The Farm

Timely Articles by the Ontario Department of Agriculture, Toronto

MANURE WASTE COSTLY

Losses Run Into Millions of Dollars Annually.

Waste Begins In the Stable—Manure Should Be Put on the Land Early—Chemical Value of Barnyard Manure — Wood for Fuel In Terms of Coal.

(Contributed by Ontario Department of Agriculture, Toronto.)

On many farms animal manures accumulate about the buildings and are permitted to waste. The average farmer appreciates the value of the farm manures, but he dislikes the task of giving these materials the attention that their value in keeping up soil fertility warrants. The handling of animal manures is not a pleasant task at any time, but the following of a proper system would reduce the disagreeableness of the work and at the same time prevent waste. The average farmer of Ontario wastes the fertility value of the manure by at least one-third just through neglect in management.

Loss Runs Into Millions of Dollars.

With the ordinary one hundred acre farm producing two hundred tons of manure each year, and valuing this at $2.50 per load, then figuring on one-third waste through neglect, we have an annual loss in soil fertility through failure to return all value to the lands of Ontario that aggregates many millions of dollars. We owe to the soils of our farms all the fertility that it is possible to return to them. The manure waste of the past fifty years on the farms of Ontario would aggregate a colossal sum. This waste will be appreciated more by the future tillers of the soil than by those who have permitted the waste. When there is an abundance, wastes are not noticed, but when soils fail to produce abundantly some attention is given to those factors that will maintain or increase soil fertility.

The Waste Begins In the Stable.

Waste of manure usually begins in the stable, leaky gutters, or no absorbing material to hold the liquid portion of the manure. From the stable it is thrown out sometimes piled but more frequently not, and left exposed to the weather to lie around for months. Manure incorporated with the soil as soon as made sustains the minimum loss. It is impossible of course to incorporate manure with the soil during the winter, but frequent opportunities occur when manure may be applied to the land. Accumulations during the periods when it is difficult to team the manure on to the land occur in the spring and autumn. These accumulations are best taken care of within the shelter of a manure shed, or if such is not available, then by piling in such a way as to reduce waste to a minimum.

Get Manure on the Land Early.

The most successful of our farmers aim to get the manure on the land as soon as possible. When conditions on the land are not favorable to the application of manure they take care of this by-product by first providing sufficient absorbent material to hold all the liquids, piling the manure in a manure shed, keeping it sufficiently moist and firm enough to prevent heating until it is desired to apply it to the land. Many of the Old Country farmers store the manure in water tight pits, pack it by tramping sufficiently tight to exclude all the air possible, and then turn on the hose as frequently as necessary to prevent heating. The same system would do as much for the Ontario farmer as it is doing for the Scotch farmer.

The Chemical Value of Manure.

If we had to buy manures at prices equal to the retail commercial fertilizer prices better care would be taken of this soil fertility material. Few farmers realize that the manure from a horse weighing 1,000 pounds is worth at chemical fertilizer prices $42.15 per annum. A dairy cow weighing 1,000 pounds will produce manure to a value of $39 per annum. A farm carrying four horses, ten cows and ten pigs of average weight produces, if valued at retail prices for commercial fertilizers, $640 worth of manure in a year. The unfortunate part of it is that from $100 to $300 worth of soil fertility elements are permitted to waste on too many farms each year. The next time you travel by auto or railroad just take note while passing farm barns how much waste is going on through the careless handling or no attention being given to the animal manure.—L. Stevenson, Secretary, Department of Agriculture, Toronto.

ABOUT THE FARM WELL

A Most Important Factor in Agricultural Work.

Purity of the Water a Great Essential — Location Also of Importance — Construction Described—People on Farms Live Longest.

(Contributed by Ontario Department of Agriculture, Toronto.)

The well is the usual source of the farm water supply, and a good well, that is, one which supplies plenty of pure fresh and wholesome water the year round, is certainly one of the most essential and valuable assets of the farm. Without it no man could live there for long, to say nothing about bringing up a healthy family, or building up an efficient dairy herd. The well must be there first and last and all the time, and we cannot conceive of an intelligent man buying a farm without a good well if he intended to live on it and make it pay dividends.

A Good Water Supply Is Common.

Fortunately most of Ontario's farms are well supplied with water, in fact it is a rare thing to find a farm where it could not be secured in sufficient quantities by drilling to reasonable depths. The supply, therefore, will probably never cause us any serious worry, but judging by a recent report on analysis of many well waters from this province one seems justified in concluding that there is still need for education of the rural public in regard to the protection and care of the farm well. The following suggestions will be found helpful to any farmer desirous of making his water supply safe against possible underground and surface contamination.

Location of the Well Most Important.

The first step in the solution of this problem of purer water supply is the location of the well. This should be by all means on ground higher than any source of contamination such as barnyard, cesspool, or outside privy. If there should be no choice in location and this cannot be done, then the well should be kept a considerable distance from such contaminations, at least 100 feet in clay, and 200 feet or more in sandy soils, and the cribbing and top of the well specially protected as detailed later against the entrance of any seepage and surface washings.

How to Keep the Water Uncontaminated.

In the second place the cribbing for at least ten feet below the surface should be made impervious to water so that any contamination in solution reaching the well would have to pass down through this extra depth of soil before getting into the well, when in all probability it would be taken up by the soil and never reach the well water. This may be done in case of an old well by putting a wall of puddled clay one foot thick and ten feet deep around the well cribbing, and in case of a newly-dug well, or recribbing an old one, by using large concrete tile for the cribbing and setting the joints thoroughly in rich cement. Before the tile are placed in the well the outsides should be washed with pure cement plaster in order to fill up all pores and make the tile absolutely impervious to soil waters. Thirdly, the cribbing should be extended at least one foot above the ground level, and the soil banked up to the top of it, to provide good surface drainage away from the well. Fourthly, the well should be provided with a strong and tight-fitting cover made of heavy plank or concrete so that it will always be safe for man and beast, and proof against the entrance of dirt, small animals like frogs, etc.

Using a Second or Dry Well.

Even better still, the pump may be placed over a shallow dry well to one side and the top of the real well made absolutely tight by a concrete cover. In this case the well should be ventilated by putting a small iron pipe, with the exposed end turning downwards, through the top or cover. And, fifthly, the stock should not be allowed to tramp about close to the well.

What has been said refers chiefly to dug wells, but even the drilled or driven wells should be well drained and protected at the top, for otherwise contamination may work down along the well casing and reach the water, especially if the casing is not tightly driven into the rock below.

Attention to such matters of construction and protection of the farm well as here detailed, and an occasional pumping out and cleansing of the well with a little lime, will assure a pure and wholesome water supply.—R. R. Graham, O. A. College, Guelph.

Place for Horses to Roll.

Where horses are closely confined in stalls most of the time, they are more apt to roll in the filth and manure than if they had been taken out and allowed to roll once a day. Letting them roll outside of stalls saves much currying and brushing, avoids the possibility of the animal rolling where it would get fast, and adds to its health and vigor by keeping it cleaner.