

UPPER MIDWEST

Weed Management Plans: The Key To Future Success

Herbicide resistance is forcing end-users to change the way they manage their turf. Discovery of new herbicide active ingredients is becoming increasingly rare. If we don't maximize the performance and usage life of what is available now, we could lose its efficacy in the future.

That's why a weed management plan is vital to our success. Creating and implementing a year-round weed control plan with a foundation of sound agronomic practices will help ensure we get the most out of our pesticide options.

A successful program includes:

- ★ *Combination products with multiple modes of action*
- ★ *Herbicides that offer broad-spectrum control with one application*
- ★ *Herbicide rotation*
- ★ *Proper application timing and use rates*
- ★ *Annual evaluation of the weed management plan*



RESISTANCE
MANAGEMENT



BROADLEAF
WEEDS



GRASSY
WEEDS



SEDGES



HERBICIDE
ROTATION



PROPER TIMING
& USE RATES

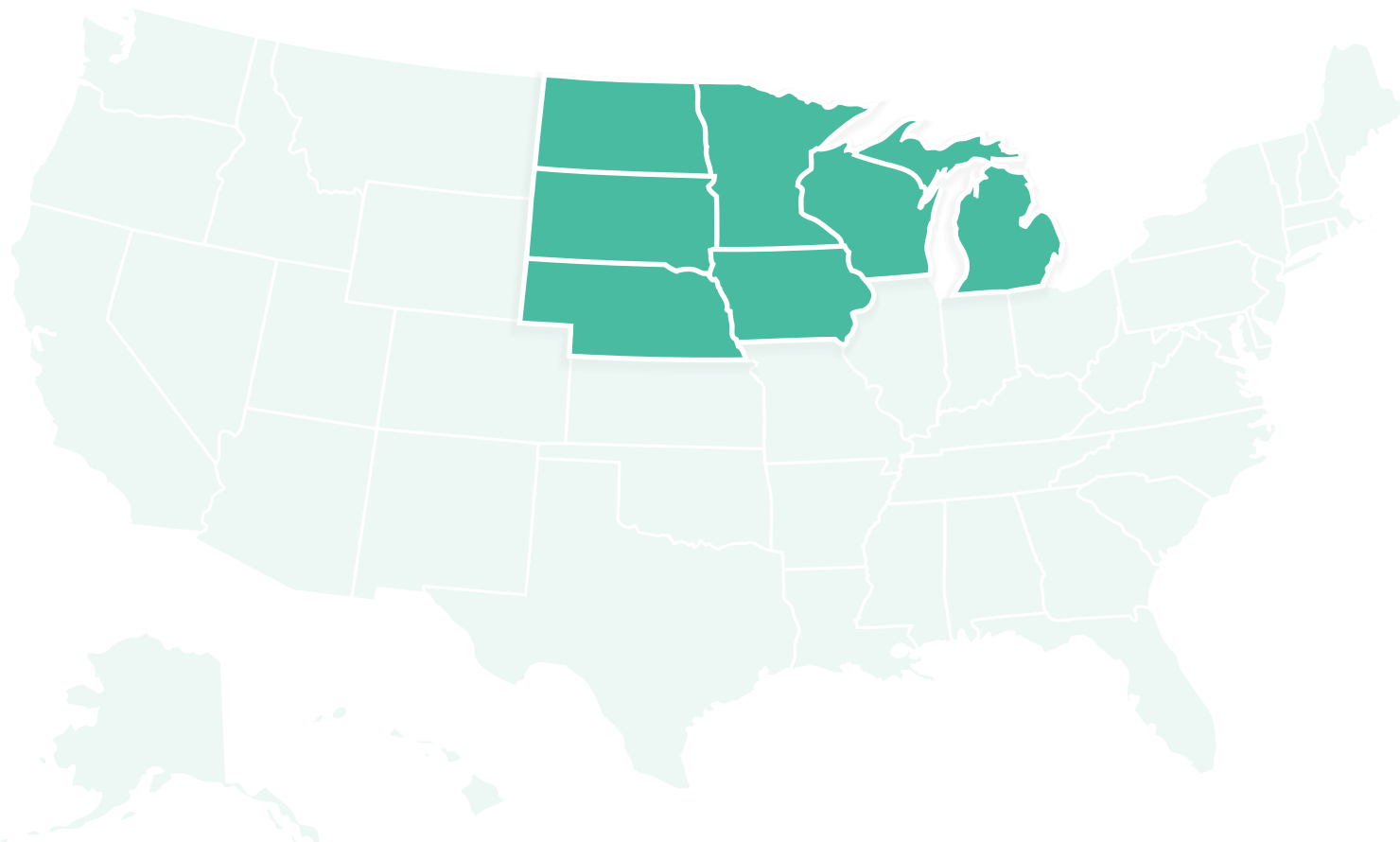


ANNUAL PLAN
EVALUATION

Program 1: Recommended Application - Cool-Season Turf

APP#	PRODUCT	MOA	WSSA CODE	RATE PER ACRE	PRE/POST	TIMING	TARGETED WEEDS
1	Pre-emergent <i>(choose a product that best fits your weed management goals)</i>	Rotate MOAs annually		Refer to label	PRE	Refer to label	Crabgrass, Broadleaf Weeds
2	SpeedZone® Broadleaf Herbicide for Turf‡	Synthetic Auxins PPO Inhibitor	4 14	4 pt.	POST	April	Broadleaf Weeds
3	TZone™ SE Broadleaf Herbicide for Tough Weeds*‡	Synthetic Auxins PPO Inhibitor	4 14	1.5 fl. oz./1,000 ft²	Spot Treatment	June	Broadleaf Weeds <i>(Ground Ivy, Wild Violet)</i>
4	Q4® Plus Herbicide for Grassy & Broadleaf Weeds**‡	Synthetic Auxins PPO Inhibitor	4 14	7-8 pt./A	POST	August	Crabgrass, Broadleaf Weeds, Yellow Nutsedge

‡ 2,4-D is limited to two applications per year. The maximum application rate to ornamental turf is 1.5 pounds of 2,4-D acid equivalent per acre per application. The maximum seasonal rate is 3.0 pounds of 2,4-D acid equivalent per acre, excluding spot treatments.
