

David G. Hallauer
District Extension Agent
Crops & Soils/Horticulture

Advantages to Fall Weed Control

While weather has a lot to do with what works from year to year when it comes to field crop weed management, most weed scientists strongly recommend fall weed control programs for our more troublesome weeds like henbit and marestail. How much value do they really have?

A University of Missouri study found that fall removal of winter annual weeds via herbicide applications resulted in higher spring soil temperatures than areas with dense winter annual weed infestations. Removal of the winter annuals resulted in soil temperatures as much as five degrees higher in corn and up to eight degrees higher in soybeans. When it comes to emergence next spring, those temperature differences could be huge.

Available moisture was also an issue. The presence of a dense cover of winter annual weeds resulted in soil moisture levels as much as thirteen percent lower in corn and six percent lower in soybeans as compared to clean check strips.

KSU studies (across 14 sites) have shown that the average nitrogen uptake from winter annual weeds was about 16 pounds per acre. In addition to pure nutrient losses, they also found delaying the removal of winter annuals until spring reduced N uptake in developing corn plants.

Believe it or not, soybean cyst nematode (SCN) levels can even be affected by the presence or absence of a fall weed control program. Henbit has been found to be a strong host for SCN, providing an opportunity for SCN levels to continue to grow. Pennycress is considered a moderate host. Shepherd's purse and common chickweed are weak hosts. We have them all and they may be compounding the fight you are already in to manage soil SCN levels.

Finally, the Missouri work also found that winter annual weeds serve as alternative hosts for corn pests like flea beetles and some Lepidopteran insects. In soybeans, removal of winter annuals in the fall reduced total insect populations ten-fold soon after soybean planting as compared to areas where winter annuals were left until seven days prior to planting.

Who knows what this fall will bring. If the rest of the year has been an indicator, a fall weed control strategy may not be an option. If it is, the benefits are greater than simply getting rid of weeds. Fortunately, lots of options are available. For the most recent recommendations from KSU Weed Management Specialist Dr. Dallas Peterson, see the latest KSU eUpdate online at https://webapp.agron.ksu.edu/agr_social/article/control-annual-weeds-with-fall-applied-herbicides-ahead-of-corn-and-sorghum-358-1.

Time to Clean Up

If cleaning up your perennial garden isn't on the to-do list, now is the time to add it. Most perennials can be clear cut to remove dead stems to help control insect and disease problems, but there are a few exceptions to consider.

If you want a little 'structure' consider leaving the ornamental grasses (in areas away from structures that aren't posing a fire hazard, that is...). For color, you should also leave evergreens or semi-evergreens. Ferns are usually a little more tender in nature. Leave foliage on them to help ensure overwintering of plant crowns. If the perennials have seed heads and you want to leave them for seed for birds, that's an option as well.

If none of the above apply, the dead stems of the dormant perennial can be removed now.