PEANUT: PEANUT INSECT CONTROL

Mark R. Abney, Research and Extension Entomologist

PEST	INSECTICIDE	MOA	AMOUNT OF FORMUALTION PER ACRE	LB ACTIVE INGREDIENT PER ACRE	REI/PHI (Hours or Days)	REMARKS
Beet Armyworm[1]	*chlorantraniliprole* Prevathon	28	14-20 fl oz	0.047-0.067	4 H/ 1 D	Do not apply more than 0.2 lb ai of chlorantraniliprole/A/ year.
	diflubenzuron Dimilin 2L	15	4-8 fl oz	0.06-0.125	12 H/ 28 D	Do not make more than 3 applications/season.
	indoxacarb Steward 1.25EC	22	9.2-11.3 fl oz	0.09-0.11	12 H/ 14 D	Do not apply more than 45 fl oz/A/season. Minimum interval between treatments is 5 days.
	methoxyfenozide Intrepid 2F	18	6-10 fl oz	0.09-0.16	4 H/ 7 D	
	novaluron Diamond 0.83 EC	15	6-12 fl oz	0.039-0.077	12 H/ 28 D	Do not apply more than 36 fl oz/A/season. Do not feed treated peanut hay or vines to livestock.
	spinetoram Radiant 1SC	5	3-8 fl oz	0.023-0.063	4 H/ 3 D	Do not apply more than a total of 24 fl oz of Radiant SC (0.188 lb ai spinetoram)/A/year. Do not allow grazing of peanut hay.
	spinosad Blackhawk 36WG	5	1.7-3.3 oz	0.038-0.074	4 H/ Harvest 3 D Forage 14 D	Do not apply more than 12.4 oz/A/crop. Do not make applications less than 7 days apart.
Burrower Bug[5]	*chlorpyrifos* Chlorpyrifos 15G	1B	13.6 lb broadcast or banded	2	24 H/ 21 D	Maximum single application rate is 15 oz/1000 ft of row. Do not exceed 26.4 lb Chlorpyrifos 15G/A/season. For banded applications use a 10-18" band.
Corn Earworm	*acephate* Orthene 97	1B	12-16 oz	0.72-0.97	24 H/ Digging 14 D	Repeat as needed. Do not feed treated forage or hay to livestock or allow animals to graze treated areas.
	chlorantraniliprole Prevathon	28	14-20 fl oz	0.047-0.067	4 H/ 1 D	Do not apply more than 0.2 lb ai of chlorantraniliprole/A/year.
	indoxacarb Steward 1.25EC	22	9.2-11.3 fl oz	0.09-0.11	12 H/ 14 D	Do not apply more than 45 fl oz/A/season. Minimum interval between treatments is 5 days.
	methomyl Lannate 90SP Lannate 2.4LV	1A	0.25-1 lb 0.75-3 pt	0.225-0.9 0.225-0.9	48 H/ 21 D	Do not make more than 3 applications. Do not feed treated vines to livestock.
	spinetoram Radiant 1SC	5	3-8 fl oz	0.023-0.063	4 H/ 3 D	Do not apply more than a total of 24 fl oz of Radiant SC (0.188 lb ai spinetoram)/A/year. Do not allow grazing of peanut hay.
	pyrethroids *beta-cyfluthrin* Baythroid XL 1EC	3A	1.8-2.4 fl oz	0.014-0.019	12 H/ 14 D	Do not exceed 3 applications/season of 2.8 fl oz/10 day interval.
	bifenthrin Brigade 2EC		2.1-6.4 fl oz	0.033-0.1	12 H/ 14 D	Do not apply more than 0.5 lb ai/A/season. Do not feed peanut hay to livestock.
	esfenvalerate Asana XL 0.66EC		2.9-5.8 fl oz	0.015-0.03	12 H/ 21 D	Do not exceed 0 .15 lb ai/A/season. Do not feed or graze livestock on treated vines.
	lambda-cyhalothrin Warrior II Zeon 2.08CS		1.28-1.92 fl oz	0.02-0.03	24 H/ 14 D	Do not apply more than 1 pt/A/season. Do not graze livestock in treated areas or use treated vines for animal feed.
	zeta-cypermethrin Mustang Maxx 0.8EC		3.2-4 oz	0.02-0.025	12 H/ 7 D	Do not apply more than 0.15 lb ai/season. Do not graze livestock in treated areas. Do not use treated vines for animal feed.

