

then only a very small quantity at a time. I gave two pints of raw linseed oil, warm injections; half a teaspoonful of nux vomica in her feed daily. I have six horses taken with a cough within forty-eight hours. Please let me know what is the matter with the mare and prescribe for the horses coughing."

[Azoturia is a complex affection of the liver and kidneys, due to feeding too largely on corn. It is directly due to high feeding. Oats, peas, beans, corn and clover hay are the principal causes. The disease is never seen at pasture or in regular work, and, due to an over-nitrogenized condition of the blood, the poison is not present when taken from the stable, as the horse is likely to be noticeably very fresh and spirited; in fact, unusually so. After a mile, sometimes less, he succumbs, falters, reels, and falls to the ground; and it is noticed rather more frequently in mares than horses. Symptoms have been well described—a few unnoticed: dusky brown condition of the mucous membrane of the eyes and nose, convulsive twitching of the muscles of flank and loins, and the urine highly colored, dark brown, coffee, red or black, and of the consistency of syrup, but contains no blood or the constituents of blood. In this case it is remarkable that the mare did not die, and the recovery will be protracted, with the paralysis continued for some months. No doubt you will observe considerable wasting of the hind quarters, and great disposition to lie down in the stall. Give the mare a summer's run at pasture, as treatment is too late to be of any service. For the animals coughing obtain the following cough powders: Potass. tartrate of antimony, 1 oz.; per. sulphuret of antimony, 4 oz.; sulphur sublim., 4 oz.; digitalis powder, 1 oz.; nitrate of potass., 4 oz.; liquorice powder, 4 oz.; aniseed powder, 4 oz. Dose: a tablespoonful night and morning.]

Miscellaneous.

Further Information Regarding Mr. Tillson's New Pigery.

G. A. A., Wentworth Co., Ont.:—"I would be pleased if Mr. Tillson would give something more definite about building the walls of his pigery. (1) Is it a 4 in. or 9 in. wall? (2) Is it lined with lumber inside? (3) Would a brick wall be too damp for pigs without being lined? (4) Does the ventilation shaft continue from end to end with two-foot sewer pipe? (5) How does he fasten his partitions to iron posts? (6) Where does Mr. Tillson get his half circle boiler iron for troughs? (7) What is best material for packing between partitions besides sawdust or chaff? I think either would rot or harbor mice."

To the Editor FARMER'S ADVOCATE:

SIR,—In answer to your correspondent I will endeavor to make clear the points specified. (1) The brick walls are 18 inches thick, built on stone foundation 18 inches thick, 8 feet in the ground and 16 inches above ground. The brick walls are 14 feet high to the plates. (2) Three and a half inches above the floor, and also three feet above that, are bedded into the wall 2x4 inch pine scantlings for nailing the wainscoting to. The 34-foot wainscoting is of 6-inch dressed and matched pine, behind which is a 1-inch dead air space. This lining was given two coats of best lead and oil paint to prevent rot. The walls, partitions, doors, etc., are again lined with No. 24 galvanized iron 30 inches wide, so that all wood is covered 30 inches high. (3) In my opinion stone or brick walls without lining would be too cold and damp, but I would not seek to improve this by a packing of sawdust or chaff, as a dead air space keeps out cold and heat, rats, mice, etc. (4) My ventilating shaft is a sub-duct consisting of 24-inch sewer pipe. It is laid 5 to 6 feet underground. Near each end it has an elbow, one coming to the top of the cement floor in the center of the passage. It is here covered by a grate. The other end of the duct comes out of the ground 75 feet away from the building, where it is carried 16 feet high and fitted with a revolving bell-mouthed hood, having a tall which always holds the mouth facing the breeze, so that fresh air is always being forced into the center of the pen. The outlet for foul air is by 6 chimneys or flues, two at either end and one at each side. They are carried well above the building, always assuring a good circulation of air. My cow stables are similarly ventilated, but have sewer pipes leading out on two sides of building. (5) The partitions between pens are of 2-inch plank, tongued and grooved. The ends of planks next the iron posts have concave grooves just fitting the posts tightly. The other ends of planks are held in place by narrow cleats. (6) I got part of my troughing from E. Leonard & Sons, London, and part from Robert Whitelaw, Woodstock, Ont. (7) Dead air space surpasses packing of any sort. Trusting I have helped your correspondent and others, I remain,

E. D. TILLSON.

"Annandale Farm," Norfolk Co., Ont.

Butter-fat and Butter Yield.

SUBSCRIBER, Huron Co., Ont.:—"(1) Is it possible for the percentage of butter over butter-fat to vary every month. (2) In what way is the per cent. of butter over butter-fat composed, and what is butter-fat? (3) Will not a pound of butter-fat make as much butter one month as another? (4) Is 13 per cent. of butter over butter-fat a good average or is it not? (5) If a party sent milk to a butter factory for the months of May and June, sending 1,234 pounds in May and 2,712 pounds in

June, the test for May being 3.8 and for June 3.5, the percentage of butter over butter-fat 13, and butter sold at 16½ cents a pound, what difference would there be if this party was charged 3 cents a pound on butter-fat or 4½ cents on butter for making."

