

Compassplant
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Can a plant tell you which direction is north or south? Early pioneers and settlers used the native compassplant to orient themselves as they pushed west. The broad and deeply lobed leaves of this perennial forb grow to maximize exposure of the leaves to the morning and evening sun while minimizing exposure to mid-day sun. In doing so the leaves are positioned vertically in a north to south line which is why the plant was named compassplant.

Compassplant, *Silphium laciniatum*, is a native, warm-season perennial and deeply-rooted forb that spreads by seeds and by rhizomes. Stems and leaves have short stout bristles which gives the plant the feel of rough 80 grit sandpaper when touched. Actively growing stems are round, while dried ones show shallow furrows running up the stem. Plants range from 3 to 7 feet in height with roots that can reach up to 16 feet below the soil surface. Texas is on the southern boundary of the range of compassplant with the plant being found from Kerrville to San Antonio and points north and east. Compassplant will grow further west and south in Texas if planted in shallow depressions that receive a bit of extra water or in areas where water runs begins to concentrate going into draws and later into creeks. The leathery leaves are opposite in the lower part and alternate above, very rigid and usually longer than wide. The lower leaves grow large and may be up to 24 inches in length with deeply divided lobes that are cut almost to the midrib.

The yellow flower heads reach 2 to 4 inches across and appear in the upper third of the plant. The flower heads may be singles or in clusters up to three heads in one location. A gummy rosin-like material forms on the upper third of the stems when the plant is in bloom, giving another name of rosinweed. This rosin also shows up in the flower heads and appears as tiny pearls or teardrop shapes of translucent jewels. These tiny drops of rosin can be readily seen in the mature flower heads when you are harvesting the seeds. The Native Americans chewed this rosin-like gum and the children of the early settlers were introduced to the joy of chewing rosin. A unique trait of compassplant and other plants in the genus *Silphium* is that only the ray flowers, the large yellow petals around the flower head, produce seeds while the disk flowers in the centers do not. A more common *Silphium* over much of south and western Texas is White rosinweed which looks like a smaller version of compassplant. White rosinweed has white flowers, grows less than 3 feet in height and likes to grow in very shallow limestone soils especially in road cuts along the highways.

This desirable, palatable forb is eaten by all classes of livestock and deer. Use is heaviest when the plant growth is young and tender. Crude protein ranges from 23 to 26 percent in March/April to 16 percent in May on plants with maturing leaves. Energy values are very high in March and are still listed as high in April/May. Seeds are consumed by quail, turkey, dove and songbirds, and compassplant is valued by many pollinators.

Compassplant serves as an indicator species of good to excellent condition rangeland. Overgrazing reduces its occurrence, since the higher quality plants receive heavier grazing use compared to lower quality forbs. Collecting dried seeds in mid to late summer and distributing the seeds in areas where moist deep soils are known will help this plant to re-establish on rangeland areas. First year seedlings may show only one or at most two leaves and slowly grow each year thereafter. You can transplant these single leaf seedlings during winter dormancy if dug as deeply as possible with a sharpshooter to get as much of the root as possible. Once established and given good care, the plants will remain for many years.

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Photo captions:

1 First year seedlings of compassplant orient their single leaves to make use of the sun's energy.



2 The setting sun backlights these leaves of compassplant indicating that north is to the right.



3 Early June growth shows elongation of flower stalks and additional leaves.



4 By early July the flowerheads are opening and this becomes a stunning landscaping plant as well as a great wildlife and pollinator plant.



5 A drop of rosin escapes from the stem following damage likely from an insect bite.



6 Seeds are produced only from the outer ray flowers in Silphium species.



7 Dried rosin "jewels" formed by all species of Silphium, a mature seed seen in upper right.



8 ShaMarie Tamminga, District Conservationist in Eastland, stands in a small colony of compassplant in the September sun. Matured seed heads will be dry with dried stems attaching to the main stalk.



9 White rosinweed is the more commonly seen silphium, rarely reaching 3 feet in height.