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Cutworm[1]	*indoxacarb* Steward 1.25EC	22	9.2-11.3 fl oz	0.09-0.11	12 H/ 14 D	Do not apply more than 45 fl oz/A/season. Minimum interval between treatments is 5 days.
	methomyl Lannate 90SP Lannate 2.4LV	1A	 0.5-1 lb 1.5-3 pt	 0.45-0.9 0.45-0.9	48 H/ 21 D	Spray late in the afternoon for maximum efficacy. Do not feed treated vines.
	pyrethroids *beta-cyfluthrin* Baythroid XL 1EC	3A	1-1.8 fl oz	0.008-0.014	12 H/ 14 D	Do not exceed 3 applications per season of 2.8 fl oz/10 day intervals.
	bifenthrin Brigade 2EC		2.1-6.4 fl oz	0.033-0.1	12 H/ 14 D	Do not apply more than 0.5 lb ai/A/season. Do not feed peanut hay to livestock.
	esfenvalerate Asana XL 0.66EC		9.6 oz	0.05	12 H/ 21 D	Do not exceed 0 .15 lb ai/A/season. Do not feed or graze livestock on treated vines.
	lambda-cyhalothrin Warrior II Zeon 2.08CS		1.28-1.92 fl oz	0.015-0.025	24 H/ 14 D	Do not apply more than 1 pt/A/season. Do not graze livestock in treated areas or use treated vines for animal feed.
	zeta-cypermethrin Mustang Maxx 0.8EC		1.28-4 oz	0.008-0.025	12 H/ 7 D	Do not apply more than 0.15 lb ai/season. Do not graze livestock in treated areas. Do not use treated vines for animal feed.
Fall Armyworm[1]	*acephate* Orthene 97	1B	12-16 oz	0.72-0.97	24 H/ Digging 14 D	Do not feed treated forage or hay to livestock or allow animals to graze treated areas.
	chlorantraniliprole Prevathon	28	14-20 fl oz	0.047-0.067	4 H/ 1 day	Do not apply more than 0.2 lb ai of chlorantraniliprole/A/year.
	diflubenzuron Dimilin 2L	15	4-8 fl oz	0.06-0.125	12 H/ 28 D	Do not make more than 3 applications/season.
	indoxacarb Steward 1.25EC	22	9.2-11.3 fl oz	0.09-0.11	12 H/ 14 D	Do not apply more than 45 fl oz/A/season. Minimum interval between treatments is 5 days.
	methomyl Lannate 90SP Lannate 2.4LV	1A	 0.25-0.5 lb 0.75-1.5 pt	 0.225-0.45 0.225-0.45	48 H/ 21 D	Do not feed treated vines.
	methoxyfenozide Intrepid 2F	18	6-10 fl oz	0.09-0.16	4 H/ 14 D	Do not make more than 3 applications/year.
	novaluron Diamond 0.83 EC	15	6-12 fl oz	0.039-0.077	12 H/ 28 D	Do not apply more than 36 fl oz/A/season. Do not feed treated peanut hay or vines to livestock.
	spinetoram Radiant 1SC	5	3-8 fl oz	0.023-0.063	4 H/ 3 D	Do not apply more than a total of 24 fl oz of Radiant SC (0.188 lb ai spinetoram)/A/year. Do not allow grazing of peanut hay.
	spinosad Blackhawk 36WG	5	1.7-3.3 oz	0.038-0.074	4 H/ Harvest 3 D Forage 14 D	Do not apply more than 12.4 oz/A/crop. Do not make applications less than 7 days apart.
Green Cloverworm[1]	*methoxyfenozide* Intrepid 2F	18	6-10 fl oz	0.09-0.16	4 H/ 14 D	Do not make more than 3 applications/year.
	novaluron Diamond 0.83 EC	15	6-12 fl oz	0.039-0.077	12 H/ 28 D	Do not apply more than 36 fl oz/A/season. Do not feed treated peanut hay or vines to livestock.

