

ARNOLDIA



A continuation of the
BULLETIN OF POPULAR INFORMATION
of the Arnold Arboretum, Harvard University

VOLUME 25

MAY 21, 1965

NUMBER 2

ALASKAN ORNAMENTALS AND FRUITS

ALTHOUGH Alaska is still considered by many to be a land of ice and snow, the frost free period in the more populated areas of the state is similar to many areas of the continental United States. It ranges from about 95 to 100 days in the Tanana Valley to 110 in the Matanuska Valley, and much longer in south-east Alaska, whose climate is similar to coastal Washington. Vegetable gardening is successful as far north as the foothills of the Brooks Range well north of the Arctic Circle. The day length in the Cook Inlet area, which is the most heavily populated area of the state, varies from about 5 hours and 20 minutes in late December to 19 hours and 20 minutes in June. The extremes are much greater further north, as in Fairbanks, where a baseball game is always played on June 21 at midnight. Due to a favorable rainfall-evaporation ratio, and the fact that most of the precipitation comes in the growing season, it is possible to produce a wide range of crops with a desert-type precipitation of 14.5 inches in the Matanuska Valley and two inches less in the Fairbanks area. Some parts of south-east Alaska have in excess of 195 inches some years. Alaska is generally characterized by cool evening temperatures although during the day they may reach almost 100° F. in the interior. The long photoperiod and low evening temperature are credited for the production of cabbages weighing 50 lbs. and delphiniums 10 ft. high. Flower colors are considered to be more intense than in the "south 48"—the rest of the United States—under these favorable conditions. The temperature extremes in the Matanuska Valley are about 85° F. in summer and -37° F. in winter, neither of which are reached very often. In the northern interior they may range from 100° to -75° F.

In the more populated areas there is considerable interest in landscaping and the utilization of woody materials adapted to the conditions in Alaska. Most newcomers to the state will not believe that they cannot grow the same evergreens, trees and shrubs that they cultivated before they came to Alaska, and they spend a lot of money learning the hard way. Many of the best adapted materials are considered too poor in quality to be grown in the "south 48" and are usually not available from stateside sources. Other difficulties are the use of

hardy scions on non-hardy rootstocks, and the selection of strains from the southern instead of northern parts of a plant's range. These problems are especially noticeable in *Rosa* and *Malus*.

Ornamental Trees and Shrubs

TANANA VALLEY. This is the coldest of the populated areas in which there is much interest in ornamentals. The following are found to be adapted varieties of trees, shrubs and roses:

Trees (In addition to the native birch, poplar, larch and spruce)

<i>Acer negundo</i>	<i>Prunus padus</i>
<i>Malus baccata</i> (no named varieties or hybrids have been found to be hardy in this area)	<i>Sorbus americana</i>
	<i>Ulmus japonica</i>

Shrubs

<i>Caragana arborescens</i>	<i>Prunus japonica</i>
<i>C. pygmaea</i>	<i>Sorbaria sorbifolia</i>
<i>Cotoneaster lucida</i>	<i>Spiraea media</i> var. <i>sericea</i>
<i>Juniperus horizontalis</i> selections	<i>Syringa villosa</i> , and hybrids
<i>Potentilla fruticosa</i>	<i>Viburnum trilobum</i>

Roses

<i>Rosa rugosa</i>	'Hansa'
'Butterball' and other types of <i>R. spinosissima</i>	'Thérèse Bugnet'

MATANUSKA VALLEY-ANCHORAGE AREA. Those listed above for the Tanana Valley as well as the following. Those designated with an asterisk require special sites and protection:

Trees

* <i>Abies balsamea</i>	<i>Pinus aristata</i>
<i>Betula pendula</i> 'Dalecarlica'	* <i>P. contorta</i> var. <i>latifolia</i>
* <i>Crataegus chlorosarca</i>	<i>P. mugo</i>
<i>C. rivularis</i>	<i>Populus</i> "Griffin Poplar"
<i>C. succulenta</i>	<i>Populus</i> "Northwest Poplar"
<i>Fraxinus pennsylvanica</i> var. <i>lanceolata</i>	<i>Prunus maackii</i>
<i>Larix decidua</i>	<i>P. virginiana</i>
<i>L. sibirica</i>	<i>P. virginiana</i> var. <i>demissa</i>
<i>Malus</i> - see below under Crabapples	<i>Sorbus americana</i>
* <i>Picea pungens</i>	<i>Sorbus scopulina</i>
* <i>P. sitchensis</i>	<i>Ulmus pumila</i>

Crabapples

'Almey'	'Makamik'
'Anaros'	'Osman'
'Dauphin'	'Robin'
'Dolgo'	'Rudolph'
'Haralson'	'Silvia'

Crabapples (cont.)

