

Star-of-Bethlehem Management

Star-of-Bethlehem is a weed that row crop producers may only rarely encounter, but it certainly makes up for its rarity with its troublesome management. The perennial weed is an escaped horticultural plant that produces small, six-petal white flowers, and reproduces from underground bulbs. The glossy green leaves can look similar to wild garlic, but will remain about the half the height of wild garlic and lack the garlic smell. The underground bulb structures not only contribute to its reproduction, but also can reach high densities that interfere with spring planting operations.

This perennial weed has likely already emerged in southern Indiana and can currently be observed emerging in northern Indiana. Like many troublesome bulbous perennial weeds, star-of-Bethlehem can be most prevalent in no-tillage fields. Management of star-of-Bethlehem should be conducted early in the spring and should focus on control of the underground bulbs. Tillage can control the vegetative growth in the spring, but is also likely to spread the bulbs throughout the field. Tillage is also likely to stimulate additional bulb production from bulbs cut by tillage equipment.



Star-of-Bethlehem infestation in an agronomic field



The waxy leaves and underground bulbs of Star-of-Bethlehem

There are a few herbicides that can provide vegetative burndown control, although control of the bulbs with herbicides is limited to Gramoxone. Research conducted at Southern Illinois University showed that Valor, Authority, and glyphosate can suppress Star-of-Bethlehem during the current season, although these products did not control bulbs as densities the following spring were not reduced. Gramoxone applied at 3 pt/Acre or 0.75 lb active/Acre provides the greatest amount of control for the current season as well as reducing bulb densities the following spring. Further SIU research has suggested that herbicide applications should be targeted at the vegetative stages when leaves are almost fully emerged and new underground bulbs are forming.

Further information on the weed Star-of-Bethlehem and control data from SIU research can be found in this fact sheet

(<http://www.siu-weeds.com/publications/Star%20of%20Bethlehem.pdf>).

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