

Using ILeVO® with preemergence herbicides

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.



Figure 1. ILeVO® injury (halo effect) on soybean cotyledons



Figure 2. Herbicide injury to soybean seedlings



Figure 3. Seedlings with ILeVO® + preemergence herbicide treatment



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