(1) Yes. If, however, the buttermaker is a thoroughly capable man and the person entrusted with the testing of the milk is one well schooled in his work, the variation will be slight. (See answer to third question.)

(2) The composition of good creamery butter is about as follows:

Fat	82 per cent.
Water	12 "
Casein (curd)	1 "
Ash (chiefly salt)	3 "

Your correspondent asks, What is butter-fat? I do not suppose that a chemical explanation of fat is what is desired, therefore I would simply say that it is the oily or fatty part of milk. It will be readily seen by the above that the reason more butter is made than there is fat is because of the addition of the water, curd and salt to the fat.

(3) Not necessarily. In this let your correspondent note two things: (a) That it is next to impossible to skim milk and churn cream with exactly the same perfection day after day. (b) That, despite very great care, the percentage of water, curd and ash or salt retained in the butter will vary, since they are not chemically combined with the fat, but only mechanically. Nevertheless, under the oversight of trained men the variation between the relation of butter-fat and butter will be kept comparatively uniform.

(4) It is a fair average—indeed, a good one. Unless an undue quantity of water be left in the butter, 15-16 per cent. is about the outside limit.

Month.	Pounds Milk.	Test (13% overrun)	Pounds Fat.	Pounds Butter.
May	1,234	3.8	154	161.5
June	2,712	3.5	355	363

Pounds fat = 154 x 30 = \$4.62 for making.

Pounds butter = 161.5 x 40 = \$6.46 for making.

The price of the butter does not affect this question. It is, however, plain that there is no near relation between these methods of charging for making. I think your correspondent got things wrong side first and meant 3c. charge on the butter and 4½ cents on the fat, in which case the relation would be as follows:

Pounds fat = 154 x 4½ = \$6.93.

Pounds butter = 161.5 x 30 = \$4.84.

In any case, however, the charge for making should not be based on the pounds fat, but on the pounds butter, for these reasons: If based on the pounds fat, then by reading the tests high the receipts for making could be increased, even to a considerable amount. Not only so, but this would relieve the maker from feeling, in a financial way, any undue losses of fat in skim or butter milk. And again, the patrons or management would have no check upon the accuracy of the basis upon which the charges for making were made, whereas when the basis is the actual butter, then only as many pounds as are accounted for in the month's sales will be paid for.

"Subscriber's" letter but adds evidence to the known facts that a great many men are making butter who are but very imperfectly equipped for their work. A very limited number know how to test milk properly, and very many are wholly in the dark as to the actual fat content of their by-products. The sooner our boards of management decide to engage men trained in a good school of buttermaking, and who can show their diploma from such an institution, the better will it be for our creamery business.

F. J. SLEIGHTHOLM.

Western Dairy School, Strathroy.]

Salt on Young Clover.

A SUBSCRIBER, Victoria Co., Ont.:—"Would you kindly advise through the ADVOCATE, if salt will hurt young clover? We intend sowing a quantity of salt on land to be sown with wheat and seeded down with Alsike clover and timothy? Would salt used on dry pork be suitable for land purposes? Should salt be sown with grain, or after it is up?"

[Salt should be sown broadcast on the land before the grain and clover seed is sown, or immediately after, so that it may be dissolved and absorbed before the plants appear above ground. If sown after the plants are up it will be liable to kill many of them. Salt used on pork is all right if worked into the land before sowing seed, or sown on surface after seeding and before seeds germinate, if it is dry and well distributed.]

Co-operative Milling.

T. W., Peterboro Co., Ont.:—"We, the farmers of this district, are thinking of forming a joint stock company for the purpose of erecting a grist mill, the capacity being 40 barrels of flour and 75 bags of chop per day; the cost when completed to be \$10,000, to be divided into 400 shares of \$25 each; the power being a first-class water power. The dam is built by the Government, and will be maintained by the same, being situated on the Trent Valley Canal. We would ask you to kindly advise. Whether do you think this would be a good investment or not? By answering this in your next issue you would very much oblige a subscriber."

"P. S.—Which do you think would be the most satisfactory to have it in the hands of 400 shareholders or have some men hold say ten or more

shares each. Some men in the village purpose taking as high as 40 shares.

[NOTE.—Will readers who have facts bearing upon the subject kindly write us at once.—EDITOR FARMER'S ADVOCATE.]

Alder Buckthorn for Hedge.

H. F. D., Oxford Co., Ont.:—"Will you kindly inform me through the columns of your valuable paper how alder buckthorn hedge seeds should be planted and cultivated in order to make a hedge?"

[Regarding alder buckthorn (*Rhamnus Frangula*) I may here give you our experience. The seed should be planted in early spring, in good, friable soil, well drained, and it will germinate readily the first season. The young shrubs should be transplanted the following spring to nursery rows, or if the plants are strong enough could be put into the hedge row at once; if not, they should be allowed to grow in the nursery for another year. After the first season the young plants should be clipped yearly in order to ensure a close hedge. The alder buckthorn has made a very compact and satisfactory hedge with us, planted fifteen inches apart in the row, and will prove very useful where a quick-growing ornamental hedge is desired. The alder buckthorn when in flower appears to attract the honey-bee, and as this shrub continues to flower for a period of from six to eight weeks, the bee must procure a large quantity of nectar from it.

