### A Regular Delivery Preferred.

In reply to your letter of 2nd inst. we would say that in our opinion the right class of hogs for the English market would always have a steady demand and obtain a reasonable price. The English market requires the hogs long and not too fat, about 1 to 1½ inches fat on the back, with thick bellies and good plump hams. If the farmers would weigh their hogs frequently, and as soon as they weigh between 160 and 200 pounds live weight deliver them and avoid rushing in smaller and larger hogs, the supply would be more regular, and the prices would keep better. We find that the great fault is, that as soon as the hogs are dropping a little all classes are rushed in to the market.

THE CANADIAN PACKING CO., John H. Ginge.

### Chatty Stock Letter from the States.

FROM OUR CHICAGO CORRESPONDENT.

Top cattle, $4.75; top hogs, $5.10; top sheep, $5.25; top lambs, $6.00. This is a decided improvement over a month ago. As compared with a year ago prices are fully $1.00 lower on cattle, $2.00 and $2.40 lower on hogs, and 25c. and 50c. lower on sheep and lambs. However, the prices for live stock show up very well indeed, considering all things.

The sheep market is fully $1.50 higher than a month ago, and the sheep feeders who a few weeks ago thought there was no good in the outlook, and that they might as well "cut loose" one time as another and save feed, are feeling very much like kicking themselves. Even the cheap grades of sheep are selling better. One lot of 1,211 Oregon sheep, averaging 87 lbs., sold on feeding account at $3.60 for 100 lbs.

The cattle situation has also mended in an astonishing degree, and feeders and shippers are not putting on such long faces. Cattle feeders, it is true, are not making any money, but people in other lines of business have not complained very loudly this past year if they could keep from losing much. It is said the owners of Texas cattle fattened on cottonseed meal have suffered losses of $5 to $15 per head on the season's work, but mainly on account of the sharp competition for meal and cottonseed hulls, which ran prices up to a point at which no profit could be made, unless bonanza prices were obtained for the beef. The marketing of cottonseed cattle is about over for the season, and there will be quite a gap between the last of them and good grass Texas beeves. The severe drouth in Southwestern Texas is doing great damage to the cattle interests down there. The cattle are too thin to stand moving to good pasture. The Wyoming and Montana ranchmen are not buying very freely of Texas cattle so far, but they will want a good many. The winter has been very severe in Colorado and Wyoming, but favorable in most parts of Montana.

Horsemen are feeling decidedly better, though the prices for plugs and common horses, which are so abundant, have not advanced much as yet. At a recent sale of good coach horses here a number of pairs sold at $500 to $1,350. Several foreign gentlemen have been buying horses on the Chicago market lately, and something like 100 head of coachers and drivers were sent forward one week destined for Dublin, Edinburgh and Havre. At the sale in question one hundred and nineteen head were disposed of at an average of $277.96. The following were among the best prices realized:

| | |
|---|---|
| Pair brown geldings, W. Osborne, city | $ 940 |
| Pair chestnut geldings, W. Randolph, city | 550 |
| Pair bay geldings, W. Peters, Manista, Mich | 1,250 |
| Pair chestnut geldings, W. McDonald, city | 700 |
| Pair brown geldings, H. Peabody, city | 725 |
| Gray gelding, G. S. Gaynor, city | 420 |
| Black Gelding, E. A. Hill, city | 500 |
| Pair chestnut geldings, J. Dupee, city | 1,350 |
| Pair brown geldings, J. R. Walker, city | 650 |
| Brown gelding, A. Stephen, Edinburgh, Scotland | 1,175 |
| Brown gelding, J. Arnheim, Pittsburg, Pa | 725 |

The indications point to better conditions in the general live stock trade.

The first three months of 1894 Chicago, Kansas City, Omaha and St. Louis received in round numbers 5,752,000 head of cattle, hogs and sheep. Cattle receipts at Kansas City, compared with a year ago, increased 69,000, while Chicago decreased 76,000, Omaha 44,000, and St. Louis about 12,000. Receipts of hogs at Chicago the first quarter of 1894, compared with a year ago, increased 570,000; Kansas City increased 170,000; Omaha, 88,000. and St. Louis 69,000. Chicago increased 140,000 sheep, and St. Louis 24,000, while Kansas City decreased 2,200 and Omaha 18,000, compared with a year ago. Of 5,752,000 head of cattle, hogs and sheep received at all four markets for the three months, Chicago had 3,450,000.

### A Lesson from Tuberculosis.

The present tuberculosis scare will not have been wholly bad if it leads breeders and dairymen to provide better sanitary conditions for cows.—[Hoard's Dairyman.

