

foot, so that it will be a foot higher on the inside than on the outside. This is the simplest plan to keep the water out. Take two by twelve-inch plank, and put them in, say they go right to the bottom of the silo. Put these twelve inches apart. Commence and board it up with rough lumber. Then take tar paper, and put it on, letting it lap over each time about four inches. Commence with inch floor lumber or tongue and groove lumber, and put on top of the paper. Fill up to the top and put the plate on top of that. Now you divide that into three partitions of twelve feet each. When they commenced silos, they used to get the whole neighborhood to work and make a bee to get the fodder into the silo quickly after it had been cut. Now we go to work leisurely, without hiring any extra help. Run your corn, say into number one to-day, four feet deep; into number two to-morrow, number three the next day. By that time number one is heated up to 140°. Drop the cold ensilage on to that, and keep on in that way until the silo is full. We find that plank on top of the silo doesn't work. You know that the hay in a hay mow doesn't settle in all points alike. Wherever the plank doesn't fit tight down the ensilage will spoil. Tar paper will settle down to the fodder and keep out the air. The tar paper should be put on each twelve feet separately. It will fit down tight and keep the ensilage just like canned pears. It is the most economic food in the world. It is a food that is adapted for cattle—a grand food. It is the proper thing to do, and we, as farmers, must look more carefully to our interest than we have done in the past. We must cheapen the production of butter. We can never hope to get much more than from thirty to thirty-five cents for our butter, and any increase of profit that we may get must come from a decrease in the cost of production. We want to get twice as much milk with the same outlay, and we can get it with this ensilage corn. Mr. Fuller has told you that the estimate of Mr. Sprague is a very low one. There is no reason why, if you plant this southern corn, you can't raise twenty or twenty-five tons to the acre just as easily as not. Put manure on it enough, that the corn will never hear a word about dry weather, so that the richness of the soil will make it get right up and grow. Plant half an acre to try it, right in your garden where you will get the ground rich. There are 515 silos in Wisconsin, and if it hadn't been for that they would have starved their cattle last winter.

PROF. ROBERTSON,

of Guelph, Ont., said, I consider ensilage about the best adapted food for butter making that I know of. The dairy cow is the best contrivance the farmer can get for putting money into his pocket and putting good clothes on his back. The cow is the farmer's best friend, and ensilage corn is the best feed for the cow. It costs the least and gives the best results on the cow's digestive organs. It is cheap food. This has been demonstrated. Well cultivated land will yield twenty tons of it to the acre, and this will feed the cows better than six or eight tons of the best hay in this country. It is a very healthy food. There was a contention a while ago that the cows fed on ensilage were not healthy. I dare say there was some truth in the statement in those particular cases, because the ensilage was not made well. Cows would not be healthy if fed on rotten hay, and neither would they be healthy if fed on rotten ensilage. Last year the British Government tried to get a report from all the farmers of England regarding silos. Out of 279 reports as to the health of the cows fed on it, only eleven farmers reported unfavorably, and only twenty-two said they did not see any good results. All the rest said it improved the quantity and quality of the milk, and the ensilage is not nearly as good there as here. Ensilage is more easily digested as to the solids it contains. There is as much digestible in 900 lbs. of ensilage as in 1,800 lbs. of hay, and it is a great deal to get solids that are easily digested. It is a well flavored food. The history of the Oaklands Dairy proves this conclusively. If we could get the same prices that Mr. Fuller gets we would be delighted. And if Mr. Fuller can satisfy the taste of the Toronto epicures as regards flavor of butter made from ensilage, we don't want any higher proof. Let us feed ensilage, and reduce the cost of production.

Garden and Orchard.

The Farmer's Fruit Garden.

BY L. WOOLVERTON, M. A., SECRETARY OF THE FRUIT GROWERS' ASSOCIATION OF ONTARIO.

(Read before their last meeting.)

[CONCLUDED.]

For an ordinary family from one-third to one-half an acre of ground will be sufficient. Let it be the very choicest on the farm, and if possible, near the house, at the side or rear. Of course it must be safe from cows, pigs, sheep, fowls, etc., but if in the situation described, it will be a portion of the houseyard, and so needs no separate fence, but only to be screened from the lawn by a hedge of arbor vitae, privet, or ornamental shrubs and roses. No pains must be spared to have the ground in the best possible condition, else, of course, there will be a waste of time and money—I mean it must be well drained and well manured; I do not mean a thin top dressing of manure, but heavily coated with good manure at the rate of say thirty or forty loads to the acre, unless the soil is already better than that of most farms I know of.

