

Does Color Indicate Quality ?

A correspondent of the **FARMER'S ADVOCATE** recently boasted that one of his heifers was giving "rich looking" milk. On this point H. Snyder, Minnesota Experiment Station, writes:—

"The questions are frequently asked: 'Does a light color always indicate a poor milk, and does a yellow color always indicate a rich milk?' The color of a milk is no safe guide to its richness in fat content. The color of the strippings and the first milk will answer this question. The strippings are usually six or eight times richer in fat than the corresponding first milks, and yet both are of the same color. If you have a Babcock tester, just observe this point in testing your cows. One authority, Blyth, states that the coloring matter in milk is a nitrogenous chemical compound, and he calls it lactochrome, and says it is this compound that gives milk, butter and whey its yellow tint. The amount of this coloring matter in the milk is influenced by the food of the animal, as well as by its individuality."

The color of milk is not a certain index of its fat content, a statement borne out by the white butter usually produced on winter food and the golden-hued June product, though June grass milk is not phenomenally rich in fat—though the fat is highly colored. The only accurate way of determining the quality of milk is to test it.

Three Hundred Pound Dairy.

“ My herd consisted of 16 cows, and the report will be from November 1st, 1892, until November 1st, 1893, covering the time I have run my separator. My feed was all the clover hay they wanted to eat morning and evening, and all the corn fodder they wanted at noon. For grain they received two pounds of oil meal, six pounds of middlings, four pounds bran per day each, on an average, through the winter. During the summer about two pounds of oil meal per day each. They were not allowed to be out of doors only long enough to drink, except on very pleasant days, and not too cold, they staid out about two hours. The cows were mostly Holsteins, and under this treatment gave the following :

Total lbs. milk during year.....	107,886
Total " butter " "	4,880
Average lbs. milk per cow.....	6,743
Average lbs. butter per cow.....	305
Total amount of money received.....	\$1,136 19

The butter was shipped to Chicago and sold on commission. G. W. Campbell, Jefferson Co., Wis."

Commenting on the foregoing, Hoard's Dairyman says: "This is an average of 71.01 dollars in butter per cow. Subtracting the amount of butter made from the milk leaves 6,438 pounds of skim milk, which, at prices of pork last year, was worth at least 30 cents per 100 pounds. However, we will rate it at 25 cents. This makes the skim milk worth \$16.09 per cow, or total value of the product per cow \$87.10.

Misinterpretation.

Milk Inspector Payne, of Cleveland, Ohio, referring to the low grade of some of the milk supplied in that city, says:—

“The trouble is, I am satisfied, that the farmers are feeding their cows too much, and trying to force their cattle to give an unnatural quantity of milk.”

A representative of the FARMER'S ADVOCATE some time since paid a visit to the famous creamery operated at St. Albans, Franklin Co., Vermont, which is believed to be the largest institution of the kind in the world. The association was organized in November, 1890. In 1891 they operated 44 separating stations, which had last year increased to 50, where the output of butter was about 2,000,000 lbs.. One separator is kept at each outlying station, and during the busiest season three are operated in the central factory, where all the churning is done. During the summer season the cream is gathered daily from the outlying stations, being brought to St. Albans in two refrigerator cars. The company has used seven different kinds of separators, but are now purchasing only the De Laval Alpha No. 1, which they claim does the most and the best work. The milk received is all paid for according to the Babcock test system, and the skim milk is returned to the patrons. This year they undertake to manufacture and sell the butter at a cost to their patron not exceeding 34c. per pound. The cream is delivered the day after it is separated at the creaming stations, and is allowed to stand one day at the central factory to ripen before churning. Fourteen box churns are used, each having a capacity of 500 lbs., and the butter is worked and salted on the Fargo worker, with a capacity of 250 lbs. every six minutes. After this, the butter is weighed and packed in weights varying from pound prints to 50 lb. tubs, all of which are placed in cold storage and shipped weekly. In the busiest season the St. Albans creamery has turned out as much as 19,380 lbs. in one day, but so thoroughly systematized is the work that the work in the churning room is done by three men. On one day some 4,025 lb. prints were put up and wrapped in parchment paper, four men accomplishing this feat. The highest per cent. of butterfat during the past year was 4.79, in December, and the lowest in April, 3.75, which indicates that dairying is reaching a high standard in that section of the state.

Flavor must be quick, full, fine and fresh.
Taste must be pleasant and sweet.
Color to be a light straw color. To be uniform and even.

Salt well dissolved and thoroughly incorporated.
Butter to show perfectly clear brine, and little of
it.

Body and grain to be sound and clear. Butter to be free from salviness and flatness.

