Minnesota Rankings for Native Forb Tolerance to Aminopyralid and Clopyralid Herbicides

Estimates of ESTABLISHED native forb tolerance to aminopyralid (Milestone VMTM) and clopyralid (Transline[®]) based on field observations. Generally speaking, native forbs tolerated these herbicides better with spring applications compared to fall applications. If viable seed were present in the seedbank, neither herbicide prevented seedlings of susceptible species from establishing the growing season following herbicide application. These rankings reflect our experiences as of Fall 2008 and will be updated as more data becomes available.

I : Tolerant					
M: Moderate tolerance					
M-S: Moderate to Susceptible					
S : Susceptible					
5. Susceptible					
Common Name	Aminopyralid	Clopyralid	Family	Genus	Species
Alexanders, Golden	Т	Т	Apiaceae	Zizia	aurea
Alexanders, Heart-leaved	Т	Т	Apiaceae	Zizia	aptera
Aster, Heath	M	М	Asteraceae	Aster	ericoides
Aster, Panicled	M	M	Asteraceae	Aster	lanceolatum
Aster, Smooth Blue	M	M	Asteraceae	Aster	laeve
Bergamot, Wild	Т	Т	Lamiaceae	Monarda	fistulosa
Blazingstar, Prairie	M	М	Asteraceae	Liatris	aspera
Cinquefoil, Prairie	S	Т	Rosaceae	Potentila	arguta
Clover, Purple Prairie	M - S	M - S	Fabaceae	Dalea	purpurea
Clover, Round-headed Bush	M - S	М	Fabaceae	Lespedeza	capitata
Clover, Silky Prairie	M - S	М	Fabaceae	Petalostemum	villosum
Clover, White Prairie	M - S	M - S	Fabaceae	Dalea	candida
Coneflower, Yellow Prarire	S	S	Asteraceae	Ratibida	pinnata
Cup Plant	М	М	Asteraceae	Silphium	perfoliatum
Dewberry, C. (Rubus)	М	М	Rosaceae	Rubus	flagellaris
Dock, pale	S	М	Polygonaceae	Rumex	altissimus
Equisetum	Т	Т	Equisetaceae	Equisetum	arvense
Fleabane, Daisy	М	М	Asteraceae	Erigeron	strigosus
Goldenrod, Canadian	М	М	Asteraceae	Solidago	canadensis
Goldenrod, Giant	М	М	Asteraceae	Solidago	gigantea
Goldenrod, Stiff/Rigid	М	М	Asteraceae	Solidago	rigida
Groundcherry, clammy	S	М	Solanaceae	Physalis	heterophylla
Marestail (Conyza)	S	S	Asteraceae	Conyza	canadensis
Meadow Rue, Purple	Т	т	Ranunculaceae	Thalictrum	pubescens
Milkweed, Common	М	т	Asclepiadaceae	Asclepias	syriaca
Nettle, Stinging	М	М	Urticaceae	Urtica	dioica
Onion, Prairie	Т	Т	Liliaceae	Allium	stellatum
Oxeye, Sweet Smooth	М	М	Asteraceae	Heliopsis	helianthoides
Primrose, Common	S	S	Onagraceae	Oenothera	biennis
Ragweed, Common	S	S	Asteraceae	Ambrosia	artemisiifolia
Ragweed, Western	S	S	Asteraceae	Ambrosia	coronopifolia
Rudbeckia, Black-Eyed Susan	S	S	Asteraceae	Rudbeckia	hirta
Spurge, Flowering	Т	т	Euphorbacae	Euphorbia	corollata
Sage, White		Т	Asteraceae	Artemisia	ludoviciana
Spiderwort, Prairie	M - S	М	Commelinaceae	Tradescantia	occidentalis
Sunflower, Maximilian's	S	S	Asteraceae	Helianthus	maximiliani
Sunflower, Prairie	S	S	Asteraceae	Helianthus	pauciflorus
Sunflower, Stiff/Sawtoothed	S	S	Asteraceae	Helianthus	grosseserratus
Sunflower, Tall	S	S	Asteraceae	Helianthus	giganteus
Tickfoil, Showy	M - S	М	Fabaceae	Desmodium	canadense
Trailing Wild Bean	Т	Т	Fabaceae	Strophostyles	helvola
Vervain, Blue	Т	Т	Verbenaceae	Verbena	hastata
Vervain, Hoary	Т	Т	Verbenaceae	Verbena	stricta
Wild Indigo, White	М	М	Fabaceae	Baptisia	alba
Yarrow, Common	M	Т	Asteraceae	Achillea	millefolium

September 2008

R. Becker and M. Haar, University of Minnsota.

UNIVERSITY OF MINNESOTA

Minnesota Rankings for ESTABLISHED Native Forb Tolerance to Aminopyralid and Clopyralid Herbicides

Tolerance Key:

T = Tolerant:	Minimal symptoms - may result in slight cupping but less than 15%. Occasionally may inhibit flowering.
M = Moderate:	Symptoms include cupping, yellowing, and twisted stems. Often will inhibit flowering. Plants may be stunted. May reduce stand with recovery of surviving plants the first growing season after application.
M - S = Moderate to Susceptible:	Severity of response has been variable ranging from moderately tolerant to susceptible depending on environment, plant age, and site characteristics.
S = Susceptible:	Injury greater than 75%. Injury can be severe. May kill established plants. Sensitive plants have been shown to reestablish from seedlings if an adequate seedbank is present as early as the first growing season after application.

The information given in this publication is for educational purposes only. Reference to commercial products or trade names is made with the understanding that no discrimination is intended and no endorsement by University of Minnesota Extension is implied.University of Minnesota Extension is committed to the policy that all persons shall have equal access to its programs, facilities, and employment without regard to race, color, creed, religion, national origin, sex, age, marital status, disability, public assistance status, veteran status, or sexual orientation.

© 2009, Regents of the University of Minnesota. All rights reserved. Send copyright permission inquiries to: Copyright Coordinator, University of Minnesota Extension, 405 Coffey Hall, 1420 Eckles Avenue, St. Paul, MN 55108-6068. Email to extcopy@umn.edu or fax to 612-625-3967.