

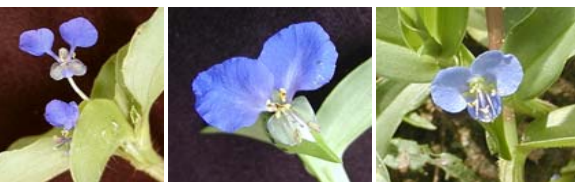
Comparison of species characteristics:



Benghal dayflower (left) and spreading dayflower (right) leaves. Small (e.g. two-leaf seedlings) plants are often difficult to distinguish. By the three-leaf stage, however, plants can usually be identified by leaf characteristics.



“Spathes” are folds of green tissue from which flowers emerge. Bengal dayflower (left), Asiatic dayflower (center), and spreading dayflower (right). Spathes are fused along margins indicated by lines and arrows.



Benghal dayflower (left), Asiatic dayflower (center) and spreading dayflower (right) flowers. Flowers are shown to scale.

Herbicide tolerance. All three species have some degree of glyphosate tolerance or can emerge after layby. Bengal dayflower tolerates many pre- and post-emergence herbicides. Herbicide efficacy decreases as seedling size increases.

WEED ALERT!

In the past few years, Bengal dayflower (a.k.a. tropical spiderwort, *Commelina benghalensis* L.) has spread to more than 200,000 acres in Georgia and Florida. Bengal dayflower has been identified in North Carolina. This weed germinates continuously throughout the growing season and is known to be tolerant of many herbicides, including glyphosate. Bengal dayflower seeds and viable plant parts can be spread by equipment (e.g. tillage, mowing, harvesting, vehicles, etc), muddy boots, and perhaps by animals.

Survey and eradication efforts have been initiated in the only known occurrence in North Carolina. A successful prevention effort will rely on help from farmers, botanists, county extension agents and other field personnel.

If you identify a suspected plant or infestation of Bengal dayflower, please mark the location and notify your county extension agent that you may have found a “federal noxious weed”; or **contact the State Weed Specialist** directly:

Dr. David Patterson, State Weed Specialist,
NCDA&CS, Plant Protection Section
Phone: 919-733-3610 ext. 246
Toll free: 1-800-206-9333
Fax: 919-733-1041
Email: David.Patterson@ncmail.net
<http://www.nctropicalspiderwort.com>

(Except as noted, all photos were taken by S. Hoyle & A. Mendoza, NCSU-Crop Science)

NORTH CAROLINA DEPARTMENT OF
AGRICULTURE AND CONSUMER SERVICES

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Research Stations Division
Plant Industry Division*

NORTH CAROLINA STATE UNIVERSITY
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Can you tell the difference between “noxious” and “native”?

Benghal dayflower

Commelina benghalensis L.



This non-native, **noxious weed** is tolerant of many herbicides and has season-long germination. Benghal dayflower (a.k.a. tropical spiderwort) has an **erect to sprawling growth habit**, and nearly **egg-shaped leaves** (less than two times longer than wide). Flowers emerge from folds of green tissue called “spathes”. **Spathes are fused along the bottom and back** (see panels for comparison). **Flowers have two blue-purple and one smaller white petal** (blue petals are approximately 3/16” or 5 mm in diameter). Plants old enough to have multiple stems may also have **rhizomes** (below-ground stems) bearing closed white spathes containing flowers that produce viable seeds. Of known NC species, **no other dayflowers have rhizomes bearing flowers**.



Benghal dayflower seedling (left); roots, rhizomes and belowground spathes (right).

Asiatic dayflower

Commelina communis L.



Asiatic dayflower is a **non-native species** that is common to ditches, roadsides, and non-cropland, and has been identified as a potential agricultural problem in other states because of its ability to survive or escape some postemergence herbicides. Asiatic dayflower has an **erect growth habit**. **Leaves are at least two times longer than wide and come to a sharp point**. **Spathes are curved and fused only along the bottom** (see panels for comparison). **Flowers have two vibrant blue “showy” petals and one smaller white petal** (blue petals are 3/8” or 10 mm in diameter). Asiatic dayflower is not on the state or federal noxious weed lists, but should be considered a “weed to watch”.



Asiatic dayflower three-leaf seedling.

Spreading dayflower

Commelina diffusa Burman f.



Spreading dayflower is a **native species** that has become more troublesome in recent years by surviving or germinating after herbicide treatments. As the name implies, it has a **spreading (prostrate) growth habit** with few (if any) erect stems. **Leaves are much longer than wide and pointed** (two to five times longer than wide). Note that young, two- or three-leaf seedlings could be confused with other species. **Spathes are fused only along the bottom** (see panels for comparison). **Flowers have three blue petals**. It is considered a troublesome weed, but is not on the state or federal noxious weed lists. Also present in NC is marsh dayflower (*Murdannia keisak* (Hassk.) Hand.-Maz.) which has longer, narrower leaves than spreading dayflower.



Spreading dayflower two-leaf seedling.