-thirds of the shovels. If a field starts to blow, cultivation should begin on the windward side. Such cultivation will kill some of the weeds but the loss will be much less than if the

(Continued on Page Seven)



# FACTS ABOUT MEAT SITUATION

## Europe Is Taking American Pork, But Not Beef

**B**EEF conservation propaganda during the war was most successful, but it is not an easy matter to get back to normal conditions now that the war is over. With meat prices to the consumer so high that he is denying himself, and with the prices for live stock, especially beef and lambs, declining so that producers are actually losing money, we are confronted with a grave problem which requires solution if we are not to suffer a decline in the live stock industry.

It is an anomalous situation. Clarence Ousley, acting secretary of the Department of Agriculture, has just issued a statement in which he announces that the department has endeavored to inform itself on the subject and has conferred with senators and members of the House who represent live stock producing regions and feel deeply concerned for the welfare of consumers as well. It seems of the greatest importance to give to the public certain outstanding facts at once, and the information obtained may be summarized as follows:

There is no longer need for meat conservation. The supply is plentiful, and patriotic citizens may freely disregard the meat-saving placards which are still displayed at many eating places.

Europe needs our surplus pork, but is filling its beef requirements by importations from South America and Australia. Prices of beef cattle have fallen sharply since March 1 on account of the stoppage of exports for army use, and a slack demand for beef at home, due to the continuation of beef conservation under the mistaken idea that such conservation is still necessary to feed the people of Europe. Beef producers and lamb producers who sell their products at this time are confronted with the danger of heavy financial losses which would tend to restrict production and cause a serious shortage in future.

The United States will never have a satisfactory and permanent solution of the problem until the manufacture, sale and distribution of meat products are officially supervised by authorized agents of the government, working in co-operation with state and municipal authorities, whose only aim is to serve the public at large and not any particular class. When the federal government is enabled by law to maintain a just supervision over the meat producing industry that will prevent unfair dealings, speculation and profiteering, by furnishing the public from an unimpeachable source all the facts with regard to the industry, and when the states and municipalities are enabled by law to exercise similar supervision over intrastate and local business, then only can we expect to have fair and stable markets in which producer and consumer alike will have a square deal.

### Beef Industry Crisis

Some of the particulars of the situation are as follows:

The beef industry in the United States faces a most serious crisis. For a decade before the outbreak of war in Europe farmers and ranchmen had been urged to increase beef cattle production because the industry was not keeping pace with the growth of population. The lowest ebb in production was reached in the fiscal year ended June 30, 1914, when we practically ceased to have fresh dressed beef for export, but began to import it from the Southern Hemisphere. The campaign for increased production began to bear fruit with the outbreak of the war and beef again gained volume in our exports. Prices rose and farmers were encouraged to expand their beef making operations. With the entrance of the United States into the war a vigorous and successful effort was made to increase the supply of meat for our army, especially beef, by civilian self-denial. Hotels and restaurants, at the

request of the government, reduced the size of their beef portions and regularly left beef off their menus. Private families by thousands did likewise. Farmers and ranchmen exerted themselves to the utmost at great risk in order that our soldiers and sailors could have the best food that skill and loving care could produce. The result is history. From an export of beef and beef products of 151,000,000 pounds in 1914, we exported 590,000,000 pounds of beef and beef products in 1918—almost equalling the great surplus of 1901, when our population was 35,000,000 people less than now. The exports of 1918 were treble the three-year pre-war average.

The war is over. In a little while the presence of American soldiers in Europe will be a memory of noble sacrifices. We must not forget that the principal use for the beef which we shipped overseas in such quantity was for the men in uniform. Europe, short of food though it is, does not need beef from the United States so much as it needs our pork. The stocks of cattle in the most of Europe have suffered seriously in numbers during the war. Indeed, outside the areas actually overrun by the contending armies, cattle stocks have fairly held their own and in some cases even increased. Stocks of hogs and sheep have suffered much more severely than have cattle. It is also well known that Europe turned to South America and Australia for beef and lamb as soon as shipping conditions permitted. England and Italy are now buying in those markets. The United States, however, is the only large pork surplus nation, and Europe, suffering for fats with her stocks of swine greatly reduced, can consume our pork surplus readily. The beef and lamb now awaiting market on our farms and ranges must, therefore, find its outlet not overseas but at home.

In 1918, for the first time in many years, the production of meat animals gained ground in the losing race with

growth of population. This was made possible by the earnest and patriotic efforts of our live stock producers, and unless beef and lamb consumption is now increased to its potential maximum, without needless waste, we are in danger of throwing away the advance we have made under war pressure.

### Price Comparisons

It is important to present the facts concerning the prices of live stock on foot and the prices for meat, both wholesale and retail. On March 1, 1919, prices on medium and good beef steers at Chicago ranged from \$13.50 to \$18.50 a hundred. On July 1, 1919, prices on the same class of cattle were from \$12 to \$14.60 a hundred, a decline of \$1.50 to \$3.90 a hundred, or 14 per cent. Prices on choice and prime beef steers on foot at Chicago March 1, 1919, ranged from \$18.50 to \$20.25 a hundred, and on July 1, 1919, prices on the same class of cattle had dropped to \$14.35 to \$15.50 a hundred, or \$4.15 to \$4.75 a hundred, a decline of 23 per cent.

The alleged reason for this situation is the stoppage of export for army use abroad and the failure of civilian beef consumption to resume its normal status. The hotel and high class family trade are not consuming the quantities of choice beef which they used before the war, and the families of moderate income are eating only cheaper cuts, the price of which must compensate in part for that of the cuts for which there is a smaller demand. The fact is evident that many persons who desire to eat more meat, especially beef and lamb, are denying themselves.

People do not realize that the necessity for conservation of foods, especially meat, no longer exists, except as a matter of reasonable economy and prevention of sinful waste. We have in prospect the greatest wheat crop in our history; we had in 1918 by far the largest production of pork we ever had, as well as a great increase in our beef, lamb

and dairy production. Yet one sees everywhere in hotels, restaurants, and dining cars the "Save Food" signs, which were such a vital influence in the successful prosecution of the food campaign and, incidentally, the winning of the war. These "Save Food" signs should now be disregarded. Consumers are unconsciously working harm to themselves and to live stock producers by now restricting their consumption of meat.

The situation is a real menace to the farmer and to the consuming public as well. Many cattle raised in response to the demand for meat production for the army are now maturing, and if marketed on a falling market will cause heavy loss to the producers, with the result that declining production may be expected in the future. Stockmen do not deserve to be penalized for their patriotism, but should be supported by the consuming public in an effort to restore consumption to the normal without delay.

### Retail Prices Not Justified

Mr. Ousley points out that the probable reason for the hesitation of the average housewife to increase the amount of beef in the family diet is the excessive retail prices which now prevail. These prices are not justified by the wholesale quotations. A comparison of prices March 1, 1919, and July 1, 1919, shows that retail prices have not declined in proportion to the wholesale prices. During the period mentioned wholesale prices of medium and good dressed beef carcasses have declined 29 per cent in Boston, 29 per cent in New York, 15 per cent in Philadelphia, 23 per cent in Washington, 24 per cent in Pittsburg, and 28 per cent in Chicago. A detailed study of the retail prices of various cuts has been made in representative cities over the country. Prices of sirloin have declined from 9 to 16 per cent in six cities and increased 7 per cent in one city—St. Paul. Comparisons of retail prices on porterhouse, round steak, rib roast, and chuck steak on the dates March 1 and July 1 show that in only a few instances have declines equaled wholesale declines, and in a number of cases retail prices have actually advanced.

These retail prices reflect the average quotations. In Washington at this time and presumably in other cities of the country prices at some shops which cater to the more fastidious trade are substantially higher than those considered in making the investigation.

Another interesting fact is that the prices on hides have advanced very sharply, and this can be taken as a fair indication of the profits made by the packing industry on by-products. Detailed investigations of both Chicago and New York City markets show that in the period from March 1, 1919, to June 21, 1919, the different classes of hides have made a mean advance of from 43 to 80 per cent.

The daily market reports of the Bureau of Markets show that prices of good and choice beef cattle on foot at Chicago have declined about \$4 per hundred, or nearly 25 per cent, since March 1, while lower grade beef cattle have declined as much as 15 per cent. During the same period wholesale dressed beef prices show on the average approximately a corresponding percentage of decrease, which varies, however, in different cities from about 15 per cent to 30 per cent. Hides, however, have advanced decidedly while the cattle market has been breaking rapidly. The packer hide market at Chicago has gone from about 27 cents to 42 cents per pound, an increase of about 50 per cent. It is estimated that this offsets about 70 cents a hundred in the wholesale cost of beef and that increased prices of stearin, tallow, and other by-products added to

(Continued on Page Seven)



**T**HIS illustration shows most strikingly the relationship of moisture conservation to wheat yields in Western Kansas. It represents the production of three different plots on the Hays Experiment Station Farm the dry year of 1913. Sack No. 1 holds the wheat from a fourth-acre plot, late fall plowed, and No. 2 holds the wheat from a similar plot early fall plowed, and No. 3 the wheat from a summer fallowed plot. Soil moisture determinations to the depth of six feet are made on all plots throughout the year. The results of seven years' continuous observations show that yields are very closely proportional to the amount of moisture in the ground at seeding time. Where wheat is grown continuously on the same land it is impossible to store enough moisture from the average rainfall in this section to grow a profitable crop every year. The highest yields come from following methods that store the most moisture. The tests at Hays clearly prove that these are early fall plowing, early fall listing and summer fallowing. In the article on the opposite page valuable suggestions are made on cropping methods for Western Kansas. Farmers of this section of our state should by all means study carefully the results of these investigations at Hays, published as Kansas Experiment Station Bulletin 206, entitled "The Relation of Moisture to Yield of Wheat in Western Kansas."



# GENERAL FARM AND STOCK ITEMS

Something of Interest for All—Overflow from Other Departments

ONE of our Shawnee County readers asks why the scattering heads of beardless wheat which seem to be mixed with his crop are apparently better than the bearded heads. His wheat went down badly, the straw seeming to lose its vitality and becoming rotten and brittle. The grains are very small and shriveled.

Our guess is that the beardless heads are from seed of an early variety of soft winter wheat which must have been mixed with the hard wheat he planted. The extremely hot weather which came on suddenly with the ground wet was too much for the heavy-foliaged hard wheat, the crop probably having made a very rank growth. The straw was actually scalded and could not mature in a healthy condition. In many fields in this section the wheat is in this condition and will not begin to yield as well as was estimated a month ago. The earlier soft wheat was far enough advanced to be matured when the hot weather came. In fact in all probability the soft wheat would have been better adapted to the conditions in the field in question than the hard wheat. Eastern Kansas, and particularly Southeastern Kansas, is generally considered as being in the soft wheat belt, the western boundary of this soft wheat belt extending as far west as the eastern edge of Cowley County to the south and touching the eastern edge of Brown County on the north.

## Fertilizing for Wheat

Whether it pays to fertilize for wheat or not is a question frequently asked by farmers of Eastern Kansas. On the shale, sandstone and poorer soils of this section it is being found profitable to fertilize wheat in Eastern Kansas. R. I. Throckmorton, soils specialist at the agricultural college, states that the stronger limestone soils, soils of glacial origin, and bottom lands do not respond so readily to fertilizer treatment. It has not been found profitable to use commercial fertilizers in growing wheat in the central and western parts of the state, because moisture is usually the limiting factor in these sections, while in the eastern sections quite often plant food of the right kind is the limiting factor.

Mr. Throckmorton advises against the use of what are called complete mixtures of commercial fertilizers, for the reason that in very few instances do Kansas soils need potash. On all except the poorest and heavy clay soils, acid phosphate or bone meal will prove most profitable. On the heavy clay soils and those very low in fertility a fertilizer containing a small percentage of ammonia in addition to the phosphorus will be most profitable, but even on these soils potash has not proven profitable. The suggested rate of application of fertilizer for wheat is about a hundred pounds to the acre of steamed bone meal or 125 pounds of acid phosphate.

## Unfair Grading of Wheat

A Clay County wheat grower asks if he has any recourse in case the local buyer of his wheat gives him too low a grade. If in his judgment his wheat is unfairly graded, he should take a sample when he delivers the wheat and send it to the State Grain Inspection Department. If there is any error the buyer must make it good, for he is operating under federal license and must comply with all its restrictions. The federal regulations restrict the local buyer's margin. Licensees of the Grain Corporation have been generally given to understand that the maximum margin for handling cannot be in excess of 8 cents a bushel, to which can be added the freight to Kansas City or other terminal market. In a circular issued by D. F. Plazek, zone agent for the United States Grain Corporation in Kansas City,

the following statement is made: "We will not state what a reasonable handling margin at any particular point would be unless a complaint is filed against a buyer. In that event it would be incumbent upon us to make a full investigation and determine what would be considered the proper margin." This circular also gives the basic prices to be paid by the government for wheat in Kansas City and other centers. No. 1 dark hard winter will bring \$2.20 a bushel; No. 2, 3 cents below No. 1, and No. 3, 7 cents under No. 1. Wheat grading below No. 3 will sell on its merits by sample.

A farmer or a group of farmers can ship their own wheat either to the United States Grain Corporation or to a commission firm. The charges for selling will be the weighing and inspection fees, amounting to \$1.50 to \$2 a car, and the commission of 1 per cent, which will amount to approximately 2 cents a bushel. There will also be a possible shrinkage, and if shipment is made to the Grain Corporation there will be a delay in receiving payment. A sight draft cannot be drawn on a bill of lading to the government, but approximately the full value of the shipment can be realized on a bill of lading to a commission firm by taking it to a bank and drawing a sight draft.

