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Weed Management Planner

BEFORE PLANTING

Plant Type		broadleaf						grass	
Lifecycle		annual					perennial	annual	perennial
Emergence Period		fall/early spring			late spring			fall/spring	
Growth Habit								simple	creeping
Primary Repoductive Structure		seed						seed	rhizome
	Example Weed	chickweed	henbit/deadnettle	horseweed/ marestail	lambsquarters, common	ragweed, common	dandelion	brome, downy	quackgrass
Crop Rotation[1]	Continous monoculture (base system)	N	N	N	N	N	N	N	N
	Corn/soybean	N	N	F	F	P	P	P	N
	Add winter small grain	F	F	F	G	G	G	P	P
	Add perennial forage legume crop	G	G	G	G	G	F	G	P
Cover Crops (fall seeded)[2]	Winter and spring competition								
	small grain	G	G	E	G	F	G	F	N
	legume	F	F	G	F	P	F	P	N
	radish	F	F	F	D	D	F	P	N
	Early terminated (low residue)[5]			F	P	P	P		N
	Late terminated (high residue)[5]								
	small grain			E	G	F	E		P
	legume			G	F	P	F		P
	small grain-legume mix			E	G	F	E		P
Tillage and Cultivation[3]	No-till (base system)	N	N	D	D	N	D	N	D
	Moldboard plow, once in four years[6]	E	E	E	E	G	E	E	F
	Annual fall moldboard plow	G	G	G	N	N	G	G	G
	Annual spring moldboard plow	E	E	E	N	D	E	E	F
	Spring disk or chisel plow[7]	E	E	E	N	D	E	E	P
	vertical tillage/turbo till (fall)	P	P	P	N	N	N	N	N
Planting	Early planting date								
	corn	N	N	N	P	P	N	N	N
	soybean	N	N	N	F	F	N	N	N
	Equipment sanitation[8]	P	P	F	F	F	F	P	P
Chemical[4]	Post harvest burndown	G	F	G	F	F	G	F	G
	after silage harvest	P	P	P	G	G	F	N	G
	after grain harvest	G	F	G			G	F	G
	Post harvest burndown with fall residual	G	G	F	N	N	–	G	N
	Residual with spring burndown	E	E	G	G	G	F	G	G
	Residual with burndown[9]	E	E	E	E	G	–	F	P

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 (by October 15 for small grains, by October 1 for legumes, and by Sept 15 for radish), 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 the Mid-Atlantic Field Crop 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 weed from field to field, not within a field.

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

Efficacy ratings of weed management tactics in the mid-Atlantic region

- **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**

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Weed Management Planner

AFTER PLANTING

		broadleaf													narrow leaf					
Plant Type																				
Lifecycle		annual								perennial					annual			perennial		
Emergence Period		late spring			early summer			season long		winter		summer			early summer	summer				
Growth Habit		simple			vining		simple		vining	prostrate		upright		vining	prostrate/ short	upright	prostrate/ short	simple	creeping	
Primary Repoductive Structure		large seed	small seed		large seed		small seed		large seed	seed	taproot	rhizome			small seed	large seed	small seed	tuber	rhizome	
	Example Weed	ragweed, common	lambsquarters, common	cocklebur	velvetleaf	burcucumber	amaranth, Palmer/ waterhemp	pigweed	morningglory, annual	dandelion	pokeweed	dogbane, hemp	thistle, Canada	horsenettle	crabgrass	foxtail spp.	goosegrass	nutsedge, yellow	Johnsongrass (rhizome)	quackgrass
Crop Rotation[1]	Continous monoculture (base system)	N	N	N	N	N	D	N	N	N	N	N	N	N	N	N	N	N	N	N
	Corn/soybean	P	P	P	P	P	P	F	N	P	N	N	N	N	N	N	N	N	P	N
	Add winter small grain	G	G	G	G	F	F	G	F	G	P	P	F	P	F	G	P	P	P	P
	Add perennial forage crop	G	G	G	G	G	G	G	G	G	F	F	P	N	F	F	P	P	P	P
Cover Crops (fall seeded)[2]	Early terminated (low residue)[5]	P	P	N	N	N	N	P	P	N	N	N	N	N	P	N	N	N	N	N
	Late terminated (high residue)[5]																			
	small grain	F	G	F	F	F	G	G	F	F	N	N	N	N	F	F	F	P	N	N
	legume	P	P	P	P	P	P	P	P	P	N	N	N	N	P	N	P	P	N	N
	small grain-legume mix	F	G	F	F	P	G	G	F	F	N	N	N	N	F	F	F	P	N	N
Tillage and Cultivation[3]	No-till (base system)	P	P	P	P	F	D	D	P	D	D	D	D	D	N	N	N	N	D	D
	Moldboard plow, once in four years[6]	F	F	P	F	F	G	G	F	F	F	F	P	P	G	F	G	F	F	F
	Annual fall moldboard plow	N	N	N	N	D	N	N	N	G	G	F	F	F	F	N	N	F	F	F
	Annual spring moldboard plow	P	P	P	P	N	P	P	F	G	G	P	P	P	P	P	P	N	P	P
	Spring disk or chisel plow[7]	P	F	N	P	D	N	P	P	P	F	P	N	P	N	P	D	N	N	N
	Vertical tillage/turbo till (fall)	N	P	N	N	N	N	N	P	N	N	N	N	N	N	N	N	N	N	N
	Interrow cultivation	G	G	F	G	F	G	G	F	P	P	P	P	P	F	F	F	P	P	N
Planting	Early planting date[8]																			
	corn	P	P	G	F	P	P	F	P	P	P	P	P	P	P	P	P	P	P	P
	soybean	P	P	P	P	P	P	P	P	P	P	P	P	P	P	F	P	F	P	P
	Late planting date (double-crop soybean)	G	G	P	P	P	P	F	P	P	P	P	F	P	F	P	P	P	P	P
	Increased soybean seeding rate	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	Narrow row spacing (<15 inches)	F	F	F	F	F	F	F	F	P	P	P	P	F	F	F	F	P	P	P
Fertility	Timing (mulitple applications vs all at planting)	P	F	P	F	P	P	F	P	P	P	P	N	N	P	F	P	P	P	P
	Placement (in furrow or 2 by 2 vs broadcast)	P	P	N	N	N	P	P	N	N	N	N	N	N	P	P	P	N	N	N
Harvest	*Harvest weed seed control*[9]	F	F	P	N	N	G	G	N	N	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	P	N	P	P	P
	Equipment sanitation[11]	F	F	F	F	F	F	F	F	F	P	P	P	P	F	F	F	P	F	F
Chemical[4]	Spring burndown[12]	F	P	N	N	N	N	P	P	G	P	N	P	N	P	P	N	P	N	F
	Residual with spring burndown[13]	G	G	P	F	P	F	F	F	G	P	P	P	P	G	F	P	F	P	P
	Residual at planting	G	E	G	G	G	G	G	G	F	P	P	P	P	G	G	F	F	P	P
	Timely post	E	E	G	E	G	G	G	F	G	G	G	G	G	G	E	F	G	G	E
	Timely post with residual	E	E	E	E	E	E	E	G	G	G	G	G	G	E	E	E	G	G	E
	Harvest aid	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	N	P	P	P
	Post harvest burndown[10]	N	P	N	P	N	P	P	P	F	P	F	F	F	P	P	N	P	P	P

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[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 the Mid-Atlantic Field Crop 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 weed 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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