

Plants for Solving Resource Problems

'DELAR' SMALL BURNET

Species: *Sanguisorba minor*

Common Name: Small Burnet

Plant Symbol: SAMI3
Accession Number: PI-464584

Source: The origin of Delar is unknown. Apparently the parent material was traced back to a seed purchase from a private seed company in Paducah, Kentucky.

Native Site Information: This species is native to Eurasia and has been widely cultivated in Europe as a salad herb.

Method of Selection: Delar was first selected as having potential for use in the Intermountain Region by the USDA, Aberdeen Plant Materials Center. It was compared to four other outstanding accessions in trials near Parma, Aberdeen and Tetonia Idaho, under dryland and irrigated conditions. Delar had the highest forage and seed production at all of the test locations and was the most attractive and cold tolerant of the accessions evaluated.

Description: Small burnet is an introduced, hardy, herbaceous, relatively long-lived, evergreen, non-leguminous, perennial forb. It typically grows from a branched caudex (thick base of stems) with a prominent taproot and is sometimes-weakly rhizomatous.

Small burnet plants have alternate pinnately compound leaves with mostly



Robert Mollenbrock, USDA, NRCS, Weed Science Institute

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9 to 17 coarsely serrate leaflets. Leaves are oval to oblong, reaching 4 inches long. Total height varies from 6 inches on droughty sites to approximately 25 inches on irrigated sites. The flowers are sessile and closely packed in head-like to elongate spikes, which are 3 to 8 inches long. The flowers are mostly imperfect, the lower ones staminate and the upper ones pistillate with no petals and about 12 stamens which are filiform. The seed is an achene, oblong, about 4 to 5 mm long, woody, papillate-warty, between and along rather prominent ridges which are four in number.

Use: Small burnet is noted for having good to excellent forage value for livestock and wildlife during all seasons. It stays green throughout the growing season and into winter until heavy snow cover occurs, providing forage and seed to livestock and wildlife. It provides excellent diversity to the seeded plant community. It is used in seed mixes for erosion control and beautification. The leaves can be added to salads, ice drinks, vinegar, butter, and cream cheese to add a fresh, cucumber-like flavor.

Insect and Disease Problems: No detrimental disease symptoms or insect problems have been observed in plantings of Delar.

Environmental Considerations: Since Delar is an introduced plant from Europe, it is not an appropriate component in native plant restoration. Small burnet establishes and can spread relatively quickly via seed distribution. Generally, it is not considered "weedy" or an invasive species, but can spread into adjoining vegetative communities under ideal climatic and environmental conditions. There has been a site specific report of it having invasive weedy characteristics in Wyoming.

Area of Adaptation: Delar can be planted and will establish in areas with 12 inches or more annual precipitation, but generally does not persist in areas with less than 14 inches annual precipitation. It has excellent cold and drought tolerance. It is considered fire resistant due to leaves and stems staying green with relatively high moisture content during the fire season.

Soil Adaptation: Delar tolerates weakly saline to weakly acidic sites. Small burnet is not tolerant of poor drainage, flooding or high water tables. It is usually used in open areas, but will tolerate semi-shaded conditions.

Planting and Harvesting: Small burnet should be seeded with a drill at a depth of 1/4 to 3/4 inch into a firm seedbed or broadcast using seed dribblers. Small

burnet is not recommended for single species seedings. The full seeding rate (not recommended) for this forb is 20 pounds Pure Live Seed (PLS) per acre or 20 PLS per square foot. When used as a component of a mix, adjust to percent of mix desired. In most cases a rate of 2 to 5 pounds per acre would be adequate in mixtures with other species. For mine lands and other harsh critical areas, double the seeding rate component of small burnet.

Seed is generally harvested in mid to late August by direct combining. Seed shatter is not a serious problem with this species. Seed yields of 500 to 600 pounds per acre can be expected under irrigated conditions and 150 to 200 pounds per acre under dryland conditions. Seed production under dryland conditions is not recommended below 14 inches of average annual precipitation.

Seed Maintenance: Breeder and Foundation seed is maintained at:

USDA-NRCS, Aberdeen PMC
P.O. Box 296
1691A S. 2700 W.
Aberdeen, ID 83210
Phone: (208) 397-4133

Foundation seed is available through the University of Idaho Foundation Seed Program and Utah Crop Improvement Association and Soil Conservation Districts in Idaho, Utah and Nevada. Certification of seed shall be limited to Registered and Certified seed.

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