

DESERT GLOBEMALLOW

Sphaeralcea ambigua A. Gray

Plant Symbol = SPAM2

Common Names: apricot mallow, roughleaf apricot mallow, desert mallow, sore-eye poppy, mal de ojo, Parish mallow, desert hollyhock

Scientific Names: Subspecies

Sphaeralcea ambigua subsp. *ambigua*

Sphaeralcea ambigua subsp. *rosacea*

Sphaeralcea ambigua subsp. *rugosa*

Description

General: Desert globemallow is a native perennial sub-shrub with numerous, slightly woody stems. Each plant grows in a large, rounded clump to a height of 20-40 inches, and may have over a hundred stems growing from the same root. Desert globemallow is known for its brilliant apricot to orange colored flowers. A subspecies, *Sphaeralcea ambigua* subsp. *rosacea*, has petals that are lavender, pink, or white. Plants bloom most heavily in the spring, but continue to bloom throughout the year in response to precipitation. Desert globemallow is the largest-flowered globemallow. Each bowl-shaped flower has 5 petals that are up to 1.5" long. The flowers are arranged in clusters on the upper stems in an open panicle. The fruit is a brown, globe-shaped schizocarp that breaks into several segments, each containing 0-2 seeds. Leaves are simple, 3-lobed, 0.5 to 2 inches long, grayish green, and triangular, with a wavy margin. Star-like hairs covering the leaves give a grayish tone. Desert globemallow is the most xerophytic of the Southwest globemallows. (Kearney & Peebles, 1969; La Duke, 2016; Epple & Epple, 1995; Baldwin et al., 2002; Wall & McDonald, 2009)



Desert globemallow, Photo by Heather Dial, USDA NRCS Tucson Plant Materials Center

Distribution: Desert globemallow is found in southwest Utah to southern California, southern Nevada, Sonora, and Northern Baja, California. Please refer to the PLANTS Database for the most current map of species distribution.

Habitat: Desert globemallow is found in desert scrub below 3500 ft. on dry, rocky slopes, edges of sandy washes, roadsides, and disturbed areas.

Adaptation

This plant is found in the Mojave Desert in creosote bush scrub and Joshua tree woodlands. In the Sonoran Desert and Colorado Plateau, it is common in desert scrub, interior chaparral, and semidesert grasslands. Associated plants include: Creosote bush (*Larrea tridentata*), Brittlebush (*Encelia* spp.), Yucca (*Yucca* spp.), Ocotillo (*Fouquieria splendens*), Paloverde (*Parkinsonia* spp.), Ironwood (*Olneya tesota*), and Pinyon pine (*Pinus monophylla*). (California Native Plant Society, 2016)

Uses

Range revegetation: Desert globemallow is an early colonizing species, and can suppress invasive exotic species in areas affected by fires or other disturbance (Abella et al. 2009; Abella et al. 2012). Seeds can be used on construction sites where erosion control and plant community restoration are desired (James, 1998). Desert globemallow seedlings have been used to revegetate abandoned mines (Rodgers, 1994)

Ornamental: Desert globemallow is used as a landscape ornamental for xeriscape gardens. It is a low-maintenance plant that is easy to grow from seed and will re-seed itself. Desert globemallow requires full sun and is tolerant of various soil types, as long as there is adequate drainage. It will live on natural rainfall; however, supplemental water will increase flowering. Periodic cutting back will maintain the plant's appearance. Desert globemallow is hardy to -10°F (Phillips, 1995; Wasowski & Wasowski, 2000).

Pollinator habitat: Desert globemallow provides habitat for pollinator species, including native bees and common checkered skipper butterflies (*Pyrgus communis*) (Tucson Plant Materials Center and the Xerces Society, 2012; Chambers et al., 2004).

Forage: Desert globemallow provides browse for bighorn sheep and livestock (Epple & Epple 1995). Globemallow is a food source for the desert tortoise, *Gopherus agassizii* (Hansen et al. 1973). Arizona Game and Fish lists desert globemallow as a “favored native plant” for feeding to captive desert tortoises (Arizona Game and Fish, 2008).



Desert globemallow, Photo by Heather Dial, USDA NRCS Tucson Plant Materials Center

Ethnobotanical: Desert globemallow stems were used by the Yavapai to make trays for drying saguaro fruit or slabs of pounded mescal (Gifford 1936). The Shoshoni had multiple medicinal uses for globemallow; however, it is not known if they distinguished between desert globemallow and other globemallows (Train et al. 1957). Medicinal uses included poultices applied to cuts, swellings or rheumatism; decoctions taken internally for upset stomach, colds, and as a treatment for infectious diseases; and decoctions used as an eyewash (Train et al. 1957). It is interesting to note that while globemallow was used by the Shoshoni as an eye medicine, the English and Spanish names “sore eye poppy” and “mal de ojo” are elsewhere attributed to eye irritation caused by contact with the leaf hairs (Epple & Epple 1995).

Status

Threatened or Endangered: No

Wetland Indicator: UPL

Weedy or Invasive: This plant may become weedy or invasive in some regions or habitats and may displace desirable vegetation if not properly managed. Please consult with your local NRCS Field Office, Cooperative Extension Service office, state natural resource, or state agriculture department regarding its status and use.

