UF UNIVERSITY of FLORIDA
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HS201

Weed Control in Carrot[1]

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Although carrots may be grown in mineral soils, production in Florida is almost exclusively in the organic/muck soils of Central and South Florida. The practice of seeding the crop in six lines per bed enhances total yield that may be harvested per acre, but it almost eliminates the use of mechanical cultivation for weed control.

Weed control is extremely important for several reasons. Weeds reduce carrot yields by reducing the size of carrot roots through direct competition for nutrients, space, and water. Weeds also deform carrot roots, making them unmarketable. Weeds late in the season may also cause severe harvesting problems.

Weed control is critical early in the season for the formation of good, straight roots, but it is important for the above reasons throughout the growing season.

At the present time, only linuron is labeled for preemergence (both carrots and weeds) application in muck soils. Linuron, pendimethalin, and trifluralin are labeled for preemergence application in mineral soils (Table 1).

Linuron and metribuzin may be applied over the top of carrots to control small broadleaf weeds. Great care should be taken to apply these herbicides at the correct rate and at the correct growth stage of the crop and weeds (Table 2). Carefully read the labels for directions.

Fusilade® DX, Poast®, and Select® are labeled for the control of emerged grass weeds. These may be applied several times during the growing season, up until 45 days of harvest for Fusilade® and 30 days of harvest for Poast® and Select®.

Read and follow all label directions for each herbicide used.

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Table 1. Chemical weed control before carrot emergence

Active ingredient lb. a.i./A	(Trade name) formulation amount of product/A	Weeds controlled / remarks
Carfentrazone Up to 0.031	(Aim®) 2 EC or 1.9 EW Up to 2 fl. oz.	Emerged broadleaf weeds. Apply as a preplant burndown. Use crop oil concentrate or nonionic surfactant at recommended rates. May be tank mixed with other herbicides.
Glyphosate	(Various formulations) Consult labels	Emerged broadleaf and grass weeds. Apply as a preplant burndown. Consult label for individual product directions.
Linuron 0.5–1.0	(Lorox® DF) 50 DF 1–2 lb.	Annual broadleaf and grass weeds. A single application after planting and before crop emergence. Plant seed at least 0.5 in. deep. Preemergence and postemergence applications should not exceed 4 lb./A per season.
Paraquat 0.5–1.0	(Gramoxone® SL) 2 SL 2.0–4.0 pt. (Firestorm®) 3 SL 1.3–2.7 pt.	Emerged broadleaf and grass weeds. Apply as a preplant burndown treatment. Apply before crop emergence. Use a nonionic surfactant.
Pelargonic Acid	(Scythe®) 4.2 EC 3%–10% v/v	Emerged broadleaf and grass weeds. Apply as a preplant burndown treatment. Scythe® is a contact and nonresidual herbicide and can be tank mixed with residual preemergence herbicides to lengthen control.
Pendimethalin 0.95	(Prowl® H_2O) 3.8 2.0 pt.	Broadleaf and grass control. Apply within 2 days of planting before crop emergence. Postharvest interval (PHI) 60 days.
Prometryn 1–2	(Caparol®) 4 L 2–4 pt.	Most annual broadleaf and grass weeds. Do not exceed one application per season. Consult label for rotational crop restrictions.
Pyraflufen 0.0008–0.003	(ET® Herbicide/Defoliant) 0.208 EC 0.5–2.0 fl. oz.	Emerged broadleaf and grass weeds. Apply as a preplant burndown treatment.
Trifluralin 0.5	(Treflan®, Trifluralin) 4EC 1 pt. (Treflan® TR-10) 5 lb.	Annual broadleaf and grass weeds. Do not apply to muck soils. In mineral soils with 2%–5% organic material, apply 0.75 lb a.i./A. Incorporate 4 in. or less within 8 hours of application. PHI 60 days.

Table 2. Postemergence chemical weed control in carrot

Active ingredient lb. a.i. / A	(Trade name) formulation amount of product / A	Weeds controlled / remarks
Carfentrazone Up to 0.31	(Aim®) 2 EC or 1.9 EW Up to 2 oz.	Emerged broadleaf weeds. Apply as hooded application to row middles only. Use crop oil concentrate or nonionic surfactant at recommended rates. May be tank mixed with other herbicides. Do not exceed 6.1 fl. oz. per season. PHI 0 days.
Clethodim 0.09–0.13 0.07–0.13	(Select®, Arrow®) 2 EC 6–8 fl. oz. (Select Max®) 1 EC 9–16 fl. oz.	Perennial and annual grass weeds. In fields with heavy grass pressure or larger grass weeds, use higher rates or repeat applications 14 days apart. Use a crop oil concentrate at 1% v/v in the finished spray volume. Nonionic surfactant with Select Max®. PHI 30 days.
Fluazifop 0.188	(Fusilade® DX) 12 fl. oz.	Actively growing grass weeds. Maximum is 48 fl. oz./A per growing season. Withhold field flooding 45–60 days following application. In Palm Beach and Hendry Counties, a 60-day interval must be observed for flooding. PHI 45 days.
Linuron 0.5–1.0	(Lorox® DF) 50 DF 1–2 lb.	Annual broadleaf and grass weeds. Apply after carrots are 3 in. tall. Repeat applications may be made, but do not exceed 4 lb./A. Can be applied following Stoddard Solvent provided that the applications are at least 1 day apart. Do not tank mix with Stoddard Solvent. PHI 14 days.
Metribuzin 0.25	(Metribuzin, Metri® DF, Tricor® DF) 75 DF 0.3 lb. (Metri™, Tricor®) 4 F 0.5 pt.	Broadleaf weeds. Total amount applied in a season should not exceed 0.5 lb. a.i./A. Apply after carrots have five or six true leaves and weeds are less than 1 in. in height. If needed, a second application may be made after an interval of at least 3 weeks. PHI 60 days.
Pelargonic Acid	(Scythe®) 4.2 EC 3%–10% v/v	Emerged broadleaf and grass weeds. Direct spray to row middles. Product is a contact, nonselective, foliar-applied herbicide with no residual control. May be tank mixed with several soil residual compounds.
Prometryn 1–2	(Caparol®) 4 L 2–4 pt.	Most annual broadleaf and grass weeds. Apply through the six-leaf stage of carrot. One application of 4 pt./A or two applications of 2 pt./A. For postemergence control of weeds, include nonionic surfactant or crop oil concentrate. Consult label for rotational crop restrictions. PHI 30 days.
Sethoxydim 0.28–0.38	(Poast®) 1.5 EC 1.5–2.0 pt.	Emerged grass weeds. A maximum of 5 pt./A per season. Include a crop oil concentrate. Unsatisfactory results may occur if applied to grasses under stress. PHI 30 days.