

which I would fain protect. If it is our business to loop off and prune out all that is detrimental, the robin must be *restricted*, and more valuable birds protected and encouraged, that the balance may be maintained."

Top Grafts on Tolman Sweet

W. T. Macoun, Ottawa

I planted out a young orchard of 70 Tolman Sweet apple trees last spring, with the intention of working them into Spys. They made a splendid growth last season. How long from the time of setting in the orchard till they would be ready to work over? Which do you consider the best way of changing them, grafting or budding? If by grafting, what way would be best, cleft, whip, or root grafting on the branches. Spys being my object, would it pay to mix some other varieties, and of what kind, for the sake of pollination?—Subscriber, Northumberland.

As the trees made such a good growth last year they might be grafted with success this spring, but we should advise waiting for another year before doing the work, as success would be more assured and a larger proportion of the grafts be likely to take. For young trees such as these whip-grafting should give the most satisfactory results, and as this work would be done in the spring, buds could be inserted on all branches where the grafts had failed in the following summer. As budding gives just as satisfactory results as whip-grafting, budding could be done this summer and the grafting done next spring, where it was certain that the buds failed.

It would be necessary to have some other variety to pollinize the Spys, as isolated orchards of this variety do not produce much fruit. The Tolman Sweet would be an excellent variety for pollinizing the Spy, as it blooms about the same time, and it would not be amiss to leave a branch of the Tolman on each tree for this purpose. We believe that one reason the Tolman is such a good stock for the Spy is that it is a late bloomer, like the Spy, and thus ensures a good crop of fruit. There are few varieties that bloom as late as the Spy, but some of these are Cranberry Pippin, Canada Red, Westfield, Seek No Further and Grimes' Golden.

In the Niagara district the area devoted to grapes is rapidly increasing. It will not be many years until the already large plantings will have increased three or four fold. The Concord is still our favorite, probably three-fifths of all vineyards planted being of this variety, with Niagara second, and Vergennes, Rogers 9 and 15 following. Campbell's Early is promising, but seems to be exacting as to soil conditions. Large areas of heavy land a few years ago not considered suitable for the production of grapes have of late years proved to be the very best when properly drained and cultivated.—W. H. Bunting, St. Catharines.

An Increase of Forty Per Cent.

THAT reports regarding the development of the fruit industry in British Columbia have not been exaggerated is shown by figures sent by Mr. A. McNeill, chief of the fruit division, to THE CANADIAN HORTICULTURIST.

In comparing the crops of 1904 and 1905, it is stated that the crop of the past season has been much heavier, and higher prices have been obtained. The total fruit crop in 1904 was \$600,000, whereas an increase of 40 per cent is noted for 1905, giving a total value of \$1,000,000.

The fruit grown in the western prov-

ince is being regarded with increased favor from year to year, and a good market has been worked up in Alberta. For early apples the grower netted \$1.00 a box. Early in December the price had advanced to \$1.25. An increasing demand has resulted in a further advance and the producers have received \$1.50 a box. As a rule the strict laws regarding packing and shipping have been scrupulously obeyed. The shippers have shown intelligence in their methods, and honesty in their dealings, and this accounts in part for the great increase in their trade.

Tall Growing Ornamental Grasses

Roderick Cameron, Niagara Falls South, Ont.

IN last issue some of the grasses of dwarf-growing habit were referred to. They were suitable only for small beds or borders. In this issue I will describe a few of the best and hardiest of the robust growers. These can be used to advantage if put in large beds with broken outlines and set so that the plants of various heights will show a broken sky-line. The more irregular the outline of the bed and the more uneven the plants the better. The one will show off the other to advantage.

We will suppose we have a crescent-shaped bed to deal with. In the centre of the bed I would place a group of *Bambusa aurea*, the Golden Bamboo of Japan. On account of the bareness of its stems at the bottom, plant *Bambusa metake*. Variety *aurea* grows six to eight feet high, and *metake*, a dwarf grower, covers the lower part of the stem and the ground. I tried both of these outside last winter. *Metake* seems to be hardy, while *aurea* is perennial. The roots live and the tops die down. I would advise taking up the plants in late fall, and placing them in a cool cellar where they will winter in fine condition and be green for the following spring's planting.

Half-way between the centre of the bed and the end plant a group of *Arundo Donax*, the Great Reed of Europe. This plant grows 10 to 12 feet high. Along with it may be planted *Arundo Donax glauca*, a dwarf variety, growing only four feet high, with bluish-green leaves and stouter stems. *Arundo Donax versicolor* is about the same height as the last, but variegated with white. It is a very pretty plant, and should be put on the points of the crescent, leaving room for a border. All of the *Arundos* are hardy here, and should be farther north, particularly if protected. The best protection I find for them is to cut

their own stems off about eight or nine inches from the ground and lay them across the bed. This and the stubs left will leave an air space over the crowns of the plants; over all put some coarse barnyard manure.

To give a finish to this bed, and to fill up all the spaces, we have four varieties of *eulalias*. *Eulalia Japonica* is the type. It is green, and grows five or six feet high, and is probably hardier than the others. *Eulalia Japonica zebrina* is the tallest grower and has yellow bars across the leaves, giving it a striking appearance in any position. *Eulalia Japonica variegata* has stripes of white and green running lengthwise with the leaves, making it also a much sought after variety. *Eulalia Japonica gracillima* is the dwarfiest of the four, growing about four feet high. Its leaves are much narrower, with a white stripe running lengthwise with the mid-rib. All of them should be hardy farther north, particularly if protected as recommended for the *Arundos*.

A foot from the grass margin a border of *Pennisetum longistylum* should be planted. The *Pennisetum* may be grown from seeds each year, but I prefer taking up a few plants and storing them in the cellar until March, when they may be taken up and divided into many plants.

All these specimens look well if planted isolated in the grass near a path, beside a building, or in the hardy perennial border. They may be planted also in groups of one of each, or they make good centre specimens for a bed of other plants. An excellent effect is produced by planting these beside a lily pond. *Pennisetum longistylum* makes a grand border for a canna bed.

All produce their Pamphas-like plumes of flowers during the fall months, and are very desirable for drying and using for decorating the house during the winter.