Plant Propagation Protocol for Vaccinium deliciosum
ESRM 412 – Native Plant Production
Spring 2010

TAXONOMY

Family Names
Family Scientific Name: Ericaceae
Family Common Name: Heath Family

Scientific Names
Genus: Vaccinium
Species: deliciosum
Species Authority: Charles Vancouver Piper (1867–1926)
Variety: N/A
Sub-species: N/A
Cultivar: N/A
Authority for Variety/Sub-species: N/A
Common Synonym(s): Cascade bilberry, Blueleaf huckleberry, Little huckleberry, Rainer bilberry [6]
Species Code: VADE

GENERAL INFORMATION

Geographical range:
<table>
<thead>
<tr>
<th>Ecological distribution:</th>
<th>Moist, shady conditions, along coastal areas, in sub-alpine conifer forests and alpine fields. [6] Also on dry slopes at elevations greater than 1300 m [5].</th>
</tr>
</thead>
<tbody>
<tr>
<td>Climate and elevation range:</td>
<td>Lower montane to alpine 600-2,000 m. [3, 6]</td>
</tr>
<tr>
<td>Local habitat and abundance:</td>
<td>Mount Rainier, Cascade and Olympic mountains. [1]</td>
</tr>
<tr>
<td>Plant strategy type / successional stage:</td>
<td>Found to withstand fire. Commonly grows alongside Subalpine fir (Abies lasiocarpa), Mountain hemlock (Tsuga mertensiana), Alaska yellow-cedar (Xanthocyparis nootkatensis), and Pacific silver fir (Abies amabilis). Additional associations found in Washington include pink mountain heather (Phyllodoce empetriformis), partridgefoot (Luetkea pectinata), white mountain heather (Cassiope mertensiana), big huckleberry, and Sitka mountain-ash (Sorbus sitchensis), mountain bistort (Polygonum bistortoides), showy sedge (Carex spectabilis), subalpine lupine (L. arcticus var. subalpinus), slender hawkweed (Hieracium gracile), white avalanche-lily (Erythronium montanum), and Sitka valerian (Valeriana sitchensis), mountain hairgrass (Vahlodea atropurpurea), and Cusick's speedwell (Veronica cusickii) [1]</td>
</tr>
<tr>
<td>Plant characteristics:</td>
<td>Sub-shrub 5-30cm high. Branches are angled slightly. Grayish, finely pubescent young branches turn purple in maturity. Leaves obovate, 2-4 cm long, minutely dentate, with white cast to underside. Solitary globular flowers, pale pink, and found in leaf axils. Dark blue berries 6-10mm diameter. [2, 4, 5, 6]</td>
</tr>
</tbody>
</table>

**PROPAGATION DETAILS**

<table>
<thead>
<tr>
<th>Ecotype:</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propagation Goal:</td>
<td>Plants</td>
</tr>
<tr>
<td>Propagation Method:</td>
<td>Vegetative.</td>
</tr>
<tr>
<td>Product Type:</td>
<td>Rhizome divisions.</td>
</tr>
<tr>
<td>Stock Type:</td>
<td>Container.</td>
</tr>
<tr>
<td>Time to Grow:</td>
<td>1 year.</td>
</tr>
<tr>
<td>Target Specifications:</td>
<td>No information available.</td>
</tr>
</tbody>
</table>
**Propagule Collection:**
Divide sections of rhizome either in early spring or late summer/early autumn of at least 10cm length. [6]

**Propagule Processing/Propagule Characteristics:**
Place divisions into vermiculite medium at a temperature of 21 degrees C. [6]

**Pre-Planting Propagule Treatments:**
N/A

**Growing Area Preparation / Annual Practices for Perennial Crops:**
When roots and meristematic activity have established, move plantlets to pots containing 1:1 peat sand medium. [6]

**Establishment Phase:**
No information available.

**Length of Establishment Phase:**
No information available.

**Active Growth Phase:**
Until plants are of a desired size.

**Length of Active Growth Phase:**
No information available.

**Hardening Phase:**
No information available.

**Length of Hardening Phase:**
No information available.

**Harvesting, Storage and Shipping:**
No information available.

**Length of Storage:**
No information available.

**Guidelines for Outplanting / Performance on Typical Sites:**
Plant in shady, moist conditions. [6]

**Other Comments:**

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**PROPAGATION DETAILS**

**Ecotype:**
N/A

**Propagation Goal:**
Plants

**Propagation Method:**
Vegetative.

**Product Type:**
Hardwood cuttings.

**Stock Type:**
Container.

**Time to Grow:**
1 year.

**Target Specifications:**
No information available.

**Propagule Collection:**
Take 15 cm cuttings from wood that is at least 2 years old in January or February. [5]

**Propagule Processing/Propagule Characteristics:**
Place the cuttings horizontally, 2.5 cm deep in 2:1 peat sand medium. [5]

