

Weed Management in Eggplant¹

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Eggplant is present in the field in some area of Florida every month of the year. Shipments of eggplant from Florida are recorded and summarized in every month except August.

The great majority of eggplant in Florida is grown on plastic mulch. As with pepper and tomato, eggplant production on mulch increases yield, reduces fertilizer inputs, and helps control weeds. Although the production methods for eggplant are very similar to production methods for tomato and pepper, the herbicides labeled for eggplant are much more limited than herbicides for other crops.

Before purchasing an herbicide for use in eggplant, check to see if the material is labeled for eggplant in that formulation and for the use and timing intended.

Because of the limited labeling situation, growers should plan a weed control program that integrates cultural, mechanical, and chemical methods to fit their weed problems and production practices.

Cultural control methods include the use of mulches and cover crops in the off season and the use of grasses in row middles as windbreaks and along the perimeter of the fields.

Mechanical control includes disking, plowing, and cultivating the fields either off season or during the cropping season to reduce weeds in between the rows or in spray alleys, around buildings and pumps, and in equipment parking areas.

Several herbicides are labeled for use in areas around buildings, along fence rows, and along ditches and berms. Before using these herbicides, make sure that they will not drift onto the crop, or if applied to the irrigation water, will not harm the eggplant.

In the crop, use only labeled herbicides and use those herbicides in the proper formulation.

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Table 1. Pretransplant chemical weed control in eggplant.

Active Ingredient lb. a.i./A	(Trade name) amount of product/A	MOA code	Weeds controlled/remarks
Bensulide 5–6	(Prefar®) 4 E 5–6 qt.	8	Annual broadleaves and grasses. Incorporate 2–4 inches with mechanical cultivation or irrigation.
Carfentrazone Up to 0.031	(Aim®) 2 EC or 1.9 EW Up to 2 fl. oz.	14	Apply as a pre-plant burndown for emerged broadleaves up to 4 in. tall or rosettes less than 3 in. across. Good coverage is essential. A nonionic surfactant, methylated seed oil, or crop oil concentrate is recommended. No pre-transplant interval.
Flumioxazin Up to 0.128	(Chateau®) 51 WDG Up to 4 oz.	14	Annual broadleaves and grasses. Apply to row middles of raised plastic-mulched beds that are at least 4 inches higher than the treated row middle with a 24-in. bed width. Label is a third-party registration (TPR, Inc.). Use without a signed authorization and waiver of liability is a misuse of the product. Tank mix with a burndown herbicide to control emerged weeds.
Glyphosate	(Various formulations) Consult label	9	Emerged broadleaves and grasses. Apply as a preplant burndown. Consult label for individual product directions.
Halosulfuron 0.024–0.05	(Sanda® , Profine™) 75 DF 0.5–1 oz.	2	Broadleaves and yellow/purple nutsedge suppression. Apply to row middles only. Do not exceed 2 oz./A per 12-month period. 30 day PHI.
Lactofen 0.25–0.5	(Cobra®) 2 EC 16–32 fl. oz.	14	Broadleaves. Label is a third-party registration (TPR, Inc.). Use without a signed authorization and waiver of liability is a misuse of the product. Apply to row middles only with shielded or hooded sprayers. Cobra® contacting green foliage or fruit can cause excessive injury. Drift of Cobra®-treated soil particles onto plants can cause contact injury. Limit of one PRE and one POST application per growing season. 30 days PHI.
S-metolachlor 0.64–0.95	(Dual Magnum®) 7.62 EC 0.67–1.0 pt.	15	Annual broadleaves and grasses and yellow/purple nutsedge suppression. Label is a third-party registration (TPR, Inc.). Use without a signed authorization and waiver of liability is a misuse of the product. Apply to the finished bed immediately before laying the plastic. Do not exceed 1.68 pt. of Dual Magnum®/A per crop cycle. 60 day PHI.
Napropamide 1.0–2.0	(Devrinol® DF XT) 50 DF 2–4 lb.	15	Annual broadleaves and grasses. Transplanted eggplant only. Do not apply more than 4 lbs./A. per crop cycle.
Paraquat 0.5–1.0	(Gramoxone®) 2 SL 2.0–4.0 pt. (Firestorm®) 3 SL 1.3–2.7 pt.	22	Emerged broadleaves and grasses. Apply as a preplant burndown treatment. Surfactant recommended.
Pendimethalin 0.48-0.72	(Prowl H ₂ O) 3.8 1.0–1.5 pt.	3	Broadleaves and grasses. Apply to row middles or under the plastic. Do not exceed 3 pt./A per year. 70 day PHI.
Pelargonic acid	(Scythe®) 4.2 EC 3–10% v/v		Emerged broadleaves and grasses. Apply as a preplant burndown treatment. Product is a contact, nonselective, foliar-applied herbicide with no residual control. May be tank mixed with soil residual compounds.
Pyraflufen 0.001-003	(ET herbicide) 0.208 EC 0.5-2.0 fl. oz.	14	Emerged broadleaves less than 4 in. tall or rosettes less than 3 in. diameter. Apply as a preplant burndown treatment. Nonionic surfactant or crop oil concentrate recommended.
Trifluralin 0.5	(Treflan®, Trflurex® HFP) 4 EC 1 pt.	3	Annual broadleaves and grasses. Do not apply in Dade County. Incorporate 4 inch or less within 8 hour of application. Results in Florida are erratic on soils with low organic matter and clay contents. Do not apply after transplanting. Not all trifluralin formulations are labeled in eggplant, so consult label before application.

