

CANADA THISTLE CONTROL WITH SUDANGRASS COVER CROPS. Abram J. Bicksler and John B. Masiunas, Graduate Research Assistant and Associate Professor, Department of Natural Resources and Environmental Sciences, University of Illinois at Urbana-Champaign, 1201 West Gregory Drive, Urbana, IL 61801.

Canada thistle (*Cirsium arvense*) is a vigorous, perennial weed that readily spreads by broad, creeping underground roots. The effects of summer annual cover crops and defoliation on Canada thistle growth and survival were investigated in field experiments from 2006-2008 at the Cruse Tract Vegetable Crops Research Farm. Both three months and one year after initiation of experiments, thistle shoot densities were reduced after sudangrass or sudangrass-cowpea (MIX) treatments. The MIX treatment was predominately sudangrass. By fifteen months after initiation of experiments, thistle shoot densities were lowest after sudangrass or MIX mowed once or twice. Biomass per individual thistle shoot was not reduced three months after initiation of the experiments by cover crops or mowing, but it was reduced one year after sudangrass or MIX treatments. Sudangrass and MIX treatments produced the greatest amount of cover crop biomass, regrowth following mowing, and mowed mulch. Fifteen months after the initiation of experiments, soybeans had the greatest biomass when planted into former once and twice-mowed cover crop plots. Canada thistle was suppressed in sudangrass or sudangrass-cowpea treatments, owing to the cover crop's competitiveness and regrowth potential. Mowing is more important for continued thistle control in the second than first season. We recommend a sudangrass cover crop with multiple mowing as part of a sustainable Canada thistle management strategy.