

run from manure heaps. These usually contain humate and ulmate of ammonia. This drainage is black and often offensive; but it is not in any way pungent, and the reason of this is, that the ammonia is not present as carbonate of ammonia.

53. The successful fermentation of the manure heap is very largely dependent upon the **temperature** at which it is allowed to proceed. The chief condition of success is to avoid loss. If the ammonia formed in the heap be allowed to take the form of a **carbonate of ammonia**, and pass away into the air, the work is a failure by reason of the **most valuable portion** having been lost. If on the other hand the fermentation be so controlled that the **ammonia is preserved**, then we may fairly consider the **management a success**.

54. The temperature may be easily regulated by a judicious use of water. The manure should be **kept moist** without being drenched, and the soakage from the manure should be used for this purpose. You may naturally enquire how you are to know when the manure requires more water? If on moving any portion you find any pungent smell of ammonia, be satisfied that it requires to be moistened; or if you find the manure dry or having a mildewed appearance, you may know that it should have been moistened long before then. A want of care in this respect involves **great losses** every year, for the ammonia lost is our most expensive manure. Many farmers waste it by sending it into the air, and then go to market and buy some more at £100 per ton.

55. You must also understand that there is another way in which this ammonia is lost, and that is, by allowing **too much water** to fall upon it, and wash out the black matter already referred to, and this too often runs into the roads and ditches, and is lost. Farm-yard manure is thus seriously injured, from