

farmers and fruit growers. A leading article is devoted to apple culture. The following remarks upon the care of the orchard might be advantageously considered at the present time.

CARE OF THE ORCHARD.—The orchard should be cultivated continuously at least six or eight years after planting the trees. The practice of sowing grain in the young orchard is an injurious one. All cereals draw heavily upon the moisture of the soil at the same time as the trees are making their annual growth, and consequently act as a serious check upon the latter. When apple trees are planted, they should be regarded as the crop, and they alone ought to have possession of the soil which they occupy. When, owing to pressure of circumstances, it is found necessary to grow grain crops in the orchard—as has been the case at the Central Farm—strips, five or six feet wide, should be left on each side of the tree-rows for the passage of the cultivator. This is a good plan to follow at all times without reference to the crop cultivated, whether it be roots or cereals. The best crop is one which needs cultivation during the early part of the season, and is removed about the middle of July or the first of August. Early potatoes will be found to fill these requirements, but other hoed crops, such as corn, beans or early vegetables, may also be grown satisfactorily. Clean culture is at all times desirable and will always pay. Weeds and rubbish attract and afford shelter for mice and insects. Cultivation should be clean and thorough each year, but should not be continued throughout the summer. In this vicinity, the annual growth takes place previous to July first. After that period, the function of the leaves is to elaborate the nourishment drawn from the soil and the air. This material is stored in the buds and young wood tissue, and the process goes on to, or approaching the period of the fall of the leaves. Everything that the cultivator can do to facilitate this process should be done. Cultivation of the soil tends to render available, for the use of plants, the food stored up in it. This is why stirring the soil frequently, so materially assists the growth of such plants as corn and cabbage. Cultivation, therefore, promotes and encourages growth. In order for trees in cold climates to successfully withstand the frost, the wood must be in a well-ripened condition, that is, the liquids or partial liquids must have changed to solids, such as starch and its allied forms, in order to assist growth the following spring. The best rule, therefore, is to cease cultivating about the middle of July or the first of August. If the orchard is then seeded with Mammoth clover, Lucerne or some other legume, a fair growth will be obtained the same season, which will act as a cover to the soil in addition to keeping down weeds. This may be ploughed under early the following spring. Buckwheat is occasionally sown, but is rather objectionable on account of the seed resting in the ground (1) After six or seven years of cultivation it may be found convenient, and it is also a good plan, to seed down to clover. Some pear growers follow the practice of allowing the clover to lie on the ground after cutting it. This acts as a manurial mulch and saves to the soil all the extracted plant food in addition to the nitrogen collected by the clover roots (see chapters on

soil in the Chemist's report for 1893-4 5). The practice which many farmers follow of taking a crop of hay from the orchard land each year is not a good one, and should not be encouraged. In every instance, as before stated, it should be remembered that the trees are a sufficient crop and that any other crop that may be grown should be especially provided for by extra manuring. Manuring and cultivation will always pay. Early mistakes in the management of an orchard are not easily remedied.

YIELD OF RASPBERRIES AT OTTAWA, 1895.

Some interesting results were obtained from the treatment of the rows in different ways during the year. Of the following 17 varieties of red raspberries, each is made up of two rows of plants 165 feet in length. As soon as the fruit was harvested in 1894, one row which had previously been cut back or summer pruned, had the old wood taken out in addition to some top pruning which took place at the same time. The other row was untouched. In the autumn, half of each row was laid on the ground, having only sufficient soil laid upon the ends of the canes to hold them down. Records are submitted of the yield obtained from each row together with the relative amount of injury sustained during winter. It will be seen that the estimated yield per acre for these varieties averages higher than those in the next table, not so treated.

	Length of row in feet.	Protected.		Un-protected.		Date of first picking.	Date of last picking.	Yield of pruned row.	Yield of unpruned row.	Total yield in boxes.	Estimated yield in boxes per acre.
		Pruned scale of injury.	Unpruned scale of injury.	Pruned scale of injury.	Unpruned scale of injury.						
		1-10	1-10	1-10	1-10						
Heebner.....	330	10	10	7	7	July 8	Aug 5	90 1/2	96 1/2	187	3,527
Springfield ..	330	10	10	8	8	June 26	do	132 1/2	49 1/2	83 1/2	1,550
Royal Church.....	330	9	9	7	7	July 8	do	83 1/2	37 1/2	69 1/2	1,262
Carman.....	330	10	10	9	9	June 26	do	82 1/2	5 1/2	67 1/2	1,268
Thompson's E'y Prolific ..	330	10	10	8	9	do	26	29 3/4	68 1/2	10 1/2	1,975
Herstine.....	330	10	10	8	8	July 8	Aug 8	83 1/2	49 1/2	82	1,546
Parnell.....	330	10	10	7	7	do	4	132 1/2	37 1/2	70 1/2	1,329
Golden Queen.....	330	9	9	6	6	do	6	81 1/2	59 1/2	100 1/2	1,889
Reeder.....	330	10	10	5	5	do	8	81 1/2	16 1/2	36	679
Brandywine.....	330	10	10	7	7	do	4	84 1/2	61	107 1/2	2,022
Niagara.....	330	9	10	7	8	do	2	82 1/2	46 1/2	78 1/2	1,480
Marlboro.....	330	10	10	6	7	do	2	29 3/4	27	56 1/2	917
Hansell.....	330	9	9	7	7	June 26	do	23 1/2	57	78 1/2	1,380
Clark.....	330	8	9	7	8	July 4	do	29 3/4	37 1/2	58	1,093
Cuthbert.....	330	10	9	6	8	do	13	83 1/2	70 1/2	105 1/2	1,989
Turaer.....	330	8	9	6	8	do	2	123 1/2	50 1/2	73 1/2	1,390
Caroline.....	330	10	10	7	7	do	8	87 1/2	61 1/2	111 1/2	2,108

