

where the main branches have their origin, will cover the whole surface liable to attack, and if applied during the morning of a warm day will dry in a few hours, forming a tenacious coat not easily dissolved by rain. The soap should be applied early in June and a second time during the early part of July.]

WIREWORM—COUGHING PIGS.

SUBSCRIBER, Middlesex Co., Ont.:—"1. Can you inform me of anything that will destroy the wireworm? I have a ten-acre field of oats destroyed with them. It was a hay field and I plowed it after taking hay off in '94 and sowed it with wheat; plowed in the fall of '95; sowed oats this spring. I also sowed about five acres of fall barley in another field. Last fall they took about one-third of the barley, and this spring I sowed spring barley on the bare spots, but the worm destroyed all the spring-sown grain.

"2. My small pigs have had a bad cough since last spring; they have it yet, but are growing better. It does not seem to hurt them much. I have two little fellows about three weeks old that were with their dam about two weeks, and they have the cough. They never got cold or wet that I remember of.

"3. Have you heard of any hogs dying from the disease?"

[1. Owing to destructive ravages by the wireworm in various parts of the United States, Prof. J. H. Comstock, the Entomologist of Cornell University, conducted some especially interesting experiments with reference to the destruction of the larvæ, the pupæ, and the mature beetles, and has arrived at conclusions that are noteworthy as being of essential value to the farmers wherever the wireworm has taken up its habitation. His experimentation extended over a period of three years, employing three methods of action: First, protection of the seed; second, destruction of the larvæ; and third, the destruction of the pupæ and mature beetles. Under the first head many processes were employed, but none of them accomplished anything of importance. With regard to the destruction of the insects, fair success was met with by fall plowing the ground. It has been ascertained that after the worm commences the process of pupation he loses his power of action as a worm, and the slightest disturbance or interference will operate to destroy him. This is likewise true of the pupa and of the young beetle. Assuming that the worm commences to pupate on July 1st, it is reasonably sure that any reasonable disturbance of the earth in which the cell is located up to perhaps the 1st of October will destroy a large proportion of the pupæ and young beetles. It is recommended that the ground be not only plowed but that it be frequently stirred and also rolled, as the worms do not thrive so well in soil that is compact.

2. Hogs will sometimes be troubled with cough and to all appearance be in good health. Such a cough is likely caused by an irritation of the throat, not sufficient to cause the animal to be sick; or it may be the result of indigestion or worms. See that the pigs have clean, warm, dry beds, free from dust; and while well ventilated, free from draughts. Give each hog one or two teaspoonfuls of sulphur mixed with two tablespoonfuls of syrup in a little food twice a day for a few days. Sometimes a physic of Epsom salts, one or two ounces dissolved in half a pint of water, will remove a cough if the animal seems to be in good health. If the cough is very troublesome give a teaspoonful of compound syrup of squills twice a day for a few days. Also rubbing a little mustard on the throat once a day for a few days will often be useful.

3. No.]

CUTWORMS (Agrotis).

HENRY BRIGHAM, Grey Co., Ont.:—"A new pest, about an inch long and dark in color, has made its appearance in this neighborhood. It is eating out fall wheat, oats, and peas below the ground. Please describe and prescribe. What crops should be sown on land that has to be plowed because of them?"

[There is no doubt but the pest is one of the cutworms, of which there are several varieties. While they are most prevalent and destructive on crops sown upon inverted sod, they occasionally destroy a field of grain upon other land. When a crop is noticed to be under way of destruction, nothing can be done to save it, so that plowing and resowing is the only alternative to prevent the loss of a season with the field. At this late date, if a grain crop is desired, nothing better than peas can be sown, which will likely do as well in sections where the "bug" is prevalent as if sown earlier. If the hay cut threatens to be short, millet or corn should give a good return. The former is the better, as it is less likely to be destroyed by the worms. The best method known for destroying cutworms is autumn plowing and thorough cultivation, as at that season the grubs have entered the pupal stage, when they can least withstand interruption.]

The Storrs Experiment Station (Conn.) draws the following, among other conclusions, from a careful study of rations fed to milch cows: "The nitrogenous (protein) feeding stuffs, like clovers, cotton seed, linseed and gluten meals, should be more extensively used as dairy feeds. These feeds have been shown to exert a greater influence on the quantity and quality of animal products than corn and even wheat feeds, and when the manure is carefully saved they are of great value for keeping up the fertility of the farm."

LIVE STOCK MARKETS.

Toronto Markets.