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PEST	INSECTICIDE	MOA	AMOUNT OF FORMUALTION PER ACRE	LB ACTIVE INGREDIENT PER ACRE	REI/PHI (Hours or Days)	REMARKS
Green Cloverworm[1]	*spinetoram* Radiant 1SC	5	3-8 fl oz	0.023-0.063	4 H/ 3 D	Do not apply more than a total of 24 fl oz of Radiant SC (0.188 lb ai spinetoram)/A/year. Do not allow grazing of peanut hay.
(continued)	*spinosad* Blackhawk 36 WG	5	1.7-3.3 oz	0.038-0.074	4 hours/ Harvest 3 D Forage 14 D	Do not apply more than 12.4 oz/A/crop. Do not make applications less than 7 days apart.
Lesser cornstalk borer[2]	*chlorpyrifos* Chlorpyrifos 15G	1B	13.6 lb broadcast or banded	2	24 H/ 21 D	Maximum single application rate is 15 oz/1,000 ft of row. Do not exceed 26.4 lb Chlorpyrifos 15G/A/season. For rescue treatment apply in a 10-18" band over the fruiting zone.
Potato leafhopper	*acephate* Orthene 97	1B	12-16 oz	0.72-0.97	24 H/ Digging 14 D	Do not feed treated forage or hay to livestock or allow animals to graze treated areas.
	carbaryl Sevin XLR or 4F Sevin 80S	1A	 1 qt 1.25 lb	 1 1	12 H/ 14 D	
	pyrethroids *beta-cyfluthrin* Baythroid XL 1EC	3A	1-1.8 fl oz	0.008-0.014	12 H/ 14 D	Do not exceed 3 applications per season of 2.8 fl oz/10 day intervals.
	bifenthrin Brigade 2EC		2.1-6.4 fl oz	0.033-0.1	12 H/ 14 D	Do not apply more than 0.5 lb ai/A/season. Do not feed peanut hay to livestock.
	esfenvalerate Asana XL 0.66EC		2.9-5.8 fl oz	0.015-0.03	12 H/ 14 D	Do not exceed 0.15 lb ai/A/season. Do not feed or graze livestock on treated vines.
	lambda-cyhalothrin Warrior II Zeon 2.08CS		0.96-1.6 fl oz	0.015-0.025	24 H/ 7 D	Do not apply more than 1 pt/A/season. Do not graze livestock in treated areas or use treated vines for animal feed.
	zeta-cypermethrin Mustang Maxx 0.8EC		1.76-4 oz	0.011-0.025	12 H/ –	Do not apply more than 0.15 lb ai/season. Do not graze livestock in treated areas. Do not use treated vines for animal feed.
Rednecked peanut worm	*spinetoram* Radiant 1SC	5	3-8 fl oz	0.023-0.063	4 H/ 3 D	Do not apply more than a total of 24 fl oz of Radiant SC (0.188 lb ai spinetoram)/A/year. Do not allow grazing of peanut hay.
	pyrethroids *beta-cyfluthrin* Baythroid XL 1EC	3A	1-1.8 fl oz	0.008-0.014	12 H/ 14 D	
	bifenthrin Brigade 2EC		2.1-6.4 fl oz	0.033-0.1	12 H/ 14 D	Do not apply more than 0.5 lb ai/A/season. Do not feed peanut hay to livestock.
	esfenvalerate Asana XL 0.66EC		2.9-5.8 fl oz	0.015-0.03	12 H/ 21 D	Do not exceed 0.15 lb ai/A/season. Do not feed or graze livestock on treated vines.
	lambda-cyhalothrin Warrior II Zeon 2.08CS		0.96-1.6 fl oz	0.015-0.025	24 H/ 14 D	Do not apply more than 1 pt/A/season. Do not graze livestock in treated areas or use treated vines for animal feed.
	zeta-cypermethrin Mustang Maxx 0.8EC		1.28-4 oz	0.008-0.025	12 H/ 7 D	Do not apply more than 0.15 lb ai/season. Do not graze livestock in treated areas. Do not use treated vines for animal feed.
Southern Armyworm[1]	*spinetoram* Radiant 1SC	5	3-8 fl oz	0.023-0.063	4 H/ 3 D	Do not apply more than a total of 24 fl oz of Radiant SC (0.188 lb ai spinetoram)/A/year. Do not allow grazing of peanut hay.

