

water which comes above the hoof, or place cloths over his feet and soak with cold water. Then lead for fifteen or twenty minutes three or four times each day. Better do this on the advice of a veterinarian, if one can be secured.

In acute respiratory conditions, place the animal in a well-lighted and well-ventilated box stall and have it well bedded down, and then place fresh water before the animal. If he has chills, or if the weather is cool, blanket well and avoid drafts. Groom him well, and if his extremities are cold bandage them or rub them with coarse cloths or with wisps of hay or straw. Impossible to get too much fresh air if you avoid drafts. Keep bowels loose and kidneys active. In place of a mustard plaster, apply to the chest oil of mustard, two drams in one-half pint of olive oil. Give treatment prescribed by a qualified veterinarian.

It is well to mind the following when caring for sick animals:

1. Always get a good graduate veterinarian when you can possibly secure one.
2. Do not give drugs of which you do not understand the action, and when you are not sure of the condition affecting the animal.
3. Never walk the animal except on the advice of a veterinarian.
4. Make the patient as comfortable as possible in a clean, cool, well-ventilated, roomy stall, with plenty of light.
5. Have the stall clean and well bedded.
6. Prepare the best of feed, and have water that is fresh and clean.
7. In eye conditions, or in cases of lockjaw, place the animal in a darkened stall, as the light hurts the eyes.
8. Do not employ men of doubtful ability as they often do you more harm than good.
9. Get a clinical fever thermometer and learn to use it, and also learn to count the pulse of the domestic animals.

THE FARM.

The Protection of Trees.

EDITOR "THE FARMER'S ADVOCATE":

Continued sales of fine block of standing farm timber, and the devastating hurricane that swept across a large portion of Ontario one evening in November, are too closely related to pass without more serious consideration. In that storm many forest and fruit trees were uprooted in all directions, barns and other outbuildings were unroofed or blown down, windows shattered, implements injured and telephone and other wired lines damaged, involving enormous losses. That more lives were not sacrificed seems to have been little short of miraculous. It is a matter of common observation that as the protection of the natural forest disappears such on-rushes of wind become fiercer and more frequent. In looking over a considerable area of the devastated territory, it was apparent that the most destructive effects were usually where to windward the sweep of the wind was not broken by intervening wood lots for a mile or more. The photo reproduced herewith of a dismantled barn illustrates a typical casualty. The rural school property lying a little to the northeast sheltered by hedges and maples escaped injury. The older and frailer structure was of course, an easy prey to the unimpeded tempest.

Wood lots of ten or fifteen acres of beautiful bush mostly sugar maples and other hard woods are going down under axes and saws as ruthless as the high explosive the Huns let loose upon tree-clad France. If less spectacular and terrifying the consequences are surely detrimental to the appearance, safety and utility of a farming country here, the rich foundations of which nature required centuries to lay. The lure of immediate returns in cash, makes it more difficult to retain the bush lots that remain and their disappearance adds to the cost as well as the peril of farm management. As these wood lots become separated and thin, the trees

fall more easily and if pastured by live stock the roots are tramped and cropped bare and the trees begin to die at the tops. It takes time to grow shelter belts of maple or spruce, about the homestead or orchards, but it is surprising what a few years will accomplish and after the planting there is little trouble, no investment affords more satisfying returns. Carrying storm insurance adds materially to the cost of farm management. In some quarters farmers may handle this problem among themselves by a mutual plan or by having the mutual township fire insurance companies incorporating as a side feature at moderate cost protection against storms.

The real value of a well grown forest tree is not just the dollars that it will sell for. As a maker and conservator of fertility, as a shade for stock and windbreak, its worth is probably ten fold. It adds an annual coat of leaf mold to the soil and prevents erosion and waste.



Grand Champion Steer Herd at Chicago.

Fenced and properly nurtured it becomes a sure and speedy source of fuel which people appreciate as never before, under the terrorism of coal mine strikes and failing natural gas supplies. As trees disappear climate becomes less equable and soil wastage from torrential rains more severe. They check evaporation, and spreading branches, twigs and foliage break the force of heavy rain fall and filter it gradually upon the earth, making the distribution of moisture more beneficial. It is folly nowadays to establish an orchard without shelter for an entire season's crop may be swept off by a few hour's wind. In fruit growing sections like California where water and soil protection is more keenly appreciated than in Canada, experts put the conservation benefits of a good-sized tree at a capitalization of from \$500 to \$1,000.

Whatever may be accomplished in reforesting blow sand districts or the denuded timber limits of Northern Ontario, there is immediate and urgent need of setting in motion a policy of promoting tree planting and conserving what remains of Old Ontario wood lots. Measures left to municipal option are liable not to get us



In the Track of the Gale.

anywhere and there appears to be need at least for a thorough-going campaign of education. Whatever may be undertaken by the new Provincial Government, readers of these lines, realizing the value and pressing need for more trees can at once plan for generous plantings in the coming spring.

