

stop churning. The butter is then in a granulated state, and the buttermilk may now be drawn off, and the grains of butter can then be washed with cold water and afterward with brine, which will free it from all milky and caseous matter. Some drain or draw off the buttermilk from the churn in a hair sieve, and then wash by turning water on the butter in the churn. When butter is manipulated in this method it requires little working—no more than gathering it in form and getting the salt evenly distributed through the mass.

Butter treated in this way is never salvy or greasy, but remains with its grains uninjured, and should therefore be in its best state. Thus as our knowledge of what constitutes perfect butter obtains, together with the art of producing it, the old method of working out the buttermilk without the aid of water must be pushed aside for a more intelligent and safer practice. In conclusion, it may be remarked that whatever working is required, care should be taken to avoid a grinding motion, as this injures the grain. If a lever-worker be used, the working should be by pressure, and the lever should not be allowed to stop or slide on the butter in a grinding fashion.

Butter-making may now be said to be approximating rapidly to a high art. Consumers are fast being educated to distinguish the finer grades, and now regard with disgust those greasy, salvy, and rank flavors which a few years ago could perhaps be tolerated. This is as it should be; for the old-time poor butters were not conducive to health, and were the cause many times of serious ills which the more educated taste now avoids. Of course we do not dispute the fact that large quantities of poor butter get upon the market, but the prices for such are so low that they do not pay the cost of production, and this helps to raise the standard; for price has a wonderful influence in stimulating to better methods, which the enterprising dairyman soon tries to reach. The creameries and butter factories have been as great educators to butter dairymen as they have been to the tastes of consumers, and the spread of these institutions with the knowledge they disseminate, will, we trust, at no late date, wipe out the great bulk of inferior and low grade butters.—[Country Gentleman.]

#### Art vs. Nature.

Whether to use coloring matter or not is a mooted question among our dairy theorists. The opposite argument is well stated in the following extract from a communication from Bradford County, Pa., to the Country Gentleman:—"The Jersey cow, famous for the production of 'gilt-edge butter,' has nearly lost her glory. The patient, scientific breeder, having spent years in establishing a family of cows that will, with suitable feed, uniformly give rich, yellow milk, learns at last that he has little or no reward for his pains. Yankee ingenuity has discovered an easier way for giving color to butter than the quality of the cow or the food she consumes. Instead of green, nutritious hay, feed that which is stale and musty. Instead of rich, yellow corn, give buckwheat bran. Instead of sowed corn, give straw. A little coloring thrown into the cream, and we have the 'gilt edge.' Justice to the breeders of yellow butter producing stock, and justice to the consumer, require that all artificially-colored butter should be marked as such before it goes into market. All of us remember how keenly sensitive the dairymen of the country were to the great wrong imposed upon consumers by manufacturers and dealers in oleomargarine, when they passed it off for genuine butter. Legislatures finally enacted that oleomargarine should be stamped as such. Does not the same principle of honor and justice require that all artificially-colored butter shall be stamped also? What will be the effect of this deception on the rising generation? The quantity of foreign substance, in the form of coloring, put into the butter is governed wholly by the amount of gain that is expected from its use, and the aim seems always to be to do the thing so nicely that the consumer will never know the truth. The child soon understands the drift of it all, and soon learns to practice deception for a little present gain. The heathen Chinese may be excusable for giving the artificial green to such teas as have not the required color, for the sake of a little gain in price. He might insist also that the coloring does not injure and it suits our fancy; yet we prefer to judge for ourselves what food is injurious and what is not. No class of people has complained more bitterly against frauds and adulterations than farmers, and now legions of them are falling into the same practices, by preparing an article that is expected to pass into the hands of the consumer for what it is not.—[American Dairyman.]

### Agriculture.

#### Drained Swamp for Meadow.

A correspondent wants to know "whether a swamp thoroughly drained can be put in permanent meadow, and if so, how it is to be done?" It is further remarked that "a dry surface muck, black as tar and about four inches thick, varying somewhat in thickness, covers an under-soil of sand, gravel and clay, running partly in seams and spots. The ditching is three feet deep, and tile laid, from which issues a steady stream of pure, bright water." The best thing probably that can be done with this is to Summer fallow it, plowing it deep, the object being to get the upper and lower soil mixed, and give time for the decomposition of the muck and green vegetable material which may be growing upon it, getting it thus thoroughly incorporated with the clay and gravel, and acting upon it. It requires a whole Summer and a Winter to do this. In no land, perhaps, do we meet with so many failures, the amount of fertility considered, as in swamp soil when first reclaimed. Usually, the land drained in the Summer, and plowed in the Fall, is sowed in the Spring following, and notwithstanding there may be perfect mellowness—the frost will produce this effect—there usually is more or less disappointment, and sometimes almost a total failure. The reason is the time has been too short to decompose the vegetable material and remove the acid of the soil. Beside, the muck and the heavier soil have not been sufficiently mixed, some places being pure peat, others clay or gravel. The better way is to do the work right in the start, and then there will be little chance for disappointment.

If, however, it is desired not to keep the land idle, it might do to plow at once, giving a chance for the vegetable matter to rot, so as to have a second plowing done this season, applying a heavy cultivator thoroughly before the last plowing, as also after it, so as to prepare the land for a Spring crop. Should the crop fail, as it is hardly likely, the land can still be worked during the Summer, all the better for the previous working, only the seed for the Spring crop lost. For it is an axiom with me that there is no loss in working the soil; that the four or five plowings here would pay for the labor in the increased benefit to the land.

