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Asiatic Dayflower Pretty But Hard to Control



Figure 1. Asiatic Dayflower leaves and stem. Photo Source: Glenn Nice



Figure 2. Asiatic dayflower flower. Photo Source: Glenn Nice

Asiatic dayflower (*Commelina communis*) can be a problematic weed in lawns and gardens, but it appears over the past several years to be spreading into no-till corn and soybean. It is one of the 16 weeds mentioned in the “Weed to Watch” handout (if you would like a copy of this handout please contact Glenn Nice at Purdue University). As the common name would suggest, Asiatic dayflower was introduced to the US from Asia. Bill, Tom, and I get occasional calls regarding Asiatic dayflower that was not controlled by glyphosate.

Asiatic dayflower is a member of the Commelinaceae or spiderwort family. This annual plant is a monocot with alternative lanceolate leaves that are 2 to 4 inches long (Figure 1). The base of each leaf clasps the stem. Rarely Asiatic dayflower has been misidentified as a grass with fleshy wide leaves. Although this might happen before it flowers, once it flowers, it can’t be mistaken for a grass and longer. Asiatic dayflower has distinctive blue flowers approximately 0.5-1 inch wide with three petals. Flowers appear from June to October¹. The flowers consist of three petals and three sepals, two larger petals above and one smaller below. The above two petals are blue and the one petal below appears faded blue or white².

There are few herbicides that are effective on Asiatic dayflower. This is one of the weeds that is poorly controlled by glyphosate (Roundup Weathermax®, Touchdown®, Glyphomax®, many). Iowa State University research reported that three applications of glyphosate (0.75 lb ae/A); at planting, 44 days after planting, and 63 days after planting was needed to achieve over 80% control. FirstRate® (cloransulam-methyl) plus Spartan® (sulfentrazone) also provided over 80% control³. The combination of these two products can also be found in Authority First®. In this study, Command® (clomazone), Basagran® (bentazon), Blazer® (acifluorfen), Cobra® (lactofen), Flexstar® (fomesafen), and Raptor® (imazamox) did not have much activity on this weed.

In cotton trials in Georgia, Stanley Culpepper reported that tank mixes of glyphosate with Cobra® (lactofen) or Valor® (flumioxazin) also provided 86 and 85% control respectively⁴.

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Control in Soybean:

The following recommendations are based on the limited information regarding Asiatic dayflower's control.

Herbicide	Active Ingredients	Rate	Comments
Authority First® DF (FMC)	Sulfentrazone 62.1% + Cloransulam-methyl 7.9%	6.45 – 8 oz/A ¹	PRE: Do not apply on sand or soils less than 1% OM. Apply at 2 to 6 leaf Asiatic dayflower
Spartan® 4F (FMC)	Sulfentrazone 4 lb ai/gal	6 – 10 fl oz/A ¹	Will provide suppression
FirstRate® (Dow Agrisciences)	Cloransulam-methyl 84%	0.3 oz/A	Apply to 2 to 6 leaf Asiatic dayflower.
Glyphosate + Cobra® or Valor®	Glyphosate (many) + Lactofen or flumioxazin	1.1 lb ae/A + 12.5 fl oz/A or 2 - 3 oz/A ¹	Apply before emergence or cracking if Valor is used. Apply to small Asiatic dayflower.

¹Rate dependent on soil texture, pH, and organic matter

1. Connecticut Botanical Society. Asiatic dayflower *Commelina communis*. Accessed June 29, 2007 [<http://www.ct-botanical-society.org/galleries/commelinacomm.html>]
2. L. Newcomb. 1977. *Newcomb's Wildflower Guide*. Little, Brown and Company New York – Boston. p 40.
3. B. Hartzler. 2003. Dayflower: a weed to watch? Accessed June 29, 2007 [<http://www.weeds.iastate.edu/mgmt/2003/dayflower.shtml>]
4. S. Culpepper. 2000. Crop Production Workshop. Mississippi State Univreisty.

Information listed here is based on research and outreach extension programming at Purdue University and elsewhere. The use of trade names is for clarity to readers of this site, does not imply endorsement of a particular brand nor does exclusion imply non-approval. Always consult the herbicide label for the most current and update precautions and restrictions. Copies, reproductions, or transcriptions of this document or its information must bear the statement 'Produced and prepared by Purdue University Extension Weed Science' unless approval is given by the author.