W. T. MACOUN, Horticulturist.

Central Experimental Farm.]

Pasture for Hogs.

E. M., Huron Co., Ont.:—"Can you tell me in your valuable paper what is the best hog pasture? How would lucerne answer for this purpose?"

[There is, in our opinion, no better pasture for hogs than the common red clover, and it should be kept short by being eaten down or cut so that it may not at any time be more than six inches high. Lucerne grows rapidly and produces heavily, as it may be cut three or four times in a season if sown on good, well-drained land, and it will hold in the ground for five to ten years. We do not know from experience what its value is as a hog pasture, but should judge it would give good results. It should also be kept short, and if cut for hay it should be done early, in the first bloom, before the stalks get hard. A fair catch of the seed may be obtained when sown with barley or spring wheat, but it is safer to sow it alone at the rate of fifteen pounds per acre in April or early in May on a well-prepared seed-bed and cover with a light harrow, and it may then be cut once or twice the first season or pastured. Tares sown in the spring will also make good pasture for hogs.]

MARKETS.

FARM GOSSIP.

Lincoln Co., Ont.

There is little change here in prices of farm produce from last month's report. Butter was scarce during the latter part of March, selling as high as 30c. This week's market saw it at 20c. per lb. Eggs are down to 10c. a dozen. Beef and pork much as they were. The exceptionally fine, mild weather during March dried the ground quickly and made good roads much earlier than usual. A little plowing has been done on ground for peas and oats. It is unwise to prophesy about the fruit crop. Last month's high temperature forced on the buds undesirably. Some of the earlier varieties of the Japanese plums were almost ready to burst into blossom by March 31st. It turned colder, however, on the first of this month and has been steadily cold since, with strong N. E. to N. W. winds. The mercury stood 14° above zero in the early part of the week. I do not think much damage, if any, has been done, and better have this weather now than later; cold and unpleasant as it is, it is probably a blessing in disguise, by retarding the development of the buds. We admit at the same time, that the disguise is too pronounced a one for comfort. M. B.

Bruce Co., Ont.

Contrary to the old adage, "If March comes in like a lamb, it will go out like a lion," March commenced fine and warm and continued the same during the whole of the month. On the whole, had an exceptionally fine winter. Up to the time of writing have had severe frosts, cold north winds, and a few flurries of snow since April came in. Fall wheat came out from under the snow in good condition, and up to date is looking all right.

The farmers who were holding their wheat for \$1 per bushel, so far have been disappointed. There are considerable numbers of fine cattle being stall-fed for export, many stables having from 4 to 25 head. At present the outlook for fair prices are not very encouraging. Feed for stock is abundant, and generally all kinds of stock are looking well. Hay, when it can be sold, is worth about \$5 per ton. Without an outside market can be procured, there will be large quantities held over for another season. Good, sound horses in a marketable condition are being picked up at rather improved prices, ranging from \$65 to \$125 each for heavy horses. Milk cows are scarce and have been fetching good prices at auction sales of farm stock.

One cheese factory, at least, in this neighborhood purpose putting in plant to make butter as well as cheese. The spring opening so early was favorable for farmers to advance their spring operations and a large area has already been plowed. In some localities farm laborers are scarce and wages have advanced some over last year, ranging from \$14 to \$16 for the summer months. A few farms are changing hands at rather higher prices than for the last two years. Good farms can be bought from \$35 to \$50 per acre, depending upon locality, class of buildings and fences, and state of cultivation. Farms are being wanted to rent at about

\$2 per acre if in The exodus of and farmers' so numerous than

The Martin by auction for 90 acres of first but a poor house land in Hullett tained for a far

The continu doing great da many cases it weeks ago thin an increased ac farmers were lo

Since I last to the end of I feel as if we ha in some days o in any winter quickly, proba in the fall, or was not much from below clover this year considerably cheap and ple but most farm grass. As a r things. Stock hard to get a g dear, ranging weather sets i plowing, but i market is not Chateaugay

Immediate change in the This mild wea and we fear th been hard on t how much it i very little froa ary. Spring I At present wri men are not so former years, the factories w ing the two ho in September.

Hog feedi packing-house Hogs will now a month or tw

A second p by the farmer count of our being in the think that a s petition that v best quality scarce. There was a month a quiry. Best Oats are adva 80c. Potatoes All stock winter, and w There are no vincial exhibi will be asked so our Provin be thrown ope Bay View.

A consider not of the best of any day thi 400 sheep and market to ev annex was the This state of morals of To rapidly increa modations, it v advised that market by tal improved catt

Report Ca via St. John's than they we 40c. per lb. A One load of ch sold for \$4.40 porters, 1,200 l 15 cars of expo Wilson, the w Northwest on quarters. Sev space is to be l

Butchers' and choice ca farmer feeling, the close of th 40c. per lb. A at \$3.55 per c butchers' heif cattle sold dow for als John's and H lbs. average, e the Bull's He record, dining single compl

Feeders.— \$3.70 per cwt. Buffalo. Pric Stockers.— demand at \$3.5