

with Western  
middle of June  
and sow with  
finish seeding  
to wheat next  
wheat next  
oats: finish

be the worst  
Three men  
res with one  
g. Keep the  
ere should be  
d of stock  
H. BRYCE

S.  
ears for the  
disc harrow  
orough disc  
ordinary dia-  
ason is dry,  
fall. It time  
plow is even  
to get things  
arely practi-  
ate and then  
land can be  
ther crop of  
efore sowing  
ormer to be  
such weeds  
constant and  
ercome, and  
for the grain

fits

machines I  
on the sub-  
ing grain ex-  
e owned or  
ld never see  
ge. I have  
ble enough  
he business  
t, and while  
at those who  
arances are

the co-oper-  
y as to it.  
has been  
ion engines  
gh baggers,  
e advantage  
in its large  
hments are  
d their cost  
rge accord-  
een reached  
the advan-  
very impor-  
is so short,  
refer to hire  
g the work

introduced  
ether they  
nded for a  
e a step in

LOVATI

Grain

ch student  
be different  
come from  
ese sari des  
ctor with a  
nd quality  
otola farm  
merit.

from this  
oats have  
the owners  
wild oats  
black ones,  
ther lesson  
e oats are  
d for seed  
We also  
ump look  
nt, of hull  
possess not

1 bushels  
ed for wild

The barley was judged on its own merits, but next year we purpose awarding premiums to the samples of barley that contain the highest percentage of wild oats, as many of the students are going to try barley as a cleaning crop according to plans outlined, and seed the grain ground fine to hogs and market the product in the form of high class bacon.

The awards were as follows:—

Wheat.—1st, to Archie McMillan, on a sample grown on the farm of Mr. John Young, Griswold, Man.; 2nd, Delbert Willson, Boissevain, Man.; 3rd, Aug. Claus, on a sample grown on the farm of Mr. Robt. Bowes, Virden, Man.

Oats.—1st, David Paterson, Gladstone, Man.; 2nd, F. K. Morison, Crandall, Man.; 3rd, Herbert Franklin, Deloraine, Man.

Barley.—1st, F. K. Morison, Crandall, Man.; 2nd, Thos. Strachan, Hamiota, Man.; 3rd, J. Cochrane Smith, on a sample grown on the farm of Mr. David Waldie, Cartwright, Man.

Flax.—1st, Lithgow Proctor, Sanford, Man.; 2nd, Milton Tinline, Elkhorn, Man.; 3rd, J. Cochrane Smith, on a sample grown on the farm of Mr. R. P. McFarlane, Cartwright, Man.

Next year we hope to be able to offer liberal prizes for the best samples of seed grains sown this spring, the sample to be taken from the bulk of grain to be sown and consisting of at least five pounds. This spring each student has been supplied with six pounds of clover seed with which to sow a small plot, trying it with and without a nurse crop.

#### Brome a Pest except for Pasture.

We have not had very extended opportunities for experimental work. Three tests with brome; two with Western rye grass; one each with timothy and alfalfa. The results of these tests are financially adverse. To be quite frank, they hitherto have all had to be placed upon the wrong side of our balance sheets, when the cost of operating said plots, the crop obtained, and the results of succeeding wheat crops are taken into account.

##### BROME.

Our experience with this grass is that for hay or pasture, in both bulk or value, it is *par excellence*. As a rotation crop it is not only entirely useless, but such a work-creator to eradicate from the soil, as to merit the name of a pest to arable pursuits. It is far away more difficult to get rid of than the couch grass or the sweet grass pests, and the further and greater evil is, after the double cost of early breaking, working of the ground all summer, and back-setting at the end of August, we find that said plots bring only a quarter to half a crop of wheat the following year, while the brome persists in renewing itself, so that the second crop of grain gets half choked out, with a half crop of brome in the land for the third year. Three useless unremunerative crops, and the land still possessed by the pest.

To the rye grass, timothy, and alfalfa the pest does not apply, but to the former the aftercrops of wheat were not so heavy in yield as the old tilled land adjoining, which had been steadily cropped with cereals and without even fallowing, and no more manure than the grass plots had. All grasses should be top-dressed with a liberal supply of farmyard manure, the earlier in the fall the better, the manure well and evenly spread, no big lumps left as they tend to smother the young plants.

##### CLOVERS AND GRASSES.

What we want is to get a good stand of the above combination as a rotation crop. It is the roots of clover that in my opinion are requisite for a provable financial rotation crop. One year in clover, pastured with cattle or sheep or both, then two grain crops, the seeds sown with the previous grain crop—if this can be accomplished we shall then have adopted a money-making system of agriculture. A bare fallow will then be unnecessary, as the land can be cleaned the end of May and the grain crop and grain seeds sown the first week in June.