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Southern corn rootworm[2]	*chlorpyrifos* Chlorpyrifos15G	1B	13.6 lb banded	2	24 H/ 21 D	Maximum single application rate is 15 oz/1,000 ft of row. Do not exceed 26.4 lb Chlorpyrifos15G/A/season. Do not feed peanut forage or hay to meat or dairy animals.
Soybean loopers[1]	*chlorantraniliprole* Prevathon	28	20 fl oz	0.067	4 H/ 1 D	Do not apply more than 0.2 lb ai of chlorantraniliprole/A/year.
	diflubenzuron Dimilin 2L Suppression only	15	4-8 fl oz	0.06-0.125	12 H/ 28 D	Do not make more than 3 applications/season.
	indoxacarb Steward 1.25EC	22	9.2-11.3 fl oz	0.09-0.11	12 H/ 14 D	Do not apply more than 45 fl oz/A/season. Minimum interval between treatments is 5 days.
	methoxyfenozide Intrepid 2F	18	6-10 fl oz	0.09-0.16	4 H/ 7 D	Do not make more than 3 applications/year.
	novaluron Diamond 0.83 EC	15	6-12 fl oz	0.039-0.077	12 H/ 28 D	Do not apply more than 36 fl oz/A/season. Do not feed treated peanut hay or vines to livestock.
	spinetoram Radiant 1SC	5	3-8 fl oz	0.023-0.063	4 H/ 3 D	Do not apply more than a total of 24 fl oz of Radiant SC (0.188 lb ai spinetoram)/A/year. Do not allow grazing of peanut hay.
	spinosad Blackhawk 36WG	5	1.7-3.3 oz	0.038-0.074	4 H/ Harvest 3 D Forage 14 D	Do not apply more than 12.4 oz/A/crop. Do not make applications less than 7 days apart.
Spider mites	*fenpropathrin* Danitol 2.4EC	3A	10.6-16 fl oz	0.2-0.3	24 H/ Digging 14 D	Do not feed treated forage or dried hay within 14 days of last application. Do not exceed 0.8 lb ai/A /season.
	propargite Comite 6.55EC	12C	2 pt	1.64	48 H/ 14 D	Do not apply more than twice per season. Do not graze or feed livestock on treated areas or cut treated forage for hay. When temperatures are greater than 90ºF with high humidity, some leaf phytotoxicity may occur.
	Comite II 6EC		2.25 pt	1.68	48 H/ 14 D	Do not apply more than twice per season. Use a minimum of 20 gal/A for ground application and 5 gal/A for aerial application.
	Omite 30W		3-5 lb	0.9-1.5	48 H/ 14 D	Do not apply more than twice per season. Do not graze or feed livestock on treated areas or cut treated forage for hay. Do not plant unregistered crops within 6 months of last application.
Three cornered alfalfa hopper	*carbaryl* Sevin XLR or 4F Sevin 80S	1A	 1 qt 1.25 lb	 1 1	12 H/ 14 D	
	pyrethroids *beta-cyfluthrin* Baythroid XL 1EC	3A	1.8-2.4 fl oz	0.014-0.019	12 H/ 14 D	Do not exceed 3 applications per season of 2.8 fl oz/10 day intervals.
	bifenthrin Brigade 2EC		2.1-6.4 fl oz	0.033-0.1	12 H/ 14 D	Do not apply more than 0.5 lb ai/A/season. Do not feed peanut hay to livestock.
	lambda-cyhalothrin Warrior II Zeon 2.08CS		0.96-1.6 fl oz	0.015-0.025	24 H/ 14 D	Do not apply more than 1 pt/A/eason. Do not graze livestock in treated areas or use treated vines for animal feed.

