

# Peanuts

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With production costs escalating, efficient and effective weed control is very important. Failure to control weeds almost always results in a poor peanut crop. Detailed information on the use of herbicides cannot be included in a guide such as this. Refer to product labels for use suggestions and restrictions. Proper application is required to obtain satisfactory weed control and minimize carry-over residues.

Soil incorporation is necessary for some herbicides. Compliance with the label directions for incorporation is very important in obtaining effective weed control.

With postemergence herbicides, good spray coverage of the target plants, treatment at the proper stage of weed development, and use of relatively small droplets of spray under relatively high pressure are required to insure good control.

Effective Weed Management requires integration of all control strategies.

1. *Crop rotation.* Peanuts should be grown in rotation with corn, grain sorghum, and/or cotton to aid in management of various pests including weeds. Crop rotation allows for the use of different types of herbicides on the same field in different years. A good rotation and weed management system in each crop prevents the buildup of problem weeds in the field. Most annual and perennial broadleaf weeds can be controlled more economically and easier in corn than in peanuts. For example, there are no registered herbicides for use in peanuts that will effectively control perennial broadleaf weeds such as horsenettle, trumpetcreeper, or maypop passionflower.
2. *Crop competition.* Peanuts are relatively poor competitors with weeds. Horsenettle, lambsquarter, cocklebur, and palmer amaranth have been shown to reduce yield by 17, 40, 70, and 28 percent, respectively. Fewer weeds are required to reduce yield and quality of peanuts than for most other crops. Generally, if peanuts are kept weed free for 6-8 weeks after planting, peanut yield will not be reduced by weed competition. However, late season weeds often interfere with digging and combining of peanuts and reduce harvesting efficiency and peanut quality.
3. *Cultivation.* Cultivation is often required to supplement chemical weed control. In addition, cultivation permits banding of herbicides which reduces herbicide costs. Cultivations must be flat and non-dirting. Soil must not be moved upon or around the peanut plant. Such soil movement results in physical damage to the peanut plant and often results in increased disease problems.
4. *Weed identification and scouting.* Proper weed identification is essential. Generally, one herbicide will not control every weed that is likely to be present in a typical field. Every field should be scouted and mapped for weeds present. Using graph paper, a grower should mark the approximate location of weeds in the fall of each year. Weeds present in the fall will generally have set seed and will be present the following year. Weed seed often will stay viable in the soil for several years. As a result, they will be a problem for many years. By knowing what weeds to expect, a grower will be able to make more intelligent decisions on herbicide applications and save money and time in the process.
5. *Herbicide selection.* To develop a herbicide program, a grower must know what weeds are present, the soil characteristics of the field, and herbicide limitations and capabilities. Seldom will one herbicide provide control of all weeds present. As a result, several herbicides must be used together for a successful program. By knowing what each herbicide provides to the program, the grower may eliminate expensive duplication or choose the herbicide that provides the best overall balance of weed control capabilities, crop safety, and the best buy.

## Problem Weeds

### *Perennial Broadleaf Weeds*

Perennial broadleaf weeds such as horsenettle, alligatorweed, Virginia buttonweed, trumpetcreeper, maypop passionflower, and bigroot morningglory cannot be controlled in peanuts. These weeds can be controlled in corn grown in rotation with peanuts. In corn, make a layby application of 1.0 pt/A of 2,4-D amine plus surfactant. After corn harvest, spot spray any remaining infestations with glyphosate or a mixture of 1.0 pt/A of 2,4-D amine plus 0.5 pt/A of Banvel plus surfactant. See glyphosate product labels for suggested application rates.

## **Bermudagrass**

In addition to controlling bermudagrass in the field, efforts should also be directed at controlling bermudagrass on edges of field. This prevents encroachment into the field.

- A. Ideally, control procedures should begin in the fall following corn harvest. This allows the grower several options and reduces the risk of yield reduction. After corn harvest, mow the stalks. If the bermudagrass foliage appears wilted or damaged, set the mower low to remove the old foliage. Do not till; allow the bermudagrass to regrow (8-10 inches tall) and be actively growing before applying glyphosate at 3.0 lb ai/A in a spray volume of 15 gpa using flat fan nozzles and 30-40 psi. Apply at least two weeks before frost and wait 14 days before tillage. Using moldboard or chisel plow followed by several diskings spaced at 4-6 week intervals (during the fall and winter if soil conditions allow) is most effective.
- B. Glyphosate may also be applied in the spring. Remove old thatch by burning or mowing. Allow bermudagrass to regrow before applying 3 quarts of glyphosate as described above. Wait 14 days before seedbed preparation.
- C. Two applications of Poast, Poast Plus, or Select Max in combination with good crop competition will usually provide good control or suppression of bermudagrass. See Table 4 for application rates and weed size for treatment. Always include a crop oil concentrate in the spray mixture.

## **Nutsedge**

Both yellow and purple nutsedge occur in peanut fields. Know which nutsedge species is present; management practices vary for the two species.

Fields infested with yellow nutsedge should receive a preplant-incorporated or preemergence application of Pursuit, Frontier, Outlook, Strongarm, or Dual. Pursuit, Frontier, Outlook, or Dual may also be used as ground-cracking applications. Basagran may be applied postemergence when the yellow nutsedge is 6-8 inches tall. Apply 1.5-2.0 pt Basagran per acre. A second application of Basagran at same rate 7-10 days later may be required. The addition of 1 quart per acre of crop oil concentrate with Basagran will improve control. Either Cadre or Pursuit plus nonionic surfactant or crop oil concentrate may be applied for control of either yellow or purple nutsedge at the 1-4 inch stage.

Purple nutsedge is not controlled by Basagran, Frontier, Outlook, or Dual. Soil incorporated or preemergence treatments of Pursuit or Strongarm provide suppression of purple nutsedge.

## **Broadleaf Signalgrass and Texas Panicum**

These two annual grasses are becoming more widespread in Virginia's peanut production area. Because management programs vary for the two species, it is important to have accurate information concerning the species present.