## Watch Milking Machine Tubes

The weak point in the use of mechanical milkers is the matter of keeping the outfit clean and sterile. This objection is not insurmountable, neither does success in keeping the machine clean necessarily mean a lot of extra labor. In many instances those complaining that it is impossible to produce milk of a satisfactory quality by milking are spending more time than is actually needed in order to properly clean the machine. The steps in the process are like the links in a chain. In order to have a strong chain every link should be equally strong. Nothing is gained by forging a few very heavy links if there are one or two weak ones in the chain. In the milking machine chain the weak link is frequently the matter of placing the rubber tubes and teat cups in a proper sterilizing solution. They should be placed in such a solution in a jar or crock, being careful that no air is trapped in the tubes where the milk flows, or in other words being sure that the solution comes in contact with every portion of the inside surface. This necessitates the use of a sufficiently large container. To be sure that the tubes are properly sterilized, a large crock or jar of twenty gallons capacity at least should be used for three sets of tubes.

In letting the tubes down into the

solution, do not bend or double them up, but hold them by one end, letting them down into the solution slowly. A good safe way to make sure that all the air is driven out is to remove the screw cap at the end of the claw in cases where this cap is without an air opening. In this way one can be sure that the sterilizing solution is reaching all the small passages and turns in the claw connections.

## Care of Asparagus

The asparagus bed should not be neglected, even though it is not making any returns at the present time. If the bed was not heavily manured last fall, some well-rotted stable manure should be applied during the summer and worked into the soil by cultivation. Cultivation should continue throughout the season.

In making the large top growth they do during the summer, the asparagus plants are storing up a reserve supply which will be used in producing the shoots next spring. Therefore the cultivation and fertilization which encourages a good top growth are essential in order to insure a good yield next spring.

In the fall when the berries turn red the stalks should be cut off and burned and some time before winter a good mulch of stable manure applied, care being used to have a good covering over the crowns of all the plants. If you will follow the procedure outlined in handling your asparagus bed, you will not be disappointed in the returns next spring.

## Horse Market Improves

There has been a decided improvement in the horse market, says Wayne Dinsmore, secretary of the Percheron Society. He reports that exports to Europe have already begun in spite of the high ocean rates prevailing.

Marx and Hammel have forwarded three shipments to Havre, France, part of which were billed directly to Belgium via Havre, as the port of Antwerp is not yet available. Vanlandingham, of Belgium, who formerly acted as interpreter for many Americans purchasing pure-bred horses in France and Belgium, has begun buying horses on the Chicago market and expects to ship at least 100 per week. Another firm, the identity of which has not yet been disclosed, will begin July 7, so that from the known arrangements of these three exporting firms, from 400 to 500 horses will be purchased and shipped abroad each week from Chicago alone. St. Louis will undoubtedly be in the game soon, so that farmers may look for a good demand for surplus drafters.

The Marx and Hammel consignment

of 200 head which left Chicago July 1 were a good useful lot of work horses, ready for immediate service. All were broken and most of them right out of farm work. They ranged from 15.3 to 16.3 hands in height, and from 1,500 to 1,800 pounds in weight, in good working flesh. The majority were geldings, but mares are just as acceptable, or a little more so. The best type of draft horses are wanted, but the less desirable ones are accepted at a discount in price. Harry McNair, in commenting on this, said: "It is easier to sell a real good drafter for \$300 than a mediocre one for \$225." Horse row comment credited the cost price of this last lot of 200 head at \$265, average on the Chicago market, which means a cost of about \$240 each in the country. There were a number of horses in the shipment which cost over \$300 per head and a good many that did not cost over \$225, for the spread between the good ones and the medium kind is great.

The horse that is most sought for is the one that will stand 16.3 to 17 hands, with depth of chest equal to one-half his weight, and well proportioned throughout. Such a horse must be strong-backed, powerful in build, deep-middled and well let down in the flanks, with good underpinning, and weigh over 1,700 pounds in working flesh. Such horses will bring from \$325 to \$350 each. Short, steep pasterns, small constricted feet or crooked hocks are not wanted, and unsound horses are also declined with thanks, although a slight puff about the joints will get by if the horse is otherwise sound.

One fact of especial interest to farmers is that the exporters will take the mediocre stuff if they can not get the best. No man can afford to sell the best if he expects to improve his horses. It is therefore good policy to cut out all of the smaller, less desirable work horses, and dispose of them as buyers appear; and they will come more and more frequently, for there is a steadily growing demand for drafters for city and construction work, as well as for export. Shrewd judges of the market predict that by 1921 good draft horses will be higher in price than ever before, and then, five years too late, there will be a frenzied stampede of farmers to breed their mares and with this will come a widespread demand for good stallions, which the pure-bred horse breeders of America, largely Percherons, must meet.

Sir Merrik Burrell, vice president of the British Percheron Horse Society, will visit the United States this fall for the purpose of acquainting himself with the resources of the United States in Percherons. He is one of the best known horsemen in the British Isles and his visit will be hailed with delight by Percheron breeders who are anxious to see the Percheron cause prosper in the tight little isle.

## A Horse's Appeal

The following appeal originated in France, was brought to this country by an American lieutenant who received a copy of it from a French artillery officer, and printed recently in the Boston Sunday Post.

"To thee, my master, I offer my prayer.

"Treat me as a human being, not as a machine. Feed me water and care for me, and when the day's work is done groom me carefully, for remember a good grooming is equivalent to half a feed. Clean my feet and legs and keep them in good condition, for they are the most important parts of my body.

"Pet me sometimes. Be always gentle to me so that I may serve you the more gladly and learn to love you.

"Do not jerk the reins. Do not whip me when I am going uphill. Do not force me out of my regular gait or you

## MAXIMS FOR WHEAT GROWERS

**P**LOW early and deep for large yields of wheat. Each week that plowing is delayed after the middle of July means a reduction of one bushel of wheat to the acre. Ground that cannot be plowed early should be double-disked and plowed as soon as conditions will permit. Disking is a desirable method of preparing the seed bed when used in connection with plowing, but is a poor method when used alone. Summer fallow accomplishes for the Western Kansas farmer what early fall plowing accomplishes for the Eastern Kansas farmer.

Weeds rob the soil of moisture; kill them while they are small with a disk or harrow. Ground plowed early and worked sufficiently to keep down weeds will usually be in good condition for wheat by seeding time.

Wheat ground should be left as rough as possible, within the limits of good tilth. On finely pulverized soil wheat blows out and winter-kills more than on rougher ground.

Corn ground free of weeds is in a dry season an excellent seed bed for wheat.



not have my regular strength when want it. Never strike, beat, or me when I do not understand what mean, but give me a chance to understand you. Watch me and if I fail do your bidding see if something is wrong with my harness or feet. Don't draw the straps too tight. Give freedom to move my head. Don't make my load too heavy, and oh, I pray have me shod every month. Examine my teeth when I do not eat. I may have some teeth too long or I may have an ulcerated tooth, and that you are very painful. Don't tie my head in an unnatural position or take away my best defence against flies and squitos by cutting off my tail. I cannot, alas! tell you when I am hungry, so give me pure water frequently. Do all you can to protect me from the sun, and throw a cover over me when I am working but when I am standing in the cold. I always try to do cheerfully the work you require of me, and day or night stand for hours patiently waiting for a. Therefore, oh my master, treat me in the kindest way!"

### High Priced Cow

When a man pays \$500 to \$600 for a cow there are sometimes those among his friends who seek to advise with him regarding his extravagance or lack of judgment. We heard of such a case concerning our friend J. W. Hamm, of Leavenworth County, who has been building up a good dairy herd. It seems Mr. Hamm had some plunging at a sale recently, paying \$500 for a pure-bred Holstein heifer. His friend, G. A. Laude, who by the way is a strong Shorthorn booster, wondered if Mr. Hamm had not let his enthusiasm run away with his judgment. He proceeded to investigate after the heifer, visiting Mr. Hamm at his farm, and found him still more enthusiastic over his purchase and only regretting that he had not bought the heifer's three-year-old calf which sold for \$300. Being a practical man, Mr. Laude took out his pencil and began to figure. The first fact he got on paper was that the heifer was producing thirteen pounds of butter fat a week, and she is only a two-year-old. When mature she can be expected to produce eighteen or twenty pounds of butter fat a week, basing this estimate on her present production as a two-year-old. The next step with the pencil and paper was to figure the expense going into this heifer. This is the way Mr. Laude jotted it down: Interest for one year, \$30; risk at 5 per cent, \$25; \$2 for taxes and insurance, and \$185.40 for feed and care, or a total of \$242.40. He valued silage at \$6 a ton, alfalfa hay at \$20, concentrates at \$30, and five months' pasture at \$3 a month. Now for the credit side of the account. On the basis of her present production it seemed fair to credit her with 794 pounds of butter fat for a year, which valued at 45 cents a pound amounts to \$357.30. Allowing \$150 for the calf brings the total credit to \$507.35, or a net return of \$264.95 to apply on the purchase price of the cow. Mr. Laude continued his figuring and found that by the end of the second year this cow would have paid for herself with a balance over of \$58.95. The enthusiasm of the man who likes dairying and knows how to handle purebred dairy stock, including the matter of marketing the surplus animals, seems to be after all based on sound business sense. A \$100 cow credited with an average butter fat production of six pounds a week, which is double the production of the average milk cow of Kansas, by the same method of figuring would not pay for herself short of eight years.

### Farm Butter Making Unprofitable

It seldom pays to make butter on the farm. Just as good and probably better butter can be made in the properly equipped home dairy, but the facts are that the average run of country butter is not equal to the creamery-made product. The simplest and in most cases

the most practical and satisfactory method of selling butter fat is to run the milk through the hand separator and sell the cream. In this way all the bother of handling the cream and making it into butter is avoided, and the actual money returns will be usually greater than when the cream is made up on the farm and sold as butter. Here is the way N. E. Olsen of the dairy department of our agricultural college figures out the business side of home butter making:

"The price paid for farm butter is about ten cents below market price for butter fat in first grade cream. The over-run obtained ordinarily on the farm is very slight, seldom if ever going above 15 per cent.

"Considering these facts, on 100 pounds of butter fat the farm butter maker would receive at the present time 62 cents a pound, or \$62. The country butter made from this would not be over 115 pounds and would sell to the grocer for 45 cents a pound, or \$51.75, making a loss of over \$10.

"Farm butter making pays only when a high class product is made and sold direct to the consumer at a price equal to that which is received for the best grades of creamery butter.

"The grocer loses money on the country butter which he takes in exchange for trade, since much of it is of such poor quality as to necessitate its sale as packing stock for the manufacture of renovated or process butter."

### Facts About Meat Situation

(Continued from Page Five)

the increased prices of hides brings the total saving on beef costs up to about a cent a pound since March 1.

While the live cattle and wholesale dressed beef markets have gone down to the extent of 25 per cent, the price of retail beef cuts to the consumer has been at a standstill in many cities, has even increased as much as 20 per cent on some cuts in some cities, and where retail prices have been reduced, the reductions usually are only from 5 to 7 cents a pound, which means only about 10 per cent reduction from prices prevailing March 1.

#### Legislation Required

The Department of Agriculture has not the time in this emergency to do more than to present these outstanding facts, but thus presented the facts demonstrate clearly the commanding need for governmental supervision over the manufacture, sale and distribution of meat products. Federal supervision of the interstate industry may well be accompanied by state and municipal legislation providing supervision over the intrastate and local industry, to the end that federal, state and municipal supervision may be correlated for the prevention of unfair dealings, speculation and profiteering, by furnishing to the public from unimpeachable sources all the facts with regard to the industry from the farm to the table, in order that both producer and consumer may have a square deal.

In addition to presenting these facts in this manner to the American people, the department is communicating a summary of the situation to Herbert Hoover, who is in charge of the American Relief Administration in Europe, and inviting his advice and suggestion as to measures of immediate relief which may be put into effect here and abroad.

"The glory of work—yours, mine, everybody's—is the chief glory of life. It is not gold or silver, or education or culture. It is not honesty or virtue, or anything which we may possess which makes our lives worth living. Our success or failure depends on what we do with what we have."

We are unwilling to believe that any color line will be drawn by the American Legion. Our colored troops gave too fine an exhibition of their loyalty and courage to make that possible. Our white soldiers are far above so unworthy an act.—Our Dumb Animals.

# Dependability

of the

## DE LAVAL



Now that "dog days" are with us, it is no time to bother with a balky cream separator.

Dependability in a cream separator is especially necessary in the summer when the milk should be taken care of in the shortest possible time.

The DE LAVAL Cream Separator is dependable, and with ordinary care it will easily last a lifetime.

The DE LAVAL capacity rating is dependable. Each size exceeds its advertised

capacity under ordinary, and even under unfavorable, conditions.

DE LAVAL Service is dependable. Fifty thousand agents the world over see to it that DE LAVAL Separators are properly set up, operated and taken care of. And, above all, the De Laval Company is dependable—the oldest and by far the largest cream separator manufacturers in the world.

**More De Laval in use than of all other makes combined.**

See the local De Laval agent, or, if you don't know him, write to the nearest De Laval office as below

### THE DE LAVAL SEPARATOR CO.

165 Broadway,  
NEW YORK

29 E. Madison Street,  
CHICAGO

61 Beale Street  
SAN FRANCISCO

### Early Work That Counts

(Continued from Page Four)

blowing is allowed to go on unchecked.

In case blowing is excessive and cannot be stopped by the methods just described, lister furrows may be run at intervals at right angles to the direction of the wind. In unusually dry and windy seasons it may be necessary to renew the furrows from time to time.

