

peat deposit on your farm or available in your neighbourhood don't neglect to use it in this way.

THE APPLICATION OF MANURE.

In so far as it may be practicable the manure should be drawn daily, fresh and direct, from the barn and stable to the land. For this purpose, as long as the condition of the soil permits and there is little or no snow, use the manure-spreader (into which the manure from the carrier has been directly dumped) and distribute at once. This practice means not only a great economy in labour, but the prevention of losses in plant food and humus-forming materials that inevitably follow the accumulation of manure in the yard or piling in the field. It means also an equable and uniform distribution on the land—a matter of no small importance.

When the snow lies deep upon the ground, still draw out the manure to the fields—daily if possible—but instead of spreading pile in small heaps of 200 to 400 pounds each. Fifty heaps of 400 pounds or one hundred heaps of 200 pounds each to the acre would mean an application of 10 tons.

With the advance of spring and the disappearance of the snow the piles of manure, now possibly elevated a foot or more on a foundation of snow, are turned over and, when free from frost, scattered.

The advice given in this circular as to the winter application of manure is based on the results of experimental work conducted chiefly at the Central Experimental Farm, Ottawa. These experiments proved:

1. That manure left in a loose pile in the yard suffered very considerable losses, chiefly through the leaching away of soluble nitrogen and potash compounds, but partly through fermentation (heating) and consequent destruction of organic matter with its nitrogen. In the course of a few weeks these losses may amount to one third or more of the initial value of the manure.

2. That manure in large heaps or piles—whether in yard or field—heated rapidly, even in the coldest weather. In the course of three months—January to March—manure so piled lost, chiefly through excessive fermentation, 60 per cent of its original organic matter and nearly 30 per cent of its nitrogen.

3. That heaps of 400 pounds each, put out on the fields fresh from the barn and stable (mixed manure) showed no sign of heating throughout the experiment, January to March. For the greater part of the period these small heaps were frozen through and careful analysis made immediately before scattering them in the spring showed that while frozen there had been absolutely no loss, either in plant food constituents or organic matter.