

Weed Management Planner

BEFORE PLANTING

Plant Type		annual broadleaf						perennial broadleaf	annual grass				perennial grass
		fall/early spring			late spring				fall/spring				
Emergence Period		chickweed	henbit/deadnettle	horseweed/marestail	mustard species	lambsquarters, common	ragweed, common	dandelion	bluegrass, annual	brome, downy	ryegrass, annual	quackgrass	
Example Weed													
Crop Rotation ¹	Continuous monoculture	N	N	N	N	N	N	N	N	N	N	N	
	Corn/soybean	N	N	F	F	F	P	P	N	P	P	N	
	Add winter small grain	F	F	F	F	G	G	G	F	P	P	P	
	Add perennial forage legume crop	F	F	G	F	G	G	F	F	G	F	P	
Cover Crops (fall seeded) ²	Winter and spring competition												
	small grain	G	G	E	G	G	F	G	F	F	F	N	
	legume	F	F	G	P	F	P	F	P	P	P	N	
	radish	F	F	F	F	D	D	F	P	P	P	N	
	Early terminated ⁵			F	F	P	P	P				N	
	Late terminated (heading stage) ⁵												
	small grain (rolled)			E	G	G	F	E			P	P	
	legume			G	F	F	P	F			P	P	
small grain legume mix (rolled)			E	G	G	F	E			P	P		
Tillage and Cultivation ³	No-till	N	N	D	N	D	N	D	N	N	N	D	
	Moldboard plow, once in four years ⁴	E	E	E	F	G	G	E	E	E	G	F	
	Annual fall moldboard plow	G	G	G	F	N	N	G	G	G	P	-	
	Annual spring moldboard plow	E	E	E	E	N	D	E	E	E	E	-	
	Spring disk or chisel plow ⁷	E	E	E	E	N	D	E	E	E	E	-	
	Vertical tillage/turbo till (fall)	P	P	P	P	N	N	N	N	N	N	N	
Planting	Early planting date												
	corn	N	N	N	P	P	P	N	N	N	N	N	
	soybean	N	N	N	N	F	F	N	N	N	N	N	
Equipment sanitation ⁸		P	P	F	P	F	F	F	N	P	P	P	
Chemical ⁴	Fall post harvest burndown												
	after silage harvest	P	P	P	P	G	G	E	N	N	N	G	
	after fall grain harvest	G	F	G	G			E	F	F	F	P	
	Fall burndown + residual herbicides	G	G	G	G	N	N	E	G	G	G	P	
	Spring burndown	E	E	G	E	G	G	F	E	E	E	G	
	Spring burndown + residual herbicides	E	E	E	E	E	E	F	E	E	E	G	

Tactics in italics target the weed seed bank rather than in-season management.

¹ Crop rotation based on the impact of planting date altering crop architecture only - not other weed control strategies associated with different crops. Continuous monoculture is the base system; ratings within crop rotation are based relative to this.

² Assumes timely planting for your region, attaining at least 6,000 lbs of biomass per acre at termination, and cash crop planting within 2 weeks after termination.

³ No-till is defined as the base system and ratings within tillage/cultivation are relative to this.

⁴ Assumes effective herbicide use. Please consult your local Extension weed management guide.

⁵ Ratings based on seedling emergence after cover crop termination.

⁶ Ratings based on first season following moldboard plow/inversion tillage only.

⁷ Spring tillage prior to planting.

⁸ Ratings based on spread of weeds from field to field, not within a field.

⁹ Ratings based on effects of residual herbicide, not burndown.

Efficacy ratings of weed management tactics

D	Detrimental: this tactic may increase weed problems by spreading propagules or increasing density
N	No effect: this tactic will not impact management of this weed
P	Poor: this tactic will marginally reduce weed density
F	Fair: this tactic will moderately reduce weed density and may reduce competitiveness
G	Good: this tactic consistently reduces weed density and competitiveness
E	Excellent: this tactic significantly reduces weed density and minimizes competitiveness
-	No data or information available
	Not applicable

