



## What to do.

If you suspect you have an exotic invasive pest or think you have an infestation, please contact the Clemson University Department of Plant Industry or your local Clemson University Cooperative Extension Service office.

For more information on invasive species, visit our website or find us on social media.



*A partnership to protect your agricultural & natural resources.*

## Who we are. What we do.

The Department of Plant Industry, a part of Regulatory Services in Clemson University's Public Service and Agriculture, helps prevent the introduction of new plant pests into South Carolina as well as the spread of existing plant pests to non-infested areas.

Plant pest surveys, inspections, quarantines, control and eradication programs are among the tools used to safeguard the state's agricultural and natural resources.

We help horticultural businesses - such as nurseries, greenhouse growers, transplant growers and turf grass producers - as well as farmers, agricultural industries and South Carolina consumers in shipping plant material intrastate, interstate and internationally.

Inspections and certification services help ensure that plants are pest-free, which is essential for movement of plant material to other states and foreign countries.

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[www.clemson.edu/invasives](http://www.clemson.edu/invasives)

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*Benghal Dayflower,  
Tropical Spiderwort*



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## A pretty pest.

*Commelina benghalensis*, commonly called Bengal dayflower or tropical spiderwort, is an invasive noxious weed native to tropical Asia and Africa. In 1983, Bengal dayflower was classified as a federal noxious weed by the USDA.

Bengal dayflower will compete with field and forage crops for resources. The weed is a menace to more than 20 crops, including cotton and soybeans. Once established in an agricultural area, it can seriously reduce crop yields. This invader is tolerant of glyphosate and many other pre- and post-emergence herbicides. Herbicide efficacy decreases as seedling size increases.

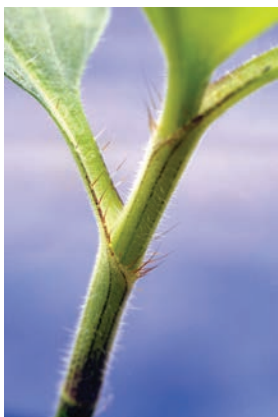


In October 2013, Bengal dayflower was first detected in South Carolina. Clemson-DPI is actively working to eradicate this noxious weed before it becomes established in our state and causes damage to native ecology and agriculture.

## Inspect to protect.

Bengal dayflower prefers moist areas, such as wet pasturelands, cultivated fields, the banks of irrigation ditches and gardens. However, once the plant is established it can thrive in a dry area. Although Bengal dayflower is an herbaceous perennial in its native environment, it typically grows as an annual weed in the southern U.S.

The fleshy, succulent, freely branching stems of Bengal dayflower can either creep along the ground or grow upright. Alternate, oval leaves grow from leaf sheaths that have characteristic **red hairs** where the sheath attaches to the ascending stem.



While there is a native dayflower species, Bengal dayflower is the only *Commelina* species found in the U.S. that produces **subterranean flowers**.

Roundish, white flowers develop underneath the ground and are covered by a spathe that develops from a rhizome, as shown in the image above.

The aerial, or above ground, flower is characterized by two prominent, blue upper petals and one inconspicuous, white lower petal.

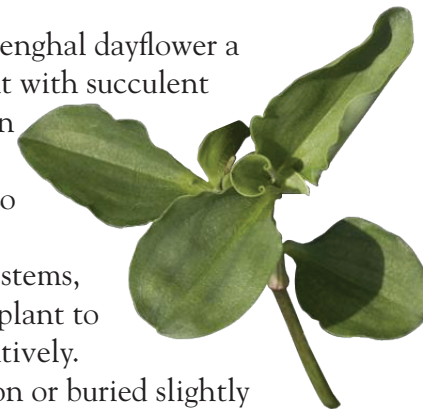


Bengal dayflower has **four types of seeds** with various temperature and time requirements for germination, adding to the weed's resistance to treatments.



## Biology of an invader.

Not only is Bengal dayflower a vigorous plant with succulent stems that can root at each node, but it also produces underground stems, allowing the plant to spread vegetatively.



Stem pieces on or buried slightly below the soil surface establish and produce new plants. This characteristic is problematic for removal by cultivation or by hand. Further, preemergence herbicides generally work poorly on plants emerging from vegetative structures.

Please **DO NOT USE** cultural controls such as plowing, disking, and hoeing because they can break the plant apart, prompting vegetative production and actually spreading the infestation.



Bengal dayflower also reproduces by seed from both the aerial and the subterranean flowers. A single plant can produce up to 1,600 seeds with various germination characteristics.

Bengal dayflower seeds and viable plant parts can be transferred by machinery, hand tools, clothing, and animals that pass through an infested area. If you suspect you have an infestation, please quarantine the area and contact Clemson-DPI immediately.