

# Bush Sunflower

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Bush sunflower, *Simsia calva*, is a robust and often scraggly native perennial sunflower that grows from an impressively large woody root. The large woody roots will grow deep and mostly straight unless they are forced to alter their growth because of rocks. If you wish to dig up a bush sunflower, you must begin with a sharpshooter held almost vertically and cut down repeatedly about 4 inches away from the base of the plant. As you work your way around the plant cutting down and loosening the soil you will likely encounter at least one and perhaps more than one buried rock. Then carefully lift up the soil and you will see that your careful attempts to get the entire root will be met with a half-inch or larger cut off root. Don't feel bad, it is almost impossible to extract the entire root of a healthy bush sunflower because of how deep the roots grow. I encourage you to dig up one bush sunflower, you will be impressed.

When growing in the open, it will form bushy growth 12 to 24 inches tall and 12 to 18 inches across. When found growing near and under protection from low brush, it can form branches 3 to 4 feet long as it reaches for sunlight. The branches are coarse from the dense short hairs that cover the stems and leaves, giving the feel of sandpaper to all parts of this plant with the exception of the flowers. The leaves are opposite on short petioles and triangular in shape often with lobes or teeth on the margins. The petioles are often winged where attached to the stems with these wings called stipules. The 1 to 1½ inch yellow flower heads with yellow centers are solitary on the end of peduncles usually up to 6 inches long.

This native perennial sunflower is readily eaten by all classes of livestock and wildlife. Bush sunflower furnishes good quality forage with 26 to 31 percent crude protein in early spring dropping to 11 percent in mid-summer. Energy values are moderate throughout the summer. Game birds and songbirds eat the small, flattened seeds which have a notch in the tip of the seeds which appear to be winged. While the seeds are smaller than other sunflowers, the quality is good.

Bush sunflower is one of the "Big Four" of native perennial forbs in Texas that also includes Maximilian sunflower, Engelmann's daisy and Illinois bundleflower. All four of these forbs are commercially available for use in re-seeding. These four dominant forbs have been overgrazed during the past 130 to 150 years that livestock have been grazing in Texas, to the point that they now may exist only in protected areas such as prickly pear clumps or other protective brush. A good exercise to determine how much bush sunflower you have is to look for it in the open areas where it is easily eaten and compare how much is found in the protected areas. Your grazing management and/or number of deer present is in balance if you can find seedling and mature aged plants of bush sunflower out in the open areas of the rangeland. The plant responds favorably when deer and livestock numbers are reduced and rotational grazing is initiated. Following a prescribed burn or wild fire bush sunflower will respond favorably with rapid growth sprouting from the root. Bush sunflower grows best in well-drained, shallow and rocky soils in open prairies. It is found within all vegetational areas west of the Blackland Prairies, including the Gulf Prairies but will rarely be found upon the High Plains and then only in escarpment areas.

The seed commercially available is known in the trade as 'Plateau' Awnless Bush sunflower and was released in 1987 from the Knox City, Texas USDA Plant Materials Center. The original source of seed came from collections made by Soil Conservation Service employees from ranches in Kerr County, Texas. I would encourage you to include bush sunflower in your next range seeding mix for its value as an all-around desirable forb. You might also want to plant a bit of it in a flower bed out by the house gate, so you can observe its growth and flowering ability that can last from April to October. This long flowering period, under good rainfall periods, is a very desirable flowering trait providing nectar for pollinators.

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Photo captions:

1 A very mature bush sunflower plant shows the size of growth plant is capable of when grazing is proper.



2 This young plant shows the lobed opposite leaves and small wing-like stipules at base of petiole.



3 New terminal growth of bush sunflower stretches toward the sky.



4 Rough feel to the leaves and stems is due to the short, stiff hairs found on the plant.



5 Flower head and mature seed head growing on same plant shows the long flowering periods of bush sunflower.



6 New growth of bush sunflower is vigorous following a prescribed burn.



7 Here a heavily browsed netleaf hackberry is giving protection to this bush sunflower plant.

