

# Purple Fields Spark Questions, Concern

URBANA, ILL.

If you are starting to see purple in the fields, don't worry. Your eyes aren't fooling you. Aaron Hager, University of Illinois Extension weed specialist said several winter annual weed species have begun to flower early this spring.

"It seems as though each new growing season is in some way a bit different than the last," Hager said. "A timely harvest in 2010 may have helped promote earlier fall emergence of several winter annual weed species, which could have improved their overwintering survival. Add in a few days of warm temperatures in March and early April and these splashes of color are now livening up the otherwise drab Illinois landscape."

The two winter annual weed species producing the "purple patches" are henbit and purple deadnettle. Although close relatives taxonomically, henbit and purple deadnettle are distinctively different, Hager said.

Both are winter annuals and have square stems characteristic of the mint plant family. However, henbit is more commonly found throughout Illinois, while purple deadnettle appears more often in the southern half of the state. As the name indicates, purple deadnettle has distinctive reddish to purple coloration of the foliage and stem.

The lower leaves of henbit are attached to the stem with petioles while the upper leaves grasp the stem (lack petioles). On the other hand, the upper leaves of purple deadnettle are attached to the stem with petioles, are more triangular than those of henbit, are less deeply lobed and tend to be reflexed or pointed downward.

"Flowering indicates henbit is close to completing its life cycle and will likely be more difficult to control with burndown herbicides, but this does not imply that no attempt should be made to control existing plants prior to corn or soybean planting," Hager said. "These weeds are known to be hosts for a number of insect and disease pests, and mature seeds can survive in the soil seedbank for several years. Planting into dense patches of these species can be challenging and could result in poor seed placement."

Preplant tillage or herbicides can provide good to excellent control of existing henbit and purple deadnettle. In general, 2,4-D and dicamba are weak on henbit. Glyphosate can provide good control, but application rates should be at close to 1.1 lb ae/acre for these mature plants. Combining glyphosate and 2,4-D or adding these two herbicides to other residual herbicides is a popular broad-spectrum burndown.

Atrazine (1.5 – 2 lb/acre) or atrazine-containing premixes have good activity on henbit, and

adding crop oil concentrate often improves burndown activity. Control with paraquat is typically improved when combined with atrazine or metribuzin. Saflufenacil alone can be weak on henbit, but improved control can be achieved when combined with atrazine and/or glyphosate 2,4-D.

Cool temperatures can slow the activity of many burndown herbicides, Hager reminded. Translocated herbicides are sometimes slower acting than contact herbicides under these conditions, too. Contact herbicides may not be as slow to act as translocated herbicides under cool conditions.

"When the forecast calls for several days or nights of cool air temperatures, don't be surprised if symptoms of activity on existing vegetation may take several days to develop," he said. Δ

**The two winter annual weed species producing the purple patches in Illinois fields are henbit (*Lamium amplexicaule*) and purple deadnettle (*L. purpureum*).**

Photos provided by Aaron Hager, University of Illinois