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Thrips[3]	*acephate* Orthene 97	1B	6-12 oz	0.36-0.73	24 H/ Digging 14 D	Do not feed treated forage or hay to livestock or allow animals to graze treated areas. Good results have been obtained by tank mixing with early post-emergence herbicides such as paraquat combinations in lieu of in-furrow treatments. However, timing is critical for adequate thrips control and may not coincide with optimum timing for post-emergence weed control.
	imidacloprid Admire Pro 4.6F	4A	7-10.5 fl oz	0.25-0.377	12 H/ 14 D	Apply as an in-furrow spray at planting. Do not apply more than 10.5 oz/crop season. Do not apply to Virginia type varieties.
	pyrethroids *beta-cyfluthrin* Baythroid XL 1EC suppression only	3A	2.8 fl oz	0.022	12 H/ 14 D	
	bifenthrin Brigade 2EC		5.12-6.4 fl oz	0.08-0.1	12 H/ 14 D	Do not apply more than 0.5 lb ai/A/season. Do not feed peanut hay to livestock.
	lambda-cyhalothrin Warrior II Zeon 2.08CS		1.28-1.92 fl oz	0.02-0.03	24 H/ 14 D	Do not apply more than 1 pt/A/season. Do not graze livestock in treated areas or use treated vines for animal feed.
	zeta-cypermethrin Mustang Maxx 0.8EC		3.2-4 oz	0.02-0.025	12 H/ 7 D	Do not apply more than 0.15 lb ai/season. Do not graze livestock in treated areas. Do not use treated vines for animal feed.
	phorate Thimet 20G[4]	1B	5 lb	1	48 H/ See note	Apply in the furrow at planting. Do not graze or feed treated hay or forage to livestock. In furrow applications on row spacings other than 36", use 7.3 oz of 15G/1,000 ft of row or 5.5 oz of 20G/1,000 ft of row. Soil moisture is necessary for adequate uptake. Young seedlings may exhibit varying degrees of leaf damage.
Tobacco budworm[1]	*acephate* Orthene 97	1B	12-16 oz	0.72-0.97	24 H/ Digging 14 D	Repeat as needed. Do not feed treated forage or hay to livestock or allow animals to graze treated areas.
	chlorantraniliprole Prevathon	28	14-20 fl oz	0.047-0.067	4 H/ 1 D	Do not apply more than 0.2 lb ai of chlorantraniliprole/A/year.
	indoxacarb Steward 1.25 EC	22	9.2-11.3 fl oz	0.09-0.11	12 H/ 14 D	Do not apply more than 45 fl oz/A/season. Minimum interval between treatments is 5 days.
	spinetoram Radiant 1SC	5	3-8 fl oz	0.023-0.063	4 H/ 3 D	Do not apply more than a total of 24 fl oz of Radiant SC (0.188 lb ai spinetoram)/A/year. Do not allow grazing of peanut hay.
	spinosad Blackhawk 36WG	5	1.7-3.3 oz	0.038-0.074	4 H/ Harvest 3 D Forage 14 D	Do not apply more than 12.4 oz/A/crop. Do not make applications less than 7 days apart.
	NOTE: Lannate as applied for corn earworm gives good control.					
Velvetbean caterpillar[1]	*carbaryl* Sevin XLR or 4F Sevin 80S	1A	 1 qt 1.25 lb	 1 1	12 H/ 14 D	
	diflubenzuron Dimilin 2L	15	2-4 fl oz	0.03-0.06	12 H/ Harvest 28 D	Do not make more than 3 applications/season.