There is good evidence to show that seeding wheat in furrows, as heretofore described, will prevent injury from blowing to a large extent. The wheat crowns are below the level of the surface and consequently the roots are less likely to be exposed by the removal of the soil, and the plants are not injured so much by the moving soil particles.

#### Summer Fallow for Western Kansas

One of the principal reasons for small yields and partial crop failures in Western Kansas is the large acreage in wheat and the poor and late preparation of the ground. Undoubtedly the situation could be greatly improved by introducing cropping systems in which other crops beside wheat are used, or even by using better methods of growing wheat alone.

A system of continuous cropping to wheat that has been used with success consists of putting one-fourth of the land in fallow and three-fourths in wheat. The ground to be fallowed at the most convenient time in the spring and worked thereafter as necessary to control weeds. The ground should not be worked more than necessary after plowing. In fact, too much working may be injurious by getting the soil too fine and increasing the tendency to blow during the late winter or early spring.

Of the ground that is in wheat, one-third could be plowed or listed early in the summer, one-third could be prepared later, being plowed, listed, or simply disked before seeding, as available labor, condition of the soil, and the season may

indicate best. The other third could remain without cultivation until the following spring.

A farmer handling 400 acres in this way would divide his farm into four fields of approximately 100 acres each. Each season 100 acres would be fallowed and 300 acres would be sown to wheat. Of the wheat, one-third would be on fallow, one-third on early plowed or listed ground, and one-third on ground prepared later. Such a system would divide the work and distribute it throughout the year and at the same time would undoubtedly increase the certainty of a crop and the total average product of the farm.

#### Summer Fallow in a Rotation

Successful farming in Western Kansas depends in a large measure on raising live stock and the most profitable farms are those which combine a system of growing wheat and feed for stock.

The best feed crops for Western Kansas are the sorghums—kafir, feterita, milo, and the sweet sorghums. The best results are secured when these crops are grown in a rotation with wheat. But kafir and most other sorghums grow rather late in the fall and some off so late that wheat cannot be sown, or they leave the ground in such condition that wheat cannot be grown successfully the following season.

This difficulty may be overcome by using summer fallow. A good rotation is wheat for two years, kafir or other sorghum one year, and summer fallow one year. By this system one-half of the farm is in wheat each year, one-fourth in a sorghum crop for feed, and one-fourth fallow for the following wheat crop.

If this system does not supply sufficient feed, an additional crop of sorghum can be added to the rotation, making it first year wheat, second year wheat, third year sorghum, fourth year sorghum, and fifth year fallow.



**MORE Wheat and Better Wheat from the same acreage.**  
You can get it by applying 200 to 400 pounds per acre of

# Armour's

## Natural Plant Food

# Fertilizers

Will enrich your soil—increase the yield per acre—hasten maturity—improve the quality—YOUR HARVEST WILL PROVE IT!

Nearly seven million tons of Fertilizer used last year.

Write for name and address of  
Nearest Sales Agent

**ARMOUR FERTILIZER WORKS**  
KANSAS CITY, MO. CHICAGO, ILL. ST. LOUIS, MO.  
Largest Manufacturers of High Grade Animal Fertilizers 4450

## 19th. Annual Kansas State Fair

HUTCHINSON, KANSAS, SEPTEMBER 13-20, 1919  
UNDER THE AUSPICES OF THE STATE BOARD OF AGRICULTURE

**Big Annual Agricultural and Live Stock Event of Kansas.**  
**The Natural Meeting Place of the Breeder and His Buyer.**  
**Seventeen General Educational Departments.**

Send for catalog now and make your entries and reservations early. New Live Stock Pavilion—New Mineralogy Building—New Swine and Sheep Pavilion—New Addition to the Big Grandstand—New Walks and Drives.

### Three Days Harness and Running Horse Races

Two days Auto Races and Auto Polo every day and night. Grand Free Attractions and Music. The Grand Victory and Patriotic Pyrotechnic Panoramic Spectacle of the Battle of Chateau Thierry, together with free acts and grand music, will provide an entertainment each night that will have no superior at any of the great fairs of America. Send for catalog or information.

H. S. THOMPSON, Pres. A. L. SPONSLER, Secy.

## ROSS Ensilage Cutters and Silo Fillers

Fill your silo with Ross cut silage. It is cut clean, not macerated. Every particle contains its own juices. Ross cut silage is uniform from top to bottom of silo, not soggy at the bottom and dried out on top.

There's a type and size of Ross for any engine—4 H. P. and up, cylinder or fly-wheel construction. Each one cuts corn clean. Ross Silo Fillers run with 300 R. P. M. less speed—require one-fourth less power—and are absolutely safe and sure.

Keep a crew on the jump to feed them. Won't break down. Never choke, no matter how fast the corn is fed. Thousands of happy owners testify to their year 'round, honest dependability.

Extra heavy knives, low speed six-fan blower, self conforming bearings, ball bearing end thrust adjustment and reversible cutting bar. The Ross runs with a smooth, steady hum, fills your silo in a steady stream, every machine backed by sixty-nine years' experience and an ironclad guarantee.

### Write For These Free Books

No wide awake farmer or dairyman will pass up this chance. Simply tell us your needs. We mail these valuable books free. Many facts you should know, all explained. Get them—send a postcard—TODAY.



**THE E. W. ROSS CO.**  
150 Warder St., Springfield, Ohio

A Size  
to Match  
Your  
Power

## Sell Him Now!

If you have a pure-bred bull, boar or other breeding animal that you cannot use in your own herd another season, why not sell him now? There are always buyers looking for pure-bred sires. Their trouble is to find a good animal. Your cue is to tell them where to find him, through the Classified Columns of

**Kansas Farmer**

## Co-operate with Farm Bureau

**T**HE county agent and farm bureau movement is attracting a good deal of notice and comment these days and certain economists, farm journal editors, and "production" farmers, are looking forward to what will be accomplished when there is a county agent in every county and a state federation of farm bureaus embracing all the counties. There is also talk of starting all over again and organizing a National Chamber of Agriculture with the membership composed of state organizations having county membership with the counties represented by one or more men from every town. It would seem that people sometimes forget the existence of the great "self help" movements among farmers and of the pioneer and heroic efforts that have been made to advance the cause of the plain every-day farmer.

Right now there are tremendous questions before the American public that affect farmers in the most far-reaching way; the railroad question, what shall be done with the packers, the status of agricultural co-operation under the federal anti-trust laws, the boycotting and discriminations existing against farmers who are organized to buy their agricultural supplies at a saving and to sell their farm products to better advantage—these questions are before us at this moment and they need a wise and speedy solution.

Farm organizations are vitally concerned with these and other questions and they are working on them. A number of farm organizations, most of them national or interstate in scope, has already united in the National Board of Farm Organizations because through unity of action they are able to work far more effectively. The farm bureaus undoubtedly have a most important function to perform and there is no quarrel with the farm bureaus or with the county agents in the performance of their proper functions; but at the present time it would seem very unwise to rely upon the farm bureaus or the county agents to do any very effective work in connection with acute economic problems affecting agriculture. Even in the states where the leadership of county agents and farm bureaus is most representative of average farm conditions, one looks almost in vain for any official utterance in regard to economic questions. It would seem that questions relating to the packers, discrimination, and boycotting and inspired persecution and prosecution of organized milk men by powerful condensers and milk distributors interests were almost tabooed. It may be that the farm bureaus and the National Association of County Agents have a great problem in respect to such matters; it may be they will express themselves at some future date when they are fully entrenched; it may be that they feel these questions do not come within their purview.

Consensus of opinion among the directors of the movement seems to favor the idea that farm bureaus shall constitute an open forum for discussion rather than for solution of economic questions. If this construction would be accepted by the general public it would greatly clarify the situation, but the trouble is that so many people do not accept this construction and are either condemning the farm bureaus for what they do not do or else getting back of the movement in the hope that at some future date the farm bureaus will become a democratic mouthpiece and a fighting force in the farmers' economic battles. Moreover, certain organized business interests, alarmed at the progress farmers are making in organizing and federating and seeing the farm bureau movement inactive on economic questions, are throwing their weight to the farm bureaus at the same time that they are opposing the "self-help" movement.

Clear thinking rather than quarreling is in order with respect to the farm bureau movement. Farm bureaus are do-

ing splendid work in certain lines of endeavor and with a clear understanding of their proper scope and functions they should receive the support of farmers everywhere. The average farmer is not sufficiently profiting by the teachings of science—even if he is opposed to the present working out of the slogan, "Produce two blades of grass where one grew before." He can carry out the two blades of grass idea safely if he will curtail his acreage and seed down wornout land which now with over-cultivation is at the mercy of the eroding forces of nature. But even though friendly to the farm bureau movement, the farmer who belongs to a "self-help" organization will continue in loyal allegiance to his "first love." He cannot safely depend on the farm bureau movement to fulfill the functions of the Farmers' Union, Grange, Equity, Glens, National Milk Producers' Federation and many other organizations that have won for him a place in the sun.—CHAS. A. LYMAN.

### Graduates and Public Service

That graduates in agricultural courses in our colleges are not fully utilizing their training in public service, was the opinion expressed by F. D. Farrell, dean of agriculture at the Kansas Agricultural College, in addressing graduates of the institution during commencement week. Dean Farrell believes that agricultural graduates might do more in bringing about betterments in American country life, in improving the status of farmers as American citizens, and in the betterment of our national life in general. He does not discount what agricultural graduates are doing, expressing his belief that they are doing as much man for man as any other college graduates, but they are not doing as much as they could do nor as much as the country has a right to expect of them in the way of broad public service. "This is due in part," said Dean Farrell, "to a lack of appreciation by agricultural graduates of their responsibilities and opportunities for service and to an inadequate understanding of agricultural relationships, general and specific. One of the ways in which this institution is seeking to improve this situation is to require all students in agriculture to take a new course to be known as Agricultural Relationships in the second semester of the senior year. The description of the course in our forthcoming catalog is as follows:

"This course is designed for agricultural students who are about to enter upon their life work. It is given for the purpose of directing the attention of these students to their duties, responsibilities, and opportunities for service as citizens of the agricultural community and as specialists in various phases of agricultural activity. It consists of lectures and discussions relating to the broad, fundamental relationships of some one of our groups of agricultural people to each other, and of the agricultural community to other communities. The course places special emphasis in this connection on the responsibilities, obligations, and opportunities of agricultural graduates as American citizens."

Each year in normal times we graduate from this institution from 75 to 150 men who complete the requirements of some one of our groups of agricultural courses. Most of these men immediately enter some field of agricultural work. They are capable of exerting a profound influence for good, both for the agriculture of the country and for the nation as a whole. We do not wish to overlook any opportunities for fitting them to render a maximum of service.

Birds are valuable conservators of foliage because they feed on insect larvae which eat the leaves. Birds destroy thousands of harmful insects which if not killed would in a few years destroy all vegetation.



## Advantages of United Dealing

A force to promote an agriculture in Kansas which will be relatively more profitable to farmers, co-operation has won-derful possibilities, states Dr. Theodore Macklin, head of the department of agricultural economics of our Agricultural College, who is writing a bulletin on "Co-operation as Applied to Kansas Mar-

kets." "At present," said Doctor Macklin, "a high proportion of farm products which are sent to terminal points is handled through concerns which are owned or operated as corporations. The number of these plants at a given shipping point is limited only by the con- ditions of competitive business.

"Any man can enter the field who chooses. The important result of competitive conditions is to reduce the average volume of business for the concerns operating.

### Increased Returns Possible

"Co-operation is a force which can be effectively utilized by farmers to consolidate marketing concerns, and increase returns to farmers. Larger returns are made possible to farmers by co-operation when this form of organization increases the volume of business per plant and reduces the cost of handling products per unit.

"The chief reason why farmers can be benefited by successful co-operative ownership of consolidated market agencies lies in the fundamental difference between the idea of corporation and of co-operation.

"The motive for enlarging the corporation development of business is to make profits on capital invested, using the business as a means to an end. Its common result is to skim the profits of the business and give them to the owner of the capital rather than to the patron of the business. On the contrary, co-operation is used to develop a business itself, using only such capital as may be essential to bring the highest possible income to the farmers.

### Producer Not Considered

"In a corporation the success is measured in terms of the dividend on the capital stock and not in the prices of the product paid to the actual producers. In co-operation, however, success is measured in terms of the income to farmers either in the form of a pro rata return of the savings which co-operation makes possible or in the form of higher net prices for the products which the farmer has sold."

Successfully applied co-operation, according to Doctor Macklin, such as that of the Canadian Grain Growers, the Co-operative Creamery Patrons of the Central West, and the California Fruit Growers' exchange, provides the patrons of the business with four main benefits. The first two benefits are that co-operators receive the profits of the business which otherwise go to the private operators of the concern. They receive the increased profits of the greater efficiency arising from the large volume of business which co-operation guarantees.

For the third benefit, Doctor Macklin states that information and incentive are furnished which induce co-operators so to improve their farming methods that the quality and the uniformity in grade of their products is greatly increased. In addition, co-operation gives stimulation and knowledge which inspires the individual farmer to greater efficiency, and to the reduction of his costs of producing farm products, with resulting increased profits.

### Will Cite Examples

In his bulletin Doctor Macklin will name some concrete examples of the possibility of co-operation in local concerns which are based on the facts which he sets forth concerning elevators, cream stations, livestock shipping, and general stores in Kansas.

"For instance," said Doctor Macklin, "it is probable that in the 314 elevators located in towns having from two to three elevators each, and handling in the

aggregate more than three-fifths of the grain handled by elevators in Kansas, at least a cent a bushel would be saved to the grower through consolidation into unified co-operative concerns, after the payment of all costs, including that of a better manager than is now employed by the average concern."

