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Pure Water Supply for the Farm

By Frank T. Shutt, M.A.
Chemist, Dominion Experimental Farms

THERE is probably no healthier country in the world than Canada. We have bright sunny skies, pure invigorating air and an abundance of fresh, wholesome water, and these must be considered as among nature's most valuable contributions to the Dominion, since they constitute means of the highest order towards the maintenance of good health of her people. If the health of our citizens in town and country is not what it might be, may we not well ask if the cause does not rather lie in our ignorance or negligence than in natural conditions unfavorable to good health? Do we not need a greater realization, a keener appreciation of the importance of fresh air and sunshine in our homes, of the better cooking of our food, of sanitary conditions generally, and the protection from pollution of our water supplies? The facts go to show that we do, and the first step towards this realization and appreciation is education, instruction. We cannot, with impunity, ignore these matters of air, sunshine, food and water, so vital are they in their essence. Our farmers must know something regarding them if they and their families are to enjoy vigorous, good health and their stock be kept thrifty. It has long seemed to the writer that a campaign of instruction on these subjects might well be carried on throughout the length and breadth of the land, with the results of the greatest importance to the health, comfort and good living of our people. There can be little doubt but that the information so given would be equally as valuable in bringing forth good fruit as that so freely supplied by our governments respecting the tillage of the land and the care of stock.

But the purpose of this article is to deal with but one of these vital topics—pure water on the farm. It is with a knowledge of Canada's waters, gained from more than twenty years' work and close observation, that the writer can unhesitatingly affirm that the waters of our lakes, streams and springs are naturally of the purest. They differ somewhat, certainly, in their character according to the geological formations over which and through which they flow—some are soft—others are hard—but save in certain more or less restricted areas, as for instance in parts of the Northwest provinces where semi-arid conditions prevail, the natural waters of the Dominion are wholesome and well adapted to domestic use. This may appear to some as a sweeping statement, but it is nevertheless true; there is probably no better watered country in the world than Canada.

And irreproachable as is the quality of the water in our lakes, streams and springs, the underground, deep-seated waters are not inferior—indeed for the most part they are organically purer. Falling as rain and snow, the water percolates through the soil—Nature's own filter—and porous rock until it finds an impervious bed barring its deeper passage. It is to these subterranean reservoirs, as we may term them, tapped by drilled or bored wells, that we must look, in the larger number of instances for our supply. In certain parts of the country the water from such wells may be found too highly charged with mineral matter to be agreeable to the palate. But this is by no means common or general and we may always rest assured that such wells, provided they are protected from surface wash and local sources of contamination, will yield water of the highest degree of organic purity and free from disease-producing germs.

Perhaps the very first fact to be hammered home in this matter of education regarding the farm water supply is that there is a very real and intimate relationship between good water and good health, and that on the other hand there is a very serious and grave danger in using a water that has even remotely received pollution, unless it has been previously subjected to some efficient method of purification. Experience, the greatest and most reliable of all teachers, enforces these conclusions upon us, and science stands ready to confirm experience and furnish the reason why.

What then is the nature of this pollution that is so much to be feared and what are its effects on the system? Simply, it is

excrementitious matter. Its presence means that the water contains readily putrescible matter and probably—most certainly in summer time—is teeming with bacterial life. Some of these bacteria or germs may be harmless, having little or no effect on the health of those drinking the water, but if the germs of disease—typhoid for instance—obtain an entrance into the farmers' well—and this is by no means an uncommon occurrence—they find therein conditions favorable to their rapid development and the water at once becomes a most dangerous source of infection. It should never be lost sight of that the direct cause of many serious disorders is contaminated water—indeed such water is by far the most common means of disseminating certain diseases and causing an epidemic. Typhoid fever, that fearful scourge, starts out as the most prominent of these water-borne diseases—but it is only one of many.

But apart from the possible presence of disease germs, the writer has always held that there is a very serious danger in such polluted water from poisonous organic compounds arising from the decomposition of this sewage material. Undoubtedly these are in many cases responsible for various disorders of the intestinal tract—diarrhea, sick headache and other derangement of the system. And to conclude this outline of the danger that lurks in water containing excretal products, the insidious character of such water must be emphasized. This is an aspect of the question that is generally lost sight of. Bad water may go far towards the general undermining of the health, but until the victim is stricken the well goes unsuspected.—Canadian Farm.

FARMER'S WAREHOUSE

A Spokane, Washington, dispatch says: The Farmers' Warehouse Association of the Inland Empire, controlling approximately 40 per cent. of the sixty million odd bushels of wheat harvested annually in Eastern Washington and Oregon, north and central Idaho and Western Montana, will be formally organized under the direction of officers of the Farmers' Educational and Co-operative Union of America in Spokane on June 10. The purpose is to pool the grain grown in this part of the northwest and sell it in lots of 100,000 bushels and upwards direct to millers and exporters, charging the growers not more than one cent. a bushel for handling and marketing.

L. C. Crow, of Garfield, Washington, state president for Washington and Idaho of the Farmers' Union, who was elected temporary president of the Farmers' Warehouse Association, says it is proposed to make a campaign to enlist all farmers in the northwestern and coast states in the movement with a view to controlling the grain output and bringing the industry upon a profitable basis. No attempt will be made to advance prices, he added, but rather work to eliminate the middleman and let the farmers have the profits.

Former State Senator R. C. McCroskey, of Garfield, one of the bonanza wheat ranchers in the Inland Empire, said of the plan: "By forming into a compact organization the farmers will be in much better position to deal with the middleman and even with the railroads, although the latter are not of as vital importance to the growers. The federation will have the power by a two-thirds vote of its membership to levy a tax on all produce stored in warehouses for the maintenance of agencies, and it is also provided in the constitution that agents shall give bonds to the association."

LANDS SOLD HIGH.

The school lands sale at Francis, Sask., June 10, was attended by over five hundred buyers. The bidding was brisk at times, one quarter selling for \$44.50 per acre. Several quarters went from \$39 to \$40 per acre. Two hundred quarters were sold at an average price of \$16.64 per acre. This is considered very high, being nearly a record for this province. Several sections remain to be sold tomorrow, and the price of these will raise the average. The total sales were well over the half million mark.

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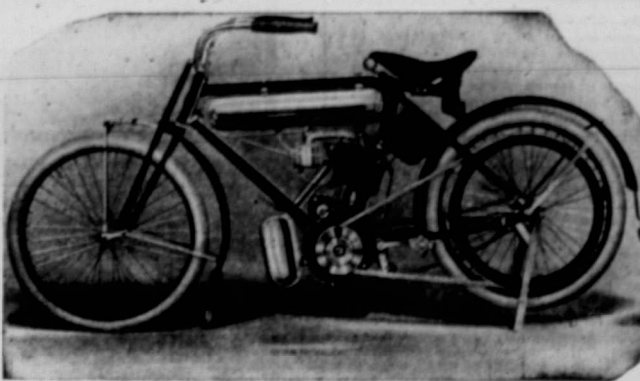
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