The scare will not be wholly bad if it leads to more rational methods of breeding on the part of some of the special purpose dairy cow breeders. They have sapped the constitutional foundations of their cattle by breeding too young and in-breeding. Animals have been mated without regard to relationship, and following that with an unnatural system of forcing, it is not to be wondered that a ruinous predisposition to this alarming disorder was developed.

## FARM.

### Prof. Saunders' Report.

The advance report of the Director of the Dominion Experimental Farms contains as usual a vast amount of valuable information for the farmer. This pamphlet comprises a short account of the workings of the different experimental farms, a report of Prof. Saunders' work at the Columbian Exhibition, together with the results of the different experiments carried on at the Central Experimental Farm at Ottawa. A very interesting and instructive table of the constituents which are taken from the soil by ordinary farm products is given. As far as possible these figures are compiled from analyses made by the chemist of the Experimental Farm, supplemented by information obtained from American Experimental Stations and German experimenters. As the figures will be of great use for reference, we give them in full:

| | Nitrogen in lbs. | Phosphoric Acid in lbs. | Potash in lbs. |
|---|---|---|---|
| A wheat crop of 25 bushels per acre, with 2,200 lbs. of straw, takes— | | | |
| For the grain weighing 1,500 lbs. | 28.50 | 12.68 | 8.54 |
| " straw " 2,200 " | 12.03 | 4.96 | 10.57 |
| Total | 40.53 | 17.64 | 19.11 |
| A barley crop of 35 bushels per acre, with 2,000 lbs. of straw takes— | | | |
| For the grain weighing 1,680 lbs. | 33.26 | 13.28 | 8.86 |
| " straw " 2,000 " | 12.22 | 3.86 | 19.39 |
| Total | 45.48 | 17.14 | 28.25 |
| A crop of oats of 50 bushels to the acre, with 2,200 lbs. of straw, takes— | | | |
| For the grain weighing 1,700 lbs. | 32.13 | 10.48 | 8.05 |
| " straw " 2,200 " | 13.90 | 4.74 | 24.83 |
| Total | 46.03 | 15.22 | 32.88 |
| A crop of Indian corn grown for fodder purposes to the period when the ears are in the late milk or glazing stage, takes from the soil for each ton | 5.80 | 2.96 | 6.54 |
| A crop of turnips takes from the soil for each ton of roots grown | 3.30 | 1.86 | 5.50 |
| A crop of mangels takes from the soil for each ton of roots grown | 3.03 | 1.84 | 7.66 |
| A crop of carrots takes from the soil for each ton of roots grown | 2.35 | 2.22 | 6.53 |
| A crop of sugar beets takes from the soil for each ton of roots grown | 4.79 | 1.92 | 9.06 |

By multiplying the above figures by their value per pound, which is given by a Cornell University Bulletin as follows:—Organic Nitrogen 15 cents, Phosphoric Acid 5 cents, and Potash 5 cents, each farmer can estimate for himself just how much of his capital which is invested in the fertility of his farm he is disposing of each year.

EXPERIMENTS WITH MANURES.

For the past six years Prof. Saunders has been quietly carrying on experiments in the testing of barnyard manure, different kinds of phosphatic manures, nitrate of soda, salt, land plaster, mixed manure, and no manure on wheat, barley, oats, potatoes and roots. In this report he gives the results of the past six years' labor, as follows:—

While a period of six years in the testing of the effects of manures on crops is altogether too short to permit of drawing positive conclusions on any point, yet when a considerable degree of uniformity is found in the results throughout the series they may justify an experimenter in calling special attention to them.

The results throughout the whole series in uniformly large average returns serve to confirm the correctness of the view generally held as to the beneficial action of barnyard manure. It is, however, worthy of note in this connection, that in its application to wheat, barley and oats, manure used fresh from the barn has produced a higher average of grain than an equal weight of manure which has been well rotted. In the barley plots the fresh manure also gives a heavier weight of straw, while in the oat and wheat plots the advantage, as far as the crop of straw is concerned, is slightly in favor of the rotted manure. In corn, roots and potatoes, there was practically no difference in the results obtained from fresh and rotted manure. These facts when carefully compared indicate a considerable advantage thus far in the use of fresh manure over that of rotted weight for weight, which is a most important point in the economy of manures, since during the process of rotting manure loses about 40 per cent. of its weight, and to this loss must be added the cost of twice handling, and usually that of turning once or twice during the process of fermentation. The explanation of this rather unlooked-for result probably lies in the fact that the liquid portions of the manure, the richest in nitrogen, have much of their most valuable constituent volatilized and lost during the process of rotting.

The unmanured plots show fairly uniform results throughout, the slight differences being easily explained by variation in soil. The results seem to show that mineral phosphate untreated, no matter how finely ground, has little or no effect as a fertilizer, and that the effects observable where nitrate of soda and wood ashes are used in conjunction with the untreated mineral phosphate are probably due entirely to the action of these added fertilizers. There is, however, no doubt that the mineral phosphate when treated with sulphuric acid and rendered soluble by being changed to the superphosphate is a most valuable addition to the fertilizing constituents of the soil.