In shape it should be longer than broad, admitting of rows at least two hundred feet in length for convenience in cultivation with the horse. The time is gone by for doing with the spade and hoe what can be so much more quickly done with a horse, little plow and cultivator.

And for the kinds of fruits to plant and the number of each for the home garden, we want a succession. We want our tables furnished with fresh small fruits all summer. Then we will begin with strawberries, which, in this district, begin ripening in June. Planting them one foot apart in the rows, 200 plants would be required for each row, and three or four rows, three feet apart, would not furnish too large a quantity of this the first and one of the most luscious fruits of the season. For varieties we would suggest Crescent, Wilson, Sharpless and Manchester, in about equal quantities. For best results constant cultivation should be given the strawberry right through the season, and a mulching of straw or coarse manure should be applied before the time of freezing nights and thawing days of early spring. All runners should be kept cut off after the ground is once sufficiently covered with plants.

Raspberries follow closely upon the heels of the strawberry, and are almost equally delicious in their three colors of black, red and yellow. To our taste black caps are the most desirable for canning and for pies, and the red for preserves and for jam, while some varieties of the yellow are beyond comparison for eating fresh. They may be planted about three feet apart in rows six feet apart. A half row of each variety suggested would be a sufficient quantity. In black caps I would suggest Doolittle or Souhegan for early, and Mammoth Cluster or Gregg for late. These need to be on soil that does not dry out, crack or bake, else the fruit will dry up in the hot July sun. A deep, rich sandy loam is best, and this kept well cultivated and stirred up even during fruiting season, unless the weather is wet. The pruning shears should be freely used to keep the canes within bounds, unless it is necessary to layer the tips for propagation. The old canes may be removed and burned either in the autumn or in early spring,

and only four or five new canes be permitted to grow in each stool. In the planting of these and of the other plants a stout garden line is, of course, indispensable. In red raspberries I would recommend Highland Hardy and Marlboro' for early, Turner for medium and Cuthbert for late, and these will extend over a period of about six weeks. Last year my raspberries began with the 16th June and ended about the first of August. In white raspberries the best varieties are Brinckle's Orange and Golden Queen. This year the first were not ready until July 6th.

Currants and gooseberries will also come during the months of June and July, and no one need be discouraged about growing these fruits because of the currant worm, when an occasional sprinkling with hebebores and water, in the proportion of an ounce to a pailful, will so easily keep them in check. One row of currants and gooseberries, planted about three feet apart in rows six feet apart, would, perhaps, suffice. In kinds I would recommend the following currants, viz.: Red, the Cherry and Fay's; white, the White Grape; black, Black Naples and Lee's Prolific. In gooseberries I know of none so reliable as Smith, Downing and Industry. The latter, however, is said to mildew in some locations.

The currant bush needs to have the new growth cut back early every spring one-half, and kept somewhat thinned out; while the gooseberry needs only the annual thinning out of old wood. There is a great satisfaction in a row of bushes thus kept in good shape and well cultivated, but if neglected they are neither useful nor ornamental.

Heavier soil may be used for the currant and the gooseberry than for the raspberry. Indeed, in my experience the Cherry currant bears much more freely on clayey loam than upon sandy loam.

The large blackberry comes next in order, and is a most valuable substitute for peaches for table use in the month of August, if peaches fail. If properly ripened the blackberry makes an excellent sauce for the table, being just acid enough to suit many people's taste, and for pies it is not excelled in the writer's estimation by even the Kentish cherry. One row of these will suffice, and the following kinds will be suitable for the Niagara district, viz.: The Early Harvest, the Kittatinny and the Taylor. I add the latter because it is more hardy than the others and will often produce a crop when the others might fail on account of the severity of the season. For convenience in cultivation it will be necessary to cut back the canes at a height of two and a half or three feet in the summer. By this means they may be made to stand firmly upright without support, and there will be no sprawling canes to obstruct passage between the rows.

I will close this first part of my subject with some reference to the grape. This can be planted in many places, otherwise waste. It may be trained along the side of a building or up a fence that is intended to screen unsightly objects. It is an ornamental vine along the side of a back verandah, or trained to cover an arbor in the corner of the garden or retired part of the lawn, or it may be trained upon a trellis in rows.

Grapes should be planted about ten feet apart in rows about the same distance. Thirty or forty vines of several of the best varieties of each color will not come amiss. The time of grapes