CONTROL OF DANDELION WITH FALL-APPLIED HERBICIDES. Anthony F. Dobbels and Mark M. Loux, Research Associate and Associate Professor, The Ohio State University, Columbus, OH 43210.

An increasing number of grain crop producers in Ohio have reported problems with dandelion over the past several years. The population density of dandelion has been sufficient to reduce corn and soybean yields in some fields, and control of dandelion with herbicides applied in the spring has been inconsistent. Field studies were conducted at two locations in Ohio to determine the effectiveness of herbicide treatments applied in the fall prior to corn or soybeans for control of dandelion. Herbicide treatments were applied in mid-November of 2002, and no-tillage corn or glyphosate-tolerant soybeans planted in late April or early May of 2003. Corn received a preplant application of atrazine plus s-metolachlor and a postemergence application of dicamba plus diflufenzopyr. Soybeans received a postemergence application of glyphosate. Treatments were visually evaluated for dandelion control at the time of crop planting, postemergence herbicide application, and crop harvest. The population density of dandelion was also measured at the time of crop harvest.

When evaluated at the time of corn planting, the most effective fall treatment was rimsulfuron plus thifensulfuron plus 2,4-D, which controlled 89% of the dandelion. Simazine plus 2,4-D and glyphosate plus 2,4-D controlled 58 and 53% of the dandelion. Control ranged from 67 to 80% at the time of corn harvest, and herbicide treatments reduced the population density of dandelion 60 to 76% compared to the untreated plots. In the soybean studies, treatments containing glyphosate, glyphosate plus 2,4-D, or chlorimuron plus sulfentrazone plus 2,4-D controlled 87 to 100% of the dandelion at the time of soybean planting. Control was slightly reduced for some of these treatments by the time of soybean harvest, but they resulted in an 87 to 100% reduction in dandelion population density at one location, and a 78 to 92% reduction at the second location. Fall application of 2,4-D alone controlled 67 to 80% of the dandelion at the time of planting, and reduced the dandelion population density 19 to 75%. Increasing the 2,4-D rate from 0.6 to 1.1 kg/ha increased control and resulted in a lower dandelion population density. Fall-applied soybean herbicides were generally more effective for dandelion control at the west-central Ohio location, compared to the northwest Ohio location, possibly due to warmer conditions around the time of application at the former. In both corn and soybean studies, where fall herbicides were omitted and activity on dandelion was due solely to postemergence herbicides, control of dandelion did not exceed 30%.