

Estimated Effectiveness of Recommended Herbicides on Selected Common Weeds in Florida Vegetables ¹

William M. Stall and Andrew W. McCrae²

Successful weed control is essential for economic production of vegetable crops in Florida. Weeds reduce vegetable yields by competing for moisture, nutrients and light during the growing season. Weeds also harbor insects, disease pests and interfere with harvesting. Control of weeds in vegetables involves good management practices in all phases of production. The use of herbicides, cultivation, crop rotation, cover cropping, using crop competition and/or mulching may have to be combined to suppress many difficult to control weed species.

Identifying the weed problems and selecting appropriate weed control methods are essential steps in designing or modifying a weed control program. Knowing the weed species that infest the fields is also important in selecting the correct herbicide that is effective for specific weed problems. Generally, for preplant and preemergence applications, the weed problem must be anticipated since weeds have not emerged at the time of application. This can be done by observing the field in the previous season and recording those weeds which are present and in what areas of the field they occur. These **weed maps** can

be very useful the next season in refreshing your memory and making decisions on which herbicides to purchase. Once your weed problems have been determined, the following tables can be helpful in choosing the herbicide which is most effective for those problems.

Table 1 and Table 2, estimating the effectiveness of control of certain herbicides, were developed from research data, herbicide labels, and the experience of research and extension workers in Florida. Table 1 lists effectiveness estimates for herbicides on broadleaf weeds. Table 2 lists effectiveness estimates for herbicides on grasses and sedges.

The estimated effectiveness is based on recommended rates for vegetables in Florida and application procedures as specified by the label. Herbicide effectiveness may vary due to soil type, environmental conditions (rainfall, temperatures etc), method and time of application, as well as size of weeds. Consult the herbicide label for specific information relating to crop use and expected response of the herbicide under your soil type.

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The use of trade names in this publication is solely for the purpose of providing specific information. It is not a guarantee or warranty of the products named, and does not signify that they are approved to the exclusion of others of suitable composition.

The herbicide listings and the use of trade names in this publication is solely for the purpose of providing information. It is not a guarantee or warranty of the products named and does not signify that they are approved to the exclusion of others.

Table 1. Estimated effectiveness of herbicides on selected broadleaf weed in vegetables.

Herbicide	Amaranthus	Cocklebur	Evening primrose	Eclipta alba	Florida beggarweed	Florida pusley	Parthenium	Lambs quarter	Pur-slane	Morning glories	Night-shade	Rag-weed	Sickle-pod	Southern sida
PREPLANT INCORPORATED														
Command	F-G	P-F	G	-	-	G	-	G-E	E	P	-	F-G	P	-
Dacthal	F-G	P	F-G	-	F	F	-	G	G	P	F	-	P	F
Devrinol	F-G	P	G	P	P	G-E	P	G-E	G	P	P	-	P	-
Dual	G	P	G-E	G	F-G	G-E	-	F-G	F	P	F	F	P	G
Eptam	G	P	G	G	P	G-E	-	G	G	F	P-F	F	F	G
Prefar	F	P	F	P	P	E	-	F-G	F	P	P	P	P	P
Pursuit	G-E	-	E	E	E	F	-	E	E	G-E	G-E	G	P	G
Sencor	E	G	E	G	G-E	G	G	E	G	G-E	P	G	G	G
Treflan	G-E	P	G	F-G	P	E	P	G-E	E	P	P	P	P	P
PREEMERGENCE														
Alanap	G-E	F	G	G	F	G	-	E	G	F	F	F	P	G
Atrazine	E	G-E	E	G-E	G-E	E	E	E	E	G	G	E	F-G	G-E
Callesto	G-E	F	-	-	-	-	-	G	-	F	G	G	-	NC
Caparol	G-E	-	-	-	-	F-G	-	F-G	G-E	-	F-G	F-G	-	-
Chateau	G-E	G-E	G-E	-	G	G-E	-	G-E	G-E	E	G-E	G-E	G	G
Command	F-G	P	G	-	-	G	-	G	E	P	-	F	P	-
Curbit	G	P	G	-	P	E	P	G-E	E	P	P	P	P	P
Dacthal	F-G	P	F-G	-	F	F	-	G	G	P	F	-	P	F
Devrinol	F	P	G	P	P	G	P	G	G	P	P	-	P	-
Dual	G	F	G	G	F	G	-	F	P	P	F	F	P	G
Goal	E	E	E	E	G	G	G	E	E	G	G	G	F	G
Kerb	F-G	-	G	-	-	G	-	E	G-E	F-G	G	-	-	-
Lorox	G	F	E	-	G	E	-	E	E	F	-	G	-	F
Matrix	G-E	G-E	E	E	E	-	-	E	E	-	F	G	-	-
Prowl	G-E	P	G	-	P	G	P	E	G	P	P	P	P	-
Pursuit	G-E	G-E	E	E	P	F	-	G-E	G-E	G-E	G-E	G	P	G
*Sandea	G-E	G	G	G	-	F	-	G	G	F	N	G	G	G
Sencor	G	F	E	F-G	G	G	G	E	G	F	P-F	G	G	G
POSTEMERGENCE														
Aim	E	G	E	G	G	G	-	E	G	G	E	E	G	G-E