The importance of a suitable rotation crop is not only a Western matter, for continuous raising of cereals will spell exploitation of the richest of our prairie soils, and must perforce develop a smaller yield and a lower grade of grain; so if a good rotation crop cannot be found at a reasonable cost the situation will soon become one of very deep significance to Canadians.

Men who are exercised of the true spirit of philanthropy will never find a more worthy field in which to exercise their munificence than giving of their wealth towards a numerous series of experiments, for some of our expert agriculturists to experiment upon the best methods of working the land, etc., so as to produce the best seed bed for a combination of clovers and grasses, as a paying rotation crop. It has been wisely said, "He is the greatest benefactor to society who makes two blades of grass grow where only one grew before."

FREDERIC KIRKHAM.

#### Wheat Liable to be Spoiled.

An observant farmer in conversation suggests a warning to those having wheat to ship which has not been very well sheltered from the weather. In many such cases care will need to be exercised to keep or get the ice or snow out of the wheat before putting in the car, where it would melt in transit and cause heavy loss to the shipper, as it would likely go rejected, though.

#### Warns Farmers to Use Good Seed Only.

EDITOR FARMER'S ADVOCATE:

I have been around amongst the farmers a good deal this winter and would like to sound a word of warning about the seed and sowing of our crop for the coming year.

In the first place half the grain I have seen is not fit for seed. Some has plenty of wild oats and other filth in it and this should not be, as any ordinary mill will take wild oats out of wheat if properly set, but the seed oats are worse than the wheat. Some men seem to think if the wheat is pretty good it does not matter if the oats are not so good as they might be. Now the best is none too good, and the difference between feed oats and good clean wheat is only a few cents per bushel and it will pay any farmer well to sell his oats and buy good sound clean ones, but by all means put plenty of work on the cleaning, and cull out everything that should not be there. Small undeveloped wheat will also lead to disorder, more especially in a year like this when seeding will be late and there is all the more need for the grain to start at once and go ahead right from the beginning. Work is going to start later than usual and there will be a tendency to rush matters. This is all right up to a certain point, but better work is a few acres less and worked right, then summer fallow or seed down the balance. In going over the country I notice the men who go steady and keep going are the ones who are getting ahead. Some men I have in my mind's eye. They put in a good sized crop and put it in well with a rotation of grass, and they are not disappointed when the threshing is done, and they always have plenty of hay without going miles from home after it.

There is one other thing that a lot of farmers know little about, and that is pickling the seed. Some do this well and understand the job; others do it anyway, and a good many do not do it at all. This job needs to be done and done right. Use either bluestone or formalin. For my part I prefer bluestone for wheat, 1 lb. to 8 bus. of wheat, and formalin for oats. There has been a lot written in the papers about the treatment and no man need go further to know all he wants about how to do it. When the work starts put your best man after the drill or better still do it yourself and just see how straight you can drive. Every bend means a skip sometimes and that means weeds. There always has been and will be plenty of time to put it in, so put it in well; put on the best seed you can get and then when you thresh your crop whatever you get you will always feel you did your part as well as you knew how.

READER.

#### Keeping Farm Accounts.

A reader in Alberta near Stettler writes as follows: "Several friends of mine who are readers of the *Advocate* have asked me about book-keeping systems in use on farms. I have seen no such system and should be glad to know of a good one for farm book-keeping. Can you publish any? I, and I think many others, would be glad to know of a good practical system."

A year or two ago we published several contributions on this subject from farmers who keep accounts, but probably our correspondent has begun reading our journal since that time, so we submit the following from one of our contributors as giving a short method of "keeping track" of things.

EDITOR FARMER'S ADVOCATE:

Below I give an outline of my style of keeping accounts. I might say I have kept track of them for thirty years now. I keep a diary, and in its columns for income and expenditure everything is entered daily. Takes but a few minutes to jot down the day's proceedings. On the start, I sometimes feel

that I would stop it, as quite a lot had been spent foolishly. After the daily items are checked off every week, I carry them to the monthly, thence to the yearly. At the end of the year, each of the three should tally. I will give a copy of a full week, month and year:

	Income	Expend
Oct.		
3rd—500 lbs. shorts, \$4.00; account mill, \$16.65		\$20.65
Groceries, \$2.70		2.70
By butter, 13½ lbs., \$2.70; eggs, 2 doz., 40c.	\$ 3.10	
5th—By 16 pigs, 3,130 lbs. at 5½c	164.35	
Overcharge at mill, \$1.40	1.40	
9th—By butter, 10½ lbs., \$2.15	2.15	
By eggs, 1 doz., 20c; hay, \$10	10.20	
To groceries, \$2.15; fittings for henhouse, \$12.50		14.65
Express order, 10c		.10
	\$181.2	\$38.1

The monthly is as follows. I might say, whereas the income is all from the farm, I divide the expenses under the headings of personal and household and farm, keeping them under a general heading. First, I do not date the monthly accounts, but carry them out under separate lines and add the total in the column.

