

THE FARMER'S ADVOCATE AND HOME MAGAZINE.

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LONDON, CANADA

Municipal Forests.

By H. R. McMillan, Assistant Inspector Dominion For-
est Reserves.

There is something besides the building of Dread-
naughts that Canada might advantageously learn
from Germany, and that is the policy of establish-
ing municipal forests. The western peninsula of
Ontario is a fair example of the condition which
Canadian settlement tends to produce. The tim-
ber has been cleared indiscriminately off the poor
as well as the good land. The good land is
rightly devoted to its best use, agriculture, and
the land not good enough for profitable agricul-
ture is devoted to no use at all, and lies waste,
a burden upon the community, instead of a source
of revenue. Though nearly every country con-
tains more or less waste land—in some cases sev-
eral thousand acres—no attempt has been made by
any county municipality to derive a revenue from
such land, though the method, the growing of
timber, would seem the most natural one in the
world. Though Germany is settled much more
densely than Western Ontario, and has been settled
a much longer time, it possesses a proportionately
greater area of forest, and the German forests, as
the German fields, produce annually acre for acre
a higher revenue than do the Ontario forests and
fields. The intense settlement in Germany has
brought about the necessity of having every acre
under its most valuable crop. Waste land is a
loss to the community; it pays no taxes, returns
no revenue, supports no population, feeds no in-
dustries, and renders local improvements propor-
tionately more expensive, so there is no waste
land in Germany. What can be farmed is farmed,
what cannot be farmed at a profit is bought by
the state, the municipality or town, and planted
to trees, for the sound business principle of secur-
ing a financial return on all money invested.

WASTE LANDS.

The advantages of the policy of establishing
municipal forests are several, and are such that
recommend the scheme to Canadian municipalities.
The first advantage is the financial one, for a
municipal forest is essentially a sound business
proposition, having in view the reaping of a
financial return from land which is unfit for the
raising of agricultural crops. Where such land
exists in Ontario as has been shown by E. J.
Zavitz in the Counties of Norfolk, Simcoe, Dur-
ham and Northumberland, it lies waste, and is in
no way of value to the community. In some in-
stances, where it consists of shifting, blowing sand,
it gradually encroaches on the better land sur-
rounding it, and lessens or destroys its value.
There are instances of this at Westlake, in Prince

Edward County, and in Huron County. In all
cases the presence of large bodies of poverty-
stricken land cannot but have a depreciating effect
on the value of farm land in the vicinity.

GERMANY'S METHOD.

During the last half century or more, German
communities have followed the policy of buying up
such land and planting it to trees. The policy
has proven so successful financially, and has been
so ably supported by the people, that many Ger-
man communities are adding to their holdings,
and are buying up land at prices ranging from
ten to twenty dollars per acre.

The present condition in the State of Baden is
worthy of notice. The total area of the State is
3,726,000 acres. Of this, 36 per cent., or 1,342,-
000 acres is forest. Of all the forest, 43 per
cent., or 577,000 acres, belong to communities and
corporations. Of a total of 1,564 communities,
1,350 have their own forests, and, in addition,
287 corporations, such as schools, hospitals and
churches, own forests producing an annual revenue.

STATE AND COMMUNITY CO-OPERATE.

These commercial forests vary in area from a
few hundred to several thousand acres. They oc-
cupy the poorest class of land in the communities
owning them, and are managed according to the
experienced professional advice of the forest
authorities of the kingdom in which they are
situated. All are managed so as to produce per-
petually the highest possible revenue, the aim be-
ing to cut each year only as much timber as the
land produces. All cutting is managed absolutely
by the State authorities, and cannot exceed the
amounts yearly prescribed by them. It is a co-
operation between the State and the smaller com-
munities, by which the community subjects the
management of its property to the judgment of
the experienced authorities which the State can
best afford to train and employ. In Baden, the
communities and corporations are allowed to cut
yearly from their lands 261,000,000 board feet of
lumber, with a value of about \$3,600,000. Cana-
dians should note that this amount is cut yearly
from the poorest class of land in a principality
whose total area is only 3,726,000 acres.

A PROFITABLE SYSTEM.

The following instances show what profit is
derived from their municipal forests by represen-
tative German towns and cities:

The Village of Auen, of 220 inhabitants, own
163 acres of forest. Each citizen is given an-
nually 2,000 board feet of wood. The surplus,
amounting to an annual average of 85,000 feet,
is sold, and realizes an income of \$1,400, with
which the total expenses of the small village are
met.

The 1,601 inhabitants of the Village of Braun-
lingen own 4,507 acres of forest. The municipality
gives to each citizen 3,500 board feet of timber
per year; 100,000 board feet per year is
granted to the schools, churches and town halls.
The remainder, amounting to about 1,500,000
board feet yearly, is sold, and brings to the com-
munity a net income of \$21,000, so that the town
is not only free from all taxes, but is also able
to establish with the proceeds modern works, such
as electric and water plants.

The City of Baden, of 15,720 inhabitants, own
10,576 acres of forest. In 1906 the total revenue
from this was \$100,471; the total outlay in the
way of interest charges, labor, roads, etc., was
\$33,392, leaving a surplus of \$66,079. This sur-
plus is equivalent to an annual rent of 6.25 per
acre for the whole forest property.