As the land is intended for permanent meadow, it would be well to equalize the soil by exchanging muck for clay and gravel in spots where they seem in excess, for these places, unless treated, will be comparatively useless, making the field uneven in its yield. If it pays to cart manure on the land, it must pay to cart it (muck is manure) from one place in the field to another. The surface also of course needs leveling for a meadow.

It is further asked "what grass or grasses are best to seed the land to?" As there will probably be considerable clay or gravel, the land being worked deep, and as it is furthermore low, compared with the surrounding land, perhaps timothy and red top would succeed as well as any. I have known the two grow together in surpassing abundance in small valleys, between hills, the line of sufficient drainage and abundant water meeting the point where two grasses also may meet in full growth. But perhaps the land is too dry for the red top, in which case timothy alone or in connection with some other dry-land grasses might do.—[Ex.]

The increase of crops in the United States in 1879 over those of the preceding year, is reported by the Agricultural Department to have amounted to \$415,000,000, owing to the unusually heavy crops and the great increase of the area cultivated. A greater area than that of 1879 is now under cultivation, and the promise for heavy crops is, so far, good. The English crops this year give fair promise. If this promise be realized, we may expect low prices. Returns of April 1 to Dept. of Agriculture show an increase in the area sown in wheat last fall of 13 per cent. more than in the fall previous; in the area sown in rye there is a decline of 6 per cent. as compared with the year previous. The condition is precisely the same this April as last year. There was a large increase in fall sown wheat in those States that heretofore have exclusively sown in the spring; the experiment was unfortunate, and all, particularly Iowa and Nebraska, report great disaster from the winter. On the whole, the wheat crop thus far looks as favorable as in the spring of 1879.

#### Wood Ashes in Drought.

In the Spring of 1878 I planted a few acres to corn; soil a light loam with sandy subsoil. Unleached ashes were applied at the rate of not less than 60 bushels per acre, and the crop was a good one. In the Spring of 1879 I put the same surface to potatoes, with no manure at the time of planting. Just as they began to come up, a coat of ashes was spread on top of the ground, about 50 bushels per acre. The supply ran short, leaving three-fourths of an acre to be manured from a large heap of nice fine compost. The land seems precisely alike in all respects: all was planted the same time, with the same variety of potatoes, cultivated in the same manner, and as well as I know how to cultivate. The season was exceeding dry in this county, and the potato crop almost a failure in consequence. Repeated experiments have proved to me that where land is manured with fine compost the crops resist drought much better than where there is none, or where a very coarse manure is used. When the dry weather came, I fully expected to see the potatoes where the ashes were suffer from the dry weather first. To my surprise the reverse of that was the case.

The dry weather continued until the soil seemed like baked ashes. The potatoes where the manure had been put drooped and almost died, while the first row, only three feet away, but where ashes had been spread, showed a most marked difference, and it so continued through the season. When the crop was dug the land where the ashes were yielded about 150 bushels of nice potatoes per acre, while the portion where the fine manure was yielded not more than half as many bushels, and a large proportion of them were too small for market. I have no doubt but that the land where the ashes were would have yielded at least double what it did, had it not been for the drought. I am well aware that ashes are an excellent manure, having used many thousand of bushels during the last ten or fifteen years.—[N. Y. Tribune.]

#### New Brunswick Provincial Exhibition.

The Government grant of \$10,000 in aid of permanent Exhibition Buildings of the city of St. John, has had the effect of settling the doubt that has for some time existed as to whether we should have a Provincial Exhibition or not during the Autumn of 1880. The locality chosen is all that could be desired, possessing as it does fine railway and steamboat facilities for the shipment of stock, agricultural produce, and manufactures. It is very questionable if any more convenient spot could be selected. The citizens of St. John, with their accustomed energy and zeal, may be depended on to have the building completed in good time.

With the importations we have had by Agricultural Societies, and those made by the Government, our Province now possesses a fair sample of the various breeds of stock. To bring those together at the Exhibition in October next, will be the privilege of those who are now the owners. That the improved stock has become more numerous than formerly is certain.

Referring to the different breeds of horned cattle, representatives of the Shorthorns are to be found in the hands of breeders in the Counties of Victoria, Carleton, York, Queens, King's, St. John and Westmoreland; Ayrshires in the hands of breeders in King's; while the Jerseys are to be found in the counties of St. John and Carleton. We shall be glad to learn of the determination of our stock men to come to the front and make as fine a display as possible. Much of the interest in the Exhibition will depend on their efforts, and we trust that there will be no holding back.—[Maritime Farmer.]

A BEET ROOT CROP IN N. B.—On the question of sugar beets, Mr. Sterling said that 30 members of the association in Sunbury county had planted an eighth of an acre with  $\frac{1}{2}$  to 2 lbs. of seed on that quantity of ground. The result was generally satisfactory. No fly cuts them, as in the turnip crop he had found in weeding. The sugar beet was good feed for hogs and cattle. The average was 25 to 42 barrels on the eighth of an acre. He found no trouble in raising sugar beets. Some consider the mangold, with which they made a comparison, superior to the sugar beet, and will raise no more. He himself found them excellent for milch cows and for hogs tops and roots being equally well suited for feeding both. He had prepared his land as if for turnips.—[Report Farmers' Club.]