

- **Digitalis* (Foxglove). Seeds, mostly biennial.
Doronicum caucasicum (Leopard's Bane). Seeds or division.
 **Gaillardia grandiflora* (Blanket Flower). Seeds.
Gypsophila paniculata (Baby's Breath). Seeds or division.
Hemerocallis flava (Yellow Day Lily). Division.
 **Iris Germanica* (German Iris). Division.
Iris Kaempferi (Japanese Iris). Division.
 **Lilium Candidum* (Madonna Lily). Bulbs.
Lilium elegans. Bulbs.
 **Lilium tigrinum* (Tiger Lily). Bulbs.
Lilium superbum (Turk's Cap Lily). Bulbs.
Lychnis chalcidonica (Scarlet Lightning). Seeds.
Lychnis coronaria (Mullein Pink). Seeds.
 **Paeonia in variety* (Paeony). Roots.
 **Papaver orientale* (Oriental Poppy). Seeds.
 **Phlox*, hybrid perennials in variety. Division.
Platycodon grandiflora (Chinese Bell Flower). Seeds.
Pyrethrum uliginosum (Giant Daisy). Seeds or division.
 **Spiraea filipendula* (Dropwort). Division.
Veronica in variety. Seeds or division.

HARDY PERENNIALS UNDER 1 FOOT.

- Adonis vernalis* (Spring Adonis). Seeds.
 **Bellis perennis* (English Daisy). Seeds.
Campanula carpatica (Carpathian Bells). Seeds or division.
Cerastium tomentosum (Snow in Summer). Division.
 **Chionodoxa Luciliae* (Glory of the Snow). Bulbs.
 **Convallaria majalis* (Lily of the Valley). Division.
 **Crocus in variety*. Bulbs.
Dianthus barbatus (Sweet William). Seeds.
Funkia subcordata grandiflora (Giant Day Lily). Division.
Heuchera sanguinea (Alum root). Seeds.
Mertensia virginica (Bluebell). Roots.
Myosotis (Forget-me-not). Seeds or division.
 **Narcissus in variety*. Bulbs.
 **Papaver nudicaule* (Iceland Poppy). Seeds.
 **Phlox subulata* (Moss Pink). Division.
 **Scilla Siberica* (Squills). Bulbs.
Stachys lanata (Woundwort). Division.
 **Tulips in variety*. Bulbs.
Veronica Alpina. Seeds or division.
 **Vinca minor* (Periwinkle or Trailing Myrtle). Plants.
 **Viola cornuta* (Tufted Pansy). Seeds or Division.

TENDER PERENNIALS WHICH MAY BE GROWN AS ANNUALS IN THE BORDER.

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|-----------------------------------|--------------|---------------------|
| Canas. | Dahlias. | *Gladioli. |
| | 1 to 3 feet. | |
| *Asters. | | Phlox Drummondii. |
| Candytuft. | | Portulaca. |
| *Coreopsis. | | *Poppies (Shirley). |
| *Dianthus (Pinks). | | Scabiosa. |
| *Echscholtzia (California Poppy). | | Salpiglossis. |
| Kochia scoparia (Summer Cypress). | | Stock (Ten-week). |
| Mignonette. | | Zinnia. |
| *Nasturtium (Dwarf). | | |

P. E. ISLAND STRAWBERRY CULTURE.

At the last convention of the Prince Edward Island Fruit-growers' Association, Secretary A. E. Dewar offered the following bit of advice, which will be appreciated by Maritime readers:

It is not my purpose to give advice to the commercial berry-grower, but rather to give such information as will help the farmer to grow an abundant supply for home use.

The system I think best adapted to the busy man on the farm is what is known as the matted row, one-crop system. By this plan the plants are set in the spring and cultivated through the summer, and the following season the crop is harvested, and the bed is then abandoned or plowed, a new planting being made each spring to keep up the supply. Although strawberries will give more than one crop from a setting, the farmer will find it easier to set a new planting each spring than to put the old one in condition for another crop.

Any good farm land that has good natural drainage will grow berries, but it is well when choosing the plot to avoid low-lying land, as it is liable to late spring frost, which sometimes injures the bloom. The chances of success will be increased if the old garden patch be abandoned and the planting made in long rows, where the cultivation can be done with a horse.

