

prices on an un-

ber of calves have
os in curtailing the
one and two years
disposed of wisely,
ent to the shambles
me steers or heifers
ade ten or twelve
bove figures show a
d mutton on hand
of 1920 or 1919.
but showed a sub-
e large numbers of
which will be placed
months. This will
is rather disconcert-
of unlimited possi-
apply available for
et anchor of agri-
e whole might well
stock.

RM.

Fly.

AL ENTOMOLOGIST.
er and spring wheat
several years. The
uthwestern counties
g is, as a rule, more
the Province. In
most ruined; many
slight injury. The
ther counties where
t from the accounts
ation, the loss has,
no greater probably
e in the past.

LY INFESTED AND

why some fields of
while others, in the
attacked. Usually
infested fields were
mes that wheat had
year and the stubble
year, thus allowing
elds; sometimes the
n other farms; some-
s poor or not well
lass, with the result
and so were badly
plants lacking in
cks healthy plants.

NSECT.

at, when the wheat
n the fallen stems,
close to the ground
t the lowest joint,
re the resting stage
d early September
ving flies, resemb-
ne-quarter so large.
ves of young plants
ese work their way
hey suck the juices
if very numerous,
or. These maggots
the flax-seed stage
the warm weather
ies emerges and lays
maggots from these
leaf and the stem
plant. Very often
right at the ground,
e the first or second
leaf. The feeding
eakened and either
at the infested joint,
ed is shrivelled and
lly if several larvae
usually the case in a
only one is present,
he larvae or maggots
nd change into the
ore the grain is ripe.

ROL.

should be practiced:
to a depth of five
ff and then work the
e pupae and prevent
een found that they
four inches of well
t up if the soil were
rried with the grain
h danger from these.
owed as above, run
surface and hasten
ed. The flies will
teer plants, and then
nber or in October

that will germinate
wheat well prepared
will have every op-
growth; for vigorous
weak plants.

4. Sow as late as experience shows is safe for the district, without running too great a risk of the plants not being far enough advanced to winter well. Late sowing is almost always a great help; because the wheat does not come up through the soil until the flies have disappeared. Of course, such fields are subject to spring attacks, but it stands to reason that if they escape the fall attack they will have a much better chance to be only lightly attacked in the spring and thus give a better crop.

It is strongly urged that farmers follow the above suggestions this year, as it is very probable the Hessian fly will, otherwise, do much damage next year.

Wheat or Clover, Which?

EDITOR "THE FARMER'S ADVOCATE":

The article in the issue of July 29 under the caption of "Hessian Fly, or Wheat, Which?" prompts the following considerations—Wheat or Clover, Which?

It will be conceded by all that the farmers of Western Ontario are up against a huge problem in their fight against the Hessian fly. Their problems become more intensely acute, however, the more one considers the remedial methods advocated by entomologists, and others who claim to have studied this subject, and who may not take very kindly to the ideas given birth by considering their methods in a logical manner.

I may thus be in the position of the fool who enters boldly where angels fear to tread. However, if I am to be shot at dawn, so be it; Kismet it is fate, so here goes. Some of us planted our wheat late last fall on ground where no grain had grown for some years, on a sod, summer-fallow thoroughly worked. Notwithstanding the late sowing we were bothered to some extent with the fly which appeared here and there and was not confined to the lands un-manured, nor yet to those lands well manured.

This spring we sowed Alsike and a little red clover, and have a splendid stand promising a heavy yield of feed and seed next year. But, alas, this is where the tragedy occurs; we are told that this and other fields must be all plowed under, and rolled, to annihilate the fly.

Last year it was the chinch bug in the oats; the stubble of which had to be plowed under; this year it is the Hessian fly which necessitates the stubble being plowed under likewise. Next year some blighting pest may strike the rye and barley and that stubble also will have to be plowed under, hence the question comes in capital letters what about our Clover Crops? What becomes of them? What is a man to do for feed if he has to depend on just the spring grain to provide cover crops to the clover seed, etc.? These are weighty and serious considerations. Behold! How fearfully and wonderfully made is the farmer who can see light in such darkness as this. "Man does not live by bread alone," so I for one feel strongly disposed to raise my clover crop and to the stars, or any other warm place, with the fly.

