

"Mr. Talcott and many of your other writers seem to lose entire recollection of the fact that Mary Anne of St. Lambert, in a test in the hands of a committee appointed by the Canadian Jersey Breeders' Association, from June 19 to June 25, 1884, made, upon an average of five quarts of ground oats and clover pasture only, when she was four years and two months old, 24 lbs. 13 oz., and that in the last three and a half days she made 13 lbs. 4 oz., or at the rate of 26 lbs. 3 oz. He also overlooks the fact that her test of 106 lbs. 12½ oz. of salted butter in thirty-one days was made upon an average of four and one-half quarts of ground oats and pasture only, and that at that time she was but four years and two months old, and had not reached her prime.

"The facts of the quantity of feed given her at the time were fully published in the public press. If Mr. Talcott can produce any cross-bred animal that is capable upon this feed of making as much butter in the hands of disinterested people as did Mary Anne of St. Lambert, then why does he not do it? and until he does the public will believe him incapable of doing so. Mary Anne of St. Lambert has been pretty thoroughly tested, and her capabilities on light and heavy feeding pretty well demonstrated. She will have the rest which she is entitled to from this out, and the only other test we ever purpose submitting her to is one upon grass only, with no other feed. Should she be in good health and form after her next calving it is our intention to test her upon grass only, and from what we know of the cow we feel sure that she can make at that time, when she will be in her maturity, at least twenty-seven pounds of butter in seven days easily.

"VALANCEY E. FULLER."

VALUE OF A PURE JERSEY BULL TO INCREASE THE BUTTER YIELD OF COMMON COWS.

"Dairyman," in Chicago National Live Stock Journal.

For the production of butter in large quantities and of fine quality, or for the increase of the cream yield merely, grade Jerseys are as desirable and as profitable as those that are pure-bred, and it is simply a loss of time and material to undertake to establish a butter or cream dairy, and expect to get the best results without the use of Jersey blood.

No breed will make as large returns (and for which a ready market at paying figures is always obtainable) as the cattle from the Channel Islands. Select good "native" dairy cows, the best obtainable, without defects of form, size, or habits (these are transmissible, and sooner or later will appear in the offspring); procure a pure Jersey bull from the best butter strain your purse will admit of; raise the heifers and send the bull calves to the butcher. If you are not able to buy a good bull, get an enterprising neighbor to join you in the purchase.

All the capital invested in this way will soon be returned with heavy interest. Instead of selling off the cows in the fall, after milking them through the summer, as is often the custom, keep them well all winter, and arrange to have them drop half-blood Jersey calves in the spring. These, at proper age, bred to a thoroughbred bull, will produce three-quarter Jerseys, and in a few years a valuable herd for dairy purposes will be formed. The older cows can then be disposed of, and none but grade Jerseys need be kept. The result will be an increased yield of butter and cream, greatly enhanced in value, eagerly sought after at better prices, and a lively demand for any young stock that may be for sale, at two or three times the price paid for the original cows.

There are men fully alive to all this, located

in a neighborhood where good prices are paid for the dairy product, regulated, of course, by the quality of the goods offered, that use (instead of a pure-bred male) a half, or three-quarters, or seven-eighths bull of the Jersey breed, because he resembles, in color or outline, the true type of that breed.

This is a mistake, and will almost inevitably lead to disappointments. No bull should be used of any breed, for reproducing either milk or beef animals that is not thoroughbred. He will be as likely to transmit the weak and inferior qualities of his common ancestry as he will those of his more royal blood; whereas, the blood of a purely-bred male being stronger, he has the power to stamp his get with the peculiarities and characteristics of his improved condition and breeding. This is forcibly illustrated in the mating of a pure-bred Jersey bull with the common cow of no particular breed; the offspring partakes invariably of all the general characteristics of the sire—in color, form, and appearance. So marked is this that in many instances it is impossible to distinguish the half-breed from the pure-bred.

The invisible and more important qualities of power to produce milk continually and to make butter largely, to digest and assimilate rich food in great quantities, are just as liable to be reproduced as the outward signs of form and color. Therefore it is of the highest importance to select not only a male pure in blood, but one possessing well-established blood lines from a butter standpoint. The result of this care will be the founding of a herd of grade cows, handsome to look upon, profitable in their work, and that will increase in value year by year.