A management program for broadleaf signalgrass should begin with a preplant-incorporated treatment of Prowl, Sonalan, Dual, Frontier, Outlook, or Lasso. The preplant-incorporated treatment should be followed by a preemergence or ground-cracking application of Lasso, Frontier, Outlook, or Dual. Broadleaf signalgrass which escapes soil treatments may be controlled with postemergence application of Poast, Poast Plus, or Select Max. Cracking stage application of Gramoxone Inteon, or Boa effectively controls seedling broadleaf signalgrass.

Texas panicum **is not effectively controlled by Dual, Frontier, Outlook, Lasso, or Pursuit**. Management should begin with a preplant-incorporated application of Prowl or Sonalan. Texas panicum may emerge from deeper in the soil than other annual grasses. As a result, Prowl or Sonalan should be incorporated to a depth of 3 inches (this is deeper than specified on Prowl label). Dual, Frontier, Outlook, or Lasso applied preemergence or at ground-cracking provides some suppression. Texas panicum which escapes soil treatments may be controlled with postemergence application of Poast, Poast Plus, or Select Max. Cracking stage application of Gramoxone Inteon, or Boa also effectively controls seedling Texas panicum.

## Recommended Herbicides for Weed Control in Peanuts

**Table 5.66 - Preplant Incorporated**

Weed problem	Chemical Rate Per Acre	Product Per Acre	Remarks
Crabgrass, goosegrass, fall panicum, johnsongrass, broadleaf signalgrass, Texas panicum, carpetweed lambsquarters, pigweed	Pendimethalin 0.75-1.0 lb	Prowl 3.3 EC 1.8-2.4 pt or Prowl H <sub>2</sub> O 1.6-2.1 pt	Incorporate into the top 1-2 inches within 7 days of application. Incorporate 3 inches deep for Texas panicum (note this is deeper incorporation than the label specifies). Use higher rate for broadleaf signalgrass, fall panicum, or Texas panicum. May be tank mixed with Dual, Pursuit, Frontier, Outlook, or Strongarm for control of mixed infestations of nutsedge and annual grasses.
Crabgrass, goosegrass, fall panicum, johnsongrass, broadleaf signalgrass, Texas panicum, carpetweed, lambsquarters, pigweed	Ethalfuralin 0.56-0.75 lb	Sonalan 3 HFP 1.5-2.0 pt	Incorporate 2-3 inches deep within 2 days of application (incorporation as soon as possible after application is preferred). For Texas panicum incorporate 3 inches deep. Use higher rate for fall panicum, Texas panicum, or broadleaf signalgrass. See label for application rates for particular soil. May be tank mixed with Dual, Pursuit, or Frontier, Outlook, or Strongarm for control of mixed infestations of nutsedge and annual grasses.
Crabgrass, fall panicum, goosegrass, broadleaf signalgrass, pigweed, yellow nutsedge	s-Metolachlor 0.95-1.27 lb	Dual Magnum 7.62 EC 1.0-1.33 pt or Dual II Magnum 7.64 EC 1.0-1.33 pt	Incorporate 2 inches deep within 14 days of planting. Will not control purple nutsedge or adequately control Texas panicum. A sequential application may be used with 1/2 rate applied PPI and 1/2 rate applied either preemergence or at cracking. May be tank mixed with Prowl or Sonalan to obtain control of broadleaf signalgrass and Texas panicum.
Broadleaf weeds and suppression of nutsedges	Diclosulam 0.024 lb	Strongarm 84 WDG 0.45 oz	Incorporate into the top 3 inches of the soil within 4 weeks of planting. When applied in tank mixture with other herbicides, follow incorporation directions for the tank-mix partner. May be tank mixed with Dual Magnum, Prowl, Sonalan, Pursuit, Outlook, or Frontier for improved control of annual grasses.
Crabgrass, fall panicum, goosegrass, broadleaf signalgrass, pigweed, carpetweed, yellow nutsedge	Dimethenamid 1.17-1.5 lb	Frontier 6 E 25.0-32.0 oz or Outlook 6 E 16.0 -21.0 oz	Incorporate 2 inches deep within 14 days of planting. May be applied in a split application with 1/2 to 2/3 the maximum rate applied PPI and 1/2 to 1/3 the maximum rate applied as a sequential application. Will not control purple nutsedge or adequately control Texas panicum. May be tank mixed with Prowl or Sonalan for improved broadleaf signalgrass and Texas panicum control.

**Table 5.66 - Preplant Incorporated (cont.)**

Weed problem	Chemical Rate Per Acre	Product Per Acre	Remarks
Spurred anoda, pigweeds, prickly sida, velvetleaf, yellow nutsedge, purple nutsedge	Imazethapyr 0.063 lb	Pursuit 70 DG 1.44 oz Pursuit 2 EC 4.0 oz	May be applied and uniformly incorporated 1-2 inches deep prior to planting or applied to soil surface after planting. A sequential application may be used with 1/2 rate applied PPI and one-half rate applied either at ground crack or early postemergence. Soil incorporated treatments may be tank mixed with Prowl, Sonalan, Lasso, Dual, dimethenamid, or Strongarm. Do not apply more than 1.44 oz 70 DG/A/season.