Middlesex Co., Ont.

ALPHA.

The calamity howlers are already busy with the provincial political situation. One prophet recently predicted that within eight years the doctors and lawyers who have been crowded out of the legislature by rural representation would all own farms and be able to qualify as rural members. No one will find fault with this reform as a corrective for rural depopulation, provided they live on their farms and work them.

Agriculture in New York State Cont'd.

KILLING QUACK GRASS.

Quack grass had been a common pest in New York State years before any of us farmers around London had ever seen it. I remember my uncle trying to describe it to us when he was over here on a visit nearly forty years ago. And about that time the farmers there in discussing crop prospects might be heard to say that their corn was pretty "quacky." So much to show that the New York farmers have had long experience with this vigorous pest and know what they are talking about when they discuss it.

At Hall's Corners, about midway between Geneva and Canandaigua (though lately since the village has become a very important shipping centre and the site of that "Kraut" factory mentioned in former communication, the Corners have been rubbed off and it is known as Hall or Halls) there lives a man who was born and brought up near London, his parents being from that sound old country spot, Aberdeen. He worked for years as a ploughman and a general farm servant in this country and after he left for Halls, N. Y., where his home has been since 1868. He is known to his friends as "Alek" and is of that class that would not tell a lie for love or money. That is what those who know him believe at least. Though getting into another line of business he never lost his love for the soil, and having a good team and some time to spare he has been in the habit for years of renting a field for the growing of a cabbage crop.

This is his quack grass story. One year the field he rented (giving particulars as to owner and location) was just "full", his own words, "of quack grass." Through some hints dropped by another, followed up by after experiments of his own, he had come to believe that the most effective way to deal with that was not to bring the roots to the surface to be dried off but to keep them under, to cover them. Of course, it will be understood, that when "roots" are mentioned in common speech, rootstocks are what is meant. Applying the principles he had come to think were the correct ones he ploughed the field in question early in spring and deeply. The idea was to have no rootstocks left near the surface. He then kept close watch of the field and as soon as any green appeared he harrowed with a light harrow. The intention was to cover the tiny blades, not to cut them. Then he waited and watched. As soon as green appeared again, "and mind you", said he, "I didn't wait after that." He harrowed again and lightly, not to tear up but to cover. That one treatment was repeated again and again though towards the close of the spring he noticed that the grass did not show so quickly as at first, it seemed to be growing weaker. This treatment was pursued steadily in spite of jeering remarks of neighbors. The owner of the field in particular kept telling him "You'll never kill quack grass in that way." Wait a while and you'll find the roots as live as ever.

Just before the cabbage was planted about the end of June, the field was ripped up good and deep with a cultivator. "And", Alek declared most positively and seriously, "I never had to hoe a blade of quack grass all summer." Cultivation of cabbages, it should be remembered, is very frequent and thorough, a straddle-row riding cultivator being used.

In the fall one day when the owner was passing, Alek called to him and said, "Come over here, I have something to show you." He dug down into the ground and there towards the bottom of the plowing were handfuls of roots that could be pulled up dead. Not only dead but rotten. The job was complete.

A little experience of my own tends to make the above story credible to me at least. A corner of a field next to an open ditch had become thoroughly infested with quack. It was impossible for it to be any thicker. By degrees the land plowed had been receding from the ditch as the grass kept crowding in. At last it was determined to plow back to the old mark, which meant taking in a width of four or five feet of solid quack grass of about twenty-five feet in length. Sugar beets were sown alongside and on this strip as well, but the two rows on the infested width, while they came up, scarcely grew at all for weeks and weeks. The one treatment given was to hoe the grass off every time it showed itself. After a time it began to weaken, the sod started to rot, and the beets to grow. They never quite caught up to the others though they came pretty near to it, and the grass was practically killed.

One further remark about the treatment given that special field at Halls, N. Y., may be permitted, that is the thorough and prompt manner in which it was applied. It was always harrowed at the proper time and not two or three days afterward, and the treatment was relentlessly pursued to the end. Thoroughness always counts and nowhere more noticeably than in the handling of the weed problem.

T. B.

CANADA'S YOUNG FARMERS AND FUTURE LEADERS.

Sweet Clover Growing

EDITOR "THE FARMER'S ADVOCATE":

I thought I would give some of my experiences in sweet clover growing—some of my troubles and trials, for sweet clover won't grow everywhere. Perhaps that will surprise some. It doesn't pay to sow sweet clover on heavy clay land, sandy loam, wet, boggy land, or in fact on any land that lies under the water, or is wet