Farm Practice and Management

Contributed by Officers of the Fields Division

It Pays To Make Farm-yard Manure

FARM-YARD manure is a valuable fertiliser made from the litter, dung, and urine of animals. It contains nitrogen, phosphoric acid, and potash in various degrees of availability to the plant, and also supplies humus to the soil. Urine contains most of the nitrogen and potash of the food in a water-soluble and available form. The nitrogen and potash are, moreover, comparable in their effect with quick-acting, synthetic fertilisers.

The litter is poor in the three fertilising constituents, but it supplies most of the humus, and acts as a retainer for much of the urine in the manure. The dung consists of indigestible residue of the food ingested, and contains nitrogen, phosphates, and potash, usually in an insoluble and comparatively resistant state. Together with the litter or bedding, it supplies humus to the soil.

Essential Foods

Surprisingly large quantities of the three essential plant foods—nitrogen, phosphate, and potash—pass through the animal system, and it has been calculated that although only one-half of the solid matter of the food reappears in the manure, about three-quarters of the nitrogen and nine-tenths of the phosphate are voided. These proportions will, of course, be reduced for growing animals and increased for full-grown stock.

There is considerable variation in the quality and character of farm-yard manure, depending on the kind of food and animal and the manner of storage. Thus, horses produce dry "hot" dung, which ferments and acts quickly, whereas that of cattle and pigs is "cold," slow-acting and more durable.

The quality of the manure is largely determined by the manner in which it is stored. In New Zealand very large quantities of cow and pig excreta are wasted annually solely because proper steps are not taken to conserve this valuable fertiliser.

Saving Manure

Some farmers have recognised this fact, and have devised means of saving both solid and liquid manure with the least amount of wastage. A certain amount of the nitrogen cannot be prevented from escaping in the form of ammonia. Where dung is exposed to sun, wind, rain, and seepage, the loss may be as high as 30 per cent. of the total ingredients.

Farm-yard manure is best made if kept wet enough to rot and sufficiently consolidated to rot slowly. These two ends can be well achieved by depositing new dung over the old in a pit, preferably constructed of concrete to hold the moisture.

The making of farm-yard manure involves a certain amount of work, but is it beyond doubt that this is amply offset by the subsequent value and return from crops by the applications of this fertiliser. Whether used for cropping or on pasture, it is best applied in the autumn so that it holds winter rains and is well rotted in spring or early summer.

—A. M. LEE, Fields Instructor, Whangarei.

The following stock were imported during the year ended 31st March last: Cattle, 33; sheep, 839; pigs, 24; horses, 18. Of the above animals, the following were placed in quarantine for the respective periods required: Cattle, 33; sheep, 14; pigs, 24; horses, 12 (trotters from the United States of America). During the year under review the following animals were exported: Sheep, 10,742; cattle, 97; pigs, 22; horses, 6. There was the usual movement of thoroughbred horses to and from Australia.