Plant Data Sheet

Agastache urticifolia

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Taxonomy

Family Scientific Name: Lamiaceae

Family Common Name: Mint

Genus: *Agastache*

Species: *urticifolia*

Common Name: Nettle-leaf giant hyssop

Species Authority: (Benth.) Kuntze

Common Synonyms: none

Species Code as per USDA Plants Database: AGUR

General Information

General Distribution: *Agastache urticifolia* grows from Washington east to Montana, and south down to Colorado and west to California.

Climate and Elevation Range: Dry open slopes in foothills to mid-elevation in the mountains.[3] In eastern Washington, *Agastache urticifolia* is part of the prairie system growing in loess soil deposits. This type of soil is very susceptible to wind and water erosion.[4] Mean annual precipitation necessary for adequate germination is between 18 and 24 inches. [1]

Local Habitat and Abundance: Some of the species commonly found growing with *Agastache urticifolia* in the Palouse Prairie in eastern Washington are *Carex microptera*, *Balsamorhiza sagittata*, *Geum macrophyllum*, *Zigadenus venenosus*, *Ranunculus glaberrimus*, *Aster occidentalis*, *Senecio serra*, *Valeriana edulis*, *Silene douglasii*, and *Festuca idahoensis*.

Plant Strategy Type: unknown

Propagation Details

Ecotype: Paradise Creek drainage near Pullman, Washington. [1]

Propagation Goal: Plants

Propagation Method: Seed

Product Type: Container (plug)

Stock Type: unknown

Time to Grow: 4 months

Steve Hurst. Provided by ARS Systematic Botany and Mycology Laboratory. USA, ID. Usage Guidelines

Target Specifications: Tight root plug in container

Propagule Collection: In August, when the inflorescence is dry, the seeds are collected by shaking the inflorescence over a paper bag. The seeds are stored at room temperature until cleaned. [1]

Propagule Processing and Characteristics: Clean the seed by hand by rubbing over a fine screen to remove other floral parts. Then clean the seeds with an air column separator. [1]

Pre-Planting Propagule Treatments: The following treatments were used in the studies conducted at the Pullman Plant Materials Center. One study showed 78% germination from covered seed sown in a greenhouse without pretreatment. Another batch of seed collected in a different year had an 84% germination rate when outplanted in November without pretreatment. These two trials can't be accurately compared since the seed batches were from different years. It is important to note, however, that the plants grown out of doors were not hardy enough to be planted in the field the following spring. They had to be held for fall planting or overwintered for transplanting the following spring. [1]

Growing Area Preparation/Annual Practices for Perennial Crops: *Agastache urticifolia* seeds grow well in a variety of soil textures but have low drought tolerance. They have a high fire tolerance and tolerate some shade. [2] In the Plant Materials Center study, the seed was sown in January in a greenhouse in 10 cubic inch Ray Leach Super cell containers. They used Sunshine #4 growing mix and covered the seeds lightly. A head space of $\frac{1}{4}$ to $\frac{1}{2}$ inch was maintained in the containers to alow deep watering. A thin layer of pea gravel was applied to prevent the seeds from floating. The containers were watered deeply. [1]

Establishment Phase: When the soil was kept moist, germination began in 5 days and was complete in 12-14 days. [1]

Length of Establishment Phase: 2 weeks [1]

Active Growth Phase: The plants were watered deeply every other day and fertilized once per week with a complete, water soluble fertilizer containing micro-nutrients. [1]

Length of Active Growth Phase: 8 – 10 weeks [1]

Hardening Phase: The plants were moved to a cold frame in late March or early April, depending on weather conditions. They were watered every other day during cool weather and every day during hot, dry weather. [1]

Length of Hardening Phase: 2 – 4 weeks [1]

Harvesting, Storage and Shipping: unknown

Length of Storage: unknown

Guidelines for Outplanting/Performance on Typical Sites: In the Pullman study, the seedlings were transplanted in early May by using an electric drill and portable generator to drill 1.5 inch diameter holes at the planting site. [1]

Information Sources

Works Cited

[1] Skinner, David M. 2005. Propagation protocol for production of container *Agastache urticifolia* (Benth.) Kuntze plants; Pullman Plant Materials Center, Pullman, Washington. In: Native Plant Network. URL: http://www.nativeplantnetwork.org (accessed 8 May 2007). Moscow (ID): University of Idaho, College of Natural Resources, Forest Research Nursery.

[2] USDA, NRCS. 2007. The PLANTS Database (http://plants.usda.gov, 9 May 2007). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

[3] http://biology.burke.washington.edu/herbarium/imagecollection.php

[4] Natural Resources Conservation Service, Pullman Plant Materials Center website: http://www.plant-materials.nrcs.usda.gov/pubs/wapmcpr5599.pdf

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