

# Goldenrod – *Solidago* sp.

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About 80 species of Goldenrod (*Solidago* sp.) are found throughout the world, 21 of which are native to some region of Florida. Some species are more common than others, but all of the Florida species are identifiable by their bright golden inflorescences which appear in late summer to early fall.

## General Information

Goldenrod plays several important roles in nature. One of its more important roles is as a nectar and pollen source for numerous insects, including bees and butterflies. One species, Seaside Goldenrod (*Solidago sempervirens*), is regularly visited by monarch butterflies on their annual migration south.

In winter, vegetation from the previous summer provides habitat for gall-producing insects. The larvae in the galls are an important food source of food for birds and the dense vegetation can provide cover for nesting birds and small animals.

## Description

Goldenrods are herbaceous perennials varying in height from 2 to 5 feet. Most grow from rhizomes and can make large colonies over time. Most goldenrods have elongated strap-like leaves which sometimes have fine toothing along the margins. In the fall, the plant begins to elongate in preparation for flowering. The leaves decrease in size and numerous, small, yellow to golden-yellow tubular flowers are borne in late summer to early fall. Following pollination, the yellow

flowers give way to fuzzy, light-gray seed heads containing numerous tiny nutlets. Some birds, including quail and songbirds utilize the seed as a food source.

## Culture

Goldenrod typically needs full sun to reach its maximum potential. Most goldenrods grow best in well-drained, sandy soils, but some tolerate clay containing soils. Most grow best at a slightly acidic to slightly alkaline pH, avoiding areas with either low or high pH. And, many goldenrod have good drought and salt tolerance.

## Cultural Use

Goldenrod has had a long and varied use by many cultures. Its very name, '*Solidago*,' comes from the Latin *solidare* meaning to 'make whole,' or 'heal.' It has been used medicinally for thousands of years. Its use dates back to the Roman times. It has been used as a diuretic, an anti-inflammatory and as an emetic. Various cultures have used it to treat cancer, burns and fever. Many cultures also have used it to treat urinary tract infections. One of the more unusual uses of goldenrod is as a carminative – a drug to reduce flatulence.

Some people have tried to utilize goldenrod for monetary gain. After the Boston Tea Party in December of 1773, many New Englanders swore off the Chinese types of tea that the British shipped to the colonies. A substitute, called 'Liberty Tea,' made from Chapman's Goldenrod (*Solidago odora*) was utilized. An effort was

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made to actually sell this tea back to China. Goldenrod also has been used to make a natural, yellow dye. But perhaps one of the more interesting economic uses for goldenrod is in the production of rubber. Thomas Edison, inventor of the lightbulb and phonograph, experimented with producing rubber from goldenrod. Henry Ford presented Edison with a Model T with tires made from goldenrod rubber. The invention of synthetic rubber during World War II ended the work on producing natural rubber from goldenrod. Goldenrod also has been used as a source of fiber as a substitute for hemp.

Goldenrod is often blamed for the allergies experienced in the fall. However, these plants are not the culprit. The pollen produced by goldenrod plants is large and sticky and readily cling to the backs of the insects visiting the flowers. Ragweed (*Ambrosia artemisiifolia*), an annual, blooms at about the same time as goldenrod and is the cause of many seasonal allergies. One ragweed plant can produce up to 1 billion grains of light, wind-borne pollen. Because of the incorrect assumption as a cause of allergies, goldenrod is often avoided in today's landscape. Maybe it is time for plant growers to stand up for this much-maligned species.



Figure 1. Pinebarren Goldenrod (*Solidago fistulosa*) is Florida's most common goldenrod. It provides excellent nectar and pollen source for numerous pollinating insects, including honey bees.