

'Casa' Quailbush

Atriplex lentiformis (Torr.) S.Watson

'Casa' quailbush (*Atriplex lentiformis*) is a cultivar released in 1979 by the Lockeford Plant Materials Center in cooperation with the California Agricultural Experiment Station and the California Department of Fish and Game.

Description

'Casa' quailbush is a fast-growing native shrub with an erect, spreading habit. The evergreen plant grows 9 to 12 feet tall and 10 to 12 feet wide. Leaves are gray-green, alternate, triangular or ovate to oblong and 1.5 to 2 inches in length. Flowers are either male or female, borne on terminal branches, usually on separate plants (dioecious) or sometimes on a single plant (monoecious). Quailbush plants flower from June through August and seed matures from October through December.

Source

Seed collected from plants south of Paicines in San Benito County along Highway 25 in 1964 at an elevation of 600 feet was the source for 'Casa' quailbush. Seeds from original plants were grown out for seed increase at the Plant Materials Center in Pleasanton. Plants were subsequently brought to the Lockeford Plant Material Center in 1972. Performance of 'Casa' quailbush, was compared to other accessions tested at thirty field sites across California. 'Casa' demonstrated exceptional qualities for upland game cover including dense foliage, upright branching, and edible fruits for wildlife across sites with a wide range of soil and climactic conditions. 'Casa' quailbush was released by the Lockeford Plant Materials Center in 1979.

Conservation Uses

'Casa' quailbush performs well as a conservation plant on various critical areas, for upland game cover, and for environmental enhancement on deep, medium, or fine-textured soils that are well to poorly drained. 'Casa' quailbush provides outstanding cover for quail, other upland game birds, and song birds. Rabbits increase where plantings of this species have been established. Small mammals, lizards, rattlesnakes, coyotes, quails, and other birds use the seeds and foliage for food and habitat. Foliage and twigs provide shelter for small mammals and livestock. This plant does well in field corners and hedgerows as it suppresses weeds and provides additional wildlife habitat. 'Casa' quailbush can be used on projects such as road fills and cuts, levees, and canal banks where the addition of food and cover is desirable.

Area of Adaptation and Use

'Casa' quailbush does best in areas with full sunlight and well-drained soils. However, it can be grown on slightly acidic to strongly alkaline soils (pH 6 to 8.5) with as little as 8 to 10 inches of annual precipitation when irrigated at initial establishment. It should not be planted on soils of granitic origin. The plant performs well at elevations up to 2,000 feet and with annual precipitation ranging from 12 to 40 inches. It can tolerate cold temperatures as low as -5 to -10 °C. Quailbush plants can do well under some forms of water, drought, or salt stress. Bladders in the leaves act as salt sinks that keep salt from the plant cells and allow the plant to extract water from the soil.

This species ranges from the upper San Joaquin and Salinas Valleys to southern California and eastward into Nevada, Utah, and Arizona. It occurs along river floodplains, roadsides, and drainage borders.



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Within California, quailbush is typically found within the coastal sage scrub plant community where it occurs with coyote bush (*Baccharis pilularis*) and California sagebrush (*Artemisia californica*), and in alkali sinks such as estuaries or deserts where it occurs with other salt tolerant species such as saltgrass (*Distichlis spicata*) and seaside buckwheat (*Eriogonum latifolium*).

Establishment and Management for Conservation Plantings

'Casa' quailbush can be established from direct seeding, cuttings, or transplants. 'Casa' quailbush should be seeded from late winter to early spring from January into April depending on location and soil moisture availability. The recommended seeding rate is either 9 pounds pure live seed (PLS) per acre broadcast or 6 pounds PLS per acre drilled to a planting depth of no more than 0.5 inches. If broadcast seeding, additional practices such as harrowing or cultipacking may be necessary to cover the seed and firm the soil to ensure good seed to soil contact. When planting a mixture, the rate of 'Casa' seed should be reduced according to the total percentage desired in the mix. A firm, weed-free seedbed and irrigation during initial establishment aid in producing successful stands. Plants can also be successfully established by putting cuttings directly in the field during February or March and irrigating as needed. Container grown plants can be transplanted in either fall or spring. Transplants require irrigation immediately after planting and occasionally throughout the rest of the first season. Transplants must be cultivated for the first two years for weed control. Plants should be protected from heavy grazing.

Ecological Considerations

'Casa' quailbush is subject to infestations of downy mildew in areas of moist climate.

Seed and Plant Production

'Casa' should be seeded during late winter from January to mid-March in central and southern California, from February to March on droughty soils, and through April on finely textured soils with adequate moisture in northern California. Irrigation during initial establishment improves stand quality. Mature seeds tend to shatter from October to December, so periodic hand harvesting maximizes production. There are approximately 500,000 seeds per pound. Pretreatment of seeds is not necessary for germination, but a one month after-ripening period or soaking the seeds before sowing may improve germination rates. For production of containerized plants, seed should be sown in deep containers using a relatively quick draining media with a moderate organic component to allow for nutrient and water retention (e.g., Sunshine #4 mix). Seedlings should be grown in a greenhouse for the first winter. Containerized plants should be transplanted to the field when roots are well established, or they can be maintained for a longer duration if they are potted up into larger containers to allow for adequate root development.

Availability

For conservation use: 'Casa' quailbush has limited availability of seeds and plants from commercial growers.

For seed or plant increase: Seed is maintained and available through the USDA-NRCS Lockeford Plant Materials Center for seed increase.

For more information, contact:

Lockeford Plant Materials Center

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Lockeford, CA 95237

Tel: 209 727 5319 Fax: 844 206 6967

<http://plant-materials.nrcs.usda.gov/capmc>

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

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