tity of manure that can be made from it, together with the *exhaustion of the soil*, and the relative cost of production and feeding out as compared with other crops, more especially with such as are of well established value in the climate, and suitable to the season of feeding and the locality where raised. All these questions must come into the estimate, deciding the real worth of any kind of produce to the ordinary farmer or farmer of moderate means. Nor is this all; for, in practice, we have to consider furthermore, of any crop we propose to feed, whether it be really adapted to the physiological habits of our animals, and suitable to the ever influential conditions of climate and season.

Through much of the discussion on this subject, these conditions of the root-crop question have been frequently merely hinted upon, or altogether evaded or passed over; the omission, as I conceive, being fatal to the value, and the real ground of impraticability in the views generally enunciated on this topic.

Feeding root crop, as bagas and turnips, to stock in the fall, is attended generally with inconveniences and results that do not pertain to or result from the use of dry food, as corn-stalks, hays, etc.., at this season. Late in autumn the grass crop, or its residue, becomes comparatively dry and more dry, till it approaches pretty nearly the texture, as to dryness, of hay itself; and therefore, when at length grass feed has come to an end, and stock is put upon dry food, it feels no ill consequences from such change of diet—the animal system having been gradually and consistently prepared, by the diminution of succulency incidental to grass feed of the season.

As deseases, sometimes of a serious charactor, result as frequently from sudden and great changes of diet as from other causes, if not more so, changes in the character of food, as from dry to green and succulent, must inevitably be accompanied by corresponding consequences, modified however by quantity and shelter. Hay and other dry food has peculiar value, arising from its natural fitness, and freedom from this objection. As the succulency of food is gradually diminished from its highest state in summer, to its driest in autumn, the systems of animals are in like gradual manner contracted in dimension by reason of the reduced proportion of fluids in their food; the contents of the system become more condensed, the whole muscular fibres more constringed, and the animal from, being less relaxed, more able to bear the cold snaps peculiar to autumn, as well as better adapted to the approaching severity of winter.

These snaps,—as they are designated,—come on generally without foreseen indications, or such premonitions as would be necessary to enable us to regulate feed according to temperature. This being impracticable, feed in the autumn should be adapted to the necessities of the system in cold weather, rather than its requisites when the temperature is warm; because the tendency of temperature is towards increased cold. Dry food is obviously more suitable than such as is succulent, because it is more constringing or rather less relaxing in effect. Bearing on this view is the well-known susceptibility of the system of any animal, to the influences of cold in proportion to its condition of laxity, at all seasons—more especially when exposed to the sudden and extreme changes of our fall temperature; and till the cold of winter becomes more equable, steady, and continuous. Food of a cold and watery nature, when taken into the system at such times, must necessarily absorb and neutralize, and thereby divert from its natural purpose of keeping the body