

POUNDS OF MILK FOR POUNDS OF BUTTER.

ENQUIRER, Oxford Co.:—"How many pounds of milk should it take to make a pound of butter, from milk testing 3%, 3½%, 4%, 4½%, and 5%?"

[Four pounds of fat produces five pounds of butter, less the slight loss that occurs in improper skimming and churning. Figuring from this standpoint, it requires for a pound of butter 28.57 pounds of 3 per cent. milk, 22.85 pounds of 3½ per cent., 20 pounds of 4 per cent., 17.8 pounds of 4½ per cent., and 16 pounds of milk testing 5 per cent. of fat. In practice it will require slightly more than these quantities, but this relationship should be constant.]

TEST IN COOKING LOAVES.

MISS NORA, Middlesex Co., Ont.:—"Reading McClary's advt. in the FARMER'S ADVOCATE, we were much surprised at the cooking of so many loaves of bread in six and three-quarter hours. We have figured it out, and it beats anything we have ever seen or heard tell of, and as we have a large family, we would like to purchase one of those loaves. Please state, when answering, how many loaves the party cooked at once and how long they gave each batch of bread to cook? I would like to see an answer in the next FARMER'S ADVOCATE."

[The Famous Model has done it in a test and can do it again. You run no risk in purchasing one of these, as they are certainly fuel-savers. You will find an agent in every town or city in Canada.]

THE MCCLARY MFG. CO.]

SHORTHORN-DURHAM.

SUBSCRIBER, Wentworth Co., Ont.:—"Is there any difference between the Shorthorn and the Durham cattle. If there is a difference in the two, is there a Shorthorn Durham?"

[The names Shorthorn and Durham apply to one and the same breed. Originally they were known only as Durhams, the breed having originated in Durham County, England; but the name Shorthorn was later given them as distinguishing them from the Longhorn breed, which is still perpetuated to some extent in the Old Country, where prizes are yet given them as a separate breed at the Royal Show. There is a herdbook established in the United States for Polled Durham cattle, in which cattle eligible to record as Shorthorns, but which were born hornless, are admitted to registry, and also hornless cattle bred from "mulley" ancestry and having a certain number of crosses of pure Shorthorn blood. The first class rank as double standard, owing to the fact that they are eligible to the Shorthorn Herdbook as well as to the Polled Durham Record.]

FEEDING FOR BEEF.

NEW SUBSCRIBER, O'Connell, Ont.:—"Please give me your views as to the best method of feeding for profit where roots, chop and hay are to be fed. Would it be better to cut the hay and mix roots and chop or feed separate, at separate intervals?"

[In our judgment, and we have fed many cattle, there is little to be gained in cutting up good hay to be fed to cattle, except to mix with straw or other less palatable food, in order to make it go farther. Cattle, like ourselves, become tired of a monotonous mixture, fed meal after meal, so that we would consider it wise to feed the hay, roots and chop separately, as each is palatable and nourishing. Our method has been to give the roots first thing in the morning, before dinner, and about 6 p. m. Give hay immediately after the roots each time, and hay breakfast and supper give the grain ration, and more hay at night. When the grain is fed after hay, it is brought up again with the cud and thoroughly masticated; whereas, if it is fed on an empty stomach, it may escape thorough mastication and digestion. Many successful feeders prefer to give the chop mixed with cut hay, and we can see no disadvantage in such a course.]

EXTRAORDINARY GAINS IN PIGS—DRY-EARTH CLOSET.

R. M., Lennox Co., Ont.:—"1. I raised eight pigs, farrowed on the 24th of August; shipped on Dec. 17th; age 4 months, less one week. Weight, 1,500 lbs.; average weight, 195 lbs. Is there anything unusual about that?"

"2. Do you know of any way of building and managing a dry-earth closet, in connection with a dwelling house, that will give satisfaction? An early reply to this question will oblige."

[These pigs gained an average of 1.75 pounds per day from birth until nearly four months old, whereas 1.25 pounds is large, and even 1 pound per day up till four months old is above the average with good feeding. A pen of pigs fed at the Minnesota Experiment Station, that won 1st prize at the great Chicago Fat Stock Show, in December, 1900, gained for the first 6 months about 1.17 pounds per day. It would be interesting to learn how these pigs were fed.]

