



United States Department of Agriculture
Natural Resources Conservation Service

NATIONAL PLANT MATERIALS CENTER BELTSVILLE, MARYLAND

TN 97-07

TECHNICAL NOTE

DECEMBER 1997

WILDFLOWERS FOR THE MID-ATLANTIC: BONESET (*Eupatorium perfoliatum*)

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INTRODUCTION

Boneset, *Eupatorium perfoliatum*, is a native wetland perennial found on the East Coast from Canada to Florida (Reed, 1988). It inhabits such moist freshwater areas as marshes, stream edges, wet meadows, and woodlands (Godfrey and Wooten, 1981; Tiner, 1993), and has an wetland indicator status of FACW in the Northeast and mid-Atlantic states (Reed, 1988). The plant grows from 1-1/2 to 5 feet tall (Magee, 1981), and has hairy stems clasped by oppositely-arranged, lance-shaped leaves with an unusual quilted texture (Sperka, 1984). Boneset blooms late July into October in Maryland (Brown and Brown, 1984); flower heads 1/6 to 1/4 inch wide contain 9 to 23 tiny white tubular flowers. Seeds are black, 1/10 inch long, with white chaff attached to their tops (USDA-SCS, 1987; Tiner, 1993).

USES

Boneset is not a particularly showy plant, but is useful for late season flowers in wet locations along roadways; the National Plant Materials Center (NPMC) produces boneset plugs for moist site revegetation plantings between the Potomac River and the George Washington Memorial Parkway in Virginia. The plant may be used to naturalize a moist site in home gardens or can be used in combination plantings, to contrast with brightly-colored wildflower species (Sperka, 1984). Boneset is also well-suited for pond edge plantings and its seeds provide food for waterfowl (USDA-SCS, 1987).

SUITABLE SITES

Boneset grows naturally in full sun, although it can tolerate light shade (Sperka, 1984). It is found in soils that remain moist for much or all of the growing season, and will perform well in conditions ranging from ordinary garden soil to permanently wet locations (Jones and Foote, 1990).

SEED COLLECTION AND AVAILABILITY

Seeds of boneset are readily available from mail-order catalogues, and may also be collected from wild populations. Seeds are ready to collect approximately 1 month after blooming. The NPMC has collected mature seeds from native stands on the Northern Virginia-Washington D.C. border in November. Seed heads can be cut into a paper or cloth bag or seeds may be directly shaken from the heads into a bag.

Seeds are harvested from a small production row at the NPMC in late October. Seeds are shaken from the heads into a cloth or paper bag and allowed to air dry for several days. Small amounts

of seed are best processed initially by hand-rubbing; it may be possible to loosen chaff from larger lots of seed in a hammermill. Seed is then separated from chaff in a table top 2-screen clipper. The cleaned seeds are stored dry in cloth bags at 35 °F until needed.

ESTABLISHMENT AND MAINTENANCE

The NPMC has used seedling transplants as a means of establishing boneset. Seeds are sown in 392-cell trays (TLC Polyform Inc., Minneapolis, MN) with a commercial germination mix. Stratification is not necessary for germination, but wild collected seed may germinate slowly, over a period of 2 to 3 weeks. After 6 to 8 weeks of growth, seedlings in 392-cell trays are transplanted into Ropak Multi-pot #2 containers (Steuwe & Sons, Corvallis, OR) for dibble planting at revegetation sites. The NPMC uses a commercial peat : perlite mix and a time-release fertilizer in all seedling trays. A soluble fertilizer (20-18-18) is applied twice a week to young plants in the greenhouse. Seedling tops are clipped to 4 inches after 10 weeks to encourage new shoot growth and sturdier transplant development. Multi-pot plugs are ready for the field in approximately 13 weeks.

Sperka (1984) does not recommend seeding boneset, noting poor germination and infrequent self-sowing of the species; however, with good seedbed preparation and an adequate amount of viable seed, direct seeding of boneset may be an option in certain circumstances.

SEED PRODUCTION

Approximately 180 plugs of boneset were planted through a cover crop of hard fescue and Chewings fescue at the NPMC in spring 1996. The plants flowered in 1997 and produced 0.05 pound of seed.

The approximate number of seeds per pound is 760,000 (Taylor Creek Restoration Nurseries, Wisconsin, personal communication).

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