

Mid- to late-season weed control options for peanut

Emi Kimura, State Extension Peanut Specialist, Vernon, TX
Josh McGinty, Extension Agronomist at Corpus Christi, TX
James Grichar, Senior Research Scientist at Yoakum, TX
Pete Dotray, Weed Scientist at Lubbock, TX

Weed pressure seems higher this season due to better than average soil moisture. Herbicides applied preplant and at planting have been effective, but new weed flushes following rainfall or irrigation are likely as soil applied herbicides are dissipating. Herbicides applied at early-postemergence that do not have soil activity are also prone to allow new weed flushes. In other words, good early season weed control may need some attention because previously applied herbicides have dissipated over time. So what options do we have from now to early peg stage?

There has been some good discussion about herbicides applied to peanuts in bloom to early peg and the potential for increased injury. We have looked at this timing issue with several herbicides, including **imazapic** (e.g., Cadre and other generics), **imazethapyr** (e.g., Pursuit and other generics), **acifluorfen** (e.g., Ultra Blazer and other generics), **2,4-DB** (e.g., Butyrac and other generics), and **lactofen** (e.g., Cobra and other generics), and have not seen a problem when these herbicides are applied at that time during the growing season. Pay attention to the preharvest interval (PHI) restriction (Table 1). Descriptions of these herbicides were discussed in the [May article](#).

Table 1. Preharvest intervals

Herbicide product name	Preharvest Interval (PHI)
Cadre	90 days
Pursuit	85 days
Ultra Blazer	75 days
2,4-DB	60 days
Basagran	50 days for grazing
Cobra	45 days

The only herbicide that was not discussed in the May article was **2,4-DB**. Note that **2,4-DB** is different from **2,4-D**, which is not labeled for use in peanut. **2,4-D** may cause plant death and yield loss, which is dependent on rate and stage of growth at application.

2,4-DB (e.g., Butyrac 175, Butyrac 200, and other generics) may be used in peanut at various rates (13 to 28 oz/ac) depending on the formulation. Applications should be made between 2 to 12 weeks after planting. Do not apply to peanuts suffering from lack of moisture. The second application should not be made later than the late bloom stage of peanut and do not apply later than 100 days after planting or within 60 days of harvest. **2,4-DB** has good activity on several annual broadleaf weeds including morningglory, smellmelon, and sunflower. This herbicide is also a good option on silverleaf nightshade (whiteweed). The use of crop oil with **2,4-DB** will increase herbicide activity; however, crop oil will enhance phenoxy-type injury (Figure 1) to peanut and cause plants to 'lay-down' for 24 to 48 hours. Plants will recover quickly and research suggests this injury will not result in yield losses at the end of the season (Table 2).



Figure 1. 2,4-DB leaf strapping (Source: Prostko et al. 1999).

Table 2. The influence of 2,4-DB on the yield and pod size of Georgia-06G grown under weed free conditions in 2015

Time of Application (DAP) ²	Peanut Yield (lbs/A)	Peanut Pod Size (grams/100 pods)
NTC ³	5993	208
31	5916	214
63	6051	214
93	6054	220
123	5891	201
31 + 63	5934	211
31 + 93	5611	193
31 + 123	6062	196
63 + 93	5883	202
63 + 123	5996	219
93 + 123	5357	194
31 + 63 + 93	5879	211
P-value	0.7391	0.3120
CV	8.49	8.23

¹2,4-DB 1.75SL @ 24 oz/A + COC @ 1% v/v.

²DAP = days after planting.

³NTC = non-treated check.

Table 2 source: Dr. Eric P. Prostko, University of Georgia, 2015. Rate and application timings used in this study were exaggerated with the intent to causing injury and not recommended timings.

2,4-DB may be tank mixed with other herbicides to broaden the spectrum of weed control. The dominant issue with using 2,4-DB in Texas is cotton injury. Adjacent cotton fields planted with Xtendflex, LibertyLink, Glytol, and conventional cultivars are exceedingly susceptible to 2,4-DB drift. Effective tank clean-out procedures are very important when the same equipment is used in both peanut and cotton production. It is best to have a separate spray system when 2,4-DB is used.

Other resources:

Peanut herbicide injury symptomology guide:

http://publications.tamu.edu/PEANUTS/PUB_peanuts_Peanut%20Herbicide%20Injury%20Symptomology%20Guide.pdf

Texas Peanut Variety website at <http://varietytesting.tamu.edu/peanuts/>



Texas Peanut Variety website at <http://varietytesting.tamu.edu/peanuts/>