

Weed Control in Beans and Peas (Bush, Pole, Lima Beans, English Peas, and Southern Peas) ¹

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Weeds are a major problem in bean and pea production in Florida. Weeds can reduce yields through direct competition for light, moisture and nutrients as well as harbor insects and diseases that attack these crops. Early season competition of weeds is extremely critical and a major emphasis on control should be made during this period. Weeds present at harvest reduce harvest efficiency and increase mechanical damage to the pods.

Some form of bean or pea is planted in every month in some area of Florida. Over this period and area, the variable climatic conditions and soil types influence the diversity of weed species present and their severity. Growers should plan a total weed control program that integrates chemical, mechanical and cultural methods to fit their weed problems and production practices.

Herbicide performance depends on weather, irrigation and soil type as well as proper selection for weed species to be controlled and accurate applications and timing. Obtain consistent results by

reading the herbicide label and other information about proper application and timing of each herbicide.

There has been some confusion on certain beans and peas as far as labeling. The southern pea is a *Vigna* species. *Vignas* are considered beans. Therefore if the term "beans" appear on the label, the material may be applied to both the *Phaseolus* and *Vigna* types. These include snap beans, lima beans and southern peas. If a label states "green beans" it may only be applied to green color beans, while the term "snap bean" may also be applied to the wax types. "Peas" do not include the southern pea, but include English peas and Pigeon peas. Make sure you read the label carefully for each commodity that is grown.

To avoid confusion between commercial formulations, suggested rates listed in Table 1 are stated in pounds active ingredient per acre (lbs ai/acre). On marl, rockdale and sandy soils with low organic matter, the lower rates should be applied.

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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

When applying a herbicide for the first time in a new area, use in a small trial basis first.

Before application of a herbicide, carefully **read** and **follow the label**.

Table 1. Chemical weed controls: Beans and Peas

Herbicide	Labeled crops	Time of application to crop	Rate (lbs. AI./Acre)	
			Mineral	Muck
Bentazon (Basagran)	Beans, peas	Early postemergence	0.5 - 1.0	----
Remarks: Apply early postemergence when weeds are small and actively growing. Beans are to Basagran after the first trifoliate leaf has fully expanded. A crop oil concentrate or a UAN solution (28, 30, 32% nitrogen solution) may be added for improved control. Yellowing, bronzing, speckling or leaf burning may occur under certain conditions. This injury is generally outgrown without delaying podset or maturity. Basagran is a contact herbicide and controls many young broadleaf weeds. It does not control grass. Read and follow the label directions for hard to control weeds such as yellow nutsedge.				
Carfentrazone (Aim)	Legume group (all)	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 burn-down 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 Max)	Legume vegetables (all)	Postemergence	0.068 - 0.12	0.068 - 0.12
Remarks: For postemergence control of annual and perennial grass weeds. Apply 9 - 16 fl oz/acre. Apply a non-ionic surfactant at 0.25% v/v to the spray mix. There is a 21-day PHI.				
Clomazone (Command 3ME)	Beans	Preemergence	0.15	----
Remarks: For the suppression of annual grasses. Apply broadcast at 0.4 pt per acre prior to emergence.				
EPTC (Eptam 10G) (Eptam 7E)	Beans (green or dry)	Preplant incorporate or at layby	3.0 - 4.0	----
Remarks: Controls germinating annuals and suppresses nutsedge and other perennial weeds. Incorporate in same operation to reduce evaporation loss. Direct layby applications between rows and incorporate.				
Glyphosate (Roundup, Durango, Touchdown, Glyphomax)	Beans (all), peas (all)	Chemical fallow preplant, preemergence, pretransplant	0.3 - 1.0	----
Remarks: Roundup, Glyphomax and Touchdown have several formulations. Check the label of each for specific labeling directions.				
Halosulfuron (Sanda)	Snap beans	Preemergence Postemergence	0.024 - 0.032 0.024 - 0.032	0.024 - 0.032 0.024 - 0.032
Remarks: Apply preemergence application after planting but before cracking at 1/2 to 2/3 oz product/A. Use the lower rate on light sandy soils. Do not incorporate. For post emergence applications apply 1/2 to 2/3 oz product 3 weeks after emergence or at the 3 trifoliate stage, but before flowering. Do not exceed 1 oz per acre per crop cycle. Apply with a non-ionic surfactant or crop oil concentrate.				
Imazethapyr (Pursuit)	Dry beans, lima beans, southern peas, English peas	Preplant incorporated, preemergence, early postemergence	0.031 - 0.062	----
Remarks: May be applied to Navy, Great Northern, Red Kidney, Black turtle, Cranberry and small white type dry beans, Lima Beans, Southern and English Peas. May be applied preplant incorporated or preemergence to all the above crops at 2 ozs/acre or 3 to 4 ozs/acre for English and Southern Peas. An early postemergence application at 3 ozs. (English Peas) and 4 ozs./acre (Southern Peas) may be made with a non-ionic surfactant. Controls a large number of broadleaf weeds preemergence and several postemergence. Read the label for weed species and timing for control.				
Imazethapyr (Pursuit)	Snap beans	Preplant incorporated Preemergence	0.023	0.023
Remarks: May be applied as a preplant incorporated or preemergence treatment to snapbeans at 1.5 oz. product/acre. May be tank-mixed with a registered preemergent grass herbicide. There is a 30-day PHI. Check plant back restrictions on the label.				