Land that is one year from the sod does very well, and if it is clear of couch grass it will be easier kept clean. Spread broadcast about as much stable manure as would be required to give a good crop of turnips and plow in lightly; work the surface firm and smooth. The next step will be the setting of the plants, and the best time to plant is as soon as the land is in good condition to work in the spring. Mark out rows 3½ feet apart, and set the plants 18 inches apart in the rows, spreading the roots and setting the plants so the crown will be level with the surface of the ground, but not covered; firm the soil around the plants, and care must be taken that they are not exposed to the sun or wind when planting, as a little drying kills them. Soon after the plants start to grow, many of them will throw up blossom buds; those should be cut off, as the object is not fruit the first year, but a stand of vigorous plants for the crop next season. The cultivator should be used often enough to keep the surface mellow and kill the weeds.

HORTICULTURAL PROGRESS.

Prepared for "The Farmer's Advocate" by W. T. Macoun, Horticulturist, Central Experimental Farm, Ottawa.

LIQUID VS. DUST SPRAYING.

Third Report on Dust and Liquid Spraying, by C. P. Close, Delaware Agricultural Experiment Station, Newark, Del.; Bulletin 76.

The objects of the author in carrying out the experiments recorded in this bulletin were to compare the results from the use of Dust and Liquid sprays, and to learn if half the amount of blue-stone usually used in making Bordeaux mixture would be sufficient to control the Spot, in view of the fact that there has been some complaint that Bordeaux mixture, as it is usually made, sometimes russets the fruit. The formula for the dust spray was: "Fifty pounds superfine limoid, 2 pounds pulverized copper sulphate, 2 pounds sulphur, 1 pound Paris green."

"The limoid was placed either in a box or barrel and the copper sulphate was sifted into it through an 80-mesh wire sieve. The sulphur and Paris green were sprinkled on, and the whole was stirred with a spade to mix the ingredients together thoroughly. The material was then ready for use. In case the limoid had absorbed a little moisture, it was spread out in a large box and exposed to the sun for a few hours." The formulas for the Bordeaux mixtures were 4 pounds copper sulphate, 4 pounds stone lime or limoid, 50 gallons water (wine measure). The other was the same, except that only 2 pounds copper sulphate were used. No results are given as to the amount of Spot on the fruit on sprayed trees, but it is stated that "half the strength Bordeaux kept the fruit and foliage in apparently as healthy condition as the full strength Bordeaux."

The amount of wormy fruit and dropped fruit was carefully noted, with the following results:

"The average efficiency of the different remedies on all varieties for the total setting of fruits which attempted to mature, is as follows: Full-strength Bordeaux with Paris green, 5.4-10 per cent. wormy, and 25.7-10 per cent. dropped; half-strength Bordeaux with Paris green, 7.5-10 per cent. wormy, and 47.1-10 per cent. dropped; dust spray, 16 per cent. wormy, and 51.1-10 per cent. dropped; checks, 38.9-10 per cent. wormy, and 80.8-10 per cent. dropped."

Under average conditions, the writer recommends the continued use of the usual formula of Bordeaux mixture and Paris green, but believes that it will pay in large orchards to use both dust and liquid sprays, applying the dust when the foliage is wet and the liquid spray when it is dry.

SAN JOSE SCALE.

The San Jose Scale, and Experiments for its Control, by H. T. Fernald, Massachusetts Agricultural Experiment Station, Amherst, Mass.; Bulletin No. 116, is another of the many bulletins which have been published on the San Jose scale. Results from the use of self-boiled sulphur washes, made with caustic soda or potash and the slaking of the lime, were very variable, and these methods are not recommended. The kerosene-limoid emulsion, as recommended by the Delaware Experiment Station was tried, but the results were not satisfactory. The following are suggested as probably some of the important factors in a formula for the lime-sulphur wash and the preparation of it:

1. Take sufficient lime to combine with all the sulphur.

2. Calcium thiosulphate is the active insecticide, and more of this is gradually formed by the decomposition of the polysulphids; therefore, boil to obtain as much of the polysulphids as possible.

3. Too long boiling produces more thiosulphates and free sulphur at the expense of the polysulphids present. The wash will be more active at first, applied under these conditions, but will not act during as long a time, and it is desirable that it should be active as long as possible.

4. Letting the wash stand after being made may, perhaps, give an opportunity for the polysulphids and thiosulphates to decompose in part, forming substances having no insecticidal value, and thus reducing its effectiveness.

5. From the study of a large number of experiments, it seems probable that forty minutes to an hour of actual boiling will be needed in order to obtain the greatest amount of polysulphids.

The formula recommended is 22 pounds lime, 20 pounds sulphur, to 50 gallons water (wine measure). Boiling for 40 minutes to 1 hour.

TOMATOES—VARIETIES, SPRAYING, TRELLISING.