**Table 5.67 - Preemergence**

Weed problem	Chemical Rate Per Acre	Product Per Acre	Remarks
Yellow and purple nutsedge and many broadleaf weeds	Imazethapyr 0.063 lb	Pursuit 70 DG 1.44 oz Pursuit 2 EC 4.0 oz	Apply after planting, preferably before emergence of weeds. May be tank mixed with Lasso, Dual, dimethenamid, or Strongarm. Preemergence application of Pursuit has been less consistent in weed control than either soil incorporated or split (PPI + PRE) application.
Broadleaf weeds and the suppression of nutsedges	Diclosulam 0.124 lb	Strongarm 84 WDG 0.45 oz	Apply after planting but prior to crop or weed emergence. May be tank mixed with other herbicides registered for preemergence application.
Barnyardgrass, broadleaf signalgrass, crabgrass, fall panicum, goosegrass, pigweed, carpetweed	Alachlor 3.0-4.0 lb	Lasso 4 EC 3.0-4.0 qt or Lasso II 15 G 20.0-26.0 lb or Micro-Tech 4 ME 3.0 qt or Partner 65 WDG 4.5 lb	Apply to the soil surface before weeds or crop emerge. Good annual grass control except for Texas panicum.
Crabgrass, fall panicum, goosegrass, broadleaf signalgrass, pigweed, yellow nutsedge	s-Metolachlor 0.95-1.27 lb	Dual Magnum 7.62 EC 1.0-1.33 pt or Dual II Magnum 7.64 EC 1.0-1.33 pt or Dual II G Magnum 6.0-8.0 lb	Apply to soil surface before weeds or crop emerge. Good annual grass control except for Texas panicum. Do not use Dual II Magnum or Dual II G Magnum after peanuts have emerged.

**Table 5.67 - Preemergence (cont.)**

Weed problem	Chemical Rate Per Acre	Product Per Acre	Remarks
Crabgrass, fall panicum, goosegrass, broadleaf signalgrass, pigweed, yellow nutsedge	Dimethenamid 1.17-1.5 lb	Frontier 6 E 25.0-32.0 oz or Outlook 6 E 16.0-21.0 oz	Apply to soil surface before weeds or crop emerge. Good annual grass control except for Texas panicum.
Controls most annual grasses and broadleaf weeds in conventional and reduced tillage production systems. Control of temporary suppression of many weeds, including hemp dogbane, yellow nutsedge, and rhizome johnsongrass. Provides residual control of large crabgrass, goosegrass, fall panicum, foxtails, and the suppression of yellow nutsedge.	glyphosate 0.703-0.984 lb ae/A + s-Metachlor 0.938-1.31 lb ai/A	Sequence 2.5-3.5 pt	Apply to soil surface at planting, but before crop emerges. <b>Do not incorporate.</b> Crop injury has been observed, especially when heavy rainfall is received shortly after cotton emergence. Do not exceed 2.5 pt/A of Sequence on medium or fine textured soils. Do not apply to sands or loamy-sand soils. May be useful in no-till cotton and for suppression of yellow nutsedge. <b>Do not apply Sequence to cracking peanuts.</b>
Broadleaf weeds	Flumioxazin 0.063 oz	Valor SX 2.0 oz	Apply within 2 days following planting. Significant injury has been observed if applied 3 or more days after planting. Do not incorporate. Will not control nutsedge (purple or yellow) or sicklepod. Effective on ragweed, eclipta, and pigweed. Follow labeled sprayer cleanout instructions. Spray equipment used to apply Valor SX should not be used to apply other material to crop foliage. If heavy rain occurs at emergence, foliar injury from splashing Valor can occur. Peanut typically recovers by mid season.

**Table 5.68 - Ground Cracking**

Weed problem	Chemical Rate Per Acre	Product Per Acre	Remarks
Barnyardgrass, broadleaf signalgrass, crabgrass, fall panicum, goosegrass, pigweed, carpetweed	Alachlor 2.0-3.0 lb	Lasso 4 EC 2.0-3.0 qt or Micro-Tech 4 ME 3.0 qt or Partner 65 WDG 4.5 lb	Good annual grass control except Texas panicum, use as a supplement to preplant- incorporated or preemergence treatments to provide additional residual control of annual grasses and small-seeded broadleaf weeds. Will not control emerged weeds.
Small annual grasses and broadleaf weeds	Paraquat 0.125 lb	Gramoxone Inteon 8 fl oz	Effective only on small emerged weeds (less than 1-inch tall). Does not provide residual control. Add 1.0 pt of nonionic surfactant/ 100 gal spray solution. Will cause foliar burn on emerged peanuts, but crop recovers and yield is not affected. May be tank mixed with Basagran or 2,4-DB to broaden the spectrum of broadleaf weeds controlled. May be tank mixed with Dual, Frontier, Outlook, or Pursuit to obtain residual weed control. Do not apply with Dual II Magnum after peanuts have emerged. Do not apply later than 28 days after ground cracking.
Small annual grasses and broadleaf weeds	Paraquat 0.125 lb + 2,4-DB 0.125-0.25 lb	Gramoxone Inteon 8.0 fl oz + Butyrac 2 SC 0.5-1.0 pt or Butoxone 1.75 SC 0.5-1.0 pt	See comments for paraquat alone. Adding 2,4-DB improves morningglory and cocklebur control. Do not apply later than 28 days after ground cracking. Add 1.0 pt of nonionic surfactant/100 gal spray solution.
Small annual grasses and broadleaf weeds	Paraquat 0.125 lb + Bentazon 0.5 lb	Gramoxone Inteon 8.0 fl oz or Boa 2.5 SC 6.6 fl oz + Basagran 4 SC 1.0 pt	See comments for paraquat alone. Adding Basagran improves control of prickly sida, common ragweed, common lambsquarters, smartweed, spurred anoda, and cocklebur, and reduces peanut injury. Do not apply later than 28 days after cracking. Add 1.0 pt of nonionic surfactant/100 gal of spray solution.

