

# Weed Management Planner

## BEFORE PLANTING

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

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

<sup>1</sup> 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.

<sup>2</sup> 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.

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

<sup>4</sup> Assumes effective herbicide use. Please consult the Mid-Atlantic Field Crop Weed Management Guide.

<sup>5</sup> Ratings based on seedling emergence after cover crop termination.

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

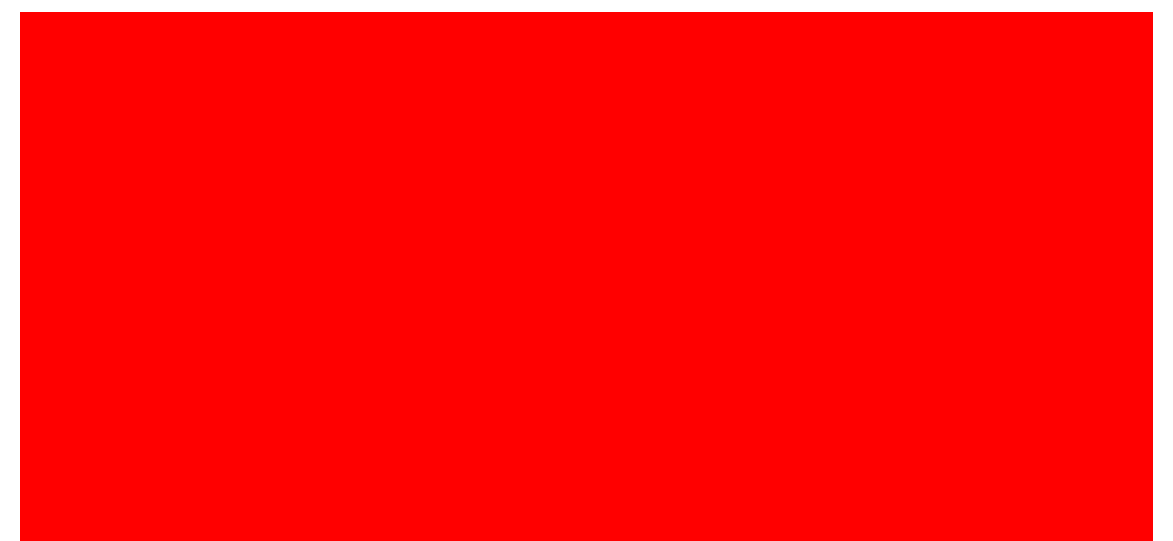
<sup>7</sup> Spring tillage prior to planting.

<sup>8</sup> Ratings based on spread of weed from field to field, not within a field.

<sup>9</sup> Ratings based on effects of residual herbicide, not burndown.