Tomato Investigations, by T. H. White and W. R. Ballard, Maryland Agricultural Experiment Station, College Park, Md., Bulletin 113.—The Tomato crop is a very important one in Maryland as it is in Canada. This bulletin should prove especially useful to those who are beginning growing tomatoes extensively, as methods of cultivation are described, in addition to the results which are presented of experiments with varieties and in spraying to prevent blight.

Among the varieties which receive favorable mention are: Greater Baltimore, resembling the Stone; Chalk's Early Jewel, Livingston's Globe, Matchless, Five Million Dollar, Sparks' Earliana, Livingston's Beauty.

A comparison of varieties for earliness was made in 1906. The heaviest yield from 100 square feet, up to August 4th, was from Burpee's Earliest Pink, which yielded 25 pounds 13 ounces, followed by Spark's Earliana, which yielded 21 pounds 6 ounces. Burpee's Earliest Pink is described as being too rough for market, hence Sparks' Earliana would seem to be the most desirable.

Spraying tomatoes with Bordeaux mixture once in the seed-bed and twice in the field, resulted in a marked increase in the yield of ripe fruit over those unsprayed.

An interesting experiment was made by comparing the yield of Sparks' Earliana trained to poles in rows 4 feet apart and 1 foot apart in the rows, with ordinary field culture, plants 2½ feet apart in rows 4 feet apart. The yield of those trained to poles was at the rate of 30.2 tons per acre, ordinary culture 14.2 tons per acre. The increase is due to the fact that there were more than twice as many plants to the acre when trained to poles. The average yield per plant was: Plants on poles, 5 pounds 9 ounces; ordinary culture, 6 pounds 7 ounces.

THE STRAWBERRY: VARIETIES, PLANTING AND CULTIVATION.

At this season the following suggestions, from an address by W. F. W. Fisher, of Burlington, one of the most successful strawberry growers in Ontario, before the Ontario Fruit-growers' Association, in November last, will be opportune:

The old saying, that in order to properly train a child one should have begun with its grandmother, applies with full force in strawberry growing, for, if land has been liberally fertilized, and tilled in such a manner as to keep down all weeds for two or three seasons previous to its being planted with strawberries, half the battle has been fought and won; and with ordinary intelligence applied to later operations, success is assured. While, as we have already stated, this fruit will succeed to a remarkable degree on a variety of soils, the ideal one, in the speaker's estimation, is a rich sandy loam, with a quicksand subsoil, not too near the surface, but from which a considerable evaporation of moisture is continuous throughout the season of ripening. The most suitable soil available having been selected, it should be well fertilized and fall plowed. Spring cultivation should begin early, in order to retain moisture, and in cases where the soil is heavy keep it from becoming hard. When ready to plant, which should be during the first half of the month of May, plow deep, harrow, and roll firmly.

The choice of varieties depends largely upon extremely local conditions, and also on the object in view as to producing berries for the early market, or berries of high quality adapted to stand up under long distances of transportation. As in our tree fruits, many growers fall into the error of needlessly multiplying the number of varieties. Choose judiciously, and keep the number for a commercial plantation down to two or three. A new and profitable demand will be created as soon as large plantations of single varieties of the right sort are offered to buyers. The plants should be taken from well-wintered young beds, and all weak plants discarded; trim off all runners and dead leaves; lay the plants straight in a carrying basket; sprinkle well with water and cover to exclude the air, then they are ready for the field. Planting should be done as soon after digging as possible.

The distances between rows and between plants depend somewhat on the views of the individual grower, and the habits of the variety of strawberry. Rows are properly placed at distances from three to four feet apart. We prefer the former for the rows, and from fifteen inches to two feet for the plants in the row. Probably the most common form of planting is for one man to carry a spade in one hand and a basket of plants in the other hand, while another man or boy puts the plants in the holes made by the spade, and each presses a foot to the earth at the roots of the plant as they pass on. In this manner an active man and boy will plant about one-half an acre per day. As soon as planting is through they should be cultivated and hoed to retain moisture, and to prevent the air from getting at any roots not entirely covered. After this, cultivation should be frequent, about once a week for the first two months. Early runners should be turned into the rows, as these invariably form the strongest plants, and the rows should not be allowed to become matted by late-setting plants. Some of our most successful growers allow each parent plant to set but two young plants on either side, but this system of cultivation, called the hedge-row, is not general, nor is it conceded that it is, generally speaking, practicable. When the frosts of December come the rows should be mulched in such a way as to protect the plants from the severity of the winter. The following spring, cultivation is again necessary, especially if the plantation is to be maintained for a second year's picking.