"2. Dry-earth closets that we have seen were arranged with a drawer or box below that could be drawn out and emptied as often as desired. A small shovelful of dry soil or ashes is thrown in the box after it has been used each time. There is, we are informed, a means of letting the dry earth drop from a box by turning a crank. We will be pleased to have readers of the FARMER'S ADVOCATE describe closets of this sort that are satisfactory.]

RAISING GEESSE—MARE OUT OF CONDITION.

FARMER'S SON, Northumberland Co., Ont.:—"My father has taken the ADVOCATE for a number of years, and we could not get along without it. I am thinking of raising geese another year. I can get thoroughbred Toulouse geese at a reasonable figure."

"1st. Which would be the most profitable to buy, aged geese or goslings?"

"2nd. Is a small topknot a sign of bad breeding in a Toulouse goose?"

"3rd. How should geese be fed this winter so as to do best next summer?"

"4th. Are geese as profitable as ducks or turkeys on the farm?"

"5th. What is a good tonic to give a young driving mare whose blood is out of order and whose ankles and hind legs swell?"

[1. Generally speaking, it is better to purchase a pair of young geese, two or three years old, from which to raise the young stock. Get them unrelated if possible. Occasionally, eggs hatch well under hens and can be properly raised, but the chances of disappointment are greater than with a pair of healthy geese.]

2. A topknot on a Toulouse goose is a sign of impure breeding. The head should be rather large, short and smooth; dark gray in color.]

3. Geese are great vegetable feeders and need little more than pulped turnips during the winter season. A small daily feed of peas, corn or oats will not be lost on them. Without turnips, boiled potatoes, mashed and mixed with bran, shorts or chop, with a few oats occasionally, will answer well. A pen a few yards square will serve well for a house. It should be kept clean and dryly bedded. They should have clean water to drink constantly before them, and be allowed the freedom of a yard during the day.]

4. Except for the fact that the broods of geese are usually much smaller than of ducks or turkeys, they would be much more cheaply raised, as they grow up on little more than grass, requiring only a short period of grain feeding in confinement before being killed. They require water to swim in, especially at the mating season.]

5. This question is well answered on page 686, Dec. 1st, 1900, issue of the FARMER'S ADVOCATE, under the heading "Stocking or Filling of the Legs of Horses."]

PLOWING UNDER SNOW—WHEAT AND CHESSE—CARROTS FOR HORSES—PLANTING WALNUTS—HOUSE PLANS.

D. K. S. SECORD, Haldimand Co., Ont.:—"1. Does it injure heavy clay soil to plow under a little snow in the fall, or plow it when it is very wet? I am speaking of sod mostly. I think it better to plow a little wet in the fall than to plow in spring, and then have it bake, as we call it."

"2. In the ADVOCATE of November 15th and December 1st two or three parties write on the question of wheat and chesse. I have the same opinion as T. H. Jull, in December 1st number. I think if you clean your wheat well you will not get chesse. I clean my wheat for seed through two or three times if necessary. I put it through a coarse screen. You will not lose by it. What goes through the screen is good enough for market by cleaning through a fine screen. Two years ago the wheat got winter-killed very badly in this section: nearly everybody had lots of chesse in wheat. I had a field nearly all killed out; it was a very low, wet field, too, and I had no chesse. Why? Because my seed was clean."

"3. Are carrots and oats as good as oats and bran for winter feeding horses doing very little work?"

"4. When is the best time to plant walnuts for trees, fall or spring?"

"5. I have seen a few plans for a house in the ADVOCATE but not just what I want yet. Could any person who reads the FARMER'S ADVOCATE give me a plan of a house, with cellar under it, for a farm, the cost being about \$800?"

[1. If possible to avoid it, clay soil should not be plowed when in a very wet condition. It would do less harm, however, plowed wet in fall than in spring, as the influence of the frost would mellow the surface of fall-plowed land. We leave our readers to deal with this question.]