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Herbicide	Amaranthus	Cocklebur	Evening primrose	Eclipta alba	Florida beggarweed	Florida pusley	Parthenium	Lambs quarter	Purslane	Morning glories	Nightshade	Ragweed	Sicklepod	Southern sida
Atrazine	G-E	F	E	G	P	G-E	F-G	G	F-G	G	F	F	F-G	-
Basagran	G	G	G	G	P	F	-	-	G	F-G	F-G	G	P	G
Callisto	E	G-E	-	-	-	G	-	G-E	-	F	G	G	G	N
Chateau	E	G	-	-	G	F-P	-	F-G	F-G	F-G	G	F-G	F-G	F-G
Cobra	E	G-E	-	E	E	G-E	-	F-G	G	G-E	E	G	F-G	G
Diquat	E	G	E	E	G-E	G	E	E	G	F-G	G	G	G	G
Enquik	E	G	E	E	E	G	G	F-G	G	F	G	G	G	G
Fusilade DX	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Gramoxone	E	G	E	E	G-E	G	P	E	G	F-G	F	G	G	G
Impact	G-E	G-E	-	-	-	F-G	-	G	-	G	E	G-E	-	G
Laudis	E	E	-	-	-	G	-	G-E	N	F	G	G-E	F	N
Lorox	E	G	-	-	G	G	-	E	E	F-G	-	G	G	G
Matrix	G	G-E	G	G	G	G	-	P	-	G	P	G	-	-
Poast	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Pursuit	E	G	G	G	-	F	-	F-G	P-F	G	G	G	P	-
Select	N	N	N	N	N	N	N	N	N	N	N	N	N	N
*Sandea	G	G	-	F	-	P	-	P	F	G	-	G	-	-
Sencor	E	G	G	F	G	G	P	G	F-G	P	P	F-G	F	F

E = 90-100% **N** = no control **G** = 80-90% **-** = no data **F** = 60-80% **P** = below 60%

* Poor on Livid Amaranth

Table 2. Estimated effectiveness of herbicides on selected grasses and sedges in vegetables.

