

Averaging results we find from 40 to 50 per cent of the total nitrogen excreted by farm animals is in the liquid portion; in the case of the cow the proportion frequently exceeds 50 per cent.

TIGHT FLOORS AND GUTTERS.

Thousands of dollar's worth of plant food lie beneath old barns and stables in the Dominion due to leaky floors and gutters. The **first** step towards saving the liquid manure is to see that the floor upon which the animal rests and the gutter **behind are sound and liquid-tight.** A concrete floor and gutter solves the problem in the most complete and satisfactory way but if this is not practicable at present, put the plank flooring and gutter in the best possible state of repair. Litter cannot perform its function of absorbing the liquid if the floor and gutter are faulty.

USE SUFFICIENT LITTER.

The **second** step is to use sufficient litter or bedding material to take up all free liquid.

Straw is the bedding material almost universally used on the farm. It will absorb from two to three times its weight of liquid. If the supply is scanty—and the past season has been a poor one for straw in many districts—it will pay to cut all the straw used as litter, for finely cut it will absorb about three times as much liquid as uncut.

Dry Sawdust and Fine Shavings can be recommended as clean and satisfactory bedding materials. Their absorptive capacity according to fineness and dryness is from two to four times that of ordinary straw.

Peat Moss, commonly known as moss-litter (sphagnum) makes admirable bedding; it is soft and absorbent. It will absorb about ten times its own weight of liquid and possesses the further advantage of being able to retain any ammonia that may arise from the fermentation of the manure in the stall or outside.

Muck and Peat when air-dried make excellent absorbents. They are being used as such to good effect on many Canadian farms. Deposits of these materials are of no uncommon occurrence in many parts of the Dominion and their value in this connection is fairly well known. Digging and piling are all that is necessary. Their use generally is supplemental to the bedding proper, being found more especially valuable in the gutter behind the cattle, and in and about the farm buildings where there may be liquid manure or drainage to absorb. This employment of muck can be strongly advised since thereby not only may a saving of much liquid plant food be effected at little cost but the bulk and value of the resulting manure very considerably increased by the organic matter and nitrogen of this naturally-occurring fertilizer. If there is a black muck or