It will be seen (1) that the protected plants came through the winter in nearly every instance without injury 10 representing immunity; the descending scale indicating increased injury; (2) the yields from the pruned and unpruned rows show a balance in favour of the latter in almost every instance. This may seem contrary to what might have been expected, but is exactly in accordance with the actual returns.

Report of Horticulturist, Central Experimental Farm, Ottawa, 1895

Household-Matters.

BICYCLING.—Just at present, bicycling seems to have taken hold of every-body, and to lookers on it does seem a very pleasant way of spending a spare hour.

Undoubtedly this exercise taken in moderation might prove very beneficial to some, I have heard lately of its doing much good to a sufferer from indigestion. If it does this what a boon it will be to these sufferers who count by hundreds in these days.

It cannot be that all ride because it is the fashion, there must be some people who cycle for the exhilarating exercise or that it really does them good.

A person in low spirits must soon forget the same, for every attention must be given to the careful guidance of the machine to keep out of harm's way. To feel oneself flying through the streets and lanes with so little trouble, the thrill of delight at the freedom of doing so, must raise the spirits and make them say, at least for the time being, begone dull care.

So I think one might fairly hope that the bicycle will prove a help to the workers, and a health giving exercise to many a weary and overtaxed mind.

REST SOMETIMES.—There are so many overworked women in the world who if told they must rest say, I have no time for it and so go on till they work themselves into a state of nervous debility, when they are obliged to give up entirely to what nature demands and take a forced rest.

It is unfortunately too often the case that many women cannot rest in their own homes. Their brains are always thinking about what should be going on; always fretting and working because things do not run smoothly.

to do this every effort must be made to induce it.

There is no doubt, every person ought to have a bed to themselves, for why should a good sleeper be disturbed by a restless spirit who cannot.

Especially is this the case with children, one sleeps well, but is constantly being disturbed by the other.

A little girl told me she could not rest well at night, owing to the restlessness of her sister, these children ought decidedly to sleep separately.

To insure good rest, children should be made to take a good wash, not forgetting the feet, and never go to bed hungry or thirsty, after this mothers might get what they need, a good undisturbed night's rest for themselves.

MILK DIET IN TYPHOID.—Dr Costa thinks the exclusive milk diet is a source of mischief rather than good, and recommends three parts of milk, alternated with one of both. He, however, evidently does not recognize the fact that the latter has scarcely any value, the little extract of meat it contains acting solely as a stimulant, and, moreover, with a great tendency to cause flatulence. It has on several occasions been pointed out that whenever curd can be seen in the motions, too much milk is being given, and it may indicate that it is not being digested at all. It is best replaced by white of egg beaten up, and largely diluted with water; in this way can be introduced any requisite amount of real food, and in the blandest and most readily digestible form; it leaves no solid residue and can cause neither diarrhoea nor gaseous distention.

QUINCE JELLY.—Take the parings and hard parts round the cores, of half a peck of orange quinces, after cutting the best portions, cover them with cold water and boil slowly several hours; add more water, if needed to keep them covered. Turn into a flannel bag, and let them drip all night. In the morning, boil the juice 20 minutes, and skim well, then strain it again through a very fine flannel. Measure the juice, and add to it three-fourths as much granulated sugar; put it on to boil again, and boil until it jellies on the edge, or when turned on to a cold plate. Then skim again and turn into glasses.

TOMATO FRITTERS.—One quart can tomatoes, 1 tablespoon butter, 1 tablespoon flour, 1 teaspoon salt, 1 teaspoon sugar, 1 teaspoon pepper, 2 eggs, 1 pint sifted crumbs.. Cook the tomatoes 10 minutes, add the sugar, make a sauce of butter, flour, salt and pepper. Beat the eggs and stir in, but do not cook. Strain into a nappy. (1) Cut 8 slices of bread 1/2 inch thick and lay on a platter with half the sauce in it first and pour the other half on. Soak a half hour, cover the slices with crumbs and fry in a wire basket.—"Cooking School."

CREAM OF BARLEY.—Wash 1/2 lb barley in successive waters, rubbing it between the hands until the water runs off clear. Par-boil and drain and put in to a saucepan with a quart of weak veal broth; simmer four hours; return to a saucepan and add one quart of boiling milk and a tablespoonful of butter, with seasonings to taste. This soup is delightfully changed by the addition of

(1) And the shed seed, too, keeps coming up and spoils the sample of succeeding grain-crops.—Ed.

(1) Alas! We can barely get six hours sleep 1—Ed.