"The present average commission paid for cream station operators is two cents per pound of butterfat. Were co-operation applied to the butterfat, egg, and poultry business, and cold storage facilities provided, a volume of business could be built up which would warrant a reduction of butterfat commissions to one cent, or possibly less, thus increasing the net returns to farmers by one cent or more a pound.

"Undoubtedly, too, there are hundreds of points in Kansas where consolidation of all livestock shipment, in the hands of a single co-operative association, would provide a minimum of 100 cars of livestock annually, a volume of business which is ample to effect material increases in the returns to the farmers."

In rural communities, stated Doctor Macklin, where a small volume of trade is handled through three or four stores, instead of one concern, the overhead costs of these duplicated store buildings, lots, half busy storekeepers, and for the most part, inefficient managers, greatly increases the margin by which prices must be increased in order to cover costs and provide a living and profit for the store owners.

### Credit Union in Farming Community

"Look over the map and place your finger where you think unrest is greatest among the farmers, and you will have located inevitably the areas which are dependent on some one crop or one farm product." So says Bradford Knapp in the Banker-Farmer. "Under all such circumstances farming is more or less speculative, and speculative farming always produces problems of marketing and distribution—over-production with low prices, or under-production with high prices. Under such circumstances farmers' minds are naturally unsettled when the crisis is on."

"I would like to tell about Red Springs, in Smith County, Texas," adds Mr. Knapp. "This was a community growing in hatred toward the town people and feeling resentment because farmers thought that the hand of the world was against them. Mr. Clarence Ousley, of the Department of Agriculture, was a wise enough man to know that there must be an underlying cause. He sought for the reason and found it in exceedingly high interest rates and high prices for things bought on credit at the store. You may say that this was caused by an unsafe system of farming. That may be true, but the condition called for a remedy. A man was sent to organize a credit union in that community. This credit union borrowed money from the same banks on joint security at around 8 per cent instead of the old rate of 20 per cent, which enabled the community to buy its goods for cash prices, and at lower rates, from the very business men who had formerly sold to them on credit. This led to further co-operation, and now that neighborhood has a co-operative gin, a co-operative cannery, and is talking about a co-operative laundry. All the time their credit union still served them. The experience of this community has led it to the solution of its own problems, and as injustices have disappeared, farmers recognize that a democratic government does furnish opportunity for the redress of their wrongs. They are a much happier people now."

For many years the credit union has been utilized by farmers, business men, and wage earners in Europe, to finance themselves, and especially to provide for money emergencies.

For years, likewise, the credit union has been in operation in the United

## WATER

### Oceans Of It When You Need It



Galloway Pump Engines guarantee water at all times under all conditions. Save farmers the back-breaking job of pumping water by hand. Galloway Pump Engines make you independent of the elements. Give Water and plenty of it at a big saving of cost and time.

Water is absolutely essential to live stock in hot weather. Tests prove that the flow of milk of the average dairy cow is stimulated more by the animal drinking than by overeating. Water is also a factor in keeping live stock in condition when most likely to lose flesh.

### It Pays to Buy a GALLOWAY!

Thousands of Galloway Pump Engines are in service all over the country giving wonderful satisfaction. Powerful, durable and simply constructed. They deliver more than their rated horsepower, and last longer than the ordinary engine. Powerful 2 1/2 H. P. Engine runs pumps, cream separators, washing machines singly or together. All small machines—or 22 in. circular saws. Self-oiling, double-gear pump jack. Best four-ply belting. Satisfaction guaranteed. 30 days' trial. They are sold on the Galloway plan direct from factory to farm. The saving goes into your own pocket. Try a Galloway Pump Engine for 30 days. Compare it with any other engine. If you don't think it the best value ever return it. We'll refund your money and pay the freight both ways. Close by shipping points save freight.

### Write Today

for full details. Order direct from this ad and get prompt delivery.

WM. GALLOWAY CO.

1195 GALLOWAY STATION  
WATERLOO IOWA

### COMPLETE

2 1/2 H.P. Engine—No. 4 Heavy Duty Pump  
Jack, 20 ft. 2 in. Siding, Water  
Magnet, F.O.S.  
Nearest Shipping  
Point, Complete

\$75.40



## Grow Wheat in Western Canada

### One Crop Often Pays for the Land



Western Canada offers the greatest advantages to home seekers. Large profits are assured. You can buy on easy payment terms.

### Fertile Land at \$15 to \$30 per Acre—

land similar to that which through many years has averaged from 20 to 45 bushels of wheat to the acre. Hundreds of cases are on record where in Western Canada a single crop has paid the cost of land and production. The Governments of the Dominion and Provinces of Manitoba, Saskatchewan and Alberta want the farmer to prosper, and extend every possible encouragement and help to

### Grain Growing and Stock Raising.

Though Western Canada offers land at such low figures, the high prices of grain, cattle, sheep and hogs will remain.

Loans for the purchase of stock may be had at low interest; there are good shipping facilities; best of markets; free schools; churches; splendid climate; low taxation (none on improvements). For particulars as to location of lands for sale, maps, illustrated literature, reduced railway rates, etc., apply to Supt. of Immigration, Ottawa, Can., or

F. H. HEWITT, 2012 Main St., Kansas City, Mo.,  
Canadian Government Agent.



## Topeka Home For Sale

Mr. Farmer and Wife About to Retire from Farming: Would you like to have a beautiful, modern home in Topeka, in the center of Potwin Place, the most beautiful residence district in or near Topeka? Good modern eight-room house; fine old shade; beautiful bluegrass lawn; garden with lots of fruit; large lot 62 x 205 feet. Write for further particulars. Terms, \$6,000 cash, if taken soon.

Address Owner, on Kansas Farmer Staff

625 Jackson Street

Topeka, Kansas

States, but only on a small scale and hardly at all among country people.

A movement was recently started in New York City to encourage the organization of credit unions and peoples' banks all over the United States, particularly in country districts. The Federal Farm Loan Act has done much to better the borrowing facilities of the farmer who needs a long-term loan on

mortgage, but the credit union offers a more flexible method of providing for the temporary loans required by farmers and agricultural workers, to finance the planting and harvesting of crops. This project is in charge of a committee of prominent bankers and business men, and national legislation will be asked for in carrying out a workable national plan.



# THE HOME-MAKER'S FORUM

ETHEL WHIPPLE, Editor

Letters from readers are always welcome. You are urged to send in helpful suggestions, to give your experiences, or to ask questions. Address the Editor of this Department.

## The Baby's First Clothes

IT IS neither necessary nor economical to have many garments for the very young baby. The first articles of clothing are soon outgrown and the expense and work of making a large outfit is not justified.

The first purpose of a baby's clothing is to keep the body at an even temperature. It should be absolutely comfortable, as simple as possible, easily kept clean, and so made that it will not interfere with muscular movement nor circulation of the blood.

A suitable layette includes the following articles: Three first bands, three bands with shoulder straps, two first shirts, three petticoats, three night dresses, four slips, two slip overs or wrappers, two jackets, two blankets, three dozen diapers, two pairs of stockings and four quilted pads. We are indebted to the extension service of the Michigan Agricultural College for the following suggestions as to these garments.

Bands may be of wool with unhemmed edges, either plain or pinked, eight inches wide, and eighteen inches long. These are worn about eight weeks, and then replaced by a knitted band with shoulder straps. Except in hot weather these should be of medium light weight wool or wool and silk.

The shirt, except for summer weather, should be of soft wool or wool and silk or wool and cotton, and open all the way down the front. It should have a tab or tape for pinning up diapers. It is well to buy the second size, as the first is rapidly outgrown.

The materials to use for the petticoat are light weight wool, wool and silk, wool and cotton, or good quality outing flannel. It should be from twenty-four to twenty-six inches long and should hang from the shoulders, preferably open on both shoulders.

Batiste, cambric, nainsook, longcloth, or dimity may be used for the slip. It should be untrimmed except for fine handwork such as tucks or simple embroidery. No lace or other material irritating to the neck and wrists should be used. Either tapes or very small, flat buttons may be used as fasteners.

Nightdresses may be made of stockinet, flannelette, or flannel. They should be long enough to protect the feet.

Slip covers or wrappers to be worn over the dress on cold days are made of cashmere, light weight flannel, or outing flannel. They should be open all the way down the front.

Cashmere, flannel, or wool knitted or crocheted jackets are all suitable. The jacket is short and is fastened at the neck with tapes or ribbons.

Stockings may be of soft wool or wool and silk.

Diapers of cheesecloth are very nice for the little baby and are used as an inside diaper when the child becomes older. Cotton birdseye or cotton stork diapers may also be used. They should be eighteen, twenty, or twenty-four inches square. Protective pads of absorbent material quilted or of rubber with a cotton case are useful. These should be about twelve inches square. Never use a rubber diaper, as it may cause a serious irritation.

Blankets may be of eider down, flannel, wool knitted or crocheted. They should be light and warm.

A cotton bonnet with a removable silk lining is practicable. The coat may be of cotton, silk, or wool. It should be twenty-six to thirty inches long and should be plainly made without bunchy shoulder capes. A long cape is very good.

Such a layette as the one described,

with shirts and bands of light weight wool and wrappers of flannelette, can be purchased readymade in Topeka stores for a little over \$20. This does not include cost of diapers. These come ready-made at \$3.50, a dozen, but they can be so easily made at home that it usually does not pay to buy them readymade. Whether or not it pays to purchase slips, night dresses, petticoats, and wrappers ready-made will depend on circumstances. Where there are many demands on the time and strength of the mother it may be best to do this.

The Michigan college recommends that a baby's flannel shirt should never be removed for coolness, because the abdomen needs protection and the feet must be kept warm. Outer clothing may be removed for coolness, but a child under two and a half years of age must have the abdomen covered with wool, say they. In our climate, however, the belief that this is necessary is not so general as it once was. "Take off that wool shirt and dress your baby as you would like to be dressed in hot weather," said a physician to the mother of a young baby a few days ago, pointing out little places where the tender skin was broken out from heat. It was done was done with no ill effects, even though the child was only a few weeks old and had been started out with the flannel shirt. A baby can suffer as much from being too warmly dressed as from being underclothed. It is well to have at least two weights of most of the garments in order to meet the changes of weather which occur in our climate: medium weight for winter, light for spring, very light for summer.

When the child is over three months old the diaper should be put on as an oblong. Fasten on each side of waist to the shirt, pinning stockings outside of knee.

A baby's clothing should never be starched. Pins should be used as little as possible for fastenings. Flat buttons or tapes are preferable.

Everything must be washable, and all clothing should be washed often, because it becomes sour and unpleasant if left soiled for any length of time. Never use a diaper twice without washing. Unironed diapers will be softer and less irritating. Be sure all clothing that comes next to the body is thoroughly rinsed. Soap is very irritating if dried in the clothing.

### Women as Workers

The United States is practically the only nation in which it is not considered proper for women to do field work on the farm. Women are notoriously the farm laborers among uncivilized nations. The Indian warriors considered it unmanly to do work about the corn fields. That was the squaw's task. Even among the most civilized nations of Europe, women do a large share of the farm work.

American travelers in Germany have always remarked on the proportion of the work of planting and harvesting the crops done by women. In England and Scotland, the women form a part of the floating farm labor population, following the harvest from one section of the country to another. They are the dairy maids, the thrashing crew—in many cases, the regular "hired men." While this is more true since the war, it is not one of the results of the war. It was the condition before the war.

Emigrants from these countries bring their customs with them. We think it strange to see these foreign women working in the beet fields and in the harvest. The practice generally dies out

in the second generation. It is unusual to see women who were born and reared in this country doing the work we are accustomed to think of as man's work. This is one of the reasons why we pride ourselves that women are treated better in the United States than in any other country. And yet our national traditions permit women to do other work equally as hard and frequently done under less healthful conditions.—ALFRED WESTFALL, Colorado Agricultural College.

### Repairing Clothing

Use judgment about the amount of time it pays to put on much worn garments. Use the sewing machine for repairing as much as possible. When using a patch of new material on a faded garment, fade the patch by boiling in strong soapy soda solution. Mending material should match the garment in weight, color, and strength. Mending tissue is useful in mending woolen garments that have been torn. It often pays to send the best garments to the tailor for mending rents. Keep clothing in repair. This is conducive to thrift as well as to neatness. Do not put on a garment which needs the least repairing. Better still, do not put such a garment away without repairing it.

### A Practical Infant's Set

The infant's set illustrated comprises a pretty dress, suitable for lawn, nainsook, or batiste, a comfortable petticoat for which cambric, long cloth or lawn may be used, also practical diaper drawers and a dainty wrapper. The drawers may be of rubberized material, of drill, linen, or domet flannel, and the wrapper of flannel, cashmere, crepe, or cambric. Dress and petticoat may be finished without ruffles. The wrapper may be cut in sack length.

The negligee shown is desirable for figured crepe, voil, satin, silk, batiste, handkerchief linen, lawn, or percale. Flannel, albatross and gabardine, are also suitable.

Model 2832 will be very attractive for combinations of figured and plain

foulard, for crepe and satin, plain and checked gingham, gabardine and georgette, or silk and georgette. The sleeves may be in wrist or elbow finish. The jumper portions may be tucked up over the belt or worn loose over the skirt.

Skirt pattern 2931 is shown in plaid, woolen in green and brown tones. Silk, corduroy, or serge could also be used. For waist 2907 crepe, crepe de chine, linen, madras, chambray, and gingham are suitable materials. These two models combine well in any wash fabric.