**Pre-Planting Propagule Treatments:**
N/A

**Growing Area Preparation / Annual Practices for Perennial Crops:**
Protect the new shoots in May/June from direct sunlight. [5]

**Establishment Phase:**
No information available.

**Length of Establishment Phase:**
3-4 months.

**Active Growth Phase:**
3-4 months.

**Length of Active Growth Phase:**
No information available.

**Hardening Phase:**
No information available.

**Length of Hardening Phase:**
3-4 months.

**Harvesting, Storage and Shipping:**
No information available.

**Length of Storage:**
No information available.

**Guidelines for Outplanting / Performance on Typical Sites:**
Plant in shady, moist conditions. [6]

**Other Comments:**

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**PROPAGATION DETAILS**

**Ecotype:**
N/A

**Propagation Goal:**
Plants

**Propagation Method:**
Vegetative.

**Product Type:**
Softwood cuttings.

**Stock Type:**
Container.

**Time to Grow:**
1 year.

**Target Specifications:**
No information available.

**Propagule Collection:**
Halfway through June or July, take cuttings from growth that has just turned woody. [5]
<table>
<thead>
<tr>
<th>Propagation Details</th>
<th>Ecotype: N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propagation Goal (Options: Plants, Cuttings, Seeds, Bulbs, Somatic Embryos, and/or Other Propagules):</td>
<td>Plants.</td>
</tr>
<tr>
<td>Propagation Method (Options: Seed or Vegetative):</td>
<td>Seed.</td>
</tr>
<tr>
<td>Product Type:</td>
<td>Container.</td>
</tr>
<tr>
<td>Stock Type:</td>
<td>Container transplants.</td>
</tr>
<tr>
<td>Time to Grow:</td>
<td>12 weeks.</td>
</tr>
<tr>
<td>Target Specifications:</td>
<td>None specified.</td>
</tr>
<tr>
<td>Propagule Collection:</td>
<td>Collect seeds in late summer to early fall. [5, 6]</td>
</tr>
<tr>
<td>Propagule Processing/Propagule Characteristics:</td>
<td>Clean seeds first in water by macerating them and allowing the excess pulp to separate. [5, 6]</td>
</tr>
<tr>
<td>Pre-Planting Propagule Treatments:</td>
<td>Allow the seeds to dry completely. [5, 6]</td>
</tr>
<tr>
<td>Growing Area Preparation / Annual Practices for Perennial Crops:</td>
<td>Sow seeds directly on a moist peat medium; they require no stratification. [5, 6]</td>
</tr>
<tr>
<td>Establishment Phase:</td>
<td>Best to keep temperature at 18 degrees C during the day and 13 degrees C at night. [5, 6]</td>
</tr>
<tr>
<td>Length of Establishment Phase:</td>
<td>7 weeks.</td>
</tr>
<tr>
<td>Active Growth Phase:</td>
<td>Best to keep temperature at 20 degrees C in the day and 14 degrees C at night. [5, 6]</td>
</tr>
<tr>
<td>Length of Active Growth Phase:</td>
<td>3 weeks.</td>
</tr>
<tr>
<td>Hardening Phase:</td>
<td>Best to fertilize at 10 weeks, then place in 1:1 peat, sand medium in individual pots. [5, 6]</td>
</tr>
<tr>
<td>Length of Hardening Phase:</td>
<td>2 weeks.</td>
</tr>
<tr>
<td>Harvesting, Storage and Shipping:</td>
<td>No information available.</td>
</tr>
<tr>
<td>Length of Storage:</td>
<td>No information available.</td>
</tr>
<tr>
<td>Guidelines for Outplanting / Performance on Typical Sites:</td>
<td>Plant in shady, moist conditions. [6]</td>
</tr>
<tr>
<td>Other Comments:</td>
<td></td>
</tr>
</tbody>
</table>

**INFORMATION SOURCES**


Other Sources Consulted:


Protocol Author: Kava Vale
Date Protocol Created or Updated: 05/17/2010

Note: This template was modified by J.D. Bakker from that available at: http://www.nativeplantnetwork.org/network/SampleBlankForm.asp