

## SULFUR FLOWER BUCKWHEAT

*Eriogonum umbellatum* Torr.

Plant Symbol = ERUM

Contributed by: USDA NRCS California State Office  
and Lockeford Plant Materials Center, California



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### Alternate Names

Buckwheat bush, sulfur buckwheat, slender buckwheat, sulphur-flower buckwheat

### Uses

**Wildlife:** The seeds are an important food source for many species of birds and small mammals. Quail, grouse, deer and mountain sheep eat the leaves.

**Landscaping:** It can be used for environmental enhancement, erosion control and foundation plantings around mountain homes. It is an excellent dry flower for arrangements as it holds its color and structure for many months. Sulfur flower buckwheat plants withstand sun, heat, drought, and wind, making them ideal plants for dry sunny slopes. The showy flowers and seed heads, and compact growth habit make this plant a good choice for rock gardens. Bees produce a strong, dark honey from sulfur flower nectar.

**Ethnobotanic Uses:** Modern knowledge of the ethnobotanical uses of *Eriogonum* is entirely attributed to Mexican and Native American herbal traditions. The Cahuilla used an infusion of the flowers as an eyewash, as well as for cleaning out the intestines, and made an infusion of the whole plant to

shrink the uterus and reduce dysmenorrhea. Several California tribes used the tea to wash newborn babies. The Hopi used *Eriogonum* for hip and back pain, especially during pregnancy, and it was known to expedite birthing. Due to its water solubility and its lack of toxicity, *Eriogonum* can be taken as often as needed, and is safe to use in the last trimester of pregnancy as a diuretic to aid water retention.

### Status

Please consult the PLANTS Web site and your State Department of Natural Resources for this plant's current status (e.g. threatened or endangered species, state noxious status, and wetland indicator values).

### Description

Buckwheat Family (Polygonaceae). Sulfur flower buckwheat is a native, low-growing woody perennial commonly found on hot dry sunny exposures on rocky slopes and ridges throughout the west. It is native to western mountainous regions at elevations of 2,500 to 10,000 feet. Sulfur flower buckwheat requires well-drained sandy or gravelly soils with low fertility and will not tolerate saturated soils.

The plant forms low, broad mats with individual clumps reaching one foot high to two feet across. Leaves are one inch long, shiny green on top and woolly underneath. Flower stems 3 inches to 16 inches tall, are topped by clusters of tiny sulfur-yellow flower heads. Flowers range from yellow to orange or reddish, both in bloom and in mature seed heads. Flower displays can color entire slopes starting in June at lower elevations and continue into August at higher elevations.

### Distribution

Sulfur flower buckwheat is found in dry, open and often rocky places. It is found in California to western Canada and also Colorado and New Mexico. This species has about thirty subspecies distributed across the western United States. For current distribution, please consult the Plant Profile page for this species on the PLANTS Web site.

### Adaptation

Sulfur flower buckwheat grows well in medium to coarse textured and well-drained soils.

### Establishment

Sulfur flower buckwheat can be raised from seed or purchased as container grown plants at local nurseries. Collect the sharply angled small black

seeds from dried flower heads by rubbing the papery dried flower heads between your fingers. They generally germinate without pretreatment and can be sown in spring or fall. However, the rate of germination is improved if they are first cold stratified.

Cold stratify seeds by placing them in a plastic bag with moist peat moss or sand in a refrigerator three months. Plant out in the early spring. Seeds are naturally cold stratified by fall planting. Select a hot, sunny, well-drained planting site and broadcast the seeds directly on the ground where they are to grow permanently.

Sulfur flower buckwheat seeds will germinate better if the seedbed has been cleared of weeds, and/or rototilled, or spaded to a depth of eight to ten inches, and mixed with additional compost. Scatter seeds evenly over the seedbed and rake and water lightly. Cover seeds with sand or weed-free compost to a depth equal to one or two times the seed diameter (about one eighth inch).

Keep the seedbed moist by sprinkling two to three times daily until seeds germinate. After the seeds germinate, continue to water once every two to three days for the next few weeks; then once a week for another month. Continue to water a few times a month through the fall. Plants are drought tolerant when established and will need only occasional watering.

Sulfur flower buckwheat blooms the second year from seed. It can be pruned back after flowering to promote a denser, more compact plant.

Sulfur flower buckwheat has a long taproot and thus mature plants are difficult to transplant. When container-grown plants are ready to plant, dig a hole two to three times the diameter of the root ball and at least six inches deeper. Backfill the hole with six inches of native soil. Make a few one-eighth inch deep vertical cuts in the rootball, or carefully loosen roots away from the rootball with your hands to encourage roots to grow into the new soil. Set the plant into the hole and fill in around the roots with planting mix, firming the soil with your hands as you fill, until the hole is half full. Fill the hole with water and allow it to settle. This will settle the soil and eliminate air pockets around the roots. Backfill with enough soil so that the plant will set at the same level at which it was growing in the container. Water it to allow the soil to settle, then add more soil if necessary. Build a berm of soil to form a watering

basin around the outer edge of the hole. Break the basin down after two or three years.

### **Management**

Control of weeds and irrigation is necessary in the first year of establishment.

### **Seeds and Plant Production**

Sulfur flower buckwheat is grown at the Lockeford Plant Materials Center for foundation seed production. The field was established with transplants and has produced an average of 150 pounds of seed per acre. Seed has been vacuumed or hand harvested in June-July and does not shatter easily. Germination has averaged about 35 percent with varying amounts of seed and seed rapidly loses viability within a few years. There are about 140,500 seeds per pound.

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

'Sierra' Cultivar: Sierra was collected from native plants on August 23, 1972 at South Lake Tahoe, California. The original collection was increased at Lockeford through seed and plants. It is a low growing shrub found on dry slopes and ridges, 1,200 to 10,000 feet. The gray-green leaves are ovate, smooth above and finely hairy beneath. Plants are 8 to 12 inches high, spreading up to 2 feet in diameter. Yellow flowers in umbels erect or ascending from a woody base, turn orange red at maturity. Flowers are used in dry flower arrangements.

### **References**

University of California at Santa Cruz. 2005. *Arboretum: Buckwheat brush*. <http://ucsc.edu>. Accessed: 08 Aug2005  
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USDA NRCS. *Proposed release of 'Sierra' sulfur flower buckwheat, Eriogonum umbellatum Torr. For conservation and beautification use on critically eroded areas*. Plant Materials Center, Lockeford, California

USDA NRCS and Nevada Cooperative Extension. *Plants of the Lake Tahoe Basin*.

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