2. It is a scientific fact that chesse is a species of the grass plant, as separate from wheat as is rye, timothy or June grass. A few years ago a certain farmer concluded he had positive proof that wheat and chesse came from the same root, as he had discovered what appeared to be one plant bearing heads of both wheat and chesse. He sent it to the late Prof. Pantou, of Guelph Agricultural College, who, when he washed the roots, found two separate plants, the roots of which were closely intertwined. A thorough investigation will always show chesse and wheat to be different species of the gramineae order of plants.]

3. Carrots and bran are quite different foods, and should not be compared. If we had oats and could get only one or other of carrots or bran for idle horses, we would take the carrots, but would prefer a little bran as well to mix with the oats. Carrots, like grass, have a succulence that tends to keep the stomach and bowels in a vigorous condition. What do our readers say about this?

4. Walnuts should be exposed to frost during the winter, so as to crack the shell. They should then be planted soon after the frost is out of the ground in spring.]

5. This question is for some kindly-disposed reader to answer. If plans and descriptions are sent to us we will publish them for the benefit of Mr. Secord and other readers.]

MARKETS.

FARM GOSSIP.

Tests with Spelt at Guelph Agricultural College.

As numerous enquiries about a cereal known as Spelt (*Triticum Spelta*) have been received within the past few weeks, a fairly full report is here given in order that a greater number may become familiar with these results.

Spelt is a cereal which is intermediate between wheat and barley, but it is usually classified as a variety of wheat. It is a native of the countries near the Mediterranean Sea. At the present day it is principally grown on the poorer soils in Switzerland, Southern Germany, and Northern Spain. It is also grown at an elevation in Switzerland where the common wheat (*Triticum sativum*) will not thrive. For general cultivation it is considered much inferior to finer varieties of wheat.

When the grain is threshed the heads break in pieces at the different joints, leaving the grain in the chaff as closely clasped as ever. To secure the clean seed, special machinery is necessary to separate the chaff from the grain. From the very nature of the region in which the spelt is principally grown, we can understand that it is mostly cultivated by the poorer classes. The flour obtained from the grain is said to produce a coarse bread.

In order to find out the value of the spelt for growing in Ontario, five varieties were imported in the year 1889. One of these was brought from Switzerland, one from Russia, and the other three were obtained in Germany. These five varieties were carefully tested in our experimental grounds, and all of them gave poor results. The best variety gave a yield per acre of fifteen bushels of grain in the chaff, and this weighed about forty pounds per measured bushel. Two of the other varieties gave an average of only about six bushels per acre, and the remaining two varieties produced no grain whatever. The average yield of straw per acre from the five varieties was only three-quarters of a ton. Some of the varieties were tested for two and three years, and were then discarded on account of the poor results obtained from them.]

Some of the seedsmen on this side of the Atlantic are now booming the spelt very extensively. Extravagant claims are made for it, as will be seen from the following quotation, taken from an American seed catalogue for 1900: "1st. You thresh 50 to 80 bushels of grain, equal to corn, or barley, or oats, or rye, or peas, or wheat as a food; and then comes four to six tons of straw; equal to timothy. It's the perfection of food for cattle; hogs yell for the food, cows jump a six-foot fence to get at the straw hay, horses fight for it, sheep delight and fatten on it, poultry relish the grain. I tell you, Salzer's Spelt is the greatest dry food on earth. We recommend the same heartily. It yields 80 to 100 bushels of richer food than corn, and gives besides four tons of good hay per acre. We never fool the farmer."

A quantity of seed of Salzer's spelt was purchased in the spring of the present year, and two plots in the experimental grounds were sown with this variety. The results obtained in this year were very similar to those obtained ten years ago. In yield of grain per acre the best plot of the spelt was surpassed by seventy-five per cent. of the varieties of spring wheat. The grain as it came from the threshing machine weighed forty-four pounds per measured bushel, and after the chaff had been removed it weighed a little less than fifty-eight pounds, being lighter in weight per measured bushel than any of the twenty-eight varieties of the common spring wheat grown at the College this year. C. A. ZAVITZ, Agricultural College, Guelph, Dec. 31, 1900.

Toronto Markets.