New blood should be introduced as the heifers become old enough to breed. *Inbreeding* should be avoided, as it has a tendency to weaken the constitution, and thus impair general usefulness.

Good registered bulls can be procured from reliable breeders at prices that are reasonable, and the butter dairyman who does not avail himself of the opportunity to thus improve his stock and enhance the value of his dairy product and increase the demand, is losing valuable time and opportunities to double his capital in a few years.

The demand for grade Jersey cows for family use in cities and small towns, where one cow or two are kept to supply the wants of the family in milk, cream, and butter, has within a few years become enormous, and in some sections this demand is very far in excess of the supply. Heifers with first calves and cows sired by a good butter bull (half and three-quarter-bred animals) sell for \$75 to \$125 each.

The writer has in mind one farmer who owns 18 or 20 cows, most of them grade Jerseys, bred up in the manner described, from the common stock of the country, from which he makes a finer article of butter than his neighbors who have no Jersey blood, and, of course, receives a higher price for it from his customers, who take it all the year; and there are many others who would like to be supplied with butter from his dairy, but it has a limit to its resources, and the supply at all seasons fails to go round. This man has for several years used a pure Jersey bull, raised the heifer calves from his common cows, and has now a valuable herd of butter-producing animals that make from eight to twelve pounds of butter per week, with a lively demand for it all at forty cents per pound. He cannot fill the demand for family cows, but disposes of them as rapidly as he feels he can spare them, at prices fully up to the figures named.

What other branch of the live stock interest can make as good a showing for the amount of capital invested?

It is a source of great encouragement to the business man when the fruits and products of his investments and labors are eagerly sought after at paying prices.

CALF RAISING.

From the Chicago Breeders' Gazette.

It is possible to rear calves on skim-milk and other food that will nearly or quite equal in size, appearance, and flesh the best of those which suck their dams; but the cases in which this has been done are exceptional and not at all the rule. We have reared many calves on skim-milk, and continue the practice, liking it well; but in no single case have we ever been able to secure as large size or maintain flesh as well by this method as when the calves have drawn their supplies from the cow. If we expected to sell calves for veal at a few weeks old we should decidedly prefer letting them suck. If to be sold at six or eight months old, or to be reared by breeders for steers or milch cows, we should, as a rule, sell the cream or make butter from it, fairly good markets and facilities for caring for milk being taken for granted. We have had animals reared on skim-milk which were every way satisfactory when mature.

We believe the milk of the cow is the best possible food for the calf; that no substitute has yet been found that equals it. But we also believe that on fairly high-priced land it is not most profitable to keep a cow a year simply to rear one common or grade calf. The calf will do well on the skim-milk; at most, any decrease in its value ought to be less than the profit from the sale of the cream or the butter made from it. Of course, if one is rearing high-priced calves, the saving of a few dollars in this way may be accompanied by a much greater loss in the sale of the calf. There is a difference in practice where the calves are to be reared from the pail as to the time when the calves are taken from the cow. Some never allow them to suck, and this plan has the advantage that the cow usually frets less than when the calf is taken away when older. Many let the calf suck for a few days—perhaps a week. The milk of a newly-calved cow should be given in all cases, and the labor of milking is saved. The calf is stronger and the difficulty in teaching it to drink is but little increased.

Some of the cream may be removed from the milk when the calf is a week old. We have had good success when full skimmed milk was used before the calf was two weeks old. In many cases nothing else is given until the calves are taught to eat meal or grain, which may be when three or four weeks old. The better practice is to feed a little oil-meal or flaxseed in the milk. The flaxseed should be thoroughly boiled before being mixed with the milk. The oil-meal may be so boiled or simply soaked in hot water. After a little time the quantity given may be increased until the feed is a thickish gruel.

Oats and corn, either ground or unground, are desirable for calves, as are also hay and grass. But little has been done in this country with distinctive "milk substitutes," such as are much advertised in England. Finely ground meals of various kinds, including oil-meal, with a little sugar or molasses; sometimes other substances to make it more palatable, and possibly something to prevent possible irritation to the stomach, constitute these milk substitutes. It is certain that they have given good results in some cases—they taking the place of the solids in the milk, and water being added in about the same proportion as in milk—eighty-seven per cent. water to thirteen of solids of all kinds.