It would appear that when the finely ground mineral phosphate is intimately mixed with barnyard manure in an active state of fermentation and composted for several days, better results are obtained than would be expected from the proportion of manure used, and it is probable that under these circumstances some portion of the mineral phosphate is rendered soluble by the action of the ferments in the decaying manure.

The addition of highly nitrogenous fertilizers, such as nitrate of soda and sulphate of ammonia, while usually producing a fair increase in the weight of grain, has a more marked effect on the weight of straw, which is increased very considerably. It is somewhat singular that the inferior quality of superphosphate of lime has given in nearly all the tests better average results than have been obtained from the use of the more costly quality: no explanation can yet be offered for this unlooked-for result.

The experiments with the use of common salt alone, and land plaster or gypsum alone, have resulted in better average yields than was expected. These results are most probably due in large measure to the influence which both these substances exert in liberating potash in the soil, by reducing insoluble potash compounds to soluble forms, and also of influencing the texture of the soil so as to enable it to retain more moisture. The use of salt alone seems to be specially beneficial to the barley crop. The tests made with sulphate of iron on grain crops have also given better results on the average than was looked for. Some of the less favorable results obtained from the use of artificial fertilizers, which from the nature of their constituents are known as complete fertilizers, are unexpected and disappointing and cannot at present be explained. In all probability the experience of a few more years will throw further light on the subject.

SEED TESTING.

During the past season the vitality of some 1957 samples of seed grain and seeds have been tested, the samples varying all the way from 100 to as low as 4 per cent. of good seed. Samples to be tested should weigh not less than an ounce, and may be forwarded to the Experimental Farm by mail, free of postage.

TESTS OF DIFFERENT VARIETIES.

In the tests of different varieties the following varieties came out ahead:—

Wheat—Thirty varieties; Herison's Bearded, Preston, Dions, Pringle's Champlain and Wellman's Fife.

Barley—Two-rowed, 12 varieties: Thanet, Swedish female with Baxter's Six-rowed male, and Improved Chevalier. Six-rowed, twelve varieties; Swedish female with Baxter's six-rowed male, and common six-rowed.

Peas—Twelve varieties: Canadian Beauty, Prussian Blue and Prince Albert.

Turnips—Fourteen varieties; Marquis of Lorne, Prize Purple-top and Carter's Elephant Swede.

Mangels—Ten varieties: Champion Yellow Globe, Giant Yellow Intermediate, Mammoth Long Red.

Carrots—Eleven varieties; Mammoth White Intermediate, Improved White Short, Giant Short White, White Belgian and White Vosges.

Sugar Beets—Eight varieties; White Green-top Brabant and French.

Potatoes—Sixty-one varieties; Burnaby Seedling, Geo. McKinzie, Seattle, White Beauty, Crown Jewel and Holburn Abundance.

SPRAYING FOR RUST.

The spraying of plots of oats and wheat with copper carbonate as a preventative of rust was unsuccessful.

SMUT.

Experiments both in Ontario and the Northwest emphasized the importance of the treatment of seed grain with copper sulphate as a remedy against smut. For further particulars, see page 132 last issue.

A report of the plantations of forest trees and analysis of water is also given. Altogether it is an exceedingly valuable report, and we would advise every farmer to write for a copy.

### A Practical Farmer's Experience with Phosphates.

I see on page 112 of the ADVOCATE, an inquiry from Mr. Thos. Beckton, for the experience of any of your readers with bone phosphate on corn.

As long ago as 1867, I bought several barrels of Coe's make, Montreal, and sowed it on oats and spring wheat, from which I received a paying increase. This was especially noticeable in regard to the wheat, where a part of the field which was left untreated was one week later in heading out and gave a third less crop. In planting the corn, I put a heaping tablespoonful in each hill, covered with half an inch of soil, and then dropped in the corn. Three rows were left untreated. The difference was so apparent that passers-by would stop and ask what was the matter with the three rows of corn. When husking time came, there was as great a difference as in the case of the wheat. I have used several brands since then, but none of them gave as good satisfaction. They may have had the proper elements, combined in the right proportion, but not sufficiently decomposed to give immediate results. Right here I would say to my brother farmers, who intend sowing spring wheat, sow as early as you can work the land, and apply at least 200 pounds of salt per acre. To raise good crops, the land must be in good heart, and well cultivated, to make it clean, fine and firm. Last year my White Russian wheat averaged 25 bushels to the acre, and weighed 62 pounds to the measured bushel.

JOSHUA BOBIER, Ingersoll.