**Table 5.69 - Postemergence**

Weed problem	Chemical Rate Per Acre	Product Per Acre	Remarks
Mainly cocklebur, annual morningglory (except pitted morningglory), sicklepod	2,4-DB 0.2-0.25 lb	Butoxone 1.75 SC 0.9-1.1 pt or Butyrac 2 SC 0.8-1.0 pt	Use when weeds are in the seedling stage and actively growing. Apply with 10-30 gpa spray volume and 20-40 psi spray pressure. Cocklebur and morningglory are most susceptible. Ragweed, lambs quarters, jimsonweed, pig-weed, and teaweed (prickly sida) are rather tolerant and may only be suppressed. The higher rate should be used if the difficult-to-control species are present. Do not graze or feed treated forage to livestock. May be applied from 2 weeks after planting to within 45 days of harvest. Avoid drift to other crops.
Broad-spectrum broadleaf weed control	Bentazon 0.5 lb + Acifluofen 0.25 lb	Storm 4 EC 1.5 pt (premix)	Apply to small, actively growing weeds with a minimum of 20 gpa spray volume and 40 psi. Apply with 1-2 pt/A crop oil concentrate or 1.0 pt of non-ionic surfactant/100 gal spray solution. See label and Table 5 for weeds controlled. May be tank mixed with 0.5-1.0 pt/A 2,4-DB for improved control of certain broadleaf weeds.
Same as for bentazon alone; however, the addition of acifluofen improves control of pig-weeds, morningglories and common ragweed.	Bentazon 0.75-1.0 lb + Acifluofen 0.25-0.5 lb	Basagran 4 SC 1.5-2.0 pt + Ultra Blazer 2 L 1.0-2.0 pt (tank mix)	Apply to small actively growing weeds. Use spray pressures of 40-60 psi. Do not use large-orifice nozzles. Ultra Blazer may be included up to 2.0 pt/A. Apply with 1.0 pt nonionic surfactant/100 gal spray solution or a crop oil concentrate at 1.0-2.0 pt/A. Increased leaf burn and weed control is usually observed with use of crop oil and higher rates of Ultra Blazer. Do not apply within 75 days of harvest.
Cocklebur, jimsonweed, smartweed, prickly sida (teaweed), spurred anoda, wild mustard, yellow nutsedge	Bentazon 0.5-1.0 lb	Basagran 4 SC 1.0-2.0 pt	Apply when broadleaf weeds are small and actively growing. Apply with 1.0-2.0 pt/A crop oil concentrate. Peanuts are tolerant at any growth stage. Use minimum of 20 gpa spray volume at 40-50 psi. Split applications 7-10 days apart, applying 1.5-2.0 pt each usually improves nutsedge control. Addition of 2,4-DB improves control of morningglory and spurred anoda. Do not apply more than 4.0 pt/A/season.
Same as for bentazon alone; however, the addition of 2,4-DB improves control of morningglory and spurred anoda.	Bentazon 0.75-1.0 lb + 2,4-DB 0.12 lb	Basagran 4 SC 1.0-2.0 pt + Butyrac 2 SC 8 fl oz or Butoxone 1.75 SC 9 fl oz	Apply in a minimum of 20 gpa spray volume and 40 psi. Apply to actively growing or small weeds. Avoid drift to other crops. <b>Label directions prohibit addition of oil concentrate or other additives.</b> Do not apply within 45 days of harvest or make more than two applications/year.

**Table 5.69 - Postemergence (cont.)**

Weed problem	Chemical Rate Per Acre	Product Per Acre	Remarks
Cocklebur, eastern black nightshade, ragweed, eclipta, jimsonweed, morningglory, and pigweed.	Lactofen 0.2 lb	Cobra 2 EC 12.5 fl oz	Apply to actively growing weeds after peanut reaches the 6 true-leaf stage. Do not apply sequential application with 14 days of the first. Good coverage by spray solution is important. Use a minimum of 25-40 gpa and spray pressure of 40-60 psi. Add nonionic surfactant at 1 qt/100 gal of petroleum or vegetable based crop oil concentrate at 1-1.5 pt/A. See label for adjuvant use. Do not apply within 90 days of harvest. May be tank mixed with Butyrac or Butoxone to enhance spectrum of weeds controlled. In tank mixes, use nonionic surfactants, not crop oil.
Common ragweed, jimsonweed, morningglory, pigweed, carpetweed, purslane, cocklebur, tropic croton, lambsquarters, black nightshade, smartweed, spotted and prostrate spurge, wild mustard	Acifluorfen 0.25-0.5 lb	Ultra Blazer 2 L 1.0-2.0 pt	Apply when broadleaf weeds are small and actively growing. Refer to label for proper growth stage of weed. Good coverage by spray solution is important. Follow label directions concerning best application procedures and rates for different weed sizes to be controlled. Use a minimum of 25-40 gpa, and spray pressure of 40-60 psi. Do not use flood tips. Add 2.0 pt/A crop oil concentrate or 1.0 pt nonionic surfactant/100 gal of spray solution. Do not apply more than 2.0 pt/A of Ultra Blazer postemergence/season. May be tank mixed with Butyrac or Butoxone to enhance spectrum of weeds controlled. May be applied at 1 pt/A for control of pitted morningglory, jimsonweed, tropic croton, and common ragweed 2 inches tall or less. Do not apply within 75 days of harvest.
Morningglories, pigweeds, velvetleaf, yellow nutsedge, purple nutsedge	Imazethapyr 0.063 lb	Pursuit 70 DG 1.44 oz or Pursuit 2EC 0.4 oz	Apply from ground crack to early postemergence when weeds are actively growing and are less than 3 inches tall. Certain weeds such as common lambsquarters, prickly sida, and velvetleaf should be treated when 2 inches or less. Apply with a nonionic surfactant (1.0 qt/100 gal spray volume) or Dash (1.0 qt/A). Do not apply more than 0.063 lb ai/A/season. Do not apply within 85 days of harvest.