For the smart fall suit 2926 tricotine, serge, taffeta, velour, gabardine, or velvet might be used. The vest may be of contrasting material as illustrated, or of the cloth braided or embroidered. The skirt is cut so that the side seam edges may be unconfined at ankle length, but if preferred the seam may be closed.

Girl's dress 2933 is a one-piece model which would develop well in blue or brown serge, or gabardine with braid trimming or embroidery. It is also good for satin, taffeta, velvet, and corduroy. The fronts and back are shaped over the side to form pockets. One may finish the sleeve in wrist or elbow length.

A simple, easy to make girl's dress for party, graduation, or best wear is 2470. This design is fine for batiste, voile, organdy, lawn, silk, crepe, or linen. It will also develop nicely in challie, albatross, taffeta, and charmeuse. It may have sleeves of either wrist or elbow length.

Address orders for patterns or for the summer style book, which comes at 10 cents, to Fashion Department, Kansas Farmer, Topeka, Kansas.

### Meal Time on the Farm

In the busy farm house where all members of the family have a share in the work, meal-time affords practically the only opportunity for bringing the family together during the day. In winter there are the long evenings for the social side of family life, but in summer the working day ends late and the hours of sleep must perforce begin early to fit one for the work of the coming day.

Every effort should be made to promote cheerfulness and enjoyment of this

## WAR MANUAL and HISTORY FREE

Send us Just  
one new  
subscription  
for 6 months

Our War Manual and History is a ready reference chronology of events of the great war; an up-to-date, convenient booklet of great historic value.

### WHAT IT CONTAINS

1. Dates of nearly 1,000 events of the war, arranged in order for handy reference.
2. A concise review of each year of the war.
3. The complete terms of the armistice.
4. A separate article on WHAT KANSAS DID IN THE WAR.

### YOURS FOR A FAVOR

**OUR OFFER:** Send us one new trial subscription to Kansas Farmer for six months at 50 cents and we will send you the War Manual and History free and postpaid.

**NOTICE:** The subscription you send must be a bona fide NEW subscriber to Kansas Farmer.

### USE THIS COUPON

KANSAS FARMER COMPANY,  
Topeka, Kansas.

Enclosed please find 50 cents, for which send KANSAS FARMER for six months to

Name.....R. F. D.....

Town..... State.....

Send the War Manual and History to me at the following address:

Name.....R. F. D.....

Town..... State.....



of the family's social life. It means to the atmosphere of the home to all the members of the family sit to the meal together and remain a group until the meal is finished. It is really necessary for some different members should not be hurried to come and go as they please. When work is rushing there is always temptation to eat just as rapidly as possible, taking no time for conversation

## FASHION DEPARTMENT



No. 2846—Infant's Set: Cut in one size. The dress will require  $3\frac{1}{2}$  yards with one-half yard less without ruffle. 2½ yards of lace edging for ruffles. Paper drawers ½ yard. Long kimono, 2½ yards. Short kimono, 1½ yards. Petticoat, 2½ yards with ruffles and 1½ yards of edging or lace, all of 44-inch material. No. 2833—Ladies' Negligee: Cut in four sizes—small, 32-34; medium, 36-38; large, 40-42; and extra large, 44 inches bust measure. A medium size requires 3½ yards of 36-inch material. No. 2844—A Stylish Costume: Waist 28½ in seven sizes—34, 36, 38, 40, 42, 44 and 46 inches bust measure. Skirt 28½ cut in seven sizes—22, 24, 26, 28, 30, 32 and 34 inches waist measure. A medium size will require 6½ yards of 44-inch material for the entire dress. The skirt measures about 4 yards at the foot with plaits extended. No separate patterns, 10 cents for each. No. 2832—Misses' Dress: Cut in three sizes 16, 18 and 20 years. Size 18 requires 3½ yards of 40-inch material for the dress and 4 yards for the jumper. Width of skirt lower edge is about 1½ yards.



No. 2902-2931—Ladies' Costume: Waist 28½ in seven sizes—34, 36, 38, 40, 42, 44 and 46 inches bust measure. Size 36 requires 3½ yards of 27-inch material. Skirt 28½ cut in seven sizes—22, 24, 26, 28, 30, 32 and 34 inches waist measure. Size 24 requires 2½ yards of 50-inch material. Width of skirt at lower edge is about 1½ yards. No. 2926—Ladies' Dress: Cut in seven sizes—34, 36, 38, 40, 42, 44 and 46 inches bust measure. Size 38 requires four yards of 54-inch material. Width of skirt at lower edge is about 1½ yards. No. 2933—Girls' Dress: Cut in three sizes—12, 14 and 16 years. Size 14 requires 4½ yards of 40-inch material. No. 2479—Girls' Dress: Cut in five sizes—6, 8, 10, 12 and 14 years. Size 12 requires 3½ yards of 44-inch material.

and very little for the chewing of food. Too often partly masticated food is washed down with a drink. This is a bad habit, for digestion of some of the food begins during mastication. When proper chewing is neglected, digestion is retarded and more work thrown on stomach and intestines. So hurrying through a meal is a bad thing for the health as well as for the family spirit. It is a bad plan to rush immediately from hard work to the table, or from the table to hard work. Fatigue, hurry, worry, anger, and fear hinder digestion, and if eating under these conditions is persisted in serious trouble is almost certain to result. Good cheer should prevail in the dining room. If unpleasant topics must be discussed, leave that until some other time.

On the farm as nowhere else, the prepared meal represents the service of each member of the family, and for this reason it should not be lightly regarded. Much of the food has been raised by the father's own hands and prepared by the mother's, while the children have had a share in both. Every particle of food has cost human energy and time and anxious thought, and in the aggregate much of life is given to its provision. From this standpoint, it is sacred and should not be wasted either by careless cooking or by eating in a way that will cause it to fail of digestion. Nor should we partake of it unworthily, failing to discern and show appreciation for the real human life that has entered into its growth and preparation, or to make the most of the social and educational possibilities of the family meal.

"It is no mere chance that the tenderest words there are, 'in remembrance of me,' were spoken first at a meal-time," says the writer of a magazine article published several years ago, whose name we are not now able to give. "And it is at meal-time that we oftenest remember her, when Ma is gone away at last on that long journey out beyond the stars from which there is no coming back; when those hands are folded that so oft for us worked the miracle of transubstantiation, changing the substance of our meat and drink so that it was really her life, her body, and her blood we fed upon. The way she used to cut the bread, her recipe for pepper relish—these prosaic things, memorials of her, are hallowed by a supernal light like that which when the sun is set hallows with spectral glory the common things of day. We—we miss her so! And far out there beyond the stars, she must miss us and long to do for us as she used to do before—before she went away."

## Cleaning Walls

Wipe walls down frequently with a broom covered with a cotton flannel bag, with a long-handled lamb's wool or other soft brush. Use light, even, overlapping strokes to remove rather than rub in the dirt.

Rub soiled places over radiators, registers and stoves lightly with cotton batting, changing the cotton as it becomes soiled. Guard against such soiled places by keeping the fixtures and the floor around them free from dust.

Oil-painted walls and ceilings may be washed like painted woodwork.

Wipe glazed wall paper with a cloth wrung tightly out of warm soapy water. Do not leave any moisture on the paper. It seeps in at the seams and loosens the paper.

## The Things Divine

These are the things I hold divine:  
A trusting child's hand laid in mine,  
Rich brown earth and wind-tossed trees,  
The taste of grapes and the drone of bees,  
A rhythmic gallop, long June days,  
A rose-hedged lane and lovers' lays,  
The welcome smile on neighbors' faces,  
Cool, wide hills and open places,  
Breeze-blown fields of silver rye,  
The wild, sweet note of plover's cry,  
Fresh spring showers and scent of box,  
The soft, pale tint of the garden phlox,  
Lilacs blooming, a drowsy noon,  
A flight of geese and an autumn moon,  
Rolling meadows and storm-washed heights,  
A fountain's murmur on summer nights,  
A dappled fawn in the forest hush,  
Simple words and the song of a thrush,  
Rose-red dawns and a mate to share  
With comrade soul my gypsy fare,  
A waiting fire when the twilight ends,  
A gallant heart and the voice of friends.  
—Jean Brooke Burt.

Drink  
**Coca-Cola**

DELICIOUS and REFRESHING

**Coca-Cola is a perfect answer to thirst that no imitation can satisfy.**

**Coca-Cola quality, recorded in the public taste, is what holds it above imitations.**

Demand the genuine by full name—  
nicknames encourage substitution.

THE COCA-COLA CO.  
ATLANTA, GA.



Sold Everywhere

## Mocha Icing

This is a delicious and easily made icing for cakes. Stir into a cup of powdered sugar enough cocoa to give it a dark color, mix in a small lump of butter and moisten with enough coffee to make a thick icing. Be careful not to use too much coffee. A teaspoon will be about the right amount. If it seems too thin add a little more sugar; if too thick, a little more coffee. It should be rather thick, however. Spread it on hot cake and the heat from the cake will melt the powdered sugar and form a glazing over the top. A little vanilla may be used in this icing if desired.

## Corned Beef Hash

To chopped corned beef add an equal measure of cold boiled chopped potato. Season as needed with salt and pepper. Butter a frying pan and spread hash evenly over the pan, moisten with milk, cream, or butter. When thoroughly heated through and brown underneath, turn as an omelet. Garnish with parsley and serve hot. The meat and potato may be made into cakes and sauted in an oiled pan until brown.

## Green Corn Custard

1 quart cooked corn  
3 tablespoons butter  
1 teaspoon salt  
3 eggs  
1 pint milk

Chop corn and add it to the eggs and milk, beaten together as for custard. Add the melted butter and salt. Pour into a buttered baking dish and cook as baked custard.

## Boiled Spinach

Pick over and wash one peck spinach. Cook in top of double boiler or steam until tender. Spinach is best cooked in its juice unless it is very old. If old,

## Kill All Flies! THEY SPREAD DISEASE

Placed anywhere, DAISY FLY KILLER attracts and kills all flies. Neat, clean, ornamental, convenient and cheap. Lasts all season. Made of metal, can't spill or tip over, will not soil or injure anything. Guaranteed.

5 by EXPRESS, prepaid, \$1.25.  
HAROLD SOMERS, 150 De Kalb Ave., Brooklyn, N. Y.

## LEARN TELEGRAPHY

Students Earn Board while Learning  
A practical school with railroad wires. Owned and operated by A. T. & S. F. Ry. Earn from \$35 to \$100 per month. Write for catalogue. Santa Fe Telegraph School, Desk F, 505 Kansas Ave., Topeka, Ka.

cook in boiling salted water and drain. When cooked chop spinach fine, reheat and season with butter, salt, and vinegar or lemon juice.

Mound on a dish and surround with slices of hard cooked egg.

To insure well fitting shoes, buy at good shops. Carefully fitted shoes wear better than poorly fitted ones, look better, and are more comfortable. Substantial heels are more economical as well as more healthful. High heels run over and spoil the appearance of the shoe before it is worn out. Novelty shoes are an extravagance, as are fads of any kind, because the consumer pays for designing and another to cover loss on left overs. It is seldom real economy to buy cheap shoes. Shoes wear longer when two pairs are alternated.

A slight iron scorch may be removed by simply hanging the material in bright sunlight. If deeply burned wet the spot in cold water before placing in the sun, and if it proves stubborn sprinkle borax over the wet spot. Continue this treatment until the scorch is effaced.



## Classified Advertising

Advertising "bargain counter." Thousands of people have surplus items of stock for sale—limited in amount or quantity—enough to justify extensive display advertising. Thousands of other people want to buy these same things. These intending buyers read the classified "ads"—looking for bargains. Your advertisement here reaches over 60,000 farmers for 5 cents a word per week. No "ad" taken for less than 60 cents. All "ads" set in uniform style, no display. Initials and numbers count as words. Address counted. Terms, always cash with order.

**SITUATIONS WANTED** ads, up to 25 words, including address, will be inserted free of charge for two weeks, for bona fide seekers of employment on farms.

### AGENTS WANTED

#### CATTLE.

COME TO THE GREAT DAIRY COW market and buy dairy cows from a choice selection of milkers and springers. Write or wire Frank Luhrs, South St. Paul, Minn.

**PRACTICALLY PURE-BRED HOLSTEIN** calves, either sex, beautifully marked, six weeks old, from registered sire and choice heavy milking Holstein cows; \$30.00, delivered to any station by express. Paid here. Send orders or write. Lake View Holstein Place, Whitewater, Wis.

#### THE STRAY LIST.

**TAKEN UP—BY MRS. G. W. BACH-**man, of R. F. D. No. 2, Kansas City, Kansas, on the first day of July, 1919, one dark bay horse, weight 950 pounds. Appraised at \$50. William Beggs, County Clerk.

**TAKEN UP—BY JOHN CONNOR OF** Hoisington, Barton County, Kansas, on the 30th day of May, 1919, one two-year-old mare mule, twelve hands high; color black, white on nose. W. E. Beardsley, County Clerk, Great Bend, Kansas.

**TAKEN UP—BY CONRAD POOP, OF** Wheatland Township, Barton County, Kansas, on the 7th day of November, 1918, one red cow about 2½ years old, with horns, appraised at \$45. W. E. Beardsley, County Clerk, Great Bend, Kansas.

**TAKEN UP—BY H. E. BUPHORNE OF** Sharon Springs Township, Wallace County, Kansas, on April 10, 1919, one red brockle-faced two-year-old steer, left ear cropped and blotch brand resembling letter Y. Ernest R. Ellison, County Clerk.

#### DOGS.

**FOR SALE—COLLIE PUPS; PARENTS** good stockers. Male, \$5; female, \$3. Address Earl Phillips, Route 9, Emporia, Kansas; Box 80.

