

CANADA THISTLE MANAGEMENT IN MINNESTOA NATIVE PRAIRIES.

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Abstract: Numerous cooperative studies were conducted on control of Canada thistle (*Cirsium arvense*). In established native prairies, Best Management Practices were studied surrounding nondisturbance goals for optimum waterfowl production. Most native forbs survived clopyralid applications, although flowering and seed production were reduced or eliminated during the treatment season. Native sunflowers reestablished after herbicide applications ended. Canada thistle was controlled but reinvaded. Thistle control was most consistent with aminopyralid, while native forb tolerance appears similar to that of clopyralid. During establishment, prairies are vulnerable to invasion. Fall planting appeared most conducive to establishment of Canada thistle seedlings, spring planting the least. Cool season plantings dominated by native grasses were more resistant to invasion than warm season plantings, and cool/warm season mixtures. Warm season plantings initially had a high percentage of bare ground open to invasion. Clopyralid treated plots initially had more native grass cover and fewer Canada thistle plants, but differences diminished with time. The potential for Canada thistle to spread by wind was studied. The contribution of wind dispersal to the spread of Canada thistle was largely local. Most seed fell near parent plants, relatively few traveled 6 m. Over 90% of trapped pappi were barren, and the percentage of barren pappi increased with distance. The relative amount of seed distributed long distances by wind is small, but may be important in areas with relatively little Canada thistle.