

THE CANADA FARMER

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The Canada Farmer.

TORONTO, CANADA, FEBRUARY 28, 1873.

It was well on in January before the new series
of THE CANADA FARMER was determined upon—and
the editorial and mechanical arrangements for its
publication occupied some further time. The first
numbers have in consequence, appeared behind time;
we shall presently make up the lost space, and
be punctually on our stated days of publication.

ENTOMOLOGICAL SPECIMENS may be sent for iden-
tification or for information respecting history and
value, to the office of the CANADA FARMER, or
direct to the entomological editor, Rev. C. J. S.
Munn, Port Hope, Ontario. The postage should
be pre-paid. The specimens should be sent in a
pasteboard or other box, not loose, but packed
with cotton wool, or some similar material. Grubs
or caterpillars should have plenty of leaves, and not
cotton wool sent with them. The name and address
of the sender should also accompany the package,
not necessarily for publication, but as an evidence of
good faith, and that we may know where to apply
for further information, if required.

Farmers' Clubs.

It is a matter of infinite regret that we have so few
of these valuable organizations established throughout
Canada. There are sections in every part of the
Dominion, where first-class farmers are numerous,
and capable of throwing a vast amount of valuable
light upon the practice of agriculture. Yet, from
some cause or other, they have never heartily taken
up the plan of holding stated periodical discussions
on questions affecting their common interests. This
is much to be regretted. On the young men, especially
amongst our intelligent agriculturists, we earnestly urge
that they take prompt steps, in the absence of any such
organization in their neighborhood, to establish and
maintain a Farmers' Club, for the holding of stated
meetings to discuss practical questions, state their
experience of the members; make suggestions, obtain
hints, and arrange for concurrent experiments.

It is predicted that in five years, at the present
rate of consumption, the Maine forests will be cleared
of merchantable timber. The quantity cut in 1872
was seven hundred millions of feet—of which 225
millions came from the Penobscot forests, and 100
millions from the Kennebec district.

Experiments with Fertilizers.

At the eastern experimental farm, of Pennsylvania,
a series of interesting experiments have been made
for five years past, as to the effects of various
fertilizers on various crops, in comparison with the
same crops on the same land without the use of any
fertilizer. A statement of the results has been given
to the public through the columns of the Germantown
Telegraph, which will be highly acceptable to agri-
culturists everywhere.

The statement of Mr. Carter does not disclose the
kinds of fertilizers applied to the several crops. It was
thought more advisable to state only the cost per acre
of the fertilizers used; and the crop obtained from
that expenditure in contrast with the crop obtained
without any expenditure.

Ten plots of each crop, if we understand correctly,
were tested with different fertilizers. The average
cost per acre of the ten kinds is given—and the
average yield, the highest yield, and the lowest yield
per acre.

With these explanations, let us see the results:—

Effects on Grass.

In 1868, the average cost of the fertilizers used was
\$9.37 per acre. The weight of hay obtained without
any fertilizers, was 3,648 lbs. per acre. With
fertilizers, the lowest weight was 3,608 lbs., the aver-
age was 4,301 lbs.; and the highest was 4,784 lbs. per
acre.

In 1869, the average cost of fertilizers per acre, was
\$8; without any fertilizers, the weight of hay was
2,400 lbs.; and with fertilizers, the lowest was 1,904
lbs.; the average was 2,772 lbs.; and the highest was
3,360 lbs.

In 1870, the cost of fertilizers was \$9 per acre;
without any fertilizers, the weight was 5,568 lbs.;
and with them, the lowest weight was 5,712 lbs.; the
average 5,984 lbs., and the highest 6,336 lbs.

In 1871, the cost of fertilizers was \$9 per acre; the
weight of the crop, without them, was 3,040 lbs.; and
with them, the lowest was 3,136 lbs.; the average
3,704 lbs., and the highest 4,128 lbs.

In 1872, the cost of fertilizers was \$12.50 per acre;
the weight of the crop without them was 1,232 lbs.;
and with them, the lowest was 1,168 lbs.; the average
2,912 lbs., and the highest 4,048 lbs.

In 1872, a special experiment was made to test the
effects of lime in different quantities on grass with
the following results:—

No Lime.....	3,840 lbs.
50 bush. Lime, per acre.....	4,080 "
100 " " " " " " " " " "	4,416 "
200 " " " " " " " " " "	4,064 "

Effects on Oats.