**AIREDALES, COLLIES, AND OLD ENG-**lish Shepherd dogs. Trained male dogs, brood matrons, pups all ages. Flemish Giant, New Zealand, and Rufus Red Belgian rabbits. Send 6c for large instructive list of what you want. W. R. Watson, Box 128, Oakland, Iowa.

#### HONEY.

**PURE EXTRACTED HONEY—SIXTY-**pound can, \$12.25; two, \$24.00. Frank H. Drexell, Crawford, Colo.

**REGARDING THE LAST WORD IN FINE** honey, write to Drexell, the Bee Man, Crawford, Colorado.

**HONEY—CHOICE ALFALFA, 60 LBS.,** \$12.50; 120 lbs., \$24. Amber Dark Honey, 60 lbs., \$11; 120 lbs., \$20. Bert W. Hopper, Rocky Ford, Colo.

#### REAL ESTATE.

**SOLDIERS—640-ACRE HOMESTEADS.** Duff, Casper, Wyo.

**WRITE FOR FREE MISSISSIPPI MAP** and land list. Land Market, Box 843, Meridian, Miss.

**RED RIVER VALLEY PRAIRIE LANDS.** Wilkin Co., Minn. Improved and unimproved. Prices ranging from \$45 to \$125 per acre. Send for our list or call and see us when in Minneapolis. We have been in business since 1885. Thorpe Bros., 1-206 Andrus Bldg., Minneapolis, Minn.

#### FARM LANDS—KANSAS.

**SOUTHWEST KANSAS IS DEVELOPING** fast. Farmers are making good profits on small investments. It is the best place today for the man of moderate means. You can get 160 acres for \$200 to \$300 down, and no further payment on principal for two years, then balance one-eighth of purchase price annually, interest only 6 per cent—price \$12.50 to \$20 an acre. Write for our book of letters from farmers who are making good there now, also illustrated folder with particulars of our easy purchase contract. Address W. T. Cliver, Santa Fe Land Improvement Company, 405 Santa Fe Bldg., Topeka, Kansas.

#### FARM LANDS—TEXAS.

**BIG CROPS IN NORTHWEST TEXAS ON** the new line of the Santa Fe. The Federal Railroad Administration has authorized the completion of the new Shattuck branch of the Santa Fe Railroad to take care of this year's big crops—wheat, oats and sorghums. This will open for immediate settlement and development a large block of my land in a wheat and stock farming section of Ochiltree and Hansford counties in Northwest Texas near Oklahoma state line, where the first crop has in a number of cases paid for the land, and where cattle and hogs can be raised at low cost. Land is of a prairie character ready for the plow, no stone, stumps, no brush to be cleared, at attractive prices on easy terms. Climate healthful, rain falls during growing season. Write for free illustrated folder, giving experience and results settlers have secured in short time on small capital. T. C. Spearman, 327 Railway Exchange, Chicago, Ill.

#### TRACTORS.

**FOR SALE—A 10-20 TITAN TRACTOR** and a 20-inch Racine Separator. J. J. Hiebert, Route 2, Hillsboro, Kansas.

### MISCELLANEOUS.

**WHITE MICE—BUY BREEDERS OF ME.** I will buy back all you raise from my stock. Top prices paid. Write me. Most prolific animal known. C. B. Apperson, Bentonville, Ark.

#### AUTO TIRES.

**TIRES—FORD, \$6.75; LARGER SIZES** equally low. Lowest tube prices. Booklet free. Economy Tire Co., Kansas City, Mo.

#### OILS.

**LUBRICATING OIL, GREASE, PAINT,** specialties. Part or whole time. Commission basis. Men with car or rig preferred. Deliveries from our Kansas refinery. Riverside Refining Company, Cleveland, Ohio.

#### POULTRY.

**BABY CHICKS AND EGGS—STANDARD-**bred Leghorns, Rocks, Reds, Orpingtons, Wyandottes; best laying strains. Free delivery; reasonable prices; catalog free. Missouri Poultry Farm, Columbia, Mo.

#### TANNING.

**LET US TAN YOUR HIDE—COW, HORSE** or calf skins for coat or robe. Catalog on request. Crosby Frisian Fur Co., Rochester, New York.

### Real Estate For Sale

#### HOME FARM, 320 ACRES

Out 6½ miles. Good buildings. Fine water, 160 wheat, half with sale; some alfalfa. Only \$8,500, with \$2,500 cash, balance long time. One good 160, out 9 miles, small house, 100 smooth, 60 wheat, 40 spring crops, one-fourth with sale; shallow to water; only \$2,500, with \$500 cash, balance terms. Have other farms and ranches on small payments now, another payment after harvest.

**E. C. BUXTON, Ute, Ness County, Kansas**

#### AGED OWNER MUST SELL

193 ACRES—\$2,800

Including four cows, bull, team horses, wagon, harness, long list implements, hay, grain, etc., near railroad town. 150 acres productive loamy fields, wire fenced pasture, home-use wood; apples, pears, plums, grapes, etc.; 7-room house, two basement barns. Low price, \$2,800, gets all. Easy terms. Details page 43 catalog. Bargains 19 States, copy free.

#### Strout Farm Agency

831 A. S., New York Life Bldg., Kansas City

**SOUTHEASTERN KANSAS—Farms,** all sizes; lowest prices. Terms, \$1,000 and up. Send for booklet. **THE ALLEN COUNTY INVESTMENT CO., Iola, Kansas.**

#### Summer Feeding of Chickens

Many people overfeed their hens and underfeed their little or growing chicks in the summer. I like to feed a lot of mash to my hens in summer, says J. F. Halpin, of the Wisconsin College of Agriculture. The college flock gets a mixture of equal parts of bran, middlings, ground corn, gluten feed and meat scrap with one pound of salt to 200 pounds of mash fed in self feeders.

If the hens are not eating mash feed, the scratch feed may be cut down, but if they are eating a great deal of mash the allowance of scratch feed needs to be increased.

Growing chicks should have dry mash before them at all times after they are one month old. It is well to put one-inch mesh woven wire over the mash to keep the chicks from scratching and wasting the feed.

Chicks should also receive what wet mash they will clean up in ten minutes each day. This wet mash should be moistened with sour milk or buttermilk until it is crumbly. They should also have fresh soil and some green pasture at all times, in order to keep them healthy and growing rapidly.

There should be more written contracts and fewer "understandings." Half the quarrels originate because people do not understand agreements alike.

Whatever the best may be, whatever we have done, whatever has been done before, let us improve upon it just a little.

## HELPFUL POULTRY HINTS

Practical Ideas on How to Fill the Egg Basket and Increase Profits

### Selection and Care of Pullets

**IT WILL** pay to spend some time in the late summer and early fall in selecting the pullets that are to make up the winter laying flock. If all the pullets raised, are kept, there will not be much profit from the flock during the winter season, and this is especially true at this time because of the high price of feed. The profit from the laying flock next winter depends largely on the attention given now to making the selections and then upon the care given the flock later.

In a recent issue of American Poultry Advocate, S. R. Stout points out that the first thing to look for in selecting pullets for layers is stock with perfect health and plenty of vitality. The next point is to select the busy, wide-awake pullet, and the next those with the ideal body type. No bird that is unhealthy or is low in vitality will ever develop properly for any purpose. A laying hen is always the busy hen, and likewise the busy, wide-awake pullet is usually the one that develops into the good layer.

In regard to the body type, the mistake must not be made of disregarding the breed, shape or type, for there cannot be one egg type for all breeds. Depth and width of body comes first in selecting the egg type, for without ample room for the digestive and reproductive organs they cannot attain their maximum development. A rather long body carried high in front and low behind; neck medium in length; head medium; comb and wattles large and well colored; body V shaped when viewed from side, top and rear; close, compact feathering; short, stout beak, and bright eyes, are all requisite in the ideal type. The legs should be short and set wide apart. It is also the best practice when breeding for egg production to select the pullets of good size. They usually lay larger eggs and have a larger abdominal cavity which provides more room for the vital organs.

After the selection is made, proper care is very essential. Pullets must have good feed of the proper composition and plenty of it; clean, fresh water and a well ventilated house, which must be kept clean and free from lice and mites.

It is not a good practice to force the pullets intended for production, but they must be kept growing and developing gradually. In order to have them mature for late fall and winter laying, they should be hatched early enough to allow them to reach their proper development normally and without forcing.

In the early fall the pullets should be removed from the range and put in the laying house. They will then become accustomed to their new surroundings before the laying season starts. If they are moved after they once start laying they will invariably stop for a short time.

After they have been put in winter quarters a good laying ration should be fed. The following is the ration used at the New York Experiment Station and is giving good results: Cracked corn, forty-five per cent; feed wheat, ten per cent; and oats or barley, forty-five per cent. This varies with the season, but for the fall the above are the proportions to use. This scratch feed is to be fed twice a day in a deep litter. The dry mash which should be before the birds at all times consists of the following: Equal parts of corn meal, wheat bran, wheat shorts, ground oats and meat scraps, and two ounces of salt to the hundred pounds of mash. If the pullets are where they can run on a grass lot or on a rye patch, green feed need not be supplied; but otherwise sprouted oats should be fed. Where milk is available, it is a very good practice to feed it and it will prove very

profitable. Always supply clean water, grit, oyster shells and charcoal.

### Buttermilk for Poultry

A reader asks if buttermilk is now advertised and sold in a solid condition has any value as poultry feed. The merits of fresh buttermilk have long been recognized by poultry growers, but with the advent of the cream separator the cream has been and little buttermilk has been available on the farm for feeding purposes. Of course there has been the skim milk and where this has been plentiful one has missed the buttermilk. The advent of the condensed form advertised and sold by large creameries has revived interest in the feeding of this product of butter making. It is available to those who do not have a milk. Hog men are beginning to use this semi-solid buttermilk quite extensively, and while we have no reports experiments in feeding it to poultry, certainly can be used with profit if they can find it satisfactory.

Buttermilk seems to have some special value for both poultry and hogs, due to the lactic acid which it contains. The acid undoubtedly has some stimulating effect upon digestion. In addition it is essentially a protein feed. Average buttermilk has a nutritive ratio of 1 to 1 a hundred pounds of it, according to Henry's Feeds and Feeding, supplies 3.4 pounds of digestible protein, 3.4 pounds of digestible carbohydrates, 1 pound of fat and .1 pound of ash, mineral matter.

We do not have the figures for semi solid form.

Buttermilk is an excellent feed for baby chicks, being of special value in cases of bowel trouble, both as a cure and as a preventative. Chicks fed buttermilk show remarkable strength and vigor as they develop. There is nothing better for growing stock. It seems to put a special vim in them. Their appetites are increased, there is an absence of bowel troubles, and they grow rapidly maturing much earlier than chicks on almost any other ration.

### Spraying the Roosts

The farmer who sprays his chicken roosts thoroughly three times during the season, beginning in April or May will have little cause to worry about mites, say experienced poultrymen.

The troublesome poultry house mite is almost sure to appear when weather comes. The most common means of control is kerosene sprayed upon the perches each week; some farmers give the roosts an occasional coat of white wash. These methods however, are not always effective, unless thoroughly done for the mite is a very hardy creature.

Stronger liquids such as crude carbolic acid or some of the coal tar preparations which will not mix with water are much better, the poultrymen at the New York State College of Agriculture say; they last longer and do the work better. It is well to dilute the acid or coal tar products with kerosene, so that a spray pump can be used to apply them.

A common formula is one part of acid to three parts of kerosene.

Extra good laying hens given the best of care often average fifteen dozen eggs each per year, and occasionally as high as twenty dozen. It is possible for a flock of ten hens to supply eggs at the rate they are commonly used, for the families of average size.

I've always had a habit of picking the minutes.—Maud Morgan.



# Practical Books for Progressive Farmers

Every farm home ought to contain one or all of the practical books on agricultural subjects described on this page. All of these books have had large sales and many will be found in Kansas farm homes. Read the descriptions of the books and if there are any here which you do not already possess, order it now at the bargain price. Do not delay ordering, even if you are too busy to read now. We have only a small supply of these books, especially the best ones. After our present stock is exhausted we will not be able to offer the books at these prices, and some of them we will not be able to get at all. Therefore, take our advice and order now.



## BORMAN'S BOOK ON SORGHUMS

This book shows how kafir, milo and cane fed to live stock will increase your farm cash and feed income. It is a book not only of value to sorghum growers, but is equally valuable to every farmer of the Southwest, whether he grows sorghums or other crops.

This book is printed in large, clear type, on a fine quality of book paper, and is full of illustrations. It contains 310 pages and is substantially bound in cloth.

PRICE, \$1.25, or given with one yearly subscription to Kansas Farmer at \$1.75.

## The Story of the Soil

This valuable book by Cyril G. Hopkins is written in novel form and is as interesting as any novel you ever read. But the book is not published for pleasure only. It contains the essential facts of how to fertilize, how to restore flooded or worn out lands, what are the plant foods, soil formation, etc. This is printed in large clear type on fine quality book paper and contains 360 pages.

PRICE, 50 CENTS, or given free with one yearly subscription to Kansas Farmer at \$1.00.

## Farming and Gardening

Here is another valuable book containing rare information on field crops, vegetable and trucking crops, fruit culture, forestry, injurious insects and diseases and how to combat them. It also contains a chapter on The Silo and a chapter on Making Poultry Pay. This is a large book containing over 500 pages. It is profusely illustrated, printed on excellent quality book paper.

Price reduced to 50 cents, or given free with one yearly subscription to Kansas Farmer at \$1.00.