Packing to be absolutely solid in the tub without spaces for air or brine, the top being finished straight across from stave to stave, to be covered with a cloth circle having dry salt rubbed into it with the hand; completely fill the meshes of cloth.

—Elgin Dairy Report

BY ALEX. HUME, BURNBRAE.

As I wrote you, I always take a deep interest in the dairy department of your valuable paper, and, according to promise, give you the account of our herd for 1803, together with a brief summary of our method of feeding and attention, in the hope that it may provoke others to do the same. Our herd, which numbers thirty-seven in all, has done well the past year—never better, all things considered. We oversee our herd personally, bestowing the best of care and attention strictly impressing the same on all parties connected with the farm. Each animal is closely watched and fed as much as she can assimilate and return a profit. We have no cast-iron rule for feeding only above. Our herd has been closely culled every year for the past fifteen (15) years, and to-day we have not a cull. I might say we fed grain and bran the whole year—usual mixture, 100 lbs. peameal, with 130 lbs. bran—and fed from 2½ lbs. to 8 lbs. per cow per day, according to time in milk, with the exception of a few cows dry on pasture. Cows drop their calves at all seasons of the year, and continue in milk for from ten to eleven months; a few were not dry at all, but we conclude from our experience that it is a mistake not to give them a rest of from five weeks to two months. Those we continued milking without giving a rest did not do as well as when they had a rest. I would like to hear other men's experience on this point. We have not the water in the stable as yet, consequently we let them out to drink in lots of eight or ten at a time at a pump, which we consider better than creek water, in winter when fresh pumped being warmer, and each lot put right in and fed. For six or eight days after calving in winter the water is carried to them in the stable, as we do not care to run the risk of a chill, etc., from exposure. We have not lost a cow for the past ten years, although we now force them to their full capacity, and many visitors say "They never saw a herd with such bags." I attribute it largely to the close attention, together with a naturally strong and healthy herd. We feed at the two ends of the day: Before breakfast, straw, or, if fresh calved, hay; when that is eaten up, or in an hour, ensilage and grain ration on it. Afternoon, watered and fed ensilage and grain ration on it; then, when that is eaten, either rough feed of hay or straw, except fresh calved cows, which get good clover hay. This is in winter until early spring, when they are watered twice a day. This is another matter I would like to get other dairy-men's opinion on, as I am not sure that our method of feeding and watering is best; that is the order in which the feeding is done and the time of watering. The following is a full and detailed account from Jan. 1st, 1803, to Jan. 1st, 1804, of the earnings of the herd; also the actual cost of keeping the entire herd, including cows, bulls and young things, leaving the herd with one cow less than we commenced the year with:—

Twenty-four (24) cows' milk was sent to the creamery and cheese factory, less milk fed to calves that were sold, which were fed and kept from one week to six weeks; one cow raised calves all season — no less than six fed on her for the year, a pair at a time; we sold them when six weeks old, except the last pair, which we are keeping and get skim milk. One three-year-old Ayrshire cow went to Chicago Fair three days after calving, and, of course, only arrived home 11th December; she won third place, and her prize earnings are placed to her credit in the herd. Another went wrong in her bag, was fattened early in the fall and killed; value of beef also allowed. Milk at both creamery and cheese factory is clear of all expenses except drawing, which we do ourselves. We have imported and added to the herd Eva of Barcheskie, served in Scotland, bred from one of the best stocks in Scotland, but have not included her cost against the herd, as that ought to go to capital account. No allowance is made for calves on hand, having the same number as last year, neither for increase in value of our entire herd, to which we are adding and breeding choice individuals. More grade calves were sold than pure-bred ones last year. The springers were all grade cows except one, and went to Montreal, and, as you will find, the milk was not sold in a city, but realized only the ordinary price paid at creamery and cheese factory.

RECEIPTS.

By 30,000 lbs. milk sent to creamery.....	\$ 304 27
“ 131,000 “ skin @ 16c. cwt.	15 00
“ “ “ milk sent to cheese factory.....	1048 52
“ “ “ whey @ 50c. per 3,000 lbs.	22 00
Prize money, etc.....	120 05
“ Calves sold.....	183 00
“ 1 bull, 2 heaves and 6 springers.....	439 80
Total, 27 cows and bull included.....	\$2182 64
Average.....	78 66
EXPENDITURES.	
To grain and bran fed.....	\$ 338 41
“ 150 tons ensilage @ \$1.50 per ton.....	225 00
“ 15 “ hay @ \$7.00 per ton.....	105 00
“ Cows bought.....	39 60
	\$ 708 41
Net earnings of herd, 27 cows and bull per cow.....	\$1115 23
	50 54