Numerous other instances could be given of
European towns and communities which receive an
annual revenue from the sale of timber cut on
waste land which in previous years they had
bought and planted with trees. What is here
unheard of is in Europe a long-accepted and com-
mon source of municipal revenue. So widespread
is the practice of communal forestry, that 16 per
cent. of the forest area of Germany, 15 per cent.
of the forest land in France, and 67 per cent. of
the forests in Switzerland, belong to municipali-
ties. Most of these municipalities have acquired
this land within the past fifty years. They have
had the same difficulties to meet that would need
to be met in Canada. The people had to be edu-
cated, the money raised, the land bought, and ex-
pert management secured. Indeed, the work
should be more easily done in Canada; we have
European experience to guide us, and European
success to encourage us.

HOW TO SUCCEED.

The reforestation of waste lands can hardly be
undertaken on any but a very small scale by pri-
vate individuals. While post timber can be grown
at a profit in 15 to 20 years, and timber for rail-
road ties in 30 to 50 years, a longer period of at
least from 75 to 150 years, varying with the soil
and the species of trees used, is required for the pro-
duction of the most profitable crop, saw-timber.
This is obviously too long-lived a proposition for
a private individual to undertake, and is more
suited to the perpetual life of a Government. The
Provincial Governments might, in time, acquire
the greater part of the waste land for forestry
purposes. In fact, a start has already been made,
but there are so many areas that it must be a
long time before all can be handled by the one
Government. The county councils are quite as

capable of undertaking the work as any other
body, if they go about it in the right way. To
avoid the mistakes which have frequently resulted in
other States and counties through too hasty action
in the matter of tree-planting and forest manage-
ment, it would be advisable for the county officials
to have a general survey made of their waste
lands by the Provincial Forester. They can, by
this means, find out what area of land it is advis-
able to secure, what price can be paid, how much
it is advisable to try to handle each year, and
can get expert advice upon the planting and sub-
sequent management.

THE COST.

When it has been proven that the expenditure
is an investment which will be returned with prof-
its, it should not be difficult to raise the money
necessary to yearly carry on the work. The
densely-settled counties where this reclamation
work is most necessary have assessments running
well into the millions. In very few cases will
there be as much as 10,000 acres of waste land in
the county. The land can usually be bought for
five dollars an acre, or less. In the American
States it has been found advisable to limit the
price paid for land for reforestation purposes to
some such figure as \$5 per acre. Minnesota is now
seeking to amend the constitution of the State
so as to provide a tax of 1-15 of a mill on the
assessment to secure money for buying waste land
for forest-planting, the price of the land to be
limited to \$3.00 per acre. This is too low for
most places. New York, Pennsylvania, Vermont,
Connecticut, Massachusetts, and other States, are
buying land for forest-planting, and have the price
limited by statute.

After the land is bought, it will, in the ma-
jority of cases, be found that it will not be necessary
to plant it all with young trees. As a rule, one-
half or two-thirds of the waste areas are covered
with a growth of young trees which will thrive
and multiply if protected from fire and cattle.
Both the buying and planting will be distributed
over many years, so that each year's expenditure
will be small. For an appropriation of \$2,000
a year, expended under the direction of Provincial
officials, a start could be made; and if the ap-
propriation were made permanent, it would not be
many years before the counties in the work would
own property of considerable value. Half the ap-
propriation could be used in buying each year, and
half in planting. This would mean the buying of
200 acres of land each year, and planting the half
of it, unless the land was such that all required
planting, which would make operations slower and
more expensive. After 20 years of this policy, the
county would own about 4,000 acres of young tim-
ber-growth. After 40 to 50 years, or sooner, as
would be the case where the land was covered
with young trees at the time of buying, the thin-
nings from the plantations would produce a re-
venue. And, at the end of 75 years or more, the
money invested would be returned, with interest.
The prices of timber are constantly going up; in-
dustries scattered throughout the country are find-
ing it increasingly difficult to secure timber needed
in the factories, and it is only fair to suppose that,
with such a market assured, expert Canadian man-
agement can secure as good results in the settled
parts of the country as have been secured in Ger-
many, France and Austria, where lands under per-
manent, scientific forest management pay the State
a constant net annual revenue of two dollars and
upward per acre.

Municipal forests managed under the system
outlined, and scattered throughout the Province,
will have a great educational value as demon-
strations of what can be done with poor land. Their
management as a constant crop will tend to raise
the status of the present neglected wood-land, and
show that one more productive factor may be
added to every farm.

Some municipal forests will, from their situa-
tion, be protective, as well as profitable. These
will be of two classes: those protecting a water-
shed, and those fixing a loose soil. With density
of settlement comes an increasing danger of pollu-
tion of water supply. This is now strikingly
exemplified in Montreal, and seldom does a season
pass that some Canadian town or city does not
count its victims by the score. Where the con-
tamination of the land renders it possible, the
practice is growing in New England of buying up
the land constituting the watershed of the town
supply, and keeping it under timber. The result
is, no pollution reaches the water, the growth of
timber prevents soil from being washed into the
reservoir, and, as it matures, affords a return from
the land. This policy is now followed by the
companies or municipal boards supplying water to
many of the New England cities, notably Fall
River, Mass., Ansonia and New Haven, Conn.

The advantages of having timber on loose soil
are obvious. No soil is so loose or light but
that some kind of timber will succeed upon it.
Once a growth is established, the trees bind the
soil together. Prevent the wind from reaching,
and the area becomes a source of profit and pro-
tection, instead of a curse.

The movement toward municipal forestry in this
country will be very slow, but it is bound to come
sometime or later. Economic conditions will force
it, and those who start first will be those who
will reap the greatest profits.