Native Plant Network
Propagation Protocol Database
Protocol Information

Asclepias (speciosa)

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USDA United States Department of Agriculture
Natural Resources Conservation Service
Plant Materials Program

Family Scientific Name:	Asclepiadaceae
Family Common Name:	milkweed
Scientific Name:	*Asclepias speciosa* Torr.
Common Name:	showy milkweed
Species Code:	ASSP
Ecotype:	Paradise Creek drainage near Pullman, Washington.
General Distribution:	Native to mesic places in western North America from British Columbia to Manitoba and south to Texas. In the Palouse of eastern Washington and northern Idaho it is not common and most frequently found along roadcuts and in road ditches. Mean annual precipitation range is from 16-30 inches (USDA NRCS 2008). Wetland indicator status is FAC+ for the northwestern US (US Fish and Wildlife Service 1988).
Known Invasiveness:	Considered weedy by some (Whitson et al 1996), possibly because it can be toxic to livestock when consumed in large quantities. It is not common on the Palouse and does not appear to be invasive.
Propagation Goal:	plants
Propagation Method:	seed
ProductType:	Container (plug)
Stock Type:	10 cu. in.
Time To Grow:	4 Months
Target Specifications:	Tight root plug in container.
Propagule Collection:	Fruit is a follicle and seed is reddish brown in color when mature. Seed is collected by hand when the follicles begin to split in September or October. Seed is attached to a long white coma which aids on wind dispersal. It must be harvested before becoming wind borne. Collected material is stored in paper bags or envelopes at room temperature until cleaned.
Propagule Processing:	Seeds with the attached coma can be collected by hand removal from the follicle in the field or the follicles can be collected and later opened by hand to extract the seed. The coma can be removed by hand or by rubbing over a 14/64 hand screen. If necessary, seed can be cleaned using a air column separator. 72,000 seeds/lb (USDA, NRCS 2008).
Pre-Planting Treatments:	Buhler & Hoffman (1999) state fresh seeds planted in autumn germinate the following spring and summer. We found seed of this ecotype to germinate readily without pretreatment. Unpublished data from trials conducted at the

	Pullman Plant Materials Center comparing untreated seed with seed treated by cold moist stratification for periods of 45, 90, or 120 days showed no increase in total emergence following stratification. Untreated seed emerged at 85%. Stratified seed emerged at the same time as untreated seed, suggesting that germination does not begin until temperatures warm.
Growing Area Preparation/ Annual Practices for Perennial Crops:	In January seed is sown in the greenhouse in 10 cu. in. Ray Leach Super cell conetainers filled with Sunshine #4 and covered lightly. Head space of ¬ to « inch is maintained in conetainers to allow deep watering. A thin layer of coarse grit is applied to the top of the planting soil to prevent seeds from floating during watering. Conetainers are watered deeply.
Establishment Phase:	Medium is kept moist until germination occurs. Germination usually begins in 6 days and is complete in 14 days.
Length of Establishment Phase:	2 weeks
Active Growth Phase:	Plants are watered deeply every other day and fertilized once per week with a complete, water soluble fertilizer containing micro-nutrients.
Length of Active Growth Phase:	10-12 weeks
Hardening Phase:	Plants are moved to the cold frame in late March or early April, depending on weather conditions. They are watered every other day if the weather is cool, and every day during hot, dry spells.
Length of Hardening Phase:	2-4 weeks
Harvesting, Storage and Shipping:	Plants can be stored in the lath house over winter. They must be afforded some protection from extreme cold temperatures. Containerized material of *A. speciosa* is much more sensitive to winter damage than many of the other native forbs of the Palouse. Mulch or foam sheets provide sufficient protection. The protection should be removed in spring as temperatures begin to rise.
Other Comments:	Established plants of *A. speciosa* are among the last local native forbs to resume growth in the spring, apparently requiring warm temperatures to break winter dormancy. Plants are strongly rhizomatous and can be propagated by division. This method should only be used for plants growing in cultivation. Plants should not be dug up from stands in the wild. Viable seed production in wild plants is highly variable between different years. Flowers are insect pollinated (Bookman 1983a). Bumblebees are the most common pollinator (Finer 2004). 97% of ovaries fail to develop into mature pods (Bookman 1983b). High levels of geitonogamy result in high levels of fruit abortion (Finer & Morgan 2003, Finer 2003). Larva of the monarch butterfly (*Danaus plexippus*) are obligate *Asclepias* feeders (Pyle 2002). Adults of the western milkweed long-horned beetle (*Tetraopes femoratus*) feed on the leaves, buds, and flowers of *A. speciosa*. The larva feed on the roots.
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