Table 2. Posttransplant chemical weed control in eggplant.

Active Ingredient lb. a.i./A	(Trade name) amount of product/A	MOA code	Weeds controlled/remarks
Carfentrazone Up to 0.31	(Aim®) 2 EC or 1.9 EW Up to 2 oz.	14	Emerged broadleaves. Apply as a hooded application to row middles only. Do not exceed 6.1 fl. oz. per cropping season. A nonionic surfactant, methylated seed oil, or crop oil concentrate is recommended. 0 day PHI.
Clethodim 0.09–0.13 0.07–0.25	(Select®, Arrow®) 2 EC 6–8 fl. oz. (Select Max®) 1 EC 9–16 fl. oz.	1	Perennial and annual grasses. In fields with heavy grass pressure or larger grass weeds, use higher rates or repeat applications 14 days apart. Use a COC at 1% v/v in the finished spray volume. NIS with Select Max®. PHI 20 days.
DCPA 6.0–7.5	(Dacthal®) W-75 8–10 lb. (Dacthal®) 6 F 8–10 pt.	3	Annual broadleaves and grasses. Apply to weed-free soil 6–8 wk after crop is established and growing rapidly or to moist soil in row middles after crop establishment. Note label precautions against replanting nonregistered crops within 8 months.
Diquat 0.5	(Reglone® Dessiccant) 1 qt.	22	Broadleaves and grasses. Apply to row middles only Maximum of 2 applications per season. Prevent drift to crop. Nonionic surfactant recommended. 30 day PHI.
Halosulfuron 0.024–0.05	(Sanda® , Profine™) 75 DF 0.5–1.0 oz.	2	Broadleaves and yellow/purple nutsedge. Apply to row middles only. Include an NIS. Do not exceed 2 oz./A per 12-month period. 30 day PHI.
Lactofen 0.25–0.5	(Cobra®) 2 EC 16–32 fl. oz.	14	Broadleaves. Apply to row middles only with shielded or hooded sprayers. Cobra® contacting green foliage or fruit can cause excessive injury. Drift of Cobra®-treated soil particles onto plants can cause contact injury. Limit of 1 PRE and 1 POST application per growing season. Surfactant recommended. 30 day PHI.
S-metolachlor 0.95	(Dual Magnum®) 7.62 EC 1 pt.	15	Annual broadleaves and grasses. Yellow/purple nutsedge suppression. Label is a third-party registration (TPR, Inc.). Use without a signed authorization and waiver of liability is a misuse of the product. Direct spray solution to row middles only. Do not exceed 1.68 pt. of Dual Magnum®/A per crop. 60 day PHI.
Paraquat 0.5	(Gramaxone®) 2 SL 2 pt. (Firestorm®) 3 SL 1.3 pt.	22	Emerged broadleaves and grasses. Direct spray over emerged weeds 1–6 inches tall in row middles between mulched beds. Use low pressure and shields to control drift. Do not apply more than three times per season. Nonionic surfactant recommended.
Pelargonic acid	(Scythe®) 4.2 EC 3–10% v/v		Emerged broadleaves and grasses. 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.
Pendimethalin 0.48-0.72	(Prowl H ₂ O) 3.8 1.0–1.5 pt.	3	Broadleaves and grasses. May be applied post transplant to row middles if previously untreated. Do not exceed 3 pt./A per year. 70 day PHI.
Sethoxydim 0.19–0.28	(Poast®) 1.5 EC 1.0–1.5 pt.	1	Growing grass weeds. A total of 4.5 pt./A applied in one season. Include a COC. Unsatisfactory results may occur if applied to grasses under stress. PHI 20 days.

Table 3. Eggplant crop destruction following final harvest.

Active Ingredient lb. a.i./A	(Trade name) amount of product/A	MOA code	Weeds controlled/remarks
Diquat 0.5	(Reglone® Dessiccant) 1 qt.	22	Minimum of 35 gal./A. Thorough coverage is required. Nonionic surfactant recommended.