**Table 5.69 - Postemergence (cont.)**

Weed problem	Chemical Rate Per Acre	Product Per Acre	Remarks
Spurred anoda, morning-glories, pigweeds, velvetleaf, yellow and purple nutsedge, sicklepod	Imazapic 0.063	Cadre 70 DG 1.44 oz	Apply when broadleaf weeds are actively growing and are less than 3 inches tall. Certain weeds such as common lambsquarters, prickly sida, velvetleaf, and spurred anoda should be treated when 2 inches tall or less. Apply with 1.0 qt/A crop oil concentrate or 1.0 qt nonionic surfactant/100 gal spray solution. Apply as a sequential treatment following application of a soil-applied grass control herbicide.
Annual grasses	Sethoxydim 0.19 lb	Poast 1.5 EC 1.0 pt or Poast Plus 1 EC 1.5 pt	Apply to actively growing grasses. See label and Table 3 for maximum grass size to treat. In general, annual grasses should be 2-4 inches for best results. Do not apply within 40 days of harvest. See labels for tank-mix instructions. See Table 5.82 for adjuvant recommendations.
	Clethodim 0.094-0.125 lb	Select 2 EC 6.0-8.0 oz or Select Max 0.97 EC 12.0-16.0 oz	
Bermudagrass	Clethodim 0.125-0.25 lb	Select 2 EC 8.0-16.0 oz or Select Max 0.97 EC 16.0-32.0 oz	Apply to actively growing bermudagrass when stolons (runners) are 3 to 6 inches in length. If needed, a second application of 8.0 to 16.0 oz/A may be applied for control of regrowth when stolons are 3 to 6 inches in length.
	+		
	Crop-oil concentrate	COC 2.0 pt	
	Sethoxydim 0.28 lb	Poast 1.5 EC 1.5 pt or Poast Plus 1.0 EC 2.25 pt	Apply to actively growing bermudagrass before plant stolon (runner) length exceeds 6 inches. A second application of 1.0 pt/A Poast or 1.5 pt/A Poast Plus is usually necessary for good control. Make the second application when stolon regrowth is 1-4 inches in length. See Table 5.82 for adjuvant recommendations.
Rhizome Johnsongrass	Clethodim 0.125-0.25 lb	Select 2 EC 8.0-16.0 oz or Select 0.97 Max EC 16.0-32.0 oz	Apply to actively growing johnsongrass when 12 to 24 inches tall. If needed, a second application of 6.0 to 8.0 oz/A may be applied for control of regrowth when plants are 6 to 18 inches tall. See Table 5.82 for adjuvant recommendations.
	Sethoxydim 0.28 lb	Poast 1.5 EC 1.5 pt or Poast Plus 1 EC 2.25 pt or Select 0.97 EC 16.0-32.0 oz	

**Table 5.69 - Postemergence (cont.)**

<b>Weed problem</b>	<b>Chemical Rate Per Acre</b>	<b>Product Per Acre</b>	<b>Remarks</b>
Extended late-season residual grass control	s-Metolachlor 0.95-1.27 lb	Dual Magnum 7.62 EC 1.0-1.33 pt	Apply over the top of peanuts for control of late-season grasses in years when excessive rains may have reduced the residual control of early-season applications. Will not control emerged grasses. Do not apply within 90 days of harvest. Do not apply more than the equivalent of 2.67 lb ai/A s-metolachlor during any one year. Dual II G Magnum and Dual II Magnum are not registered for this method of application in peanuts.
Extended late-season residual grass control	Dimethenamid 1.17-1.5 lb	Frontier 6 E 25.0-32.0 oz or Outlook 6 E 16.0-21.0 oz	Apply over the top of peanuts for control of late-season grasses in years when excessive rains may have reduced residual control of early-season applications. Will not control emerged grasses. Do not apply within 80 days of harvest or more than 32 oz/A per season.

**Table 5.70 - Weed Species Response to Soil-applied Herbicides for Peanuts<sup>1</sup>**

	Sonalan	Prowl PPI <sup>2</sup>	Lasso PPI <sup>2</sup>	Dual PPI/PRE <sup>2</sup>	Frontier/Outlook PPI/PRE <sup>2</sup>	Strongarm PPI/PRE <sup>2</sup>	Pursuit PPI <sup>2</sup>	Pursuit PRE <sup>2</sup>	Sequence PRE <sup>2</sup>	Valor PRE <sup>2</sup>
Texas panicum	G-E	G-E	P	P	P-F	P	P-F	P-F	P	PF
Barnyardgrass	G-E	G-E	E	G	G	P	G	G	F-G	PF
Crabgrass	E	E	E	E	E	P	F	P-F	F-G	PF
Goosegrass	E	E	E	E	E	P	P	P	F-G	F
Fall panicum	G-E	G-E	G	G	G-E	P	P-F	P-F	F-G	PF
Signalgrass, broadleaf	G-E	G	G	G	G	P	G	G	P-F	P
Foxtails	E	E	E	G	G	P	F-G	F-G	F-G	PF
Nutsedge, yellow	N	N	F	G	F-G	F-G	F-G	F-G	P-F	P
Nutsedge, purple	N	N	P	P	P	F-G	F-G	P	P-F	P
Cocklebur	N	N	P	P	P	G	G	G	N	PF
Jimsonweed	P	P	P	P	P	G-E	G	G	N	G
Lambsquarters, common	G	G	F	F	P	F-G	G	F-G	P	GE
Morningglory	P	P	P	P	P	G	F-G	F-G	N	GE
Pigweed, common	G	G	E	G-E	G-E	G	E	E	F-G	E
Prickly sida (teaweed)	P	P	P	P	P-F	F-G	G	G	N	FG
Ragweed	P	P	P	P	P-F	G-E	P	P	P	GE
Smartweed	P	P	P	P	P-F	G	G	G	P	-
Eclipta	P	P	P	P	P	G	P	P	G	G
Carpetweed	G	G	F-G	F	F-G	G	F-G	F-G	E	F
Sicklepod	P	P	P	P	P	P	P	P	N	P
Spurred anoda (cottonweed)	P	P	P	P	P	F-G	G	G	G	F
Velvetleaf	P	P	P	P	P	G-E	F-G	F-G	P	F
Tropic croton	P	P	P	P	P	F	P	P	F	-

<sup>1</sup>Control capabilities:

E = Excellent control, 90% or better G = Good control, 80%-90% F = Fair control, 60%-80%

N = None, less than 20% P = Poor control, 20%-60%

<sup>2</sup>Application method:

PPI = Preplant soil incorporated PRE = Preemergence

**Table 5.71 - Weed Species Response to Postemergence Herbicides for Peanuts**

	Pursuit AC/EPOE	Paraquat AC <sup>2</sup>	2,4-DB POE	Paraquat + 2,4-DB AC	Paraquat + Basagran AC	Basagran <sup>3</sup> POE	Blazer POE	Cadre <sup>6</sup> POE	Storm <sup>4,5</sup> POE	Select Max or Poast POE	Cobra POE
Texas panicum	P-F	E	N	G-E	F	N	P	G-E	N	E	N
Barnyardgrass	G	G	P	G	P-F	N	P	G-E	N	E	N
Crabgrass	P-F	G	P	G	P-F	N	P	G-E	N	E	N
Goosegrass	P	E	P	G-E	P-F	N	P	G-E	N	E	N
Fall panicum	P-F	E	P	F-G	P-F	N	P	G-E	N	G	N
Signalgrass, broadleaf	G	E	P	G-E	P-F	N	P	G-E	N	E	N
Foxtails	G	E	P	G-E	P-F	N	P	G-E	N	E	N
Nutsedge, yellow	F-G	P-F	P	F	F-G	G	P	G-E	F	N	N
Nutsedge, purple	F-G	P	N	N	N	N	N	G-E	N	N	N
Cocklebur	G	E	E	E	E	E	G	G-E	E	N	G
Jimsonweed	G	E	F	G	E	E	E	F-G	E	N	E
Lambsquarters, common	P	F	G	F-G	F-G	G	G	P-F	G	N	P
Morningglory	F-G	F	E	G-F	F	F-G	G-E	G-E	G	N	G
Pigweed, common	E	E	G	G	G	P-F	E	E	G	N	E
Prickly sida (teaweed)	P	P-F	F	P	G	G	P	G	F-G	N	G
Ragweed, common	P	F	F-G	F	G	F-G	G	P-F	G	N	E
Smartweed	G	G	F	G	G	E	G	F-G	E	N	F
Eclipta	P	F-G	P	P	F	P	G	F	G-E	N	G
Carpetweed	F-G	F-G	F	F-G	P	P	G	G	G	N	G
Sicklepod	P	G <sup>7</sup>	G <sup>7</sup>	G <sup>7</sup>	G <sup>7</sup>	N	P	E	P	N	P
Spurred anoda (cottonweed)	F-G	P	P	P	G	G	P	G	F	N	F
Velvetleaf	F-G	F	P	F	G	G	P-F	G-E	F-G	N	G
Tropic croton	P	F	P-F	F	F	P	G-E	P	G-E	N	G

<sup>1</sup>Response expressed as activity on emerged seedlings in early stages of development at relatively low rates.

Control is erratic or poor on weeds if they are larger.

E = Excellent control, 90% or better G = Good control, 80%-90% F = Fair control, 60%-80%

N = Essentially no control, less than 20% P = Poor control, 20%-60%

Stage: PPI = Preplant soil incorporated POE = Postemergence PRE = Preemergence AC = At cracking

<sup>2</sup>Control of emerged weeds only, 1 inch tall or smaller.

<sup>3</sup>Assumes optimum conditions and addition of crop oil concentrate.

<sup>4</sup>Rating assumes optimum rates and ratios of Basagran and Ultra Blazer; see labels.

<sup>5</sup>Rating assumes weeds 2 inches tall or smaller.

<sup>6</sup>Cadre provides G-E control of emerged annual grasses which escape soil applied grass control herbicides.

<sup>7</sup>Rating assumes sequential application of 2,4-DB 10-14 days after initial treatment

**Table 5.72 - Recommended Weed Sizes for Treatment and Application Rates for Control of Annual Grasses with Poast, Poast Plus, and Select**

Species	Application Rates and Annual Grass Size							
	Poast <sup>1</sup>		Poast Plus <sup>1</sup>		Select <sup>1</sup>		Select Max <sup>1</sup>	
	Height (in)	Rate (oz/A)	Height (in)	Rate (oz/A)	Height (in)	Rate (oz/A)	Height (in)	Rate (oz/A)
Broadleaf signalgrass	8	16	8	24	2-6	6-8	2-6	12-16
Crabgrass	6	16	6	24	2-6	6-8	2-6	12-16
Fall panicum	8	16	8	24	2-8	6-8	2-8	12-16
Giant foxtail	8	16	8	24	2-12	6-8	2-12	12-16
Green foxtail	8	16	8	24	2-8	6-8	2-8	12-16
Yellow foxtail	8	16	8	24	2-8	6-8	2-8	12-16
Goosegrass	6	16	6	24	2-6	6-8	2-6	12-16
Seedling johnsongrass	8	16	8	24	4-10	6-8	4-10	12-16
Texas panicum	8	16	8	24	2-6	6-8	2-6	12-16
Volunteer corn	20	16	20	24	4-12 12-24	4-6 6-8	4-12 12-24	8-12 12-16

<sup>1</sup> See Table 5.82 for adjuvant recommendations.

**Table 5.73 - Plant Size And Application Rates for Control of Perennial Grasses with Poast, Poast Plus, and Select**

Application	Herbicide	Application Rate	Plant Size
<i>Bermudagrass</i>			
First application	Poast	1.5 pt/A <sup>1</sup>	stolons (runners) 6 inches or less
	Poast Plus	2.25 pt/A <sup>1</sup>	stolons (runners) 6 inches or less
	Select	8-16 oz/A <sup>1</sup>	stolons (runners) 3-6 inches
	Select Max	16-32 oz/A <sup>1</sup>	
Second application	Poast	1.0 pt/A <sup>1</sup>	stolons (runners) 1-4 inches
	Poast Plus	1.5 pt/A <sup>1</sup>	stolons (runners) 1-4 inches
	Select	8-16 oz/A <sup>1</sup>	stolons (runners) 3-6 inches
	Select Max	16-32 oz/A <sup>1</sup>	
<i>Johnsongrass</i>			
First application	Poast	1.5 pt/A <sup>1</sup>	plants 15-25 inches tall
	Poast Plus	2.25 pt/A <sup>1</sup>	plants 15-25 inches tall
	Select	8-16 oz/A	plants 12-24 inches tall
	Select Max	16-32 oz/A <sup>1</sup>	
Second application	Poast	1.0 pt/A <sup>1</sup>	plant/regrowth 6-12 inches tall
	Poast Plus	1.5 pt/A <sup>1</sup>	plant/regrowth 6-12 inches tall
	Select	6-8 oz/A <sup>1</sup>	plant/regrowth 6-18 inches tall
	Select Max	12-16 oz/A <sup>1</sup>	

<sup>1</sup> See Table 5.82 for adjuvant recommendations.

