

CLOPYRALID TOLERANCE OF CUPHEA. Sharon Papiernik, Frank Forcella, Russ Gesch and Gary Amundson. North Central Soil Conservation Research Laboratory, USDA-Agricultural Research Service, Morris, MN 56267.

A new oilseed crop known as cuphea (*Cuphea viscosissima* x *lanceolata*) is an annual plant that is planted in spring. It is adapted well to the northern portions of the Corn Belt of North America. Unfortunately, cuphea grows quite slowly until mid summer, which means that it does not compete well with spring-germinating weeds. Previous research on herbicide tolerance indicated that soil-applied ethalfluralin, isoxaflutole, and trifluralin can be used effectively in cuphea, as can postemergence applications of mesotrione and grass herbicides (sethoxydim, clethodim, etc.). However, these herbicides have a limited spectrum of efficacy, especially for weeds in the Compositae, namely biennial wormwood (*Artemisia biennis*) and Canada thistle (*Cirsium arvense*). Such weeds are common in areas where cuphea is adapted. Consequently, a number of other herbicides with known activities on these weeds were explored for tolerance by cuphea. Field tests in Minnesota showed that cuphea was unaffected by clopyralid at rates typically applied postemergence to corn and small grain crops. Clopyralid also could be used safely in conjunction with soil-applied isoxaflutole. A related herbicide, aminopyralid, was not tolerated as well by cuphea. These results expand the weed spectrum under which cuphea can be grown effectively.