* If hard-to-control broadleaf weeds such as Ground Ivy and Wild Violet are the primary weeds being targeted, spot treatments may be necessary in order not to exceed the 2 broadcast applications per year restriction.
** Do not apply Q4® Plus to Bentgrass.



PRODUCT

PRODUCT	ACTIVE INGREDIENTS								USE RATES			
	LB. 2,4-D A.E./GAL.	LB. MCPA A.E./GAL.	LB. MCPP-P A.E./GAL.	LB. TRICLOPYR ACID/GAL.	LB. DICAMBA A.E./GAL.	LB. FLAZASULFURON A.I./LB. FORMULATED PRODUCT	LB. PENOXSULAM/GAL.	LB. CARFENTRAZONE/GAL.	LB. SULFENTRAZONE/GAL.	LB. QUINCLORAC ACID/GAL.	RATE/ACRE (COOL SEASON GRASSES)	RATE/ACRE (WARM SEASON GRASSES)
PowerZone® Broadleaf Herbicide for Turf		2.21	0.44		0.22			0.04			3.5 - 5 pt.	2 - 4 pt.
Q4® Plus Broadleaf Herbicide for Grassy & Broadleaf Weeds	0.88				0.10				0.06	0.75	7 - 8 pt.	5 - 7 pt.
SpeedZone® Broadleaf Herbicide for Turf	1.53		0.48		0.14			0.05			3 - 5 pt.	2 - 4 pt.
Surge® Broadleaf Herbicide for Turf	1.40		0.50		0.22			0.06			3.25 - 4 pt.	2.75 - 3.25 pt.
Trimec® 992 Broadleaf Herbicide	2.38		0.63		0.21						1.8 - 4 pt.	3 - 4 pt.
TZone™ SE Broadleaf Herbicide for Tough Weeds	1.75			0.50	0.20			0.06			3.25 - 4 pt.	2 - 2.25 pt.

PRODUCT

PRODUCT	WEEDS CONTROLLED														
	DANDELION	CLOVER	CRABGRASS	NUTSEGE	KYLLINGA	GOOSEGRASS	SPURGE	VIRGINIA BUTTONEED	POA ANNUA	HENBIT	WILDVIOLET	GROUNDIVY	PLANTAIN	OXALIS (YELLOW WOODSORREL)	DOLLARWEED (PENNYWORT)
PowerZone® Broadleaf Herbicide for Turf	★	★					★	★		★	★	★	★	★	★
Q4® Plus Broadleaf Herbicide for Grassy & Broadleaf Weeds	★	★	★*	★*			★	★*		★	★*	★	★	★	★
SpeedZone® Broadleaf Herbicide for Turf	★	★				★	★	★		★	★	★	★	★	★
Surge® Broadleaf Herbicide for Turf	★	★		⬇			★	★		★	★	★	★	★	★
Trimec® 992 Broadleaf Herbicide	★	★					★	★*		★		★	★	★	★
TZone™ SE Broadleaf Herbicide for Tough Weeds	★	★					★	★		★	★**	★	★	★	

★ = control, ⬇ = suppression
* Hard-to-control weeds. May require higher use rates and/or a second application within the rate range.
** For best results, apply in the spring when wild violets are blooming, or apply a late fall application followed by a spring application.