

FALL TREATMENTS FOR WINTER ANNUAL WEED CONTROL IN ROW-CROP STUBBLE. David L. Regehr and Dallas E. Peterson, Professors, Department of Agronomy, Kansas State University, Manhattan, KS 66506.

Studies begun in the early 1990's, to develop and evaluate Best Management Practices to minimize atrazine loss in surface water runoff, included fall and early spring applications of atrazine to avoid high runoff periods. It became apparent that soybean stubble fields treated with atrazine in fall or early spring, were not only weed-free at corn planting time the following spring, but had warmer and dryer soils than fields in which winter annual weeds were allowed to grow until preplant burndown herbicides were applied. In 1998, a section 24(c) Special Local Need Label was approved in KS, for atrazine applications in fall to row-crop stubble to be planted to corn or sorghum the next spring. Besides atrazine, other herbicides that have been evaluated for fall application ahead of corn or soybean include 2,4-D, dicamba, flumetsulam, metribuzin, nicosulfuron plus rimsulfuron, glyphosate, paraquat, isoxaflutole, chlorimuron, sulfentrazone, carfentrazone, and flumioxazin. In general, much lower rates are needed in fall applications than in spring. Field pansy (*Viola rafinesquii*) has emerged as a "new" winter annual weed problem for no-tillers in northeast KS. It tolerates many burndown herbicides applied in spring, and fall applications are being evaluated for its control.