

Fixed Principles in Agriculture.

All lands on which clover or the grasses are grown, must either have lime and every other inorganic constituent which may be found in the ashes of the clover if burned, or those minerals must be artificially supplied. All permanent improvement of lands must look to lime, potash, and other constituents common to plants, as its basis. Lands which have been long in cultivation will be benefited by applications of phosphate of lime, treated with sulphuric acid, so as to render it a soluble phosphate; supplied in the form of bone dust, composts of fish, guano, ashes or oyster shell lime.

All highly concentrated animal manures are increased in value, and their benefits prolonged by admixture with plaster, salt, or pulverized charcoal. Deep plowing greatly improves the productive powers of every variety of soil that is not wet, though the depth should be increased gradually. Sub-soiling sound land, that is, land that is not wet, is eminently conducive to increased production.

All wet land should be drained, and especially such lands as has heavy clay sub-soil. All grain crops should be harvested before the grain is thoroughly ripe. Clover, as well as the other grasses intended for hay, should be mowed when in bloom. Sandy land can be most effectually improved by the addition of clay. When such lands require liming or marling, the lime or marl is most beneficially applied when made into compost with clay. In slacking lime, salt brine is better than water.

The grinding of grain to be fed to stock, and mixing it with cut hay or straw, operates as a saving of at least twenty-five per cent. Draining of wet lands and marshes adds to their value, by causing them to produce earlier and a greater quantity and better quality, and improves the health of neighborhoods.

To manure or lime wet land, is to throw manure, lime and labor away. Shallow plowing operates to impoverish the soil. By stabling and housing stock through the winter, a saving of one-fourth the food may be effected; that is, one-fourth less food will answer than when such stock are exposed to the inclemencies of the weather. A good dressing of plaster or clover, when the land is deficient in lime and sulphuric acid, will add one hundred per cent. to its produce. Periodical applications of ashes tend to keep up the integrity of soils, by supplying most, if not all the inorganic substances. Thorough preparation of land is absolutely necessary to the successful and luxuriant growth of crops. Abundant crops cannot be grown for a succession of years, unless care be taken to provide an equivalent for the substances carried off the land in the products grown thereon.

To preserve meadows in their productive-ness, it is better to harrow them every second autumn, apply top-dressing, and roll them. All stiff clays are benefited by fall and winter plowings, but should never be plowed while they are wet. If at such plowings the furrow be materially deepened, lime, marl or ashes should be applied. Young stock should be moderately fed with grain in the winter, and receive generous supplies of long provender, it being essential to keep them in a fair condition, in order that the formation of muscles and bones may be encouraged and continuously carried on. Milch cows in winter should be kept in dry, moderately warm, but well ventilated quarters, fed and watered three hours a day, salted twice a week, have clean beds, and in addition to their long provender should receive roots. Full complement of tools and implements of husbandry are intimately connected with success.—National Agriculturist.

Fig Coffee.

A coffee substitute of roasted figs has been in the market in Australia for ten years, and is also prepared at present in Berlin. Recent tests of it indicate that it possesses a more agreeable flavor than the chicory substitute and has thus far been brought into the market free from injurious adulterations, often present in chicory coffee. Samples from Berlin, in the form of a coarse brown powder, including yellowish particles, formed an adhering, slightly gummy mass on being lightly pressed between the fingers, and possessed a sweetish, bitter taste, like caramel, and a corresponding odor. Australian samples, although mainly similar to the preceding, were slightly more pulverulent, and of a sourish taste, which fact, together with a chemical analysis, render it probable that cheaper, inferior, perhaps spoiled figs, had been used in its preparation. At its first introduction, wonderful medicinal properties were claimed for it in Australia, especially in affections of the lungs, etc., and it was recommended for nervous persons. Although it may be serviceable in such cases, it can hardly be considered medicinal, and the Berlin manufacturer claims that it is more wholesome than pure coffee, because it is less stimulating. In all cases it is recommended to employ an equal quantity of pure coffee with the substitute, and the color of the product is said to be exceedingly fine, as well as the flavor.—Sickle and Sheaf.

Potatoes on Rich Soil.

A correspondent of the *New England Homestead* does not believe in the theory of growing potatoes on poor, unfertile soil to prevent rot. He gives his last year's experience as follows, with a half bushel Breeze's Prolific potatoes: "I cut them in pieces of one and two eyes each, prepared my land, (a light chestnut loam, inclining to sand), by plowing a liberal dressing of compost manure and then putting a shovel of well rotted compost consisting of horse, cow and pig manure mixed, in the hills. The sets were planted two feet apart in rows three feet apart, were kept free from weeds, and hoed four times. From that half bushel of seed, I took up eleven barrels of potatoes for the table and two bushels of small potatoes for the pigs. There were no signs of rot or any other defect except a superabundance of very large tubers, too large for baking purposes. Better potatoes I have not had on my table at any time during the last ten years. The crop in 1872, on the same ground, was potatoes. From a five year's experience I am forced to the conviction that the potato should be as well fed and nursed as beets or cabbages. When I see fields of potatoes crowded with Roman wormwood, pigweed, cockleburrs and other foul stuff, I can't help feeling for them as one would for a family of small children with a dissipated father and a feeble, sickly mother—they need outside help and inside comforts."

It is estimated that only five per cent. of the butter sent to market is really choice. This means only five per cent. of farmers and of farmers' wives are neat and careful enough to make good butter. The loss sustained for want of those qualities may be rated at millions of dollars annually.

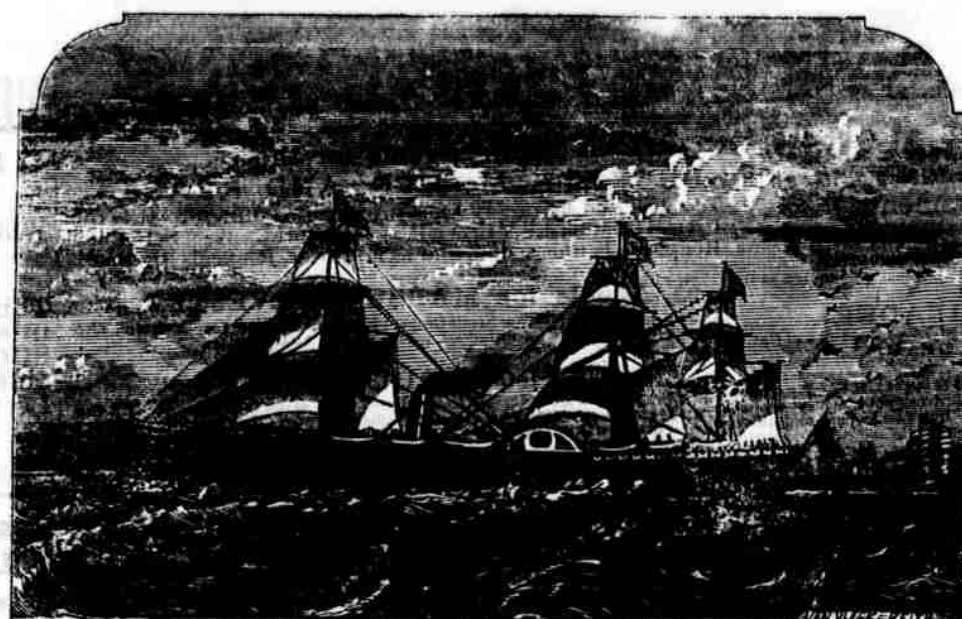
MARBLE is cleaned best with whitening moistened with a little water, just enough to make a paste. Wash off afterward with soap and water, dry and polish with a soft duster.

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