

## COAST TARWEED

### *Madia sativa* Molina

plant symbol = MASA

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Abrams & Ferris (1960)

#### Uses

**Ethnobotanic:** Coast tarweed seeds were one component in pinole, which was a staple food of the Indians of the Pacific coast. There are several *Madia* species, called “tarweed” because of the intense stickiness of the plant. The tarweeds produce abundant seed and are agreeably aromatic and oily. The Miwok, Hupa, Cahuilla, Digueño, Chumash, Costanoan, Kawaiisu, and Maidu tribes in California made pinole from *Madia* species.

Women harvested coast tarweed seeds in late summer during a period of a fortnight. A seed beater and a basket were used to gather the seeds. Then, the seeds were winnowed and ground very fine in a bedrock mortar with a stone pestle. Both winnowing and sifting were done in a flat circular basket plaque. The sifting was done by jiggling the plaque so that large fragments separated from the fine meal. The large fragments were pulverized into meal, which

was eaten dry. The seeds were kept in storage in every household, and eaten all year. Coast tarweed roots were also eaten.

When the seeds had matured but the plants were still green, the Hupa burned the areas where *Madia* grew. Seeds gathered from the scorched plants needed no further parching before being crushed into flour. The Yokuts added *Madia sativa* seeds to manzanita cider for flavoring.

**Wildlife:** The dark seeds (achenes) of tarweeds are used as food by many birds and small mammals, including mourning doves, quail, blackbirds, finches, Oregon juncos, California horned larks, western meadowlarks, American pipits, sparrows, towhees, chipmunks, ground squirrels, and mice. Cottontail rabbits, ground squirrels, and chipmunks eat the plants.

#### Status

Please consult the PLANTS Web site and your State Department of Natural Resources for this plant’s current status, such as, state noxious status and wetland indicator values.

#### Description

**General:** Sunflower Family (Asteraceae). *Madia sativa* is an annual herb, 2-24 dm tall, and strongly scented. The stems are stiff and very leafy, with glandular hairs throughout the plant producing a very sticky substance that covers the stems and leaves. The small (7-15 mm involucre), greenish-yellow, sunflower-like heads are sessile in dense cymes or panicle-like clusters. The fruits are small (2.5-5 mm) black or dark brown achenes.

#### Distribution

For current distribution, please consult the Plant Profile page for this species on the PLANTS Web site. *Madia sativa* grows in coastal grasslands at elevations below 950 m. The distribution is quite widespread along the Pacific coast, from Alaska to northern Baja California and southwestern South America.

#### Establishment

*Madia sativa* seeds ripen in late summer, usually in August in California. After gathering, seeds can be stored in a cool, dry place for at least a year and still maintain viability. Coast tarweed requires well-drained, fairly dry soils with full sun. These annual species produce prolific seeds, and can be planted

directly in the soil or in seed flats. Plant seeds at the soil surface or plant 1/8" to 1/4" in a well-drained soil. Water seedlings as the soil dries to stimulate growth. It is best to plant seeds in the fall. Fertilization stimulates growth and seed production. Seeds germinate rapidly. Plant the seedlings into 2" or 4" pots after they grow 2-4 leaves beyond the cotyledons. Water as needed, but do not overwater.

### Management

*Traditional Resource Management:* Resource management of coast tarweed includes the following:

- Seeds were distributed during the process of gathering seeds through seed beating.
- Burning occurred during September-October after seeds were harvested. Grassland species were burned for plant improvement by the tribes throughout California.
- Seeds were planted from wild plants. A Diegueño woman reported her people always cleared a small spot near their dwelling to plant seeds of plants with greens, seeds, and roots.
- Ownership of seed-gathering grounds promoted long term care and sustainable harvest practices.

### Cultivars, Improved and Selected Materials (and area of origin)

This species is somewhat available from native plant nurseries within its range. Please check the Vendor Database, expected to be on-line through the PLANTS Web site in 2001 by clicking on Plant Materials.

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