Export Cattle.—We see no marked improvement in the export cattle business. The first shipment from St. John's, Newfoundland, arrived in Deptford (346 head) May 9th, and met a poor sale; 5 pence per pound estimated carcass weight. The demand in the Old Country markets is kept down by the large offerings of United States cattle. A few picked head brought 4c. per pound; most of the sales were made at from \$3 to \$3.90 per cwt. for mixed loads. Dealers seemed quite indifferent and only bought picked lots to fill space already secured.

Butchers' Cattle.—Good butchers' cattle in demand; prices shaded from last quotation; the best price for extra choice fat cattle, 3½c.; half fat, \$2.90. A few fancy cattle fetched 3½c. per pound; while some others sold as low as 2c. to 2½c. per pound; many remained unsold at the close of the day. One load of 8 cattle, 888 pounds, sold for 3c. per pound. One load of 16 cattle, 21,160 pounds, 3c. per pound. One load, 1,060 pounds average, sold for \$2.40 per cwt.

Bulls.—Mr. Crawford was the chief operator in this line; one bull, 1,530 pounds, 4c. per pound. Nine bulls, 7,740 pounds, \$3.50. One or two went at 2½c. to 3c. for shipping purposes.

Sheep.—Sheep are dull at 3c. to 3½c. per pound.

Lambs.—Choice grain-fed lambs, \$3 to \$4 each. Yearlings with the wool on rule from 4½c. to 5c. per pound; extra choice, \$5 each.

Milk Cows.—Quite a number of good-looking dairy cows were on offer and all sold before the close; \$35 to \$40 for choice.

Cattle.—Steady; offerings heavy, but most of them cleared before the close of the day, except the very poor quality. Prices from \$3 to \$5 per head.

Stocks and Feeders.—Not many on offer; all the good half-fat feeders sold; no request for light stockers. Prices of good feeders rule at from \$2.75 to \$3.50 per cwt. Light stockers fetch only 2½c. to 2½c. per pound.

Hogs.—Choice selections of bacon hogs were firmer to-day, selling at 4½c. per pound. Heavy thick fat are dull; not wanted; too many on the market; \$3.50. Mr. Sintelair, of Essex County, brought in to this market nearly 1,000 this week. Stores are steady at 3½c. per pound. Stags and rough hogs, 2c. to 2½c. per pound.

Dressed Hogs.—Very few dressed hogs in this week; prices quoted, \$4.75 to \$5; heavy hogs, \$4.

Barley.—Steady; one load of white at 78c.; one load of goose wheat selling at 5½c. One load of red wheat, 74c. per bushel.

Oats.—In full supply; easier; selling at 25c. per bushel; quite a few loads have been taken for export; 800 bushels changed hands.

Peas.—Steady; selling at 52c.; 100 bushels sold.

Straw.—Dark, heavy barley would sell at 26c. to 28c. Choice malting grades are quoted at 39c. to 41c.

Hay was in good demand, and with a better quality offering, brought higher prices. About twelve loads sold at \$11 to \$15; one load, \$16; prime quality.

Baled Hay.—Stocks are large and movement is slow. Cars No 1 on track are quoted at \$12 to \$12.50.

Butter.—Tub butter is more plentiful, and there is an easier feeling in the market. Roll butter generally arrives in poor condition and is difficult to dispose of. Dairy pound rolls, 16c. to 18c. Supply more plentiful.

Eggs.—The deliveries liberal; prices unchanged; 9c. to 11c. per doz.

Hides and Skins.—There has been an advance in the price of hides in the United States, and the trust there has recently made some large purchases. A buyer on this market during the week cleared up quite a number of warehouses. The demand all round is better. The feature during the week is the advance of one cent per pound in beef hides, due principally to the improved demand from the tanners. Dealers pay 5c. for No. 1, 4c. for No. 2, 3c. for No. 3. Cured hides firmer at 5½c. to 6c.

Wool.—The movement in new wools has been moderate. New fleece brings 18c.; rejections, 15c.; and unwashed, 11c.

Montreal Markets.

Cattle.—The better prices noted in last report, consequent upon demand for export stock, have not been maintained, caused principally by the continued depression in the British market, and also by the heavier receipts of stock, which very little can be called export, but which are good butcher cattle. Only the very best of export cattle realize up to 4c. per lb., the larger range of sales being around 3½c. Of course this is largely governed by what is wanted to fill space, which is seldom beyond a load or two, the quality and price of cattle to be had often inducing exporters to take hold; therefore the absence of any needed demand keeps figures down. Butchers' stock has been sold very low on the past two weeks' markets, choice, even, little heifers or steers, running from 1,000 to 1,100 lbs. average, being had for 3½c. per lb. One large buyer, who handles over 100 head weekly, said these were the cheapest cattle he had ever bought, and there were lots of them. One lot of 11, weighing 10,015 lbs., made 3c.; 4 head, 3,625, 15 head, average 1,650 lbs., at \$3.35; 12, average 1,800, at \$3.55; 23 head, average 1,000, at 3½c.; and so the sales went.