The great outstanding fact to my mind is this: that so far, the agricultural colleges and experimental stations have failed to move with the times; they have just one specific "Plow Under." What about spraying. If we spray spring grain with formaldehyde, why not treat wheat with the same thing? Should black knot appear in the orchard we are told to spray; why not plow the trees under? Should Colorado beetles appear in the potato patch we are told to spray; why not plow them under? Should lice appear on the cattle herd we are told to spray; why not plow the cattle under and suffocate the lice thereon. So I repeat what is the matter with spraying wheat for the fly, oats for the chinch bug, and so on.

One agricultural representative stated that there was a remedy, but that it was too expensive for the ordinary farmer to use. I submit that the ordinary farmer is best fitted to answer that question, and that if there is such a cure (a real remedy as stated), a sufficient amount should be made available to all who care to pay the price. Why not invite the Canadian Wheat Wizard to study the subject?

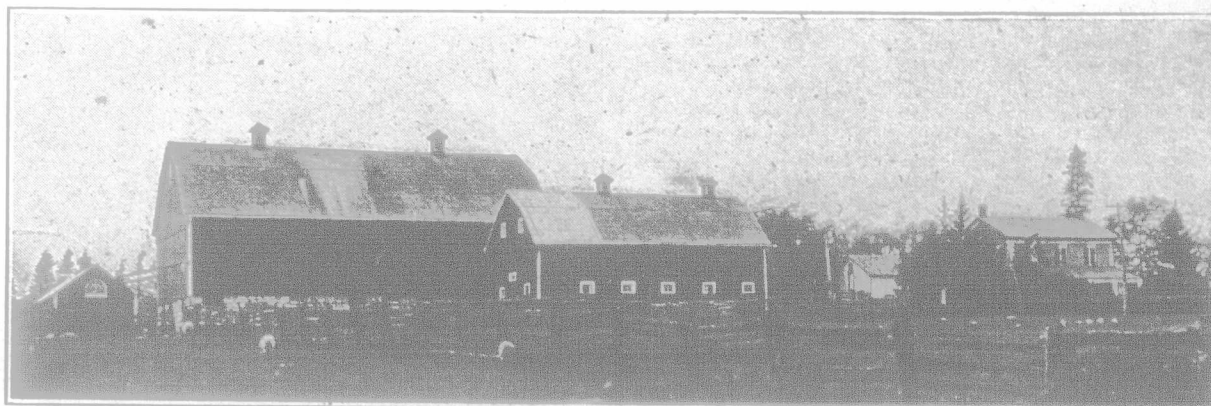
Some years ago, when a certain scourge attacked the

crops, a predacious insect was imported by thousands, and liberated in the infested areas immediately bringing succour to the famine-threatened agriculturalists. Why not do the same thing with the midge, Hessian fly and chinch bug, equally pernicious?

Farmers are seriously considering the advisability of quitting sowing wheat for a year or two, for no live man can submit, year after year, to working early and late to see at last a most promising and lucrative crop falling before his eyes, owing to his inability to cope with the evil through lack of co-operation on the part of his fellows; and the lack of a thorough knowledge of the subject on the part of the institution in which he is a shareholder, but which is not so far paying much of a dividend on his enormous investment.

Whether this criticism is merited, or not, the fact remains that for a great number of years past there have been recurrent outbreaks of this pest, and at the end we have just the same old story "plow under," and that is where the remedy ends.

