

Holsteins vs. Jerseys as Milk and Butter Producers.

It has been said that the best way to treat a boom is to puncture it. This loathsome excrescence on the social body then gets cured by collapse. Well, the "Record" boom appears to have been punctured, and Common Sense, with Moderation as his adviser, is king again.

For several years reports have been resounding through the agricultural press as to the quantities of milk produced by famous cows. We objected to the fairness of these competitive tests, knowing that every sensible and honest farmer demanded a record of the quantities of food consumed, or the cost of production. The cow which can stand the highest pressure of stimulating food for a few weeks is not necessarily the most profitable animal, or the most desirable basis upon which a herd should be built. These boomed up "records" were evidently calculated to mislead; and it is surprising that no attempt has been made to establish a relation between the quantity of milk produced and the length of the pedigree. These revelations are interesting and profitable for speculators; but what the farmer wants to know is the relation between the food consumed and the dairy products, as well as accurate information with regard to climatic influences and other circumstances.

In some recent reports we see a movement in the right direction, notably a practical experiment conducted in England with regard to the respective merits of the Holsteins and Jerseys. We do not present the results for the purpose of creating the impression that a few tests will be of any great service, but of showing that they were conducted on correct principles, and are valuable so far as they go. The Advocate will not be behind any of its contemporaries in publishing or supporting any records or other experiments so long as they are conducted on sound principles; but it shall never stoop to countenance any tests which are conceived for speculative or fraudulent purposes.

Two Dutch and two Jersey cows, of the same age and the same time after calving, were fed on correct rations for fourteen days. The former gave 962 pounds of milk and consumed 1,140 pounds of food, being one pound of milk from 1.17 pounds of food, the yield of butter being 23 lbs. 13 oz., or one pound from 47.8 pounds of food. The Jersey cows gave 542 pounds of milk, and consumed 766.5 pounds of food, being one pound of milk from 1.41 pounds of food, the yield of butter being 23 lbs. 3 oz., or one pound from 24 pounds of food. This test was made in July, but it was repeated in November with similar results. The cows were not stuffed for "records," but were rationally fed.

An experiment of this kind, in order to be complete, should extend through a whole season, and the milk at various intervals should be analyzed for the purpose of ascertaining its cheese making properties. We hope the system will be continued and improved by all practical feeders and dairymen. So long as the experiments are only influenced by honest motives and a desire to investigate and publish the truth, we will be willing to support any breed or kind that can be proved to be the best to meet our requirements.

The Farm.

Tricks with Potatoes.

Certain advertised alleged enormous yields of potatoes from single pounds of seed, in competition for prizes offered by a commercial manure company, are credited in the circular of the firm to "careful cultivation and liberal use of a high grade fertilizer," says the *N. Y. Tribune*. A sample statement is that "one bushel of seed at this rate would produce 2,558 bushels; and eight bushels—the amount of seed commonly used per acre—would produce 20,464 bushels." This showing is characterized by Mr. Stewart as "an attempt to extort money by false pretences"; and he criticises "those agricultural journals which mislead readers by commenting favorably upon such fraudulent facts." He reminds the unsophisticated that by "tricks of the trade known to gardeners and florists" one tuber may be multiplied almost indefinitely. "A potato is cut into single eyes and planted in a hot-bed. As the sprouts appear they are slipped off and transferred to pots and cut into slips, which are rooted in other pots, and these are planted out in the beds. In this way many hundreds of plants are procured, which in the aggregate yield the enormous quantities reported. To claim this result as being due to any special variety or to any special fertilizer is a gross fraud which should be severely rebuked."

When one form of fraud is suppressed, usually makes room for another, and this is a fair example. Analyses of fertilizers have exposed the vendors of adulterated stuffs, but such people are only driven into other avenues of vice. Potato fertilizers, as well as fertilizers for every other kind of agricultural plant, are still sold, and will continue to be so long as farmers remain ignorant of the fact that it is the character of the soil that decides the fertilizer to be used, the kind of crop being a matter of inferior importance. Canadian farmers should endeavor to check the importation of these frauds.

Permanent Pasture.

No. III.

How the soil should be prepared is what is left to be considered. Many farmers have had "poor catches," and they blamed the seeds or the seedsmen, if not the unsuitability of the country for permanent pastures. It cannot be expected that an undertaking which pays such large dividends on the original investment, and which costs so little effort after the second or third season, can be engaged in without an expenditure of thought, labor, and money. However, it does not follow that you should wait till you have all the conditions favorable before you establish your permanent pastures; but the more favorable the conditions the more profitable the investment.

In order to obtain the best results the land should be thoroughly drained, naturally or artificially. The selecting of a rich clean soil, and the putting of it in a proper mechanical condition, embrace the chief requisites. In many cases a last year's summer fallow will be most suitable; but land on which roots or potatoes have been harvested will do as well, if

the soil is clear of weeds. The land should not be plowed in the spring, for a firm soil is required; but the surface should be lightly cultivated and thoroughly harrowed. These operations should not be performed until the land is dry, and if there are many clods or lumps it should be harrowed and rolled alternately until the soil is thoroughly pulverized.

The reasons why these conditions are necessary are obvious. The clovers being deep rooted, require a deep soil and free from stagnant water; and many of the shallower roots of the grasses being microscopic, require a fine, compact surface soil, so that the fibres will come into contact with the particles of earth. It is also important that the land should be well levelled before sowing, for then the harrow will not cover some of the seeds too deeply, preventing their growth, and leaving the higher places partially bare, with the seeds imperfectly covered. The seeds should not be covered deeper than one-fourth to one-half of an inch; when deeper very few will germinate, as has been proved by direct experiments. Another reason why the soil should be firm is because of the immense quantities of moisture which are evaporated from the leaves, and the supply has to be furnished chiefly from below. Moisture will not ascend if the soil is too loose; but if too firm, for want of drainage, the ascent of moisture will then also be too scanty. As a rule, however, permanent pastures will flourish on any soil which will produce a good yield of fall wheat.

A great deal has been said and written about "foster" crops. We always thought that the office of a foster parent was to supply nourishment, not to abstract it. If the soil is very rich, it is possible that it will contain nutriment enough for both grasses and foster crop. In some seasons, however, you will find an advantage, especially to the tender plants, in sowing three or four pecks per acre of barley or oats with the permanent pasture seeds. If the weather turns hot and dry while the plants are young and tender, they will be benefited by a foster crop, which will afford them shade and shelter; but if the land and weather will permit you to sow early, so that there will be little chance of early heat and drought, then a foster crop may prove more injurious than beneficial.

One of the great sources of disappointment has been the difficulty in getting the seeds evenly distributed when sowing, owing to the great difference in weight of the several varieties. If mixed, the heavier seeds will fall near the feet of the sower, and the light will be scattered in different directions by the least puff of wind. Then there is the difficulty of keeping the seeds well mixed, for the lighter ones will keep working to the top with every shake of the vessel from which the seeds are sown. For these reasons the heavier seeds, such as the clovers, should be sown separately, or, if all the seeds are already mixed, divide them into three parts, sowing each part separately—lengthwise in the field, crosswise, and then angularwise. A skillful sower is necessary, and if you can hit upon a dry day before rain you are a lucky fellow.

Before establishing permanent pastures on a large scale, you should commence moderately, and then you will be able to ascertain for yourself to what extent you can make it a paying