Sheep and Lambs.—Old sheep were a little heavier run and made from \$2.50 to \$5 each. Lambs are coming in more freely, but the good demand for them keeps prices up, a matter also aided by the better quality of those brought in. Sales at \$1.50 to \$4 each, according to quality, were freely made.

Culres.—Continued heavy run of calves kept prices down, and a large number were carried over from last market (Thursday) to swell future offerings. No high figure has been paid that we have heard, the tops being readily had for from \$7 to \$8.50 each, medium grades \$4 to \$6, and small and inferior lots down as low as \$1.50. One butcher's purchases of 52 head, weighing 55 lbs. dressed, cost \$2.10 each.

Live Hogs.—The usual run brought in by local shippers, contracts west not being included. The best that has been paid for light, handy-weight hogs has not, however, got beyond \$4.25 per cwt. off cars—the usual price—and \$3.90 to \$4.10 in the yards; fed and watered, contracts, \$4.10.

Hides and Skins.—An active demand springing up from tanners has sent beef hides up one cent per pound to five cents, and all accumulations have been speedily cleared out. Quotations for heavy (60 lbs. and up) and light (50 lbs. and down) are 5c., 4c., 3c. per lb. for Nos. 1, 2, 3 hides. Owing to keen competition in lamb skins, clips have been advanced to 25c. each. Calf skins steady.

British Markets.—Cables received to-day (Monday, 25th) were of an improved nature, but sales received did not bear out any improvement; one shipper's sales losing him \$10 per head. Best stakes were quoted at 10c. per lb., and choice Canadians from 9c. to 10c. per lb. Ocean freight rates are unchanged at from 35 to 40 shillings, Glasgow and Bristol being the strong points.

The French Trade.—The predominant feature of the past two weeks has been the opening up of new markets that to France, although not quite a new venture, have been put on a more business-like foundation, regular sailing of steamers being arranged, and a Canadian salesman being appointed to handle consignments; the other market receiving its first consignment being Manchester. The prospects for these two latter ports, however, do not seem to be overly bright, and it would not be surprising if the first shipment to the latter port would be the last. Advice received to-day from France points to the infectious nature of the depression in the foreign cattle markets—this latter place showing a decline in values of 43 per head from the time of the sailing to the arrival of the first steamer, the Sarnia. This seems strange. A fact worth mentioning may be the large consignment of 610 bulls made by Mr. Vanlandeghem to France on the Fremont, most of which were distillery-fed.

Chatty Stock Letter from Chicago.

(BY OUR SPECIAL CORRESPONDENT.)

Top prices for different grades of live stock, with comparisons:—

CATTLE.	Present Prices.	Two weeks ago.	1895.	1896.
1500 lbs. up.....	\$ 4.25	\$ 4.55	\$ 6.05	\$ 4.40
1350 @ 1500.....	4.40	4.50	6.05	4.40
1200 @ 1350.....	4.40	4.50	5.85	4.35
1050 @ 1200.....	4.25	4.35	5.65	4.20
900 @ 1050.....	4.15	4.25	5.45	4.15
Stillers.....	4.00	4.35	5.50	4.10
Stks. and F.....	3.80	4.00	4.65	4.12
Fat cows.....	3.85	4.10	5.15	4.00
Canners.....	2.30	2.30	3.20	2.70
Bulls.....	3.40	3.25	4.50	3.50
Calves.....	5.00	4.75	5.65	5.10
Texas steers.....	3.90	4.10	5.10	3.90
Texas C. & B.....	3.35	3.40	4.25	3.25
Hogs.....				
Mixed.....	3.50	3.65	4.75	4.95
Heavy.....	3.47	3.60	4.85	5.00
Light.....	3.58	3.75	4.70	5.00
Pigs.....	3.40	3.80	4.50	4.80
SHEEP.....				
Natives.....	4.00	3.90	5.35	4.85
Western.....	3.65	3.80	5.35	4.60
Texas.....	3.60	3.75	4.55	3.90
Lambs.....	5.15	5.10	6.30	4.75

Prices are extremely low, and there is no flattering prospect of betterment for a while, as receipts are large and the demand still narrow.

The army worm has appeared in many Western localities, and as a result a good many young cattle are being forced to market.

At present there is very little profit in feeding any kind of stock; but there is certainly no profit in selling grain.