Another point that occurs to me is this: Why the necessity of destroying all stubble and screenings; what about the wheat straw in the barn yard and stables. If the stubble and screenings be infected, may not the straw be also a medium for propagating the pest? and if such be the case of what use is it to plow under the infested fields? What about putting the mower over the field and shearing off the stubble, or turning



Buildings on the Farm Owned by F. Batty, Brooklyn, Ont.

the cattle in to crop the field close to the ground immediately after the grain is cut, and keeping them there until after the second week in August when the fly will have ceased its flights. What about spraying the infested stubble with Bordeaux mixture? Has anyone tried it? Last year the chinch bug caused enormous damage in the oats; this year we do not hear of it, why? What has happened? What law or agent of Nature operated to accomplish its extinction? Again, a few years ago the midge was so prevalent here that the farmers of Gainsborough nearly all quit growing wheat. For years afterwards they were immune from the pest; the same thing more or less happened with the Hessian fly. What was the cause of its disappearance then and its terrible prevalence now? The remedy for noxious weeds and infected fields, in my estimation, is the immediate passing of a law compelling every farmer and grower to notify the Department of Agriculture when his land is infected. These pests are contagious diseases, just as much as scarlet fever, or the measles, which necessitate the notifying of the Board of Health and isolation of the parties concerned; any man failing to so report to be fined \$150 and compelled to take all necessary precautions against the blight affecting his neighbors. And I am just as ready to take my medicine as the other fellow. A closing observation will suffice. It has been stated that where the wheat had been sown with fertilizer there has been hardly any trouble with the fly. What constituent of a preventive nature do these fertilizer elements possess? How can a strong plant throw off the disease any more than a weak plant when both are severed from their base as the insect escapes to the open? I trust that this will

open up a discussion, taken part in by those who fought the fly and won, and those who fought and lost; for it is the one who is always asking questions that gleams the most knowledge.

Lincoln County, Ont.

W. J. ADAMS.

Hessian Fly Remedy.

EDITOR "THE FARMER'S ADVOCATE":

My experience in fighting the Hessian fly was, I think, in 1879. I was a lad then and helped a farmer in this Township (Ancaster) sow coarse salt, two bushels to the acre, on the fall wheat, and timothy fields, after the spring seeding. We sowed salt on all spring grains, after they were green over the fields. All grains and grasses were stung by the fly, but not to the same extent as the wheat, that elder son of the old-time farmers' hopes.

The fathers of that day who could verify my statement, are all away to their rest, but "the salt has not lost its savor" in a helping sense. The stubble was treated with salt before being plowed under, thereby routing the enemy. Salt was sown in this manner, two years in succession, and this put an end to the fly in this part of Wentworth County.

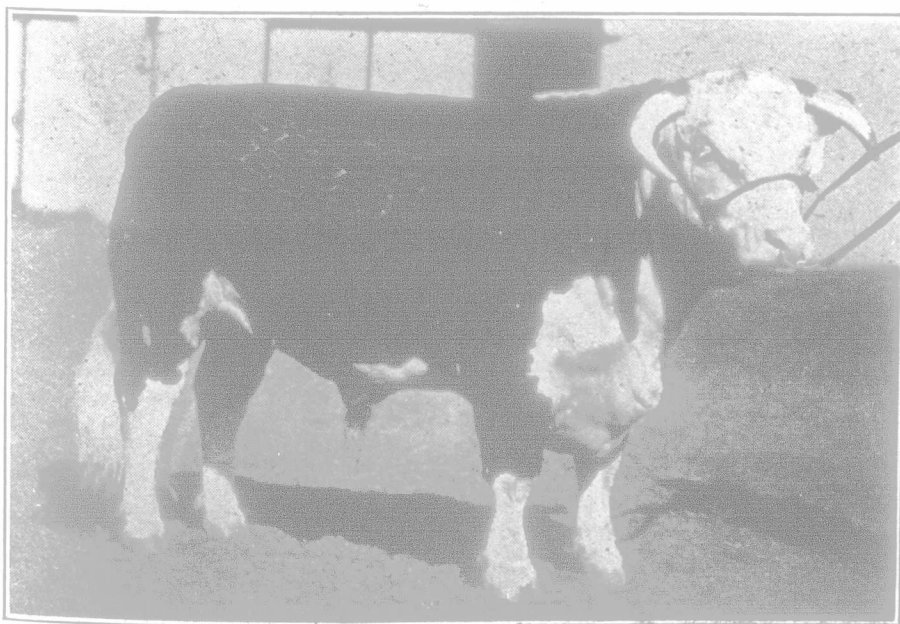
Wentworth Co., Ont.