## Profitable Stock Feeding

By H. R. Smith

Any farmer or stockman can get valuable hints out of this book. It is not written for the beginner, but for the farmer and stockman who already has had successful experience in stock feeding. It covers feeding for milk production, feeding for beef production, feeding sheep, feeding hogs, feeding poultry and feeding horses. This book contains 412 pages printed in clear type on heavy book paper, illustrated.

PRICE \$1.00, or given with one yearly subscription to Kansas Farmer at \$1.50.

## Handy Book of Facts

This is a book of general information, not about farms and farming, but business, law, medicine, history, etc. It contains information of every day use on almost every subject. The book contains over 250 large pages, every page crammed full of information and statistics, things you are likely to want to know any day.

PRICE, 75 CENTS, or given with one yearly subscription to Kansas Farmer at \$1.25.

## ROPP'S COMMERCIAL CALCULATOR



This book is a short cut in arithmetic. It contains grain tables, interest tables, discount tables, weights, measurements, etc., so that by simply referring to the tables you can get the answer to your problems without figuring them out.

PRICE, 25 CENTS, or given free with one yearly subscription to Kansas Farmer at \$1.00.

## Cement Workers' Handbook

This book is written not for the professional cement worker, but for the man who intends to do his own cement work at home. It covers more than fifty subjects on cement and its uses in construction, including posts, floors, ceilings, walls, silos, and many others. This little book is nicely gotten up, is printed on good book paper and bound in cloth. It contains 100 pages.

PRICE, 25 CENTS, or given free with one yearly subscription to Kansas Farmer at \$1.00.

## ATLAS OF THE WORLD'S WAR

This is a large 64-page paper-covered book full of information, maps, charts and diagrams about the late war. This atlas was published just before the close of the war and while the maps and information are accurate, it does not contain information as to happenings after November, 1918, and for this reason we were able to purchase them at a bargain and can offer them at the price of 25 cents each.

ORDER TODAY, USING ONE OF THESE COUPONS

KANSAS FARMER, Topeka, Kansas.

Gentlemen: Enclosed please find \$.....  
for which please send me, postage prepaid, the following  
book: .....

Name..... R. F. D.....  
Town..... State.....

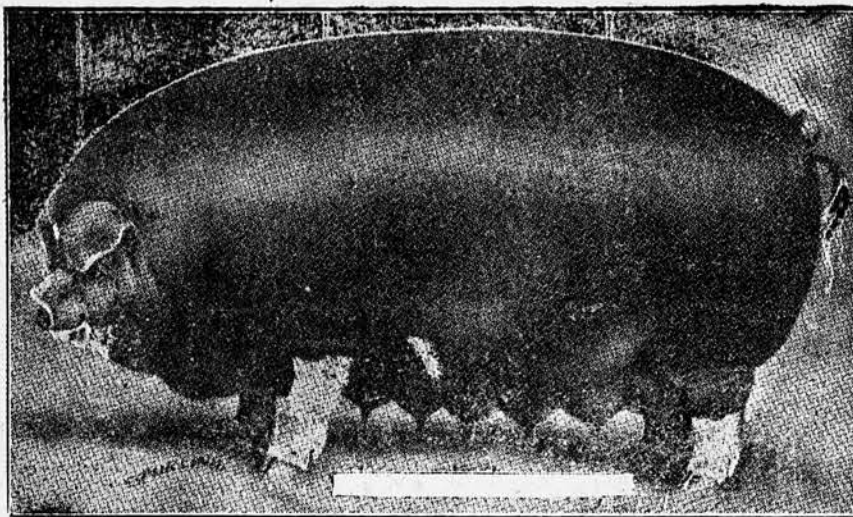
KANSAS FARMER, Topeka, Kansas.

Gentlemen: Enclosed please find \$.....  
for which please renew my subscription for one year and  
send me, postage prepaid, the following book:.....

Name..... R. F. D.....  
Town..... State.....



# Big Sensation Poland China Sale



A splendid lot of brood sows and fall yearlings and showing for fall litters—should prove good investments.—O. W. DEVINE.

## Hutchinson, Kansas Wednesday, Aug. 6

### FORTY HEAD OF SELECTED BROOD SOWS AND FALL YEARLING GILTS

Some of the attractions of the sale will be one TWO-YEAR-OLD SOW by CALDWELL'S BIG BOB bred for September litter to Big Sensation; nine summer gilts by WONDER BUSTER bred to Big Sensation; two choice sows by Big Hadley Jr.; eight choice sows by A BIG WONDER, and two by Big Robidoux, the grand champion of Oklahoma, 1917.

### Twenty Head Bred and Safe to Big Sensation, the Largest Boar of Any Breed Ever Shown

Others bred to Buster Price, King Price Wonder and BIG BOB JUMBO. We are only offering forty head of the best in our herd and of the most popular breeding. Please send for catalog and arrange to attend our sale at Hutchinson. For catalog write

## A. J. Erhart & Sons, Ness City, Kans.

Auctioneers: Col. J. C. Price, Col. Jno. D. Snyder, Col. Kramer

### HOLSTEIN CATTLE.

### HOLSTEIN CALVES

## CHOICE HOLSTEIN COWS FOR SALE

One carload fresh Holstein Cows—One carload heavy Springers  
These cattle are extra good. A few choice registered bulls.

HOPE HOLSTEIN FARMS - - - HOPE, KANSAS

## SAND SPRINGS FARM REGISTERED HOLSTEINS

Everything on yearly test. Herd sire, Prince Ormsby Mercedes Pontiac—a 32-pound grandson of Sir Pletertje Ormsby Mercedes.

E. S. ENGLE & SON - - - ABILENE, KANSAS



Holstein Herd  
Averages 18,812  
Pounds Milk

Near Big Bay, Mich., is a herd of thirteen pure-bred Holsteins. Last year the average yield per cow of this herd was 18,812 lbs. of milk and 638.57 of fat. Do you realize the money there is in such cows? It is estimated that the average annual yield of all cows in this country is under 4,000 lbs. These thirteen cows produce as much milk as sixty-two cows of the 4,000-lbs. class. It would require twenty-eight cows giving 8,500 lbs. to equal their output. Why feed, milk and shelter any more cows than you need to produce the milk you require?

### HOLSTEIN CATTLE

Send for our booklets—they contain much valuable information.  
HOLSTEIN-FRIESIAN ASSOCIATION OF AMERICA, Box 114, Brattleboro, Vt.

## HOLSTEINS!

We are offering a choice selection of both registered and high grade springer cows and heifers. Also pure-bred bulls and young females. All reasonably priced. Come and see them or write.

T. R. Maurer & Co.

EMPORIA - - - KANSAS

### GOLDEN BELT HOLSTEIN HERD

Herd headed by Sir Korndyke Bess Hello No. 165946, the long distance sire. His dam, grand dam and dam's two sisters average better than 1,200 pounds butter in one year. Young bulls of serviceable age for sale.

W. E. BENTLEY, MANHATTAN, KANSAS

### CHOICE HOLSTEIN CALVES

12 Heifers and 2 Bulls, highly bred, beautifully marked, and from heavy producing dams, at \$25 each, crated for shipment anywhere. Safe delivery guaranteed. Write  
FERNWOOD FARM, WAUWATOSA, WIS.

### BUTTER-BRED HOLSTEINS

Three choice registered Holstein bulls, ready for light service, and some bred heifers to a 32-pound sire.

J. P. MAST, - - - SCRANTON, KANSAS

SEGIST & STEPHENSON, WOLTON, KANSAS  
Breeds exclusively of pure-bred prize-winning record-breaking Holsteins. Correspondence solicited.

### BREEDERS' DIRECTORY

ANGUS CATTLE.  
Geo. Dietrich, Carbondale, Kansas.  
RED POLLED CATTLE.  
Mahlon Greenmiller, Pomona, Kansas.  
Horn Dorset Sheep  
E. C. LaTourette, Rte. 2, Oberlin, Kan.

### REGIER'S HOLSTEINS

Registered bulls ready for service and bull calves, out of good producing dams. Sire: Sir Rag Apple Korndyke De Kol and Duke Ormsby Pontiac Korndyke.

G. REGIER & SONS, Whitewater, Kansas

### BRAEBURN HOLSTEINS

Looking for a bull? I can generally offer you choice of half a dozen, by two different sires. That saves time and travel.

H. B. COWLES

608 Kansas Avenue Topeka, Kansas

### JERSEY CATTLE.

### ALLEN CENTER STOCK FARM

Registered Jerseys from choice Jersey cows. Sire's dam is the highest producing cow in Kansas. Prices reasonable.

TREDWAY & SON, LA HARPE, KANS.

### BROOKSIDE JERSEYS

REGISTERED JERSEY BULLS, few old enough for service from Eminent Flying Fox dam, sired by Idalia's Raleigh, a son of the great Queen's Raleigh. Write for prices.

THOS. D. MARSHALL, SYLVIA, KAN.

### SHORTHORN CATTLE.

WANT SHORTHORNS THAT COMBINE  
BEEF AND MILK



AMERICAN SHORTHORN BREEDERS ASSN  
13 Dexter Park Avenue Chicago, Illinois

### ALL SCOTCH SHORTHORNS

Herd headed by Walnut Type, a grand son of White Hall Sultan, and Silver Plate, a son of Imp. Bapton Corporal. A few young bulls for sale. Robert Russell, Muscotah, Ks.

### SHORTHORN CATTLE

For Sale—Five young Scotch bulls and ten head of females, bred or calves at foot.  
H. H. HOLMES, R. F. D. 28, Topeka, Kan.

When writing to KANSAS FARMER live stock advertisers, please mention this paper.

### POLAND CHINAS

### CLINTON HERD

### BIG TYPE POLAND CHINAS

Is ready to ship you a spring boar that will make you a real herd boar, sired by Giant Buster's Equal. Will sell a few trios not related. We have satisfied customers in 25 different states and can satisfy you. Everything immune and we record them.

P. M. Anderson, Holt, Missouri

SPOTTED POLANDS—SHROPSHIRE  
Choice fall boars. Registered ram lambs by Broughton 2434 and Senator Bibby VI.  
R. W. SONNENMOSER, WESTON, MO.

Big-Type Poland Weanling Boar Pigs  
Bargain prices. Satisfaction guaranteed.  
Isaacs Stock Farm, Peabody, Kansas.

### CHOICE LOT OF POLAND CHINA BRED SOWS AND GILTS FOR SALE.

A Few Fall Pigs.  
CHAS. E. GREENE  
Townview Farm Peabody, Kansas

### MYERS' POLAND CHINAS

Large spring pigs in pairs or trios, priced to sell. Write your wants. Annual fall sale October 14.

H. E. MYERS - - - GARDNER, KANSAS

### POLAND CHINA BOARS

For Sale—25 Spring Boars by Giant Lunger by Dishier's Giant and out of Old Lady Lunger, from my best herd sows. These pigs are good, the tops from 89 head, priced reasonable.

H. R. Wenrick, Oxford, Kan.

PLEASE MENTION KANSAS FARMER  
WHEN WRITING TO ADVERTISERS

### DUROC JERSEYS.

## Woodell's Durocs

A choice lot of extra well bred gilts bred for late farrow. Few fall boars.

G. B. WOODDELL, WINFIELD, KANSAS.

### OTEY'S DUROCS

One spring yearling sire, fall boars by Pathfinder Chief 2d, "the mighty sire." Real herd headers. Priced right. Would exchange for good gilts.

W. W. OTEY & SON, WINFIELD, KANSAS

### HIGHVIEW DUROCS

FOR SALE—TWENTY FALL BOARS  
By Repeater, Golden Reaper and Pathfinder.  
Guaranteed and priced to sell quick.

F. J. MOSER - - - SABETHA, KANSAS

## FARM AND HERD NEWS NOTES

G. C. Wheeler, Live Stock Editor  
W. J. Cody, Manager Stock Advertising  
O. W. Devine, Field Representative

Address All Communications to  
Kansas Farmer, and Not to  
Individuals

Personal mail may have to be held for several days, or be delayed in forwarding, and Kansas Farmer cannot assume any responsibility for mistakes occurring thereby

### CLAIM SALE DATES.

Hereford Cattle.  
July 28 and 29—J. O. Southard, Comiskey, Kansas.

Red Polled Cattle.  
Aug. 20—I. W. Poulton, Medora, Kan.

### Holsteins.

July 26—U. S. Disciplinary Barracks Farm Colony, Ft. Leavenworth, Kan.

### Poland Chinas.

Aug. 6—A. J. Erhart & Son, Ness City, Kan. (Sale at Hutchinson.)

Aug. 21—Earl Bower, McLouth, Kan.

Sept. 27—Katter Bros., Seneca, Kan.

Oct. 3—Ezra T. Warren, Clearwater, Kan.

Oct. 4—Geo. Morton, Oxford, Kan.

Oct. 7—Jones Bros., Hiawatha, Kan.

Oct. 8—Dr. J. H. Lomax, Leona, Kan.

Oct. 9—Herman Groninger & Son, Bendale, Kan.

Oct. 6—Ross & Vincent, Sterling, Kan.

Oct. 13—H. L. Glover, Grandview, Mo.

Oct. 14—H. E. Myers, Gardner, Kan.

Oct. 15—H. B. Walter & Son, Edgingham, Kan.

Oct. 16—A. J. Erhart & Son, Ness City, Kan.

Oct. 17—Adams & Mason, Gypsum, Kan.

Oct. 20—P. M. Anderson, Holt, Mo.

Oct. 22—Fred G. Laptad, Lawrence, Kan.

Oct. 23—McClelland & Sons, Blair, Kan.

Oct. 24—Dubauch Bros., Wathena, Kan.