**Table 5.74 - Recommended Weed Sizes for Treatment and Application Rates for Control of Annual Broadleaf Weeds with Basagran, Blazer, and Storm**

Species	1.0 pt/A Basagran		1.5 pt/A Basagran		2.0 pt/A Basagran		1.5 pt/A Storm	
	Max. Leaf Number	Max. Ht. (inches)	Max. Leaf Number	Max. Ht. (inches)	Max. Leaf Number	Max. Ht. (inches)	Max. Leaf number	Max. Ht. (inches)
Prickly sida	—	— <sup>1</sup>	6	3	6-8	4	4	2
Common ragweed	—	—	—	—	4-6 <sup>2</sup>	3 <sup>2</sup>	4-6	3
Cocklebur	2-4	4	2-6	6	6-10	10	2-6	6
Morningglory								
Pitted	—	—	4 <sup>3</sup>	4 <sup>3</sup>	SUD <sup>3</sup>	SUD <sup>3</sup>	4	4
Others	—	—	4 <sup>3</sup>	4 <sup>3</sup>	SUD <sup>3</sup>	SUD <sup>3</sup>	4	4
Smartweed	4 <sup>8</sup>	4 <sup>8</sup>	6	6	6-10	10	6	6
Jimsonweed	4	4	6	6	6-10	10	6	6
Pigweed	—	—	—	—	—	—	—	—
Lambsquarters	—	—	6 <sup>4</sup>	1.5 <sup>4</sup>	4-8 <sup>4</sup>	2 <sup>4</sup>	4-6	2
Tropic croton	—	—	2	2	2-4	4	6 <sup>10</sup>	6 <sup>10</sup>
Spurred anoda	—	—	6	3	6-8	4	4 <sup>9</sup>	2 <sup>9</sup>
Velvetleaf	—	—	4 <sup>1</sup>	2 <sup>1</sup>	4-6	5	4 <sup>9</sup>	2 <sup>9</sup>
Eclipta	—	—	—	—	—	—	— <sup>11</sup>	— <sup>11</sup>
Species	1.0 pt/A Ultra Blazer <sup>5</sup>		1.5 pt/A Ultra Blazer <sup>5</sup>		2.0 pt/A Ultra Blazer <sup>5</sup>		12.5 fl oz Cobra <sup>12</sup>	
	Max. Leaf Number	Max. Ht. (inches)	Max. Leaf Number	Max. Ht. (inches)	Max. Leaf Number	Max. Ht. (inches)	Max. Leaf Number	
Prickly sida	—	—	—	—	—	—	4	
Common ragweed	2	< 2	4	4	6	3	8	
Cocklebur	—	—	—	—	2-4	2-4	6	
Morningglory								
Pitted	2	< 2	4	2	4	2	4	
Others	—	—	—	—	3	2	4 <sup>2</sup>	
Smartweed	—	—	—	—	4	4	—	
Jimsonweed	3	3	6	6	8	8	4	
Pigweed	—	—	4	2	6	3	6	
Lambsquarters	—	—	—	—	3 <sup>6</sup>	1 <sup>6</sup>	—	
Tropic croton	2	< 2	2	2	2	2	4	
Spurred anoda	—	—	—	—	—	—	—	
Velvetleaf	—	—	—	—	—	—	—	
Eclipta	— <sup>7</sup>	— <sup>7</sup>	— <sup>7</sup>	— <sup>7</sup>	— <sup>7</sup>	— <sup>7</sup>	6	

<sup>1</sup>Control not claimed on label.

<sup>2</sup>Add crop oil concentrate according to label directions.

<sup>3</sup>See label for Special Use Directions. Label claims control only with two applications.

<sup>4</sup>Control of this species not claimed on peanut label but is claimed on soybean label. Add 2.0 pt of crop oil concentrate/A.

<sup>5</sup>Add 1.0 pt of nonionic surfactant/100 gal of spray solution.

<sup>6</sup>Add 1.0 pt of nonionic surfactant/100 gal of spray solution.

<sup>7</sup>Control not claimed on label. Experience indicates that 2.0 pt/A plus surfactant will suppress 1-2 inch Eclipta.

<sup>8</sup>Follow with second application of 1.0 pt/A, 7-14 days later if needed.

<sup>9</sup>Control may be inconsistent with this rate of Storm.

<sup>10</sup>Control not claimed on label, field experience indicates that Storm is very effective on tropic croton under 4 inches in height.

<sup>11</sup>Control not claimed on label, field experience indicates that Storm is effective on eclipta under 2 inches in height.

<sup>12</sup>Add crop oil concentrate or nonionic surfactant according to label directions.

