Fluopyram (ILeVO®, Bayer CropScience) is a fungicide seed treatment used to manage soybean sudden death syndrome (SDS). Use of ILeVO® can result in cotyledon discoloration known as the “halo effect” (Fig. 1).

Farmers and crop advisors question if seedling damage is more severe when preemergence herbicides are applied to fields that have been planted with ILeVO® treated seed since preemergence herbicides can also injure seedlings (Figs. 2, 3). To answer this question, a two-year study in Indiana and Iowa examined the impact of ILeVO® and common preemergence herbicides on phytotoxicity, stand, and yield.

This research found **no negative effect on plant stand and soybean yield** from phytotoxicity caused by ILeVO® or preemergence herbicides. Although visual damage may seem severe when ILeVO® and preemergence herbicides are used together, there was no detectable interaction between ILeVO® and the preemergence herbicides tested in this experiment. This means that ILeVO® did not increase seedling damage from herbicides and herbicides did not increase damage from ILeVO®. In all treatments, phytotoxicity was gone by growth stage V4 and any damage caused by preemergence herbicides did not make ILeVO® less effective.

Cool, wet conditions make phytotoxicity worse for both ILeVO® and preemergence herbicides. These conditions also favor infection by the fungus that causes SDS. Research conducted by several Land Grant Universities and Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) indicates that ILeVO® may be a useful SDS-management strategy in fields with a history of SDS that will be planted in less than ideal conditions.

**Authors**

By Kiersten Wise, Purdue University; Daren Mueller, Iowa State University; Bill Johnson, Purdue University; Travis Legleiter, Purdue University; Carl Bradley, University of Kentucky; Martin Chilvers, Michigan State University; Loren Giesler, University of Nebraska-Lincoln; Adam Sisson, Iowa State University; Damon Smith, University of Wisconsin; and Albert Tenuta, Ontario Ministry of Agriculture. All photos were provided by and are the property of Purdue University and Iowa State University.

© 2016 | All Rights Reserved | Crop Protection Network

The Soybean Disease Management series is a multi-state and international collaboration sponsored by the North Central Soybean Research Program (NCSRP). This project was funded in part through Bayer CropScience and Growing Forward 2 (GF2), a federal-provincial territorial initiative. The Agricultural Adaptation Council assists in the delivery of GF2 in Ontario. Contributors to this series come from Land Grant universities in the North Central states and Canada. The Crop Protection Network is a multi-state and international collaboration of university/provincial Extension specialists and public/private professionals that provides unbiased, research-based information to farmers and agricultural personnel. This information is provided only as a guide, and the authors assume no liability for practices implemented based on this information. USDA is an equal opportunity provider and employer.