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Velvetbean caterpillar[1]	*methoxyfenozide* Intrepid 2F	18	6-10 fl oz	0.09-0.16	4 H/ 7 D	Do not make more than 3 applications/year.
(continued)	*novaluron* Diamond 0.83 EC	15	6-12 fl oz	0.039-0.077	12 H/ 28 D	Do not apply more than 36 fl oz/A/season. Do not feed treated peanut hay or vines to livestock.
	pyrethroids	3A			12 H/ 14 D	
	beta-cyfluthrin Baythroid XL 1EC		1-1.8 fl oz	0.008-0.014		Do not exceed 3 applications per season of 2.8 fl oz/10 day intervals.
	bifenthrin Brigade 2EC		2.1-6.4 fl oz	0.033-0.1	12 H/ 14 D	Do not apply more than 0.5 lb ai/A/season. Do not feed peanut hay to livestock.
	esfenvalerate Asana XL 0.66EC		2.9-5.8 fl oz	0.015-0.03	12 H/ 21 D	Do not exceed 0.15 lb ai/A/season. Do not feed or graze livestock on treated vines. Suspected resistance has been observed in extreme SW Georgia.
	lambda-cyhalothrin Warrior II Zeon 2.08CS		0.96-1.6 fl oz	0.015-0.025	24 H/ 14 D	Do not apply more than 1 pt/A/season. Do not graze livestock in treated areas or use treated vines for animal feed. Suspected resistance has been observed in extreme SW Georgia.
	zeta-cypermethrin Mustang Maxx 0.8EC		1.28-4 oz	0.008-0.025	12 H/ 7 D	Do not apply more than 0.15 lb ai/season. Do not graze livestock in treated areas. Do not use treated vines for animal feed.
	spinetoram Radiant 1SC	5	3-8 fl oz	0.023-0.063	4 H/ 3 D	Do not apply more than a total of 24 fl oz of Radiant SC (0.188 lb ai spinetoram)/A/year. Do not allow grazing of peanut hay.
	spinosad Blackhawk 36WG	5	1.7-3.3 oz	0.038-0.074	4 H/ Harvest 3 D Forage 14 D	Do not apply more than 12.4 oz/A per crop. Do not make applications less than 7 days apart.
Wireworms[2]	*chlorpyrifos* Chlorpyrifos 15G	1B	13.6 lb banded	2	24 H/ 21 D	Suppression only. Maximum single application rate is 15 oz/1,000 ft of row. Do not exceed 26.46 lb Chlorpyrifos 15G/A/ season. If used in combination with Lorsban 4E do not exceed 4 lb ai/crop season. For banded applications, use a 10-18" band. Aerial application is prohibited.
	Lorsban 75WG		2.67 lb	2	24 H/ –	Suppression only. Broadcast pre-plant and incorporate.
	Lorsban 4E		4 pt	2	24 H/ –	Suppression only. Broadcast pre-plant and incorporate.

Premixed or Co-Packed Insecticide Products:

Products listed below are available as premixes or co-packages of two insecticidal active ingredients. When using premixed or co-packaged products, be sure the use of all of the active ingredients isare necessary. Unnecessary applications or use of reduced rates of an active ingredient may lead to or intensify insecticide resistance.

imidacloprid, cyfluthrin (Leverage)

imidacloprid, fluopyram (Velum Total)

lambda-cyhalothrin, chlorantraniliprole (Besiege)

methoxyfenozide, spinetoram (Intrepid Edge)

[1] The treatment threshold for combined foliage feeders is 4-8 per foot of row depending on the size and condition of the peanut plants. Use a lower threshold for very young plants or plants that are stressed from other factors. Use a higher threshold for healthy plants with ample vine growth.