**Table 5.75 - Restrictions on Feeding Herbicide-treated Peanut Vines to Livestock and Preharvest Intervals (PHI) for Peanut Herbicides**

Herbicide	PHI	Do not feed treated vines to livestock	No feeding restrictions on label
Basagran	through pegging		X
Blazer	75 days	X	
Boa	28 days after GC <sup>1</sup>		X
Cadre	90 days	X	
Cobra	90 days	X	
Dual	90 days		X
Frontier/Outlook	80 days	within 80 days of treatment	X
Gramoxone Inteon/Boa	28 days after GC <sup>1</sup>		X
Lasso	GC		X
Poast/Poast Plus	40 days	X	X
Prowl	preplanting		X
Pursuit	85 days	X	
Select Max	40 days	X	
Sonalan	preplanting	X	
Strongarm	30 days	X	
Storm	75 days	X	
Valor			X
2,4-DB	45 days		
(Butyrac, Butoxone)	45 days	X	

<sup>1</sup>GC = ground cracking

**Table 5.76 - Suggested Rain-free Periods after Applications of Postemergence Herbicides and Tank Mixes**

Herbicide or tank mix	Rain-free period (hours)
2,4-DB	NR1
Basagran	NR2
Blazer	NR2
Cadre	3
Cobra	0.5
Gramoxone Inteon/Boa	0.5
Poast/Poast Plus	1
Pursuit	1
Select Max	1
Storm	NR2

NR1 = No restrictions on label. Suggest at least 1 hour for best results.

NR2 = No restrictions on label. Suggest 4-6 hours for best results.

**Table 5.77 - Adjuvant Recommendations for Postemergence Herbicides**

Herbicide	Application Method	Adjuvant recommendations
Basagran	Ground	2.0 pt/A crop oil concentrate when treating lambsquarters, common ragweed, hemp sesbania, or yellow nutsedge. Vegetable oils may be used. Use 1.0 gal/A of 30 % nitrogen instead of crop oil concentrate if velvetleaf is the primary target weed.
	Air	1.0 pt/A crop oil concentrate when treating lambsquarters, common ragweed, hemp sesbania, or yellow nutsedge. Vegetable oils may be used. Do not use 30 % nitrogen with aerial applications.
Ultra Blazer	Ground or Air	Use 0.125 percent nonionic surfactant for most weeds. For lambsquarters, hemp sesbania, or cowpea, use 0.25 percent nonionic surfactant or 0.5 to 1.0 gal/A of 30 % nitrogen.
Cadre	Ground only	Use 0.25 percent nonionic surfactant or 2 pt/A crop oil concentrate.
Select	Ground	Always use a crop oil concentrate containing at least 15% emulsifier at 2.0 pt/A in the finished spray volume.
Select Max	Ground	0.25% non ionic surfactant, 1% crop oil concentrate, or 1% methylated seed oil.
Gramoxone Inteon/Boa	Ground	Use 0.125 percent nonionic surfactant in cracking stage sprays.
Poast	Ground or Air	2.0 pt/A crop oil concentrate. Vegetable oils may be used.
Poast Plus		2.0 pt/A Dash.
Pursuit	Ground	Use a petroleum or vegetable seed based oil concentrate at a rate of 1.5 to 2.0 pt/A <u>or</u> a nonionic surfactant containing at least 80% active ingredient at 1 qt/100 gallons of spray mixture.
Storm	Ground or Air	1.0 pt/A crop oil concentrate. Vegetable oils may be used.
Cobra	Ground only	Add nonionic surfactant at 1 qt/100 gal or petroleum or vegetable based crop oil concentrate at 1-1.5 pt/A. (See label for specifics.)

Note: Information in this table was taken from product labels. See the labels. See the labels for adjuvant recommendations with specific tank mixes.

Adjuvant rates given in percentages are on a volume/volume basis:

- 0.125 percent - 1 pint per 100 gallons of spray solution
- 0.25 percent - 1 quart per 100 gallons of spray solution
- 0.50 percent - 2 quarts per 100 gallons of spray solution
- 1.00 percent - 4 quarts per 100 gallons of spray solution

**Table 5.78 - Rotational Restrictions for Peanut Herbicides**

	Rotational Crop							
	Corn	Cotton	Soybeans	Barley	Winter Rye	Wheat	Sorghum	Tobacco
Basagran	NS	NS	NS	NS	NS	NS	NS	NS
Ultra Blazer	AH	AH	NR	AH	AH	AH	AH	AH
Cadre	9M	18M	9M	18M	4M	4M	18M	9M
Cobra	NR	NR	NR	NR	NR	NR	NR	NR
Dual (PRE, PPI, Cracking)	NR	NR	NR	4.5M	4.5M	4 5M	NR	FY
Dual (layby)	FY	FY	FY	FY	FY	FY	FY	FY
Frontier/Outlook	NR	FY	NR	4M	4M	4M	FY	FY
Lasso	NR	NR	NR	NR	NR	NR	NR	NR
Poast	NR	NR	NR	NR	NR	NR	NR	NR
Poast Plus	NR	NR	NR	NR	NR	NR	NR	NR
Prowl	FY	NR	NR	4M	FY	4M	FY	NR
Pursuit	NR/8.5M <sup>1</sup>	9.5M/18M <sup>2</sup>	NR	9.5M	4M	4M	18M	9.5M
Select	NR	NR	NR	NR	NR	NR	NR	NR
Sonalan	FY	FY	NR	AH	AH	AH	FY	FY
Strongarm	18M/10M <sup>3</sup>	10M	NR	4M	6M	4M	18M	18M
Storm	AH	AH	NR	AH	AH	AH	AH	AH
Tough	NR	FY	FY	FY	FY	FY	FY	FY
Valor	4M <sup>4</sup>	1M	NR	4M	4M	1M	1M	1M
2,4-DB	NS	NS	NS	NS	NS	NS	NS	NS

The above table provides a general summary of crop rotation restrictions specified in the labels of herbicide products commonly used for peanuts. Consult product labels for details and specific information.

KEY: M = Month; FY = Following Year; NR = No Restrictions; AH = After Harvest; NS = Crop rotation sequences not specified in label directions

<sup>1</sup> With IMI-Corn (resistant/tolerant varieties) = NR, with Non IMI-Corn = 8.5M.

<sup>2</sup> For sandy loam to loamy sand soils with 16 inches of rainfall or irrigation occurring from application through October, 9.5M; (refer to supplemental label of Virginia/North Carolina) otherwise, 18M.

<sup>3</sup> With IMI corn (resistant/tolerant varieties) = 10M, with Non IMI corn = 18M.

<sup>4</sup> 1M restriction for sweet corn, 4M for field corn