Original Authors

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AFTER PLANTING

Lifecycle	annual broadleaf										perennial broadleaf			annual grass or sedge			perennial grass or sedge					
	early					late					season long			winter	summer		early	late				
	large seed		small seed			large seed		small seed			large seed	seed	taproot	creeping rootstalk	small seed	large seed	small seed	tuber	rhizome			
Emergence Period	large seed		small seed			large seed		small seed			large seed	seed	taproot	creeping rootstalk	small seed	large seed	small seed	tuber	rhizome			
Primary Reproductive Structure	large seed		small seed			large seed		small seed			large seed	seed	taproot	creeping rootstalk	small seed	large seed	small seed	tuber	rhizome			
Example Weed	ragweed, common	ragweed, giant	lambsquarters, common	cocklebur	velvetleaf	burcucumber	Amaranth, Palmer/waterhemp	pigweed	morningglory, annual		dandelion	pokeweed	thistle, Canada	crabgrass	foxtail spp.	barnyardgrass	nutsedge, yellow	Johnsongrass (rhizome)	quackgrass			
Crop Rotation ¹	Continuous monoculture	N	D	N	N	N	N	D	N	N	N	N	N	N	N	N	N	N	N	N		
	Corn/soybean	P	N	P	P	P	P	P	P	N	P	N	N	N	N	N	N	N	P	N		
	Add winter small grain	G	P	G	G	G	F	F	G	F	G	P	F	F	G	F	P	P	P			
	Add perennial forage crop	G	G	G	G	G	G	G	G	G	G	F	P	F	F	F	P	P	P			
Cover Crops (fall seeded) ²	Early terminated ⁵	P	N	P	N	N	N	N	P	P	N	N	N	P	N	N	N	N	N			
	Late terminated (heading stage) ⁵																					
	small grain	F	F	G	F	F	F	G	G	F	F	N	N	F	F	F	P	N	N			
	legume	P	N	P	P	P	P	P	P	P	P	N	N	P	N	P	P	N	N			
small grain legume mix	F	P	G	F	F	P	G	G	F	F	N	N	F	F	F	P	N	N				
Tillage and Cultivation ³	No-till	P	P	P	P	P	F	D	D	P	D	D	D	N	N	N	N	D	D			
	Moldboard plow, once in four years ⁶	F	F	F	P	F	F	G	G	F	F	F	P	G	F	F	F	F	F			
	Annual fall moldboard plow	N	D	N	N	N	D	N	N	N	G	G	F	F	N	N	F	F	F			
	Annual spring moldboard plow	P	F	P	P	P	N	P	P	F	G	G	P	P	P	N	N	P	P			
	Spring disk or chisel plow ⁷	P	F	F	N	P	D	N	P	P	P	F	N	N	P	N	N	N	N			
	Vertical tillage/turbo till (fall)	N	N	P	N	N	N	N	N	P	N	N	N	N	N	N	N	N	N			
	Interrow cultivation	G	F	G	F	G	F	G	G	F	P	P	P	F	F	F	P	P	N			
Planting	Early planting date ⁸																					
	corn	P	N	P	G	F	P	P	F	P	P	P	P	P	P	P	P	P	P			
	soybean	P	N	P	P	P	P	P	P	P	P	P	P	P	F	P	F	P	P			
	Late planting date (double-crop soybean)	G	P	G	P	P	P	P	F	P	P	P	F	F	P	P	P	P	P			
	Increased soybean seeding rate	P	N	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P			
Narrow row spacing (<15 inches)	F	P	F	F	F	F	F	F	F	P	P	P	F	F	F	P	P	P				
Fertility	Timing (multiple applications vs all at planting)	P	P	F	P	F	P	P	F	P	P	N	P	F	P	P	P	P	P			
	Placement (in-furrow or 2-by-2 vs broadcast)	P	P	P	N	N	N	P	P	N	N	N	N	P	P	P	N	N	N			
Post-Harvest	Harvest weed seed control ⁹	F	G	F	P	N	N	G	G	N	N	N	N	P	N	N	N	N	N			
	Crop stubble mowing ¹⁰	P	P	P	P	P	P	P	P	P	P	P	P	P	P	N	P	P	P			
Equipment sanitation ¹¹	F	F	F	F	F	F	F	F	F	F	P	P	F	F	F	P	F	P				
Chemical ⁴	Spring burndown ¹²	F	F	P	N	N	N	N	P	P	G	P	P	P	P	N	P	N	F			
	Residual herbicide with burndown ¹³	G	G	G	P	F	P	F	F	F	G	P	P	G	F	P	F	P	P			
	Residual herbicide at planting	G	G	E	G	G	G	G	G	G	F	P	P	G	G	F	F	P	P			
	Timely post	E	E	E	G	E	G	G	G	F	G	G	G	G	E	G	G	G	E			
	Timely post with residual	E	E	E	E	E	E	E	E	G	G	G	G	E	E	G	G	G	E			
	Harvest aid	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P			
Fall post harvest burndown ¹⁰	N	N	N	N	N	N	P	P	P	F	P	F	N	N	N	P	P	P				

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² Assumes timely planting for your region, attaining at least 6,000 lbs of biomass per acre at termination, and cash crop planting within 2 weeks after termination.

³ No-till is defined as the base system and ratings within tillage/cultivation are relative to this.
⁴ Assumes effective herbicide use. Please consult your local Extension weed management guide.
⁵ Ratings based on seedling emergence after cover crop termination.
⁶ Ratings based on first season following moldboard plow/inversion tillage only.
⁷ Spring tillage prior to planting.
⁸ Planted 2 to 3 weeks earlier than a typical planting date for the region.

⁹ Harvest weed seed control with a grain head; do not use ratings for corn grain harvest.
¹⁰ Implemented approximately 2 to 3 weeks after harvest.
¹¹ Ratings based on spread of weeds from field to field, not within a field.
¹² Full season burndown (not double crop soybean burndown timing).
¹³ Ratings based on effects of residual herbicide, not burndown.

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