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

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



# Weed Management Planner

## AFTER PLANTING

Plant Type		broadleaf												narrow leaf																
		annual						perennial						annual			perennial													
Lifecycle		late spring						early summer						winter			summer													
Emergence Period		simple		vining		simple		vining		prostrate			upright			vining			prostrate/short		upright		prostrate/short							
Growth Habit		large seed		small seed		large seed		small seed		large seed		seed			taproot			rhizome			small seed		large seed		small seed		tuber		rhizome	
Primary Reproductive 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 <sup>1</sup>	Continuous monoculture (base system)	N	N	N	N	N	D	N	N	N	N	N	N	N	N	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	N	N	N	N	N	N	N	N	N	N		
	Add winter small grain	G	G	G	G	F	F	G	F	G	P	P	F	P	F	G	P	P	P	P	P	P	P	P	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	P	P	P	P	P	P	P	P	P	
Cover Crops (fall seeded) <sup>2</sup>	Early terminated (low residue) <sup>5</sup>	P	P	N	N	N	N	P	P	N	N	N	N	N	P	N	N	N	N	N	N	N	N	N	N	N	N	N		
	Late terminated (high residue) <sup>5</sup>																													
	small grain	F	G	F	F	F	G	G	F	F	N	N	N	N	F	F	F	P	N	N	P	N	N	N	N	N	N	N		
	legume	P	P	P	P	P	P	P	P	P	N	N	N	N	P	N	P	P	N	N	P	N	N	N	N	N	N	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	P	N	N	N	N	N	N	N	N		
Tillage and Cultivation <sup>3</sup>	No-till (base system)	P	P	P	P	F	D	D	P	D	D	D	D	D	N	N	N	N	D	D	D	D	D	D	D	D	D	D		
	Moldboard plow, once in four years <sup>6</sup>	F	F	P	F	F	G	G	F	F	F	F	P	P	G	F	G	F	F	F	F	F	F	F	F	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	F	F	F	F	F	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	P	P	P	P	P	P	P	P		
	Spring disk or chisel plow <sup>7</sup>	P	F	N	P	D	N	P	P	P	F	P	N	P	N	P	D	N	N	N	N	N	N	N	N	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	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	P	P	P	P	P	P	P	P	P		
	Early planting date <sup>8</sup>																													
Planting	corn	P	P	G	F	P	P	F	P	P	P	P	P	P	P	P	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	P	P	P	P	P	P	P	P		
	Late planting date (double-crop soybean)	G	G	P	P	P	P	F	P	P	P	F	P	P	F	P	P	P	P	P	P	P	P	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	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	P	P	P	P	P	P	P	P	P	
Fertility	Timing (multiple applications vs all at planting)	P	F	P	F	P	P	F	P	P	P	N	N	P	F	P	P	P	P	P	P	P	P	P	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	N	N	N	N	N	N	N	N	N	
Harvest	Harvest weed seed control <sup>9</sup>	F	F	P	N	N	G	G	N	N	N	N	N	N	P	N	N	N	N	N	N	N	N	N	N	N	N	N		
	Crop stubble mowing <sup>10</sup>	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	N	P	P	P	P	P	P	P	P	P	P	P		
	Equipment sanitation <sup>11</sup>	F	F	F	F	F	F	F	F	F	P	P	P	P	F	F	F	P	F	F	F	F	F	F	F	F	F	F		
Chemical <sup>4</sup>	Spring burndown <sup>12</sup>	F	P	N	N	N	N	P	P	G	P	N	P	N	P	P	N	P	N	F	P	N	F	P	N	F	P	P		
	Residual with spring burndown <sup>13</sup>	G	G	P	F	P	F	F	F	G	P	P	P	P	G	F	P	F	P	P	P	P	P	P	P	P	P	P		
	Residual at planting	G	E	G	G	G	G	G	G	F	P	P	P	P	G	G	F	F	P	P	P	P	P	P	P	P	P	P		
	Timely post	E	E	G	E	G	G	G	F	G	G	G	G	G	G	E	F	G	G	E	E	E	E	E	E	E	E	E	E	
	Timely post with residual	E	E	E	E	E	E	E	G	G	G	G	G	G	E	E	E	G	G	E	E	E	E	E	E	E	E	E	E	
	Harvest aid	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	N	P	P	P	P	P	P	P	P	P	P	P	P	
	Post harvest burndown <sup>10</sup>	N	P	N	P	N	P	P	P	F	P	F	F	F	P	P	N	P	P	P	P	P	P	P	P	P	P	P	P	

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

<sup>1</sup> 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.  
<sup>2</sup> 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.

<sup>3</sup> No-till is defined as the base system and ratings within tillage/cultivation are relative to this.  
<sup>4</sup> Assumes effective herbicide use. Please consult the Mid-Atlantic Field Crop Weed Management Guide.  
<sup>5</sup> Ratings based on seedling emergence after cover crop termination.  
<sup>6</sup> Ratings based on first season following moldboard plow/inversion tillage only.  
<sup>7</sup> Spring tillage prior to planting.  
<sup>8</sup> Planted 2 to 3 weeks earlier than a typical planting date for the region.

<sup>9</sup> Harvest weed seed control with a grain head; do not use ratings for corn grain harvest.  
<sup>10</sup> Implemented approximately 2 to 3 weeks after harvest.  
<sup>11</sup> Ratings based on spread of weed from field to field, not within a field.  
<sup>12</sup> Full season burndown (not double crop soybean burndown timing).  
<sup>13</sup> 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
- Not applicable**