Prices for light store cattle are not much below figures paid for choice heavy beefs, but should the army worm pest develop, as is feared, the relative position will be changed.

Here is an opinion of an expert hog salesman which is of interest even if one does not agree with it. He says: "This is the only country at the present time that can successfully raise hogs and corn on a large scale, and the present and prospective era of low prices will doubtless have a tendency to cause other countries to liquidate and go out of the hog business, which in time will be reflected in the shape of a better and broader market here."

Another man says the reason light hogs are so scarce now is because farmers had the corn, and fall shoats that would ordinarily be coming along as light weights are now coming as 240-lb. to 290-lb. hogs. While the spring crop of pigs was good the spring pigs can't hurt the market before fall.

A hog buyer who says he can't see any turn in the provision trade yet, thinks the hog crop will continue to move freely, and is of the opinion that it is universally large. Now that country prices are below the 3c. point and owners have lost faith in better prices, he thinks we may count on natural runs from now on, and heavy ones, too.

Present hog prices are the lowest in over sixteen years, or since 1879. In December, 1873, \$3 was the extreme top price for fancy heavy, with "droves" of packing during the month around \$2.50.

One of Chicago's leading commission men says: "We have not been able to detect anything in the situation that would warrant a belief in anything but a weak and declining market, and while we look for a fairly active demand right along, we do not believe that hogs have struck bottom yet. Even the present comparatively low prices for hogs are high when compared with the price of other stock, grain or feed; and hogs are about the only commodity that is selling above the cost of production, and the consumptive demand are light and will doubtless continue so until people generally understand that times are on the mend."

To show how buyers are discriminating against the big-weight cattle, the following among the purchases of one day recently are shown:

D. Moog bought 1,281-lb. steers at \$3.90. B. Wolf bought 687-lb. heifers at \$4.05. Swift bought 1,161-lb. to 1,167-lb. steers, \$3.90 to \$4.10; 1,013-lb. to 1,140-lb. steers, \$3.65 to \$3.85; 1,267-lb. to 1,307-lb., \$3.85 to \$3.95. Armour bought 1,428-lb. to 1,641-lb. steers at \$3.80 to \$3.90. Eastman bought 1,431-lb. to 1,656-lb. steers at \$3.75 to \$3.90. Morris bought 1,558-lb. steers, \$3.75, 1,491-lb. to 1,797-lb. steers, \$3.70. Schwartzkopf & S. bought 1,277-lb. steers at \$3.95. Hathaway bought 1,455-lb. to 1,693-lb. steers at \$3.75 to \$3.80.

Canada and the United States ought to do more towards supplying the Old World with mutton. Of the 6,000,000 mutton and sheep carcasses annually exported to Great Britain for home consumption, the United States furnishes only about 8 per cent.

The last of the Colorado lambs are on the road, and a week or two more will see the end of them for this year. About 175,000 lambs have been sent to market from Fort Collins and vicinity this year, nearly all of which came to Chicago. The quality was exceptionally good, and prices were relatively high compared with good native lambs, yet about \$1 per hundred lower than a year ago.

New York Horse Sales.

At the American Horse Exchange sale, New York, recently the first consignment was made by J. W. Wilson, of Chicago, who offered his first lot. The best price realized was \$1,600 for a matched pair of Morgans. Other pairs sold down around \$500, \$450, \$475, and some single roadsters brought \$375, \$300 and \$150 each. The latter sale was a consignment of M. H. Tichenor & Co., Chicago, who have sold five such lots since February. The present average was nearly \$350. Pairs sold for \$900, \$925, \$850, and less. Some of the best single cobs brought \$480, \$450, and \$130 each.

Toronto Horse Market.

The usual weekly sales at Grand's Repository have been well attended, large numbers of horses changing hands. Good horses are more difficult to find. Mr. Lord, of Brookline, a suburb of Boston, Mass., was over and purchased nine useful carriage horses for that city and will return in two weeks. Mr. C. O'Brien, Brookline, Mass., was also purchasing a number of fine carriage horses. Horses recently exported met a fair demand and made some money.

Death of President Betts.

We regret to announce the death, on May 21st, of Mr. Silas Betts, of Camden, N. J., the honored President of the American Guernsey Cattle Club. He was a native of Bordino, N. Y., where he was born, May 9th, 1823. He has been devoted to Guernsey breeding for nearly a quarter of a century, and was one of the organizers and chief promoters of the Club. He was an able contributor to the agricultural press.

The law against sheep scab is being rigidly enforced in Scotland, farmers being heavily fined recently for not reporting cases, for moving affected sheep on the roads, and for pasturing sheep suffering from scab in fields adjoining the highway, the penalty in the latter case being £5.