[2] Preventive treatments are usually more effective than rescue treatments. The need for a rescue treatment should be dependent on the presence of the insect pest, not just damage. Rainfall or irrigation is necessary after application to obtain adequate control.

[3] Thrips control is recommended only during the first 3-4 weeks after emergence and is more important when herbicide-induced stress also occurs during early season growth. Attempts to control tomato spotted wilt by controlling the thrips vectors are not economically justified.

[4] Suppresses tomato spotted wilt.

[5] Risk of burrower bug is generally reduced in conventional tillage situations.

PEANUT DISEASE CONTROL

Bob Kemerait, Extension Plant Pathologist, Tim Brenneman and Albert Culbreath, Plant Pathologists

PEST	FUNGICIDE	MOA	AMOUNT PER ACRE	REI/PHI (Hours or Days)	REMARKS AND PRECAUTIONS
Seedling Disease	Abound 2.08F	11	6 fl oz		Abound is active against Rhizoctonia damping off and Aspergillus crown rot.
Southern Stem Rot (White Mold) and Rhizoctonia Limb Rot	*azoxystrobin* Abound 2.08F	11	18.5-24.6 fl oz 12.3 fl oz (dryland only) These rates are for soilborne diseases to include suppression of CBR and for leaf spot diseases. Note: There is some evidence that the efficacy of azoxystrobin for management of leaf spot is not as strong as it once was. Therefore, growers should consider tank-mixing additional fungicides for management of leaf spot with azoxystrobin.	4 H/ 14 D	Apply **Abound, Artisan (26-32 fl oz/A), Evito** or **Convoy (26 fl oz/A)** as a foliar spray at 50-60 days after planting and reapply 28 days later. **Note:** Convoy and Artisan may also be applied on a 4-spray program. Consult label for more information. Begin treating immediately if active white mold is observed before the first scheduled application. Consult label for application strategies concerning the use of each product. **Note:** A fungicide to control leafspot must always be mixed with Convoy. Additional leaf spot control may not be needed if Artisan is used twice in a season at 26-32 fl oz/A (but tank-mixing and additional fungicide may be a good idea); however, if Artisan is applied in four applications, additional fungicides such as chlorothalonil or thiophanate methyl (e.g. Topsin M) must be added to supplement control of leaf spot. Maximum rate is 49 fl oz/A/season.
	azoxystrobin + *benzobendiflupyr* (solatenol) Elatus	11 + 7	0.5-0.65 fl oz/1000 linear feet. 7.3-9.5 fl oz/A Elatus is effective against soilborne and leafspot diseases	12 H/ 30 D	For suppression of stem rot/white mold, CBR and other diseases. Apply in a 7-10" band 14-21 days after planting. For foliar diseases begin 30-40 days after planting. Apply 7.3 fl oz/A on a 14-day schedule, or 9.5 fl oz/A on a 21-28 day interval. For soilborne diseases apply 7.3 fl oz/A 3 times on a 14-day interval, or 9.5 fl oz/A 2 times on a 21-28 day interval beginning 45-60 days after planting. Do not apply more than 21.9 fl oz/A per season
	flutolanil Convoy	7	2 pt (1 application) 1-2 pt (2 applications) 0.5-1 pt (4 applications)	12 H/ 14 D	Convoy has no activity against leaf spot diseases. Therefore, a full-rate of an additional fungicide which ifthat is effective against leaf spot diseases should be tank-mixed with Convoy at each application. Maximum rate is 64 fl oz/A/ season.
	flutolanil + *propiconazole* Artisan	7 + 3	26 or 32 fl oz (2 applications) 13 or 16 fl oz (4 applications)	12 H/ 40 D	The propiconazole in Artisan is an effective fungicide for the control of leaf spot diseases; however there are concerns for the potential of resistance to occur. When Artisan is applied at the 13-16 fl oz/A rates, the amount of propiconanzole is not sufficient to control leaf spot and additional fungicide should be tank-mixed to improve efficacy. At the 