Perennial weed problems appear to be on the rise in many corn and soybean growing areas in the Midwest. Over the past couple of years, we have seen increases in the number of calls and emails asking for information on managing dandelion, common pokeweed, and many other perennial weed infestations. Reasons for this include a number of factors including a reduction in the utilization of deep tillage operations, warmer winters, and reduced utilization of soil-applied residual herbicides in soybean. Perennial weeds are difficult to manage in agronomic crops because they can reproduce vegetatively and by seed production. Reducing infestation levels of established populations requires aggressive and sustained tactics over several years. Preventing establishment of perennials in uninfested areas is the first step to an effective management program.

Perennial weeds such as Canada thistle, hemp dogbane and common milkweed have specialized structures for wind dispersal. Other perennials such as common pokeweed, produce seeds or berries that are often dispersed by wildlife. Seedlings of perennials develop root systems that are capable of vegetative reproduction in a short period. Many species are capable of vegetative reproduction within 3 to 4 weeks after seed germination.

This article is a summary of a recent study conducted by Dr. Mark VanGessel at the University of Delaware that was published in Weed Technology (Volume 13: 425-428). This research was conducted in the greenhouse by planting seeds of johnsongrass, hemp dogbane, common milkweed, Canada thistle, common pokeweed, and horsenettle in a sandy loam soil (1% organic matter and pH of 6.2) in plastic flats. Herbicides were applied with a moving track sprayer in 26 gallons per acre carrier volume. Herbicide rates were the labeled rates for a corn and soybean on a coarse soil. Immediately after herbicide application, 2 inches of precipitation was applied with the moving track sprayer to incorporate the herbicides. At five weeks after application visual estimates of percent control of each specie were recorded and analyzed with appropriate statistical procedures. The experiment was repeated and data were pooled over experimental runs.

In the original table in Weed Technology, the herbicides were listed by their active ingredients (e.g. metolachlor = Dual) and rates in kilograms of active ingredient per hectare. I converted the active ingredients to product names and rates for clarity in this article.

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Information listed here is based on research and outreach/extension programming at Purdue University and elsewhere. The use of trade names is for clarity to readers of this site, does not imply endorsement of a particular brand nor does exclusion imply non-approval. Always consult the herbicide label for the most current and update precautions and restrictions. Copies, reproductions, or transcriptions of this document or its information must bear the statement ‘Produced and prepared by Purdue University Extension Weed Science’ unless approval is given by the author.