

Weed Control in Celery¹

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Weed control is important in successful celery production. Early weed control is especially critical. Competition of weeds such as amaranth in celery during the first 4 weeks of the crop in the field can result in a 30 to 40 percent reduction in quality grades at final harvest.

Dual Magnum has a third party registration for use in Florida. For legal use of the herbicides, the grower (applicator) must obtain the label for celery from the third party registrant, in this case, TPR, Inc., Orlando.

Linuron (Lorox) or Prometryn (Caparol) will do a good job of controlling most of the young emerged annual weeds that are found in the field. Both of these have specific timings for application to the crop as well as the weeds.

Sethoxydim (Poast) and clethodim (Select) will control the grasses emerged in the crop if applied properly. Poast may be applied now up to 14 days of harvest. Select has a 30 day phi.

Cultivation is an effective control method for weeds in celery, especially young plants. Care must be taken, however, in not pruning the roots of the

crop. Research has shown that quality of celery can be reduced if mechanical cultivation and/or hand hoeing are not done properly.

When using a herbicide, use only labeled herbicides and those herbicides in the proper formulation. Read the label carefully for the proper rate and timing for each application. To avoid confusion between formulations, suggested rates listed in Table 1 are stated in pounds active ingredient per acre (lb ai/acre).

Celery is the representative commodity in the leaf petioles subgroup of the leafy vegetables EPA group. Cardoon, Chinese celery, celtuce, fennel, rhubarb and Swiss chard are also in this group. Labels for celery may sometimes include one or more of these other petiole vegetables. See recommendations and labels.

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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 product named, and does not signify that they are approved to the exclusion of others of suitable composition.7.1.1

Table 1. Chemical weed controls: Celery.

Herbicide	Labeled Crops	Time of Application to Crop	Rate (lbs. AI/Acre)	
			Mineral	Muck
Bensulide (Prefer 4E)	Celery, Chinese celery (transplant only) cardoon, Florence fennel	Preplant incorporated Preemergence		----
Remarks: Preplant incorporate using power driven rotary cultivations or apply preemergence and incorporate with irrigation. Controls many grass weeds. Provides fair to good control of lambsquarter, purslane, and amaranths. May be applied under polyethylene mulch.				
Carfentrazone (Aim)	Celery	Preplant Directed-hooded Row-middles	0.031	0.031
Remarks: Aim may be applied as a preplant burndown treatment and/or as a post-directed hooded application to row middles for the burndown of emerged broadleaf weeds. May be tank mixed with other registered herbicides. May be applied at up to 2 oz (0.031 lb ai). Use a quality spray adjuvant such as crop oil concentrate (coc) or non-ionic surfactant at recommended rates.				
Clethodim (Select) (Arrow)	Celery	Postemergence	0.1 - 0.125	----
Remarks: Use Select for the control of annual and perennial grasses. Use a crop-oil concentrate at 1% v/v in the finished spray volume. Do not apply more than 8 fl. oz. product/A per application. Do not apply within 30 days of harvest.				
Glyphosate (Roundup, Durango, Touchdown, Glyphomax)	Celery	Chemical fallow Preplant, pre emergence, Pretransplant	0.3 - 1.0	----
Remarks: Roundup, Glyphomax and Touchdown have several formulations. Check the label of each for specific directions.				
Linuron (Lorox DF)	Celery	Posttransplanting	0.75 - 1.5	0.7 - 1.5
Remarks: Controls emerged annuals. Apply following transplanting and establishment of celery, but before crop is 8 inches tall. Annual grasses should not exceed 2 inches and broadleaf weeds 6 inches tall. Avoid application when temperature exceeds 85°F. Do not use a surfactant or mix with other chemicals. Note precautions of planting non-registered crops within 4 months.				
Metolachlor (Dual Magnum)	Celery	Pre/posttransplant	.95 - 1.26	----
Remarks: Applications must be made prior to/immediately after transplanting. Rates are based on soil texture and percentage of organic matter. On coarse soils apply .95 - 1.26 lbs a.i/A (1.0 -1.33 pints) on medium and fine soils apply 1.25-1.6 lbs a.i. and when organic matter content is greater than 3% apply 1.6-1.9 lbs a.i/A (1.67-2.0 pts/A). This label is a special local need, third party registration. Authorization and waiver agreements must be obtained from T.P.R., Inc. prior to use.				
Pelargonic acid (Scythe)	Celery, fennel, Swiss chard	Preplant, Directed-Shielded	3-10% v/v	3-10% v/v
Remarks: Product is a contact, non-selective, foliar applied herbicide. There is no residual control. May be tank mixed with soil residual herbicides. Consult label for rates and other information.				
Prometryn (Caparol 4L)	Celery seedbed	Postemergence	0.6 - 0.8	0.6 - 0.8
Remarks: Controls emerged annuals. In seedbed, apply when seedlings have 2 to 5 true leaves after seedbed covers are removed for at least one week.				
Prometryn (Caparol 4L)	Celery field	Posttransplanting	0.8 - 1.6	0.8 - 1.6
Remarks: Controls emerged annuals. Apply one time after celery is established, 2 weeks after transplanting but before 6th week. Weeds should not exceed 2 inches. Note precautions of planting non-registered or sensitive crops within 5 months.				

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Herbicide	Labeled Crops	Time of Application to Crop	Rate (lbs. AI/Acre)	
			Mineral	Muck
Sethoxydim (Poast)	Celery	Postemergence	0.188 - 0.28	0.188 - 0.28
<p>Remarks: Controls actively growing grass weeds. A total of 3 pts. product per acre may be applied in one season. Do not apply within 14 days of harvest. Apply in 5 to 20 gallons of water adding 2 pts. of crop oil concentrate per acre. Unsatisfactory results may occur if applied to grasses under stress. Use 0.188 lb ai (1 pt.) on seedling grasses and up to 0.28 lb ai (1.5 pt.) on perennial grasses emerging from rhizomes, etc. Consult label for grass species and growth stage for best control.</p>				
Trifluralin Treflan EC, Treflen 5 Trifluralin 4 EC	Celery	Preplant Incorporate	0.5	----
<p>Remarks: Apply as a soil incorporated treatment to direct seeded or transplanted celery before planting, at planting or immediately after planting. Apply to mineral soils only. Consult label for application instructions.</p>				