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S-Metolachlor (Dual Magnum)	Pod crops: Bush, pole, lima, and mung beans; southern and English Peas	Preplant incorporate or preemergence	4.5 - 1.26	1.26
Remarks: Dual Magnum is an isomer of Dual and has a lower application rate. Use 1 to 1.33 pints/A. Controls most annual grasses and some broadleaf weeds as well as yellow nutsedge. May be applied preplant incorporated or preemergence and watered into the soil. See label for specific tank-mix combinations and recommendations for Eptam and Treflan.				
Paraquat (Firestorm) (Gramoxone Inteon)	Lima, snap beans; peas	Preplant	0.47 - 0.94	0.47 - 0.94
		Preemergence	0.31 - 0.47	0.5 - 1.0
Remarks: Apply as a band treatment over the crop row or as a broadcast treatment before, during or after planting, but before the emergence of the crop. Weeds emerging after the application will not be controlled. Crop plants emerged at the time of application will be killed. Use a non-ionic surfactant in the spray mixture.				
Paraquat (Firestorm) (Gramoxone Inteon)	Dry beans	Harvest aid	0.31 - 0.5	0.31 - 0.5
Remarks: Use a non-ionic spreader at 1 qt. per 100 gals. of spray mix. May be used in up to 2 applications. A split application may improve vine coverage. Do not harvest within 7 days of last application. May be used on the dry forms of the following: Chickpeas, Garbanzo beans; Sweet, White sweet, White and Grain lupines; Kidney, Lima, Mung, Navy, Pinto, Snap and Wax beans; Asparagus beans; Blackeye and Cowpeas. Do not use on Faba beans.				
Pedimethalin (Prowl)	Beans: Dry, lima, snap; chickpeas, southern peas	Preplant incorporated	0.5 - 0.75	1.0
Remarks: Incorporate within 7 days of application to the top 1 to 2 inches of soil. Label state control of many weeds including crabgrass, fall and Texas panicum, goosegrass, signalgrass, carpetweed, Florida pusley, kochia, lambsquarter, pigweed, purslane and annual spurge. May be applied alone or tank-mixed with Dual or Eptam.				
Pelargonic Acid (Scythe)	Legume vegetables (beans [all], peas [all])	Vegetative burndown (site preparation)	3 - 10% v/v	3 - 10% v/v
Remarks: General contact, non-selective, foliar applied herbicide. No residual control. Product is non-translocated. May be tank mixed with soil residual compounds. Consult label for rates and other information.				
Quizalofop (Assure II) (Targa)	Snap beans, dry beans, succulent and dry peas	Postemergence	0.04 - 0.08	0.04 - 0.08
Remarks: For control of emerged annual and perennial grasses. Application is 6-12 oz actively growing grasses depending on species to be controlled. Subsequent flushes of grasses require additional treatments. For ground application always include a nonphytotoxic petroleum based oil concentrate at 1% v/v (4 qts/100 gals) or a non ionic surfactant at 0.25% v/v (1 qt/100 gal). Reduction in grass control is possible when applied immediately prior to, or sequentially after application of post broadleaf herbicides. Follow label directions. It may be tank mixed with Basagran. Do not apply within 15 days of harvest. Do not apply more than 14 oz of product per acre per season.				
Sethoxydim (Poast)	Beans and peas, dry and succulent	Postemergence	0.188 - 0.28	----
Remarks: For postemergence control of annual and perennial grass weeds, use 1 pt. (0.188 lb. ai.) to 1.5 pts. (0.28 lb. ai.) per acre depending on weed species to be controlled. Will not control sedges or broadleaf weeds. Use 2 pts. crop oil concentrate per acre in the spray mix. Do not apply more than 4 pts. per acre in one season. Do not apply within 15 days of harvest for succulent beans and peas or 30 days for dry beans and peas. Bean and pea types and species on which application may be made include beans of the <i>Phaseolus</i> genus (includes Adzuki bean, Field bean, Kidney bean, Lima bean, Navy bean, Mung bean); Lupines (includes Sweet lupine, White lupine, Grain lupine); Cowpeas - <i>Vigna</i> species (includes blackeye pea, Southern pea, Broad bean); <i>Vicia faba</i> or faba bean; Chickpea - <i>Cicer arietinum</i> or garbanzo bean; guar - <i>Cyamopsis tetragoneloba</i> ; and peas - <i>Pisum</i> species (includes garden peas, field peas, sugar peas).				
Sodium Chlorate (Defol 6)	Dry beans; southern peas; guar beans	Defoliant/desiccant	6.0	6.0

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Remarks: Apply at a rate of 1 gal. per acre in 5 to 10 gals. of water by air or 10 to 20 gal. by ground equipment. Thorough coverage is essential. Make application 7 to 10 days before anticipated harvest, longer if temperatures are cool. Do not graze treated fields or feed treated fodder or forage to livestock.				
Trifluralin (Treflan EC) (Treflan TR-10) (Trilin)	Green, lima, mung, and guar beans; southern and English peas	Preplant incorporated	0.5 - 0.75	----
Remarks: Controls germinating annuals, especially grasses. Incorporate 4 inches or less within 8 hours. Results in Florida are erratic on soils with low organic matter and clay contents. Note label precautions of planting non-registered crops. See labels for specific application rates.				