The trade at the Western Cattle Market has been very dull for the last two market days, and export cattle were in fair demand, but all other classes dragged at a decline. Cables quote export cattle firmer and a good demand.

Export Cattle.—Trade was fairly good in export cattle, and choice loads sold at firm or steady quotations. Choice export sold at from \$4.50 to \$4.75 per cwt.

Messrs. Dun Bros. shipped five carloads of export cattle per G. T. R. via Portland.

Butchers' Cattle.—Choice picked lots of best butchers' cattle sold at from \$4.40 to \$4.50 per cwt., average from 1,000 lbs. to 1,100 lbs. live weight. Loads of good butchers' cattle sold at \$3.75 to \$4.25 per cwt. Common to medium mixed cattle—heifers, steers and fat cows—sold at from \$3.30 to \$3.40 per cwt.

Inferior rough cows and common bulls sold down to \$2.40 to \$2.75 per cwt. There is considerable discussion as to the method by which the Provincial Government intend to foster the dressed-beef trade, and while the exporters are sick unto death, they are not particularly anxious to see the scheme go on, and there is promise of opposition on the part of the livestock exporters trading on this market.

Bulls.—Big strong feeding bulls, average weight 1,100 lbs. to 1,600 lbs., suitable for feeding at the distillery byres, were in request, and sold at \$2.75 to \$3.25 per cwt. Yearling bulls, 600 lbs. average, sold at \$2.00 per cwt.

Feeders.—Short-keep feeders, good steers, weighing 1,000 to 1,400 lbs. (finishes, as they are termed), were in good demand, at from \$4.00 to \$4.35 per cwt., to fill space at the byres. Light feeders sold at from \$3.00 to \$3.50 per cwt.

Stockers.—Yearling steers, suitable for the Buffalo market, were in good demand—average about 600 lbs.—sold at \$2.25 to \$3.00; mixed black and white sold at \$1.75 to \$2.00 per cwt.

Cows.—Very few on offer, quality not good. Ten sold at from \$2.00 to \$2.80 per head.

Calves.—Prices were easy, deliveries good, too many for our trade, and sold at from \$2.75 to \$3.00 for ewes and at from \$2.00 to \$2.50 per cwt. for bucks.

Lambs.—Spring lambs sold at from \$2.50 to \$3.50 per head, or at from \$3.50 to \$4.00 per cwt.

Hogs.—We have still to complain of farmers exceeding the 200-lb. limit to fetch top price. A great many were culled last week for this fault. The accepted weights, and those wanted, are 160 lbs. to 200 lbs., not over, unfed or watered. Prices are a little unsteady, but still high for the time of year. Best selected sows \$5.87½ per cwt., culled closely. Lights and thick fats at \$5.50 per cwt.; sows \$4.00; and stores not wanted, quoted at \$4.50 per cwt.

Milk Cows.—There is always a good steady demand for best family milk cows. Prices at from \$40.00 to \$50.00; forward springers \$35.00 per head.

Grain Markets.—Receipts of grain on the St. Lawrence market were very good; a large number of farmers in, doing their Christmas shopping.

Wheat.—1,300 bushels of wheat at 67c. for white, 67½c. for red, and 62c. for goose, per bushel.

Barley.—Bright-colored sold at 43½c. per bushel; graded sold at 41c.; about 1,200 bushels bought on the street market.

Oats.—Offer 1,200 bushels, sold at 29c. to 30c. per bushel.

Rye.—One load only, sold at 31½c. per bushel.

Hay.—About 60 loads sold on Friday and Saturday at from \$13 to \$14 per ton.

Straw.—Four loads sold at \$12 to \$12.50 per ton.

Dressed Hogs.—About 100 dressed hogs on offer from farmers' wagons, sold at from \$7.50 to \$7.55 per cwt.

Hides.—No. 1 steers, 9c. per lb.; No. 2 steers, 8c. per lb.; hides (cured), 9c. per lb.; calf skins, 8c. per lb.; lamb skins, 90c.; horse hides, \$3 each; deer skins, 10c. per lb.; wool (pulled), 18c. per lb.; sheep (fleece), 10c. per lb.