

Glenn Nice

Bill Johnson

Purdue Extension Weed Science

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ALS Resistant Shattercane in Indiana

Shattercane (*Sorghum bicolor*), related to Johnsongrass and the crop sorghum, can often be seen towering above corn. Preemergence products labeled in corn can provide suppression. Producers often have to rely on the use of ALS herbicides such as Accent[®], Option[®], Beacon[®], Equip[®] applied postemergence to control shattercane.

Recently, samples of shattercane seed from two fields in Shelby county, Indiana, were sent to the Michigan State University Diagnostic Service for herbicide resistance screening. They were identified as being resistant to both nicosulfuron (Accent[®]) and foramsulfuron (Option[®]) at five times the labeled rate of 1.5 oz/A for each herbicide (Table 1). However, it did not appear to be resistant to imazethapyr (Pursuit[®]). Resistance appears to be limited to the sulfonylurea herbicides.

ALS resistance is not new to Indiana. See table 2 for a list of ALS resistant weeds in Indiana. Like resistance in insects, and human diseases an "ounce of prevention is worth a pound of cure" (Henry de Bracton). Diversifying weed control methods by using other herbicide modes of action and tillage where possible can reduce the possibility of resistances developing.

One report is far from an epidemic, but if you should happen to be facing ALS resistant shattercane, herbicide options in corn becomes limited. Glyphosate products (Roundup Weathermax[®], Touchdown[®], etc) provide excellent control; however, more than one application will be required. Liberty[®] combined with a preemergence herbicide such as Balance Pro[®] or Prowl[®] H₂O will also provides good control.

Table 2. Other ALS Resistant Weeds Reported In Indiana

Kochia	<i>Kochia scoparia</i>
Common ragweed	<i>Ambrosia artemisiifolia</i>
Giant ragweed	<i>Ambrosia trifida</i>

Table 1. Screen results of shattercane

Herbicide	Indiana Sample	Sensitive Pop	Barnyardgrass
Accent 1X	0	90	90
Accent 5X	0	90	90
Option 1X	0	95	95
Option 5X	0	95	95
Pursuit 1X	88	95	95
Pursuit 5X	95	98	95

Data provided by the Michigan State University Diagnostic Services.
(<http://www.pestid.msu.edu/>)

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