Herbicide	Grasses								Sedges		
	Barnyard grass	Bermuda grass	Broadleaf signalgrass	Crab-grass	Goose-grass	Panicums (fall & texas)	Sprangletop	Purple nutsedge	Yellow nutsedge	Annual sedges	
PREPLANT INCORPORATED											
Callisto	-	-	F-G	G	G	F-G	-	N	N	N	
Chateau	G	-	-	G	G	G	-	N	N	N	
Command	E	G-E	E	E	E	G-E	-	P	P	P	
Dacthal	G	G	F	G	G	F	-	P	P	P	
Devrinol	E	E	E	E	E	G-E	-	P	F	F	
Dual	G	G-E	E	E	E	G	G	P-F	G	G-E	
Eptam	E	E	G	E	E	G-E	-	G-E	G	E	
Prefar	G	G	G	G	G-E	F-G	-	P	P	P	
Pursuit	F	P	F	F	F	P-F	P	F-G	G	E	
Sencor	G	F-G	G	G-E	G-E	F-G	-	P	P	P	
Treflan	E	G	G-E	E	E	G	-	P	P	P	
PREEMERGENCE											
Alanap	P	P	F	F	P	P	-	P	P	P	
Atrazine	F	P	F-G	F	F	P	P	P	P	P	
Caparol	F-G	F-G	F-G	G	F-G	F	-	P	P	P	
Command	E	E	E	E	E	E	-	P	P	P	
Curbit	E	G-E	E	E	E	G-E	G	P	P	P	
Dacthal	F-G	F-G	F	G	G	F	-	P	P	P	
Devrinol	E	E	E	E	E	G-E	-	P-F	F	F-G	
Dual	E	E	E	E	E	G-E	G	P-F	F-G	E	
Goal	E	P	F	F	F	P	-	P	F	G	
Kerb	G-E	P	G	G-E	G-E	F-G	-	P	P	P	
Lorox	F-G	-	G	G	G	F-G	-	F	F	F	
Matrix	P	P	P	P	P	P	P	P	P	P	
Prowl	E	E	E	E	E	G-E	E	P	P	P	
Pursuit	F	P	F	F	F	P-F	P	G	G-E	E	
Sandea	N	N	N	N	N	N	N	G-F	F-G	G	
Sencor	F	F	G	G	G-E	P	P	P	P	P	
POSTEMERGENCE											

Table 2. Estimated effectiveness of herbicides on selected grasses and sedges in vegetables.

Herbicide	Grasses										Sedges		
	Barnyard grass	Bermuda grass	Broadleaf signalgrass	Crab-grass	Goose-grass	Panicums (fall & texas)	Sprangletop	Purple nutsedge	Yellow nutsedge	Annual sedges			
Aim	P	P	P	P	P	P	P	P	P	P			
Atrazine	F-G	F	F	F	F	F	F	F	P	P			
Basagran	P	P	P	P	P	P	P	P	P-F	F-G	G-E		
Callisto	-	-	G-F	F-G	F-G	-	-	-	N	N	N		
Cobra	N	N	N	N	N	N	N	N	N	N	N		
*Diquat	E-G	G	E	G-E	G-E	G	G	G	F-G	F-G	G		
Enquik	P-F	P-F	P-F	P-F	P-F	P-F	-	F	F	F	F		
Fusilade	E	E	E	E	E	E	E	E	P	P	P		
*Gramoxone	E	E	E	E	E	E	E	E	F-G	F-G	G		
Impact	G	-	-	G	G	-	-	N	N	N	N		
Laudis	G	-	G	F-G	G	G-E	-	N	N	N	N		
Lorox	G	F-G	G	G	G	G	G	F	F	F	F-G		
Matrix	P	P	P	P	P	P	P	P	P	P	-		
Poast	E	G-E	E	E	G	E	E	N	N	N	N		
Pursuit	F	P	P-F	PR	F	P-F	P	G-E	G-E	G-E	G-E		
Select	E	G-E	G-E	G-E	E	E	E	N	N	N	N		
Sandea	N	N	N	N	N	N	N	E	E	E	E		
Sencor	F	P	P-F	F	F-G	P	P	P	P	P	P		

E = 90-100% **N** = no control **G** = 80-90% = no data **F** = 60-80% **P** = below 60%

* Initial burndown with sedges and other perennial weed can be complete but regrowth occurs.