Please consult the PLANTS Web site (<http://plants.usda.gov/>) and your state's Department of Natural Resources for this plant's current status (e.g., threatened or endangered species, state noxious status, and wetland indicator values).

Planting Guidelines

The recommended seeding rate for desert globemallow is 2.2 pure live seed (PLS) pounds per acre if planted with a drill and approximately 4.4 PLS pounds per acre if seed is broadcast. There are approximately 500,000 seeds of desert globemallow in a pound. For ornamental establishment, sow desert globemallow seed to a depth of ¼ inch. Fall-planted seed will usually germinate in the winter and grow rapidly in the spring. However, there may be poor germination due to the seed's impermeable seed coat. Mechanical scarification has been shown to improve germination (Dunn, 2011). For containerized production, sow globemallow seed to a depth of ¼ inch in a well-drained soil.

Pests and Potential Problems

Some species of *Sphaeralcea* have been reported to be a host of the fungus, *Phymatotrichum omnivorum*, which causes root rot of cotton and other cultivated plants (Kearney & Peebles, 1969).

Environmental Concerns

None

Control

Please contact your local agricultural extension specialist or county weed specialist to learn what works best in your area and how to use it safely. Always read label and safety instructions for each control method. Trade names and control measures appear in this document only to provide specific information. USDA NRCS does not guarantee or warranty the products and control methods named, and other products may be equally effective.

Seeds and Plant Production

Desert globemallow should be planted in the early spring into a firm, weed free seedbed at a ½ inch depth with 24-40 inches within-row spacing. Row spacing can vary from 36-40 inches. The planting should be irrigated to maintain a moist soil surface and to avoid soil crusting. Appropriate pre-emergent herbicide may be used to control weeds after the plants have developed at least 3-5 leaves. Established fields should be irrigated approximately every four weeks during the growing season. Apply nutrients according to soil test results. Irrigated fields produce seed from spring to fall. Mechanical seed harvest is with a seed stripper or combine. Yields for irrigated production fields average 100-200 pounds per acre at the Tucson Plant Materials Center depending on harvesting equipment used. Harvested seed can be cleaned by processing with a brush machine or hammer mill and air screening equipment.



Desert Globemallow in flower, Photo by Heather Dial, USDA NRCS Tucson Plant Materials Center

Cultivars, Improved, and Selected Materials

Globemallows are actively propagated in the horticultural trade. One available selection of desert globemallow is 'Louis Hamilton'™. Seed is readily available from commercial sources. Cultivars should be selected based on the local climate, resistance to local pests, and intended use. Consult with your local land grant university, local extension or local USDA NRCS office for recommendations on adapted cultivars for use in your area.

Literature Cited

- Abella, E.C. Engel, C.L. Lund, and J.E. Spencer. 2009. Early Post-Fire Plant Establishment on a Mojave Desert Burn. *Madroño*, Vol. 56, No. 3, pp. 137-148.
- Abella, S.R., D.J. Craig, S.D. Smith, and A.C. Newton. 2012. Identifying native vegetation for reducing exotic species during the restoration of desert ecosystems. *Restoration Ecology* Vol. 20, No. 6, pp. 781-787.
- Arizona Game & Fish. 2008. Native Plants for Desert Tortoises. https://www.azgfd.com/PortalImages/files/wildlife/tortoise/NativePlantsDesertTortoises_2008.pdf, accessed on August 4, 2016.
- Baldwin, B.G., S. Boyd, B.J. Ertter, R.W. Patterson, T.J. Rosatti, and D.H. Wilken (ed). 2002. *The Jepson Desert Manual: Vascular Plants of Southeastern California*. Univ. of California Press, Berkeley, CA.
- California Native Plant Society. Calscape. [http://calscape.org/Sphaeralcea-ambigua-\(Desert-Globemallow\)?srchcr=sc56aafab61d02f](http://calscape.org/Sphaeralcea-ambigua-(Desert-Globemallow)?srchcr=sc56aafab61d02f) (accessed August 24, 2016).
- Chambers, N., Y. Gray, and S. Buchmann. 2004. Pollinators of the Sonoran Desert. Produced in partnership by the Arizona-Sonora Desert Museum, the International Sonoran Desert Alliance, and The Bee Works.
- Dial, H. and L. Glass 2014. TN-PM-14-1-AZ, Vendor Sources of Native Plant Seed from Bioregions within the Mojave, Sonoran and Chihuahuan Deserts (PDF; 635 KB. USDA NRCS Tucson Plant Materials Center. Tucson, Arizona. June 2014. 17p. (ID# 12170).
- Dunn, B. 2011. Improved germination of two *Sphaeralcea* A. St.-Hil. (Malvaceae) species with scarification plus stratification treatments. *Native Plant Journal* vol. 12, no. 1, pp. 13-17.
- Epple, A.O. and L.E. Epple. 1995. *A Field Guide to the Plants of Arizona*. The Globe Pequot Press: Guilford, CT.
- Gifford, E.W. 1936. Northeastern and Western Yavapai. University of California Publications in American Archaeology and Ethnology. Volume 34, No. 4, pp. 247-354. Univ. of California Press, Berkeley.
- Hansen, R.M., M.K. Johnson and T.R. Van Devender 1976. Foods of the desert tortoise, *Gopherus agassizii*, in Arizona and Utah. *Herpetologica*, Vol. 32, No. 3.
- James, R.D. 1998. Use of Native Species in Revegetation of Disturbed Sites (Arizona). *The Future of Arid Grasslands*, p.297.
- Kearney, T.H., and R.H. Peebles. 1969. *Arizona Flora*. Univ. of California Press, Berkeley, CA.
- La Duke, John C. 2016. *Sphaeralcea ambigua*, in Jepson Flora Project (eds.) *Jepson eFlora*, http://ucjeps.berkeley.edu/cgi-bin/get_IJM.pl?tid=45130 (accessed on June 22, 2016).
- Phillips, J. 1995. *Plants for Natural Gardens*. Museum of New Mexico Press. Santa Fe, NM.
- Rodgers, J. 1994. Use of Container Stock in Mine Revegetation. In: Landis, T.D.; Dumroese, R.K., tech. cords. National Proceedings, Forest and Conservation Nursery Associations. Gen. Tech. Rep. RM-257. Fort Collins, Co: U.S. Department of Agriculture, Forest Service, Rocky Mountain Forest and Range Experiment Station: 234-238.
- Train, P., J.R. Henrichs and W.A. Archer. 1957. Medicinal Uses of Plants by Indian Tribes of Nevada. Contributions Toward a Flora of Nevada, No. 45. Agricultural Research Service, U.S. Department of Agriculture Plant Industry Station, Beltsville, MD.