ROBERT P. MORRIS.

East Middlesex Gleanings.

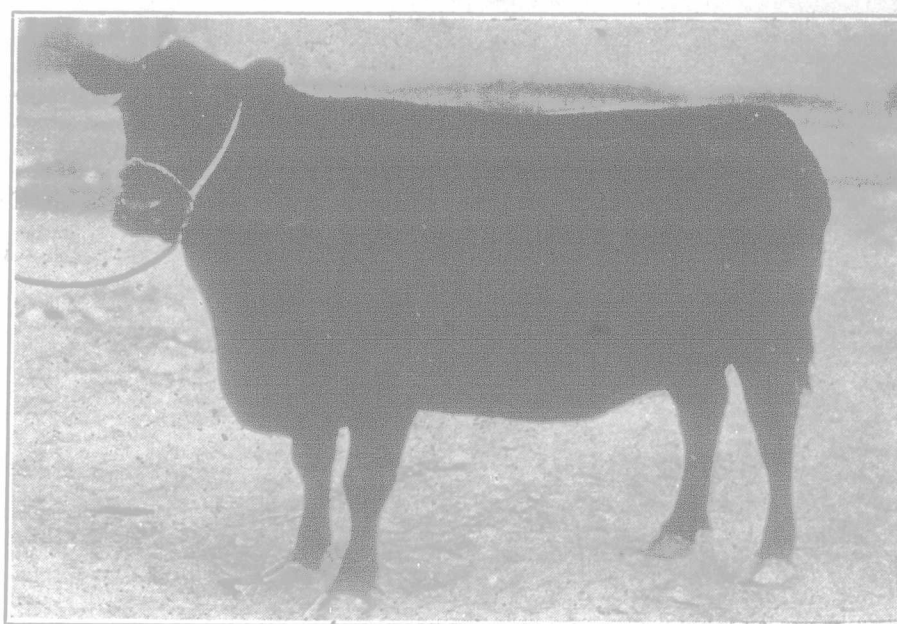
EDITOR "THE FARMER'S ADVOCATE":

Compared with 1919, this season brought a lot of weather surprises, mostly favorable, through easterly sections of Middlesex, Ont. There has been more moisture at the right time than last year, and it is water and warmth that nature contributes to build big crops. Up to the first week in August, fall wheat threshing returns ranged from 25 to 40 bushels per acre, with a good sample of grain and clean straw. One 20-acre lot ran 35 bushels per acre plump. Haying crowded over into the wheat harvest, and though not a heavy crop by any means, it was satisfactory, in most cases, and as a rule, very well saved. Several heavy rains have brought on an excellent aftermath that will help to stay the milk shrinkage that began in July. Supplementary grain feeding to sustain the milk flow is costly, owing to the exorbitant price of millfeeds. The barley area in several districts appears to be less than usual, but the yield will probably be up to the mark. Rains arrived in the nick of time to save the oat situation, and the prospects are for a satisfying yield of extra quality. In many directions nothing could surpass the fields with their dark green battalions straight and strong but rapidly turning. It is a fast season and more grain, thus far, is going into barns and stacks than in 1919, as the weather has been "catchy" for stook-threshing, and the threshing outfits are reported not sufficiently numerous. The field corn acreage is large and certainly promising. With a few weeks hot weather it will mature rapidly. What the big dents should be in bulk one may judge from a plot of Golden



Panama 81st.

Champion Hereford bull at Calgary, Edmonton, and Saskatoon.



Winsome Favorite.

Winning Angus female on the Western show circuit. Shown by C. H. Richardson, Bowden, Alta.