Aster conspicuus Lindl.

showy aster **Family: Asteraceae**

Figure 89. Documented range of *Aster conspicuus* in northern British Columbia.

Figure 90. Growth habit of *Aster conspicuus* in the wild.

Aster conspicuus Lindl. showy aster (continued)

Background Information

Aster conspicuus is found throughout western North America (Reed 1993). Douglas et al. (1998) report that it is found south of 57°N, east to Saskatchewan and south to Wyoming, Idaho and Oregon. MacKinnon et al. (1992) report that it is common throughout the northern B.C. Interior, and is abundant in the southern half of the region (south of 57°N). It is a common interior species on water shedding sites (Klinka et al 1989).

Growth Form: Rhizomatous perennial herb; small basal leaves, thick clasping stem leaves, sand-papery to the touch when mature; blue to violet ray flowers, yellow disk flowers; mature plant size is 30–100 cm tall (MacKinnon et al. 1992, Douglas et al. 1998).

Site Preferences: Moist to dry meadows, forest openings, thickets, and clearings at low to middle elevations. It is reported to be able to maintain and extend itself in a vegetative condition under a closed forest canopy and then flower profusely when the canopy opens up (Breitung 1988). It is reported to be shade-tolerant to shade-intolerant, associated with increased nitrogen availability. Widely distributed in the SBS zone at SMR <6, more narrowly distributed in the BWBS (SMR 3-4) and on dry fertile sites in the SBPS (SMR <5, SNR >A), though rare in the SBPSmc (Beaudry et al. 1999). Identified as a diagnostic species of the dh, dw, dk, mh, and mw subzones of the SBS (Meidinger et al. 1991).

Seed Information

Seed Size: Length: 3.56 mm (2.44 - 4.98 mm).
Width: 0.73 mm (0.41 - 1.01 mm).

Seeds per gram: 2,107 (range: 1,746 - 2,708).

Volume to Weight Conversion: 96.8 g/L at 81.1% purity.

Germination Capacity: At 30°/20° C untreated: 18.4% (6 - 31%).
At 25°/15° C untreated: 8.9% (34 - 44%).
stratified: 51.7% (39 - 65%).

Germination Speed: To first germination: 13.2 days.
To 50% potential: 25.1 days.

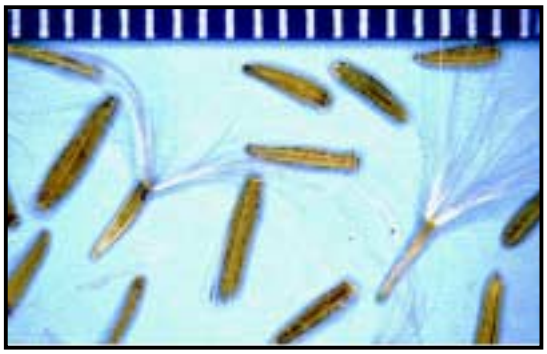

Figure 91. Seeds of *Aster conspicuus*. Rule divisions are 1.0 mm.

Seed Longevity: In our research, seeds of *Aster conspicuus* seeds retained their viability after storage under cool dry conditions for two years.

Considerations for Growing

Techniques for Seed Production

Seed treatment: Higher germination can be achieved with stratification prior to sowing.

Soil considerations: Establish on loamy, well-prepared soils, with a firm seedbed; superior germination under cool conditions suggest importance of sowing very early or late in the growing season.

Stand establishment: Site should be free of all weeds, especially rhizomatous grasses because there are currently no selective herbicides that can be used once plants are growing.

Aster conspicuus Lindl. showy aster (continued)

(Techniques for Seed Production, continued)

Row spacing: 75 to 120 cm under dryland conditions, 30 to 90 cm with good irrigation (Smith and Smith 2000).
Seeding density: Not known at present; 375 PLS seeds per linear metre inferred from recommendations for the similar species, *A. ericoides*.
Seeding depth: Surface to shallow seeding (Pahl and Smreciu 1999); a light dusting of peat moss will help keep the seeds in place.
Stand maintenance: Regularly cultivate rows and spot spray with herbicide to keep plot weed free; annual fertilization with low N formulations may extend life of the plot.

Harvesting and Seed Processing
Dates of selective harvesting in the Bulkley Valley of northwestern B.C. range from August 21st to September 24th. Timing of harvest is important as seed scatters moderately easily.
Hand clipping: May or may not be a suitable method for harvesting, as the ability of unripe seeds to mature after clipping is unknown. Hold the seed heads over bins placed alongside the plants being clipped, or place a bag over the seed heads before clipping to minimize seed loss. To aid cleaning process, pick seeds off each head without clipping stalks.
Vacuum: Vacuum ripe seed heads selectively as they ripen by placing the vacuum cleaner intake completely over seed head; a shop vacuum works best for this species; harvest as soon as seeds ripen because they are easily airborne.
Seed stripper: Not recommended for harvesting this species, though presumably would be suitable if using a soft-threaded harvesting head on a uniformly ripe crop.
Combine/thresher settings: Repeated runs at 1241 rpm with 4 mm gap; can use rotary flail if seed heads are clipped an on long stalks.
Seed cleaning: Put through fanning mill, screen sizes: prescreen 1.2 x 7.1 mm slot; top 1.8 x 12.7 mm slot; bottom blank, then use vacuum separator with speed and suction set low to remove dust and <5% of seeds.
Storage requirements: Cool dry conditions.

Considerations for Use in Revegetation

- *Aster conspicuus* is reported to have good forage value for deer, elk, cattle and domestic sheep (*McLean 1968, *Steele and Geier-Hayes 1993, Gerling et al. 1996).
- This species is common in the summer diets of both black bear and grizzly bear (*Holcroft and Herrero 1991).
- *Aster conspicuus* has low resistance to repeated human trampling but recovers rapidly (*Cole 1988).
- *Aster conspicuus* is moderately resistant to fire, and increases rapidly after fire by sprouting from surviving rhizomes (*Crane et al. 1986, *Fischer et al. 1987).

***fide* Reed 1993b.

Other considerations

- This attractive and robust plant has potential as an ornamental garden species (Douglas 1995).

***Aster conspicuus* Lindl.** **showy aster**
(continued)

Notes