In 1868, the cost of fertilizers was \$16 per acre—
the crop without them was 12 bushels—and with
them the lowest, the average, and the highest were all
put about 16 bushels per acre.

In 1869, the cost of fertilizers was \$16 per acre—
the crop without them was 57,—and with them 44½
bushels per acre.

In 1870, the cost of fertilizers was \$10 per acre—
the crop without them was 43—and with them from
48 to 54 bushels per acre.

Effects on Wheat.

In 1869, the cost of fertilizers was \$25 per acre—
the crop without them, was 18½ bushels—and with
them the lowest was 17½, the average 24, and the
highest 29 bushels per acre.

In 1870, the cost of fertilizers was \$13.50 per acre
—the crop without them, was 8 bushels—and with
them, the lowest was 7, the average 9, and the highest
11 bushels per acre.

In 1871, the cost of fertilizers was \$12.50 per acre
—the crop without them was 13½ bushels—and with
them the lowest was 15½, the average 22½, and the
highest 31½ bushels per acre.

In 1872, the cost of fertilizers was \$10 per acre—
the crop without them was 16½ bushels—and with them

the lowest was 15½, the average 20½, and the highest
26½ bushels per acre.

Effects on Corn.

In 1868, the results were fertilizers 8—without
them 71 bushels—and with them the lowest 72½, the
average 74, and the highest 76 bushels per acre.

In 1870, fertilizers \$10—crop without them 44
bushels—and with them lowest 46½, average 52, and
highest 62 bushels per acre.

It will be interesting to know the kind and weight
of the several manures applied, as Mr. Carter frankly
confesses that among them were "many notorious
humbugs which of course reduced the averages."

Quarter-evil.

A correspondent (Mr. A. D. McConnell) writes us
from Port Burwell, that his cattle have been attacked
by a disease which first shows itself by lameness in
the leg and causes death in twenty-four hours. He
has already lost four young beasts, and when he
opened the carcasses he found a great deal of blood
and water settled in the parts affected.

We suspect the disease which has proved so fatal
amongst your young cattle is what is generally known
as black quarter, also called quarter-evil or black-leg,
a congestive fever. It is a disease of an anthrax
character, and must be regarded as a disease of the
blood, resulting from an altered condition of that im-
portant fluid, whereby its natural elements are
greatly changed. As far as we have had an oppor-
tunity of judging, quarter-evil is not a very common
disease amongst the cattle of this country. In some
parts of Britain, however, and on the continent of
Europe hundreds of young animals are yearly lost
from this disease, which has been found to result
from various causes, as rough coarse herbage common
to wet soils, or from the use of very stimulating and
nourishing food in large quantities, this is especially
the case in young animals that are closely kept
penned up in small places, and allowed little or no
exercise, the supply of nutritive material to the blood
is much greater than the waste of the tissues, and
disease is the result. Exposure and an insufficient
supply of pure water may also produce the change in
the blood that will excite the disease.

Quarter-evil is a disease that runs its course with
alarming rapidity after the development of the first
symptoms. Usually the first symptoms observed are
lameness either in a fore or hind limb, great dullness,
and a quick pulse, and these symptoms are speedily
followed by those of great nervous debility, it is with
the utmost difficulty the animal can move around,
and will stagger and fall helpless to the ground.
The mouth is unnaturally hot, for a short time, but
as the disease advances it becomes cold, the eyes
are reddened, and a swelling of the affected limb ensues.
If the swelling is pressed a crackling noise is emitted,
which is due to an emphysematous state of the sub-
cutaneous areolar tissue, resulting from decomposi-
tion of the tissues.

The disease is not always confined to the limbs, in
fact any part of the body may become affected, but
it generally affects those textures which are loose
and soft, and where the blood-vessels are not very
firmly supported. As death approaches the swellings
increase, the pulse is quick and weak, and the extremi-
ties exceedingly cold.

Post-mortem appearances.—When the skin is re-
moved, the blood-vessels immediately under the skin
appear full, and from the parts immediately affected
there issues a dark-colored and bloody discharge, and
if the tissues are cut into they show a gangrenous con-
dition, the belly is distended, and a dark frothy dis-
charge comes from the nose and mouth. Quarter-evil
is most common in young animals from six months to
three years old, and is seldom met with in milking
cows. It is a disease that runs its course so rapidly
that treatment in many cases proves of very little
avail, but a very great deal can be done in the way