

mend it to the notice of the appreciative Superintendent of the Public Gardens.

Inuline, the peculiar carbohydrate contained in the root, is a white powder, not only like starch but similar in composition. It differs, however, to some extent, in its physical characters, for, whilst, like starch, it is insoluble in cold and soluble in hot water,—yet it does not form a permanent solution, but is deposited on cooling. With free iodine it gives not a violet, like starch, but a greenish yellow compound, which is not permanent. The other carbohydrate to which Inuline is allied is gum, from which it differs in its insolubility in cold water, and by not giving saccharo-lactic acid when digested in nitric.

PROF. LAWSON has sold the splendid yearling Short-Horn Bull "Sixth St. Nicholas of Lucyfield" to A. B. Fletcher, Esq., Folly Village, Co. Colchester.

### CROP REPORTS.

FROM RUFUS W. ELLIOTT, ESQ.

*Spa Spring, August 17, 1885.*

I received a letter from you asking for a statement of the apple crop in this district. In answer, I would say, soft apples an average crop; good winter fruit scarce—not more than a half crop. Hay crop extra, housed in good condition. Our grain crop light,—hope will be well filled. Potatoes look well.

FROM E. M. JORDAN, ESQ.

*Kentville, August 14th, 1885.*

In answer to yours of the 3rd inst., I would say, I have visited a number of orchards for the purpose of getting the information you desire. I should think the crop must be considerably below an average, while most of the owners would say they would have no apples. I found on most trees a small crop, and many well loaded; but, on the whole, a small crop is all we can count on.

FROM DAVID ARCHIBALD, ESQ.

*Upper Musquodoboit, }  
Aug. 24, 1885. }*

DEAR SIR,—In our part of the country orchards and apple trees are things of the past, and the cultivation of the same, to any extent, gone with the last generation.

Individuals amongst us have tried, on a small scale, the cultivation of the apple crop, but failure has generally been the result. My impression is that in parts of our country where this crop is cultivated so successfully, the soil is partly composed of white sand. We have little or none of this kind of soil. Also, in our western counties, their

proximity to the Bay waters, gives them a milder winter and an early spring.

Our hay crop on uplands, light; on lowlands, fair to good; but the weather for the past three weeks has almost brought the securing of this crop to a standstill.

Wheat, where sown, has matured beautifully—little or none of the weevil.

Barley, below an average. Oats, very good.

Buckwheat,—the crop uncommonly heavy on the ground, yet it appears to be filling fairly.

Peas, not extensively cultivated, but, where sown, are good.

Potatoes give promise of an abundant crop—little or none of the fell blight—and the prospects for this crop most encouraging.

Mangolds give fair promise of a good yield.

Turnips will be behind an average crop—largely damaged by the turnip fly.

To obtain milk pure and unadulterated, especially in large towns, has, up to the present time, been nearly an impossibility, as seen by the daily reports in the newspapers of adulteration. It is a well known fact that a great number of cows are fed mostly on swill, and, pushed to an excessive production of milk, they soon fall sick, and, as a natural consequence, the use of their milk is productive of fever and diphtheria. The consumer has therefore to rely upon the doubtful quality of the so-called "pure milk," which, besides all this, runs the risk of adulteration and dilution at the hands of the farmer and middlemen. The way in which cows in numerous instances are fed and watered is disgraceful, and that it is to the use of their milk that the origin of diseases is to be ascribed is proved by the most eminent medical authorities.

Well known authorities, like Pabst, Max, Flaubuer, Lurn, Marker, Tolue, Wolf, and others, agree with the decision of Billinger, that swill or refuse, as a fermenting food of cattle, imparts to the milk a somewhat sour condition; that this food for cattle is, under all circumstances, abnormal, and its use in general associated with want of exercise and air. Further, that the great mortality in children can be distinctly traced to the use of milk from cows fed as above mentioned, and also that a great number of the calves of these animals die of diarrhoea, etc. Van Camaille and others also found that swill or slop fodder is productive of more water and less fat. The first named author puts the relative value of the milk of cows fed on swill or on dry fodder as follows:

|               | Water. | Casein. | Al-<br>bumen. | Fat. | Sugar | Salts |
|---------------|--------|---------|---------------|------|-------|-------|
| Fed on swill. | 90.65  | 2.64    | 0.43          | 1.31 | 3.35  | 0.57  |
| On dry fodder | 87.60  | 2.53    | 0.31          | 3.1  | 3.71  | 0.60  |

### SWEETENED CONDENSED MILK.

But there are other dangers, not less serious, which people incur by the daily use of the ordinary sweetened condensed milk, as may be seen by the following extract from the *Neue Freie Presse* (Vienna), September 5, 1881:

Dr. Strolmer writes that "the discovery of a method for condensing milk was a step in the right direction, but condensed milk, as hitherto prepared, has been only a poor substitute for the real article.

"By diluting it with water, the same delicate distribution of the component parts that exist in raw milk cannot be reproduced, nor does the diluted milk possess the same pure flavor.

"The addition of sugar in preparing it causes, moreover, a change in the relative proportions of the several constituents, and this is a most serious matter, especially where the diet of infants is concerned; the evil consequences which have frequently followed the bringing up of children on 'condensed milk,' such as imperfect development, scrofula, rhachitis and aneuria, etc., are, according to Dr. Biedert, attributable to this."

It is to be added that observations of medical authorities agree, even if, in some cases, infants are brought up entirely on condensed milk, being apparently in good health, have a much less resistance to intercurrent illness than infants brought up on mothers' or pure cows' milk. The reason is, without doubt, the very large addition of sugar, which most certainly does not agree with the digestive organs of the infants.

### PRESERVED MILK—(O. V. RODEN'S PROCESS).

Up to the present time the ideal of preservation of milk was to find a process by which the decomposition of milk should be avoided, through physical or chemical influence, without adding any foreign substance, or subtracting any of the original constituents. After long trials and costly experiments, Mr. Otto von Roden, of Hamburg, Germany, has realized this ideal, by discovering an entirely new method of preserving milk in its natural liquid state, without the addition of any foreign substance whatever. The process is the following:

Fresh, pure cow's milk (taken from selected cows, which are under the care of a veterinary surgeon), is bottled (or placed in cans) and closed hermetically with glass or cork stoppers, and heated in a water or steam bath, under a pressure of three atmospheres. The milk is then cooled and ready for use.

By this method all germs (discovered by Paul Bert) are killed, and the thus prepared milk, hermetically closed against