



Rear View of Innerkip Factory.

Showing lower whey tank, and septic tank for treatment of sewage. Latter to be seen in lower right-hand corner of picture.

according to directions, and has given entire satisfaction. Visiting this factory recently, we took a photograph and obtained a few notes as to its construction and working. The tank is of cement, 16 x 6 feet, and 7 feet deep, this being, however, much larger than would be required by an ordinary-sized factory. The tank is divided into five chambers by plank partitions. The sewage enters the first chamber, or settling tank, and the more liquid portion runs through a hole in the partition to the second chamber, and so on, until from the last of the four settling chambers the liquid is syphoned off from the bottom into an empty compartment, whence a drain carries it away, distributing it underneath a field. In the drain are 1,400 4-inch tiles, branching out in every direction. The consistency of the liquid, as it drains away, is to all appearance like that of dish-water, but floating on the top of the settling tanks is a thick, putrid, greasy scum about two feet thick on the first one, but progressively shallower in the others, the sewage losing much of its solid matter as it passes along. Seasoning of the plank cover has left cracks, permitting the escape of more or less odor, and gas. This could be avoided by having a galvanized lining, or some other form of tight-fitting cover. In all other respects the tank gives perfect satisfaction, and it is believed that it will solve the problem of sewage disposal at cheese factories.

What Cool-curing Does.

The following summary of the effects of cool-curing on cheese are taken from the 1906 annual report of J. A. Ruddick, Dairy and Cold-storage Commissioner, Ottawa.

Cool-curing delays the curing not more than a week or ten days.

It effects a direct gain by saving from 1 to 1½ per cent. in the shrinkage of the cheese during the period of curing.

It eliminates the heated flavor and mealy texture which are characteristic of all ordinarily-cured cheese in hot weather, and thus avoids what has been one of the chief defects in a large proportion of the Canadian cheese.

It tends to retard the development of bad flavors in many cheese which would otherwise be very inferior on that account.

It protects the cheesemaker in some measure from unjust claims arising from causes over which he has no control.

Cheese which have been properly cured do not require subsequent storage at an extremely low temperature to check the injurious processes which are set up by high temperature, but may be kept under conditions suitable for developing the rich, "nutty" flavor which is essential in a strictly fancy cheddar cheese.

General improvement in the quality increases the consumption of the cheese enormously, thereby increasing the demand, and ensuring a better average price.

Since pasteurization of whey has been demonstrated to be a successful means of insuring the delivery of whey fat to the patrons in wholesome condition and in fair proportion to each, and since this small trace of fat in the whey has by experiment been indicated to add materially to the feeding value of the whey, patrons will be wise to resist appeals to permit the manufacture of whey butter, unless on a basis of liberal cash compensation to themselves.

GARDEN ORCHARD

In the Farm Garden.

The ill-effects of the late wet spring, like the report of Mark Twain's death, have been grossly exaggerated. New potatoes on July 7th was not so bad for the farm garden in Western Ontario, and not in the peach belt, either. A couple of tile drains across the half-acre plot, rotted manure plowed under in the fall and sprouting the early seed tubers helped to hurry them along. I have little use for Paris green in the early potato plot. It is a poison that injures the tops more or less, causing deterioration in the crop, so I simply pick off the first generation of striped bugs and eggs and dump them in the fire. That practically wins the fight. Applying Bordeaux mixture for blight and killing the Colorado beetle in field crops is another story.

* * *

It's a mistake to try to plant all the garden stuff at once early in spring. We want some for very early surely, but the first crop of weeds is a bad one, and for speed can give beets and lettuce odds and then distance them. Better let them sprout about an inch and destroy them with the harrow. It's wonderful, too, what a little extra fining or mellowing of the soil will do in promoting the growth of later-planted seeds. At the end of July the soil becomes very warm, and if advantage is taken of a passing shower to moisten it, vegetable seeds will sprout with rapidity. Have a succession of peas, lettuce, beans, beets, corn (early and late varieties), so there will be something fresh and wholesome for the table right on into September. I tried hastening the growth of a row of salsify (vegetable oyster) planted after the middle of July by soaking the seed in warm water, making the soil extra mellow and moist, and sprinkling over the row some litter of fresh-cut grass, which kept the earth damp even under the broiling sun. In four or five days the salsify was up an inch high, and garden turnips, sown late in July, were up in

three days. The weeds seem to give less trouble at this season.

* * *

I have been interested in watching the struggle of a couple of flowers, very vigorous plants on the start, with dodder, a fine, twining, yellowish thing generally found on clover. It came with the flower seed, and appeared first in the hot-bed. Once it germinates it does not depend directly on the soil, but lives on the plant, sucking its life juices as a parasite. Round and round the stalk and limbs it twines, throwing tendrils like those of a devil-fish from branch to branch, surmounting the top in triumph, reminding one of the old pictures of the famous statue, where the sea serpents strangle Laocoon and his two sons. The botanists tell us the best way is to burn up the flower, dodder and all, before it seeds the ground.

* * *

It's simply fun to look after a garden if one keeps the weeds down from the start. Tillage will then be to other ends than a mere struggle for existence, and, of course, incidentally, we uproot any stray intruder whose head crops up. Some gardens seem to be conducted with the object of growing weeds, which swallow up most of the plant food and drink and smother out the parsnips and carrots. The use of the cultivator and hoe should be to hold the moisture in the soil for the cabbages and corn and tomatoes, and make fertility available. Water has been called Nature's great conveyor of food to the plant, but it's a mistake to think we need rain every other day to keep things growing. After a dry spell of two weeks everything in the garden was luxuriant. By stirring the top soil occasionally to break the little capillary channels from below, the evaporation of sub-surface moisture is checked. So, during nearly a fortnight of drouth, I watered the garden with the hoe. "We water ours with the hose, too," murmured the town visitor.

AQUA FORTIS.

Spraying for Plum Rot.

Indications are that the losses from brown-rot on plums will be severe this season. It spreads most rapidly on varieties like the Lombard, which bear heavily in clusters, and sometimes develops after the fruit is picked and in the baskets. It is well now to go over the trees and pick off and burn all affected plums, and then spray with ammoniacal copper carbonate, which is recommended for the last two applications, for it does not discolor the fruit as the Bordeaux mixture, and, lime not being required, is more easily prepared and applied. The carbonate of copper, which is the fungus-destroying ingredient in the preparation, is insoluble in water, so should be dissolved first in the ammonia, which becomes at once a deep indigo blue. Use a glass or earthenware vessel for the purpose, diluting with water lastly in a wooden tub or barrel. Some of the booklet directions are not specific enough in regard to first dissolving the copper carbonate in the ammonia. The formula given (see April 1st "Farmer's Advocate") is 5 ounces copper carbonate, 2 quarts ammonia, and 40 gallons water. The copper-carbonate-ammonia mixture may be kept in a large corked bottle or closed jar, and diluted with water for another application if the fungus threatens to spread nearer ripening time. Pick up and destroy all the fallen, affected fruit, and also the shrivelled mummy plums which hang on the trees after picking, and from which spores spread.

Those who like to experiment with new treatments may try calcium benzoate as a spray, instead of the ammoniacal copper carbonate. Directions for the preparation were given on page 1182, issue July 22nd.



Judging Holstein Cows at Winnipeg Exhibition, 1909.