- *'Heyer 12'
- 'Hopa'
- 'Jacques'

- 'Strathmore'
- 'Sutherland'
- and others

Shrubs

- Acer ginnala*
- A. glabrum* var. *douglasii*
- Amelanchier alnifolia*
- Berberis koreana*
- Caragana frutex*
- **C. frutex* 'Globosa'
- C. jubata*
- C. microphylla*
- Cotoneaster intergerrima*
- C. melanocarpa*
- **Juniperus scopulorum*
- Lonicera coerulea*
- L. korolkowii*
- L. korolkowii* var. *zabelii*
- L. spinosa* var. *albertii*
- L. xylostemum* 'Claveyi'
- **Philadelphus lewisii*

- Physocarpus monogynus*
- **Prunus besseyi*
- **P. fruticosa*
- **P. triloba*
- **Rhododendron schlippenbachii*
- **R. species* and hybrids
- Ribes alpinum*
- Spiraea billiardii*
- S. trichocarpa*
- S. trilobata*
- Symphoricarpos orbiculatus*
- **Syringa* × *chinensis*
- S. × henryi*
- S. josikaea*
- **S. vulgaris*, French hybrids
- Viburnum lantana*
- V. lentago*

Roses

- **Rosa foetida* var. *bicolor*
- R. laxa*
- R. rubrifolia*
- R. woodsii*
- R. spinosissima* var. *altaica* "double form"
- 'Alysham'
- 'Belle Poitevine'
- 'Betty Bland'
- 'Betty Bugnet'

- 'Blanc Double d'Coubert'
- 'Dr. Merkeley'
- Hansen Hedge Rose
- *'Harrison's Yellow'
- 'Helen Bland'
- 'Mrs. Mina Lindell'
- 'Ruth'
- 'Tetonkaha'
- 'Wasagaming'

Bush Fruits

Many of the cultivated raspberries are suited to both the Tanana Valley and the Cook Inlet area. 'Latham' and 'Chief' are among the commonest varieties. The cultivated gooseberries and currants are not quite hardy enough for the interior, but varieties such as 'Pixwell' and 'Red Lake', and a number of black currants, do well further south in Matanuska Valley and Anchorage area. The Kenai peninsula appears to be one of the best localities for small fruits. None of the cultivated blueberries appear to be hardy anywhere in the northern part of the state although native species are widely distributed. *Amelanchier alnifolia* makes a very satisfactory substitute. The only adapted strawberry widely available is known as the 'Sitka Hybrid'. Most of the stateside varieties are not quite hardy enough to survive consistently.

Annual Flowers

Most of the annuals, except those with a high temperature requirement, do well when set out as transplants. Some of the larger zinnias are the only common annuals not widely grown. Calendulas, poppies, sweet-peas and nasturtiums are among the few that are seeded out of doors. The disease, aster yellows, is unknown, so far, so the asters are especially fine with no treatment of any kind except the addition of water and fertilizer.

Perennials

Although Alaska is probably most famous for its long-lived 8 to 10 foot delphiniums many others do well, though they do not reach the extreme height of these giants. Some of those which are well known elsewhere are columbine, pyrethrum, monkshood, trollius, centaurea, shasta daisy, day lilies, peonies (including Japanese varieties), rudbeckia, oriental poppy, campanulas, Siberian iris and many lilies. Tulips and daffodils do well from Matanuska Valley to the south.

Hazards to Production of Ornamentals and Fruits

Even in the hardest woody materials more problems are found in a winter of heavy snowfall than in a mild one with practically no snow. When the snows pile up in the mountains the moose descend to the valleys and eat the terminals on many of the well-adapted shrubs and trees. Among their favorites are the poplars, birches and, especially, the apples. But they seldom prune in a desirable manner; they may stand up on their hind legs and break down the center of a tall tree just to get the tender terminal growth. Unfortunately, this winter also, the mice were active under the snow, so that some six-foot trees were entirely debarked from the ground level to the tip of their branches. After no trouble for eight years it looks as though we shall have to go back to hardware cloth and poisoned grain. Porcupines seem to confine their feeding to raspberry canes. Insects and disease are not very serious, compared to the problems they cause with ornamentals in other areas. A number of vector aphids and leafhoppers are here, but not enough inoculum, so far, to produce recognizable symptoms of disease. Aphids on birches are among the few insect problems which are consistently treated.

The production of ornamentals that are adapted to propagation by layering, hardwood cuttings or from seed is no different than elsewhere. Our short cool growing season, however, involves considerable trial and error in order to get the correct conditions for grafting or for success with cuttings, especially softwood cuttings. The high cost of electricity and fuel may make indoor propagation prohibitive. From the few trials we have made it appears that, although cuttings may root out of doors, it may be necessary to bring them inside, under shelter, for the first winter.

RICHARD H. WASHBURN
Washburn Farm Nursery
Palmer, Alaska