Feb. 11—Ross & Vincent, Sterling, Kan.

### Durocs.

July 25—F. J. Moser, Sabetha, Kan.

Aug. 20—W. T. McBride, Parker, Kan.

Oct. 22—Fred G. Laptad, Lawrence, Kan.

Oct. 11—R. W. Sonnenmoser, Weston, Mo.

Feb. 14—R. W. Sonnenmoser, Weston, Mo.

Oct. 11—R. W. Sonnenmoser, Weston, Mo.

Geo. Dietrich, of Carbondale, Kansas, owner of one of the choice herds of Angus cattle, reports his herd doing well. A feature of his herd at this time is the choice lot of young stock of popular breeding.

Volume 59 of the National Duroc Jersey Record is ready for distribution. This volume contains the pedigrees of males from No. 260501 to 269199 and females from 658500 to 679598 and other matter of interest to Duroc breeders.

E. S. Engle & Son, of Abilene, Kansas, owners of Sand Springs Farm and one of the noted Holstein herds of the Southwest report their herd making a good record. All the cows in the herd are now on yearly test. Their herd is headed by Prince Ormsby Mercedes Pontiac, a 32-pound bull and one of the great sires of the breed.

A. J. Erhart & Sons, of Ness City, Kansas, have announced August 6 for their big Poland China bred sow sale at the fall grounds, Hutchinson, Kansas. On this date forty head will be catalogued. Twenty head will be bred for fall litters to the largest Poland China boar known and a hog that attracted more attention than any hog ever shown at our state fairs. Erhart & Sons have built up a reputation for growing the largest hogs of any breeders in the West. They feed and care for their herd in such manner that they grow quickly and mature to great size.

The catalogs are out announcing the Fort J. Moser sale of Joe King Orion hogs. Joe King Orion is a full brother to the world's champion Duroc boar and will be mated with some of the largest and best bred Duroc sows ever sold from the Moser farm. The sale will be held at the farm near Sabetha, Kansas, on July 25, 1919.

### Feeding Pen for Chicks

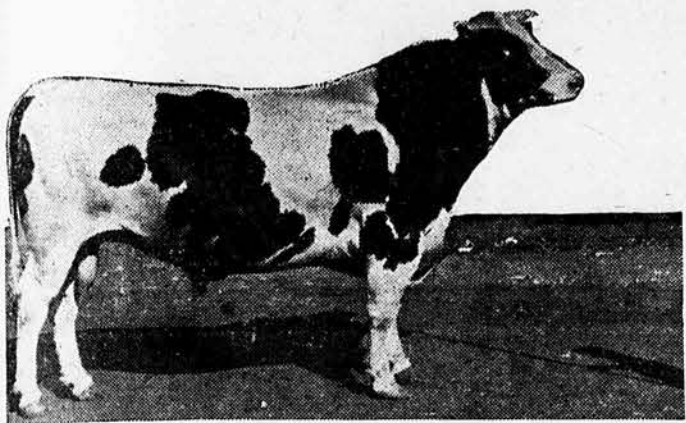
Some arrangement should be made so that chicks can eat without being disturbed by the older birds. A small feeding pen can be made by taking a piece of 48-inch woven wire fencing about 30 feet long and fastening the ends together to form a circle. If this is set up with small meshes at the bottom it makes a satisfactory feeding pen for young chicks. To secure the best growth in young chicks both grain and mash should be supplied in self-feeding hoppers so that the chicks may eat at any time.

It is in warm weather that lice and mites thrive on the chickens; they will cause little chickens to die.



# U. S. Disciplinary Barracks---Farm Colony

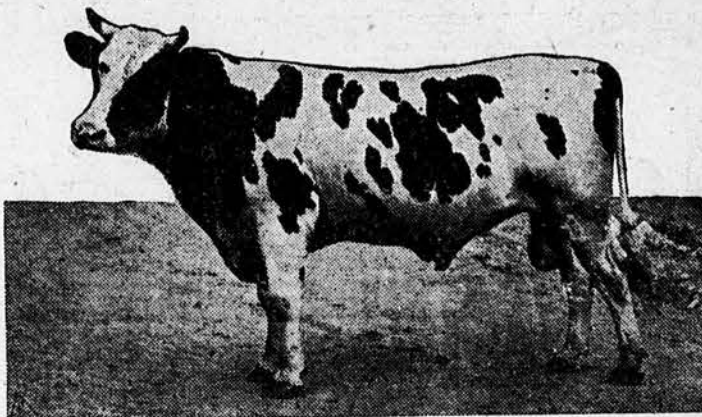
## SECOND SEMI-DISPERSAL SALE TO BE HELD ON



JOHANNA BONHEUR CHAMPION 2D 143420—Eleven times a Grand Champion, Including the Dairy Cattle Congress and the National Dairy Show.

REFERENCE SIRE—Grand Champion International Bull for the Year 1918

**SATURDAY  
JULY 26**  
Offering For  
Sale Seventy-  
five Head of  
High Class  
Pure Bred  
**Holstein  
Cattle**



SIR VEEMAN RUBY VALE WAYNE 202249—A Son of a 40-Pound Cow, for which the U. S. D. B. Farm Colony paid \$8,000.

REFERENCE SIRE—40-Pound Bull, Whose Dam Has Three Consecutive Records Above 30 Pounds

The above lot of cattle includes some of the best bred stock in the country today. Some of the cows included in our sales list will be in calf to either one of the above mentioned famous sires.

### THE LIST INCLUDES

- One 30-pound bull, whose dam was the first 30-pound cow in the State of Kansas. This young bull is sired by a 1,240-pound bull.
- One 30-pound bull whose dam has a daughter who made 40 pounds butter during this last year, and who is sired by the bull above mentioned.
- One bull from a 29-pound three-year-old heifer who also holds the Kansas state record for her class.
- One yearling bull who was first at the Kansas State Fair last year, and who has for a dam a 20-pound three-year-old heifer, who also held the Kansas state record.

- One 30-pound cow who has a 40-pound daughter.
- Fourteen cows due to freshen before September, all in calf to 30-pound bulls.
- Twenty-five heifers of breeding age, some of which will be bred to 30-pound bulls.
- Fifteen heifer calves sired by 30-pound bulls and out of high-testing dams.
- Six cows with records above 24 pounds.
- One 27-pound show cow, due in August, 1919.
- Ten bull calves from dams with records above 20 pounds and sired by 30-pound bulls.

This sale has been made necessary because of the fact that we shall not have accommodations for all of our cattle this fall.

All animals sold will be guaranteed to be breeders, and will be exactly as represented in every respect.

All cattle offered for sale will be tuberculin tested.

Auction will be held at Fort Leavenworth, Kansas, at the U. S. D. B. Farm Colony, on the above mentioned date, and will start promptly at 10 a. m., Saturday, July 26, 1919. A free lunch will be served to breeders and buyers. Send for catalogue. Sale will be held, rain or shine.

**HARLO J. FISKE, SALES MANAGER**

Auctioneers: **J. E. Mack, R. E. Hager, McCullough & O'Brien.**

**L. T. Wood in Box**

# JOE KING ORION BRED SOW SALE

**AT FARM**

**FRIDAY, JULY 25th, 1919**

**FORTY CHOICE DUROC BRED SOWS AND GILTS  
TEN FALL BOARS : REAL SHOW PROSPECTS**

**Fifteen Choice Sows bred to Joe King Orion for September farrow.**

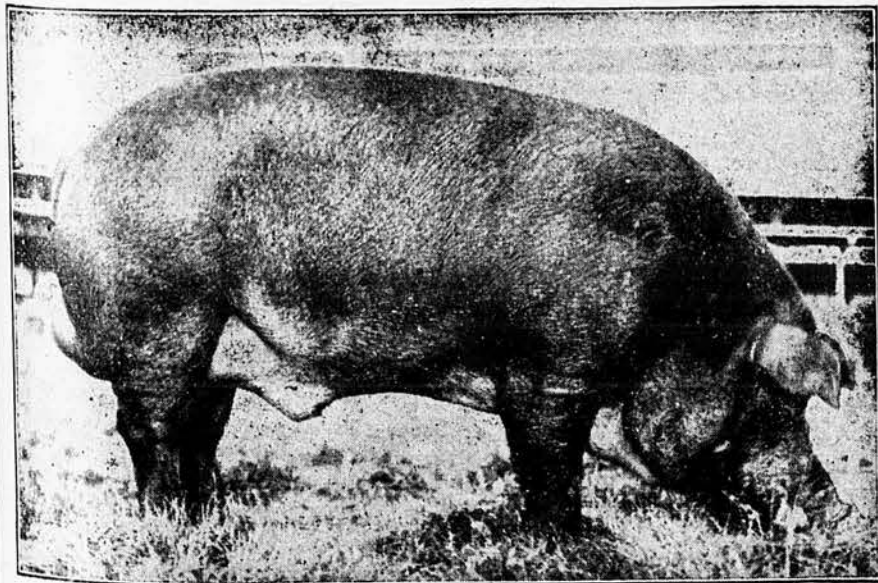
**Ten head bred to Goldfinder, he by old Pathfinder.**

**Ten head bred to Golden Wonder by Great Wonder I Am.**

We are offering the best lot of sows and gilts we ever sold, and they are mated to three real herd boars. At the Iowa State Fair last fall Joe King Orion was given second honors, in one of the strongest hog shows ever held in Iowa. He was not fat, but he has the size, bone, good back and extra good feet—weighs 840 pounds in breeding condition.

I want all the Duroc breeders of Kansas to attend my sale. Everything guaranteed right in every way. Please send for catalog today and arrange to come. Mention Kansas Farmer when you write.

**FERN J. MOSER, SABBETHA, KANSAS**



Joe King Orion

### HORSES AND MULES.

**Percherons--Belgians--Shires**  
Some choice stallions and mares for sale. All registered. Terms, Fred Chandler, Route 7, Charlton, Iowa. Above Kansas City.

**JACKS AND JENNETS**  
Registered Jacks and Jennets. Good individuals, good colors. Have some choice young jacks that are priced to sell quick.  
**GEO. S. APP, ARCHIE, MISSOURI**

### AUCTIONEERS.

**LIVE STOCK AUCTIONEER**—Fifteen years' experience. Wire for date.  
**JOHN D. SNYDER, HUTCHINSON, KAN.**

### RED POLLED CATTLE.

#### RED POLLED BULLS

Twelve head coming two-year-olds and twenty head of coming yearling bulls. This is an extra nice and well colored bunch of bulls sired by top sires. Inspection invited.  
**E. E. FRIZELL & SONS, FRIZELL, KAN.**

**RED POLLS, BOTH SEXES, BEST OF BREEDING.**  
**Charles Morrison & Son, Phillipsburg, Kan.**

#### ANGUS CATTLE

**Dietrich's Aberdeen-Angus**  
Aged bulls, fifteen choice spring bulls. Females, all ages.  
**GEO. A. DIETRICH, CARBONDALE, KAN.**

### SHROPSHIRE SHEEP

#### FOR SALE

A bunch of registered Shropshire rams ready for service, priced worth the money.  
**HODARD CHANDLER, Charlton, Iowa.**

### SPOTTED POLAND CHINAS.

Herd Boar Prospects by Spotted Colossus. Spotted to Date, and Woodrow Wilson; \$50 to \$250. **T. T. Langford & Sons, Jamesport, Mo.**

### HAMPSHIRE HOGS

Registered Hampshire Hogs—Sows and Spring Gilts, bred or open. Choice spring boars. Double treated. **Geo. W. Els, Valley Falls, Kansas**

### MULEFOOT HOGS.

#### REGISTERED MULEFOOTS

Twenty choice weaned gilts; ten fall gilts; a few bred sows. Boars no kin. Catalog and prices on request.  
**KNOX KNOLL STOCK FARM, Humboldt, Kansas**

#### BREEDERS' DIRECTORY

**RED POLLED CATTLE**  
**Mahlon Groenmiller, Pomona, Kansas.**  
**Horn Dorset Sheep**  
**H. C. LaTourette, Rte. 2, Oberlin, Kan.**

If on the market for pure-bred stock, read **KANSAS FARMER** live stock advertisements. You will find what you want.



# **Correct Lubrication** **Is Tractor Insurance**

**N**O matter how good your tractor may be it cannot give satisfactory service unless it has proper lubrication.

This means not only plenty of oil, but the correct oil, properly applied.

After long years of experience the Standard Oil Company (Indiana) has produced three oils which will correctly lubricate the entire range of tractors.

These in the order of their viscosity are:

## **Heavy Polarine Oil** **Stanolind Tractor Oil** **Extra Heavy Polarine Oil**

Stanolind Tractor Oil has been found, through severe and thorough tests, to be the best lubricant for more than one-half of the tractors made.

This oil is one of great durability. It stands the high temperature developed in a tractor engine without change in body.

It has the correct body to thoroughly lubricate the remotest frictional surfaces, eliminating scored cylinders and undue wear.

Where mechanical conditions or design make it desirable to use a slightly heavier, or slightly lighter, oil than Stanolind

Tractor Oil, Extra Heavy Polarine Oil or Heavy Polarine Oil is recommended.

Any Standard Oil representative will be glad to show you the chart of Tractor lubrication, prepared by our Engineering Staff. It indicates specifically which of these three oils the Standard Oil Engineers have found will give the best results in your particular tractor.

We have just published a 100-page book "Tractors and Tractor Lubrication," prepared by our engineering staff, which you will find a valuable reference book, and we believe it will save you many days of tractor idleness with the resultant money loss. It's free to you for the asking. Address

**Standard Oil Company, 910 So. Michigan Ave., Chicago, Ill.**  
(Indiana)