Tucson Plant Materials Center and the Xerces Society. 2012. TN-PM-12-1-AZ, Plants for Enhancing Pollinator Habitat in Arizona (PDF; 227 KB). 15p. (ID# 11406). USDA-NRCS PLANTS Database, <http://plants.usda.gov/core/profile?symbol=SPAM2>

Wall, M. and J. McDonald. 2009. Processing Seeds of California Native Plants for Conservation, Storage, and Restoration. Rancho Santa Ana Occasional Publication, No. 10, Claremont, CA.

Wasowski, S. and A. Wasowski. 2000. Native Landscaping from El Paso to L.A. Contemporary Books, Lincolnwood, IL.

Citation

Wolf, M. and B. Evancho. 2016. Plant Guide for desert globemallow (*Sphaeralcea ambigua* A. Gray). USDA-Natural Resources Conservation Service, Tucson Plant Materials Center. Tucson, AZ.

Published September 2016

For more information about this and other plants, please contact your local NRCS field office or Conservation District at <http://www.nrcs.usda.gov/> and visit the PLANTS Web site at <http://plants.usda.gov/> or the Plant Materials Program Web site: <http://plant-materials.nrcs.usda.gov>.

PLANTS is not responsible for the content or availability of other Web sites.

The U.S. Department of Agriculture (USDA) prohibits discrimination against its customers, employees, and applicants for employment on the bases of race, color, national origin, age, disability, sex, gender identity, religion, reprisal, and where applicable, political beliefs, marital status, familial or parental status, sexual orientation, or all or part of an individual's income is derived from any public assistance program, or protected genetic information in employment or in any program or activity conducted or funded by the Department. (Not all prohibited bases will apply to all programs and/or employment activities.)

If you wish to file an employment complaint, you must contact your agency's [EEO Counselor](#) (PDF) within 45 days of the date of the alleged discriminatory act, event, or in the case of a personnel action. Additional information can be found online at http://www.ascr.usda.gov/complaint_filing_file.html.

If you wish to file a Civil Rights program complaint of discrimination, complete the [USDA Program Discrimination Complaint Form](#) (PDF), found online at http://www.ascr.usda.gov/complaint_filing_cust.html, or at any USDA office, or call (866) 632-9992 to request the form. You may also write a letter containing all of the information requested in the form. Send your completed complaint form or letter to us by mail at U.S. Department of Agriculture, Director, Office of Adjudication, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410, by fax (202) 690-7442 or email at program.intake@usda.gov. Individuals who are deaf, hard of hearing or have speech disabilities and you wish to file either an EEO or program complaint please contact USDA through the Federal Relay Service at (800) 877-8339 or (800) 845-6136 (in Spanish).

Persons with disabilities who wish to file a program complaint, please see information above on how to contact us by mail directly or by email. If you require alternative means of communication for program information (e.g., Braille, large print, audiotope, etc.) please contact USDA's TARGET Center at (202) 720-2600 (voice and TDD).

For any other information dealing with Supplemental Nutrition Assistance Program (SNAP) issues, persons should either contact the USDA SNAP Hotline Number at (800) 221-5689, which is also in Spanish or call the [State Information/Hotline Numbers](#). For any other information not pertaining to civil rights, please refer to the listing of the [USDA Agencies and Offices](#) for specific agency information.

Helping People Help the Land

USDA IS AN EQUAL OPPORTUNITY PROVIDER, EMPLOYER, AND LENDER