

CONTROL OF WHITE COCKLE (*Lychnis alba* Mill.) WITH FALL AND SPRING HERBICIDE APPLICATIONS. Gary E. Powell and Karen A. Renner, Department of Crop and Soil Science, Michigan State University, East Lansing.

White cockle is generally characterized as a biennial or short-lived perennial weed that reproduces by seed. In Michigan it is often a problem in long term forage, or former forage fields that have been planted to minimum tillage crops. Field experiments were established at two sites to evaluate fall and spring applications of glyphosate, 2,4-D ester, sulfentrazone + chlorimuron, flumioxazin, imazethapyr + glyphosate, and tribenuron-methyl applied alone and as tank mixtures on white cockle. Fall-applied glyphosate at 0.84 kg ae/ha, or any herbicide tank-mixed with glyphosate, resulted in 95% or greater control at the Grass Lake location. Control with spring-applied glyphosate was increased by the addition of flumioxazin, imazethapyr, or tribenuron-methyl; or by sulfentrazone + chlorimuron without glyphosate. At the East Lansing location all fall-and spring-applied treatments that included glyphosate, and the sulfentrazone + chlorimuron treatment, controlled white cockle. Applications of 2,4-D ester at 0.53 kg ai/ha were ineffective when applied either in the fall or spring at both locations.