

Successive grain crops on them, unless the organic elements abstracted by the crops are again restored to the soil in the shape of manures.

10. Deep plowing is beneficial on all soils that are not wet, and is the most so when done in the fall.

11. Two successive grain crops on the same ground leave the land in a foul state.

12. Summer fallowing, although apparently a waste of land and labor, is the most efficient means we have of preparing clayey soils for wheat. It ameliorates the soil, enables the seeds of all weeds to sprout and be destroyed, and, by constantly turning and exposing the soil to the sun and air, renders the inorganic elements contained in it more readily available to the roots of the wheat plant.

13. Barn-yard manure is best to be composted before it is applied to the land. It has then a greater value, weight for weight, than when in the long or unfermented state.

14. All concentrated manures, as guano, bone dust, sulphate of ammonia; etc., should be used sparingly at a time, and with a cautious judgment, and are best applied on or near the surface.

Scotch Mountain Sheep.

At the Connecticut Valley Fair, Isaac Stickney, of Boston, exhibited a pair of long woolled sheep, which were purchased in Scotland. Their wool is described as being of a better quality than any other long woolled breed—long, wavy and soft with no harsh or wiry feeling like most of the mutton breeds—peculiarly adapted to worsted stuffs, and the carcass is said to give the very best and highest flavored mutton. Mr. Howard says they live and thrive on their native mountains on very coarse vegetation. They are kept in very large flocks on the mountains and moors of Scotland—in flocks of 8000 to 15,000 often. Those in this country appear docile and quiet, have black or spotted faces with a symmetrical form of head, neck and body, unsurpassed by any animal of woolly kind. Mr. Stickney says lambs 4 months old weighed 80 lbs. each, live weight.

Deterioration of Manures by Fermentation.

It is a prevalent impression with the majority of farmers that a complete fermentation of farm-yard manure should take place before it is applied to the land; and a most common practice is to suffer it to ferment until the fibrous texture of the vegetable matter is completely softened so as to be readily cut with the spade. Such manure has lost all its heat, and may be termed cold manure. Now there are several excellent reasons why this excessive or violent fermentation should not be permitted, among which are the following:

Every observant farmer has noticed that whenever violent fermentation in the manure heap is in progress, a large amount of gaseous matter is evolved which of course is lost. Again there is always an escape of fluids which con-