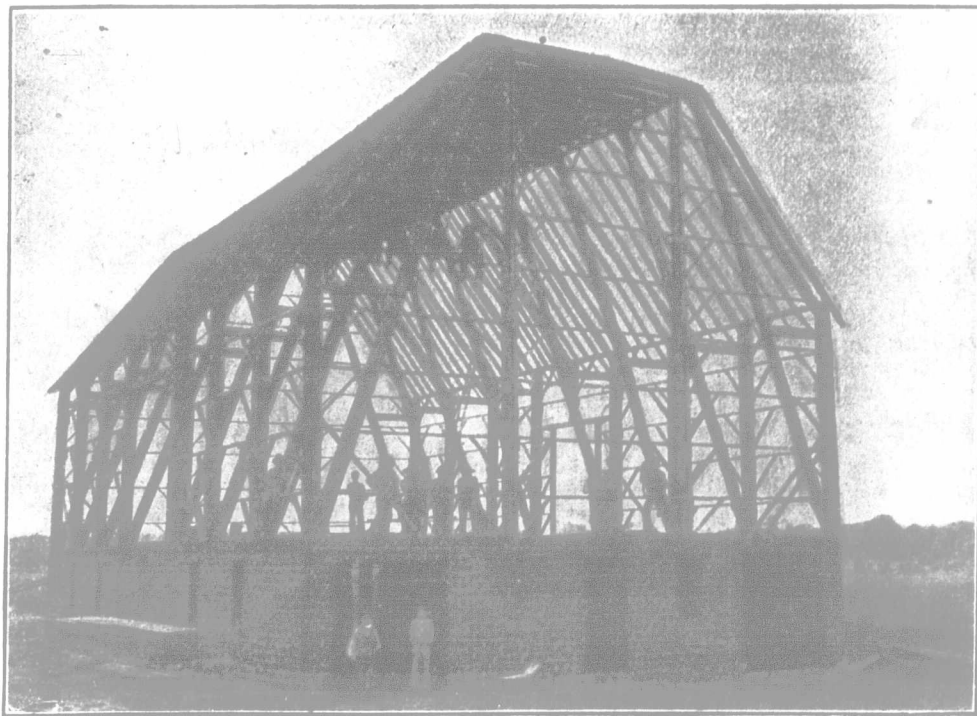
##### OCTOBER.

59½, 10, 13½, 11½, 10½, 13½	—Butter: \$2.70, \$2.15, \$1.70, \$2.70; \$2.00	\$ 16.25
4½, 1½, 1, 2	—Eggs: 40c., 20c., 30c.—90c.; pigs, \$164.35	165.25
125, 49, 76	—Wheat: \$47.85, \$29.90—\$77.75; hay, \$10.00	87.75
		\$269.25
—Groceries: \$2.70, \$2.15, \$1.40, \$1.70—\$5.10		\$ 13.05
—Shorts and bran, \$19.25; chopping, \$1.00		20.25
—Fittings (hens), \$12.60; threshing, \$90.00		102.60
—Wages, \$33.00; picture frames, \$3.20		36.20
—Dry goods, \$1.00, \$2.20—\$3.20; doctor, \$2.00		5.20
—Fire insurance, \$7.40; telegram, \$1.00		8.40
—Twine (bal.), \$6.75; meat, \$8.60; repairs, \$2.70		18.05
		\$203.75

I carry the balance on from month to month, but have omitted it here.

##### YEARLY EXPENDITURE.

Personal and Household.	
Groceries, \$13.05; frames, \$3.20	\$16.25
Dry goods, \$3.20; doctor, \$2.00	5.20
Telegram, \$1.00; meat, \$8.60	9.60
	\$31.05
General Farm.	
Shorts and bran	\$19.25
Chop, \$1.00; hens, \$12.60	13.60
Threshing, \$90.00; wages, \$33.00	123.00
Insurance, \$7.40; twine, \$6.75	14.15
Repairs, \$2.70	2.70
	\$172.70



A PLANK FRAME FOR BARN