Farm Water Supply

R. S. Stevenson, Wentworth Co., Ont.

The necessity of procuring a supply of pure and wholesome drinking water for his family and his live stock is a matter to which many of our farmers do not pay sufficient attention. One would think that a matter that so closely concerns their health would receive the greatest attention. There is no doubt that a great deal of the sickness amongst the rural population is caused by unwholesome drinking water.

The Agricultural Department at Ottawa have been, for a number of years analyzing numerous samples of drinking water sent to them for that purpose from all over the Dominion. The result of their analysis has gone to show that a very large percentage of the samples were dangerous for people to drink and a much larger percentage unwholesome. Now, we must remember that this does not truly indicate the percentage of impure waters that we may be using, as very few people would take the trouble to send a sample of drinking water for analysis unless they had some grave suspicion either from the taste or the smell of the water that it was unwholesome. But they have found that some of the apparently best samples of water were the worst polluted. So we cannot be certain simply because water does not taste or smell badly that it necessarily is a wholesome water for drinking purposes.

The chief sources of pollution of our well waters appears to be the soakage and drainage from farm yards and houses. As a matter of fact, many of our wells have become little better than cess pools, and it is entirely our own fault, as here in Ontario we are blessed with springs, of the greatest purity in their natural state. With wells that are located in barn yards or close to the back doors of the house if they do not happen to be dug through a very impervious soil, it is only a question of time when the soakage will pass down and enter the well. A well that makes a sudden rise after a rain, is one that should always be regarded with suspicion. There are only two causes to which you can attribute the sudden rise, either the water has got in over the top or else it has passed rapidly down through the soil. Either of these are bad if the surroundings of that well are not what they should be. The soil itself is a great purifier no doubt. But, when it becomes saturated with polluted matter it is worse than useless as a filter.

To the dairyman this water supply is of the utmost importance. It is impossible for cows to give a good flavored and wholesome milk, if they are compelled to drink bad water. There are cases on record where bad flavors in milk have been traced to bad water that the cows were drinking. It is nothing short of criminal for a man who is supplying milk for household use in our towns and cities, not to see that his cows have pure clean water to drink.

At the present time the necessity does not exist for locating our wells as near the buildings as formerly. By means of one of the small pumping wind-mills the water can be forced a long distance. In many places there are flowing springs in which hydraulic rams can be installed, and by this means water can be raised and forced long distances. The writer has had a ram in operation for over twenty five years, raising the water one hundred and thirty feet and forcing it fifteen hundred feet in distance.

I would urge on any one who is thinking of digging a new well to locate it more with a view to having it give him a supply of good wholesome water, than to having it so very convenient. A farmer cannot spend money any other way that will pay him as well as that which he lays out in putting in a supply system, not only, for his farm buildings, but also for his house.

Tailing should be done when ten days old or sooner, and castrating ten days later; two operations, so often neglected at a loss of thousands of dollars annually to our sheep growers. —Jno. Campbell, Woodville, Ont.

$101 a Piece from Dairy Cows

Editor, The Dairyman and Farming World.—I am justly proud of the record my cows have atained, but I think that still more can be accomplished under more favorable circumstances. I would like particularly to say a few words that might encourage dairymen who are keeping only a few cows, and to show them that good money can be made out of cows when properly cared for

Ten years ago I started with some three or four cows that I had at that time. They were not any better than those of my neighbors. I began to feed and care for them as well as I could and soon got good results. I never bought any expensive cows, but selected as carefully as I could, often buying them very thin. In this way I have obtained some very good ones.

Under no circumstances allow your cows to get thin or out of condition. Always keep them so that they are willing and able to do their work. I feed some chop or bran the year round. When the pasture is good just a little but as the feed in the field gets poor I increase the meal in the stable. At the present time I am feeding to eight cows a ration of bran 12 pounds, corn and oat chop 15 pounds, cotton seed meal 7 pounds, that, with a pound of salt thoroughly mixed and slightly moistened is divided among them twice a day, not equally, but just as I think they can utilize it. I give them also two feeds of hay and one of straw as well as roots until they were done in April. I find that it pays to feed well early in the winter as it is harder to keep up the flow of milk then than later on. Then keep your cows comfortable. My cows are out every day for a little while to drink and exercise, but I don't allow them to get cold and I always try to keep the stable at as even a temperature as possible.

To make a success of dairying one must lay considerable stress upon thorough milking. Do all you possibly can to get your cows in the habit of milking. This is easiest done with a heifer, but even with a cow it is wonderful what can be done to keep up the flow.

Speaking of the results of care and feeding, last year I had eight cows which from January 1st to December 31st brought us in from all sources, counting butter, skim-milk, and veal calves, one hundred and one dollars a piece. I consider what I have done anybody else can do as I merely made the best of what I had at hand without going to any extra expense except the feed.—D. W. Miller, Waterloo Co., Ont.

Tree Surgery

J. C. Chapais, Assistant Dominion Dairy Commissioner, St Denis, Quebec.

Surgery is an art and more of application to man and beast than to trees, if we regard the word in its general acceptation; but, as will readily be seen while following the development of my subject, the word "surgery" is much better than any other one to qualify the kind of operations I am going to describe for the preservation of ornamental and fruit trees.

This paper has been written less for the benefit of owners of large orchards covering acres and acres of land or of forest-like parks, than for the proprietors of small orchards of one or two acres in extent or of a few ornamental trees around their houses and farm buildings. The owners of large orchards or parks can, without much detriment, suffer the loss of a few trees through the action of heavy falls of snow, the violence of stormy winds or the overbearing of fruit and, furthermore, it would not be practical for them to undertake the restoration of a large number of broken trees on account of the high cost of the operation. On the other hand, farmers owning small orchards and proprietors of village lots surrounded by ornamental trees, have a great interest in keeping all the trees they have in their orchards and on their lots in the best of condition and shape. They cannot afford to lose, without suffering much disadvantage, a fine tree about 15 or 20 years old, occupying a prominent place on their small holding, especially if there is some way of preserving it.

TREE PRUNING AND TREE SURGERY

I do not mean to speak of pruning, while referring to surgical operations to be made on damaged trees. To nip a new shoot, to cut out a small branch with the pruning knife, to shorten a young limb with the pruning shears, to remove a large branch with the pruning saw, all this means, pruning. But, to preserve two branches broken by the splitting of the fork of the tree where they were united, to straighten bent or broken-down limbs, to set upright a branch growing crooked from the trunk, this is tree surgery.

OUTFIT FOR A TREE SURGEON

The tree surgeon should have a good and complete set of instruments to perform his operation; namely: a hatchet, a hammer, a saw, a chisel, a monkey-wrench, a brace, with an assorted set of bits, two or three gimlets of various sizes and a piercer. Then, he should have in readiness a good assortment of bolts of all sizes, from one half inch to eight inches, with nuts and washers, assorted wire nails from one to three inches, some galvanized wire of 8, 10, 12, and 14 gauges, an assortment of hard-wood splinters of various sizes, strips of cotton two or three inches wide and grafting wax.

SPLIT FORKS OF TREES

There are three special classes of surgical operations to be performed on trees, to preserve their limbs and their shapes. Sometimes a tree is split in the first fork from where the largest limbs branch off. This happens most often, in winter, after a heavy fall of snow, and the damage thus caused is noticed only in the spring. There are two ways of dealing with such an accident. If the tree is rather small, cut clean with the chisel all the inside splinters so as to obtain a smooth surface of adherence, taking good care not to touch the bark; tie the branches closely together with a rope, in order to bring the two split parts face to face; go through both with a wire nail long enough to protrude outside; clinch the point of the nail with care, make a good application of grafting wax so as to prevent the introduction of air, water and insects. Wrap the united parts with strips of cotton cloth round and round and overlapping. Then, take off the rope and, after two seasons of growth, take away the cotton, if it is still there.

With big trees, the operation is a little different. The first part of it is performed as told above. But, once the branches are to be tied with a rope in order to join them together, you may have to raise them with a piece of board put under them, while another person lifts them up. Then you proceed to make a hole with the brace and bit and instead of a nail, use a bolt long enough to fit the diameter of both branches joined together. Always use washers and nuts with the bolts. Then continue and finish the operation as in the first case.

OPERATIONS ON YOUNG LIMBS

Sometimes you may have to deal with what I call the second class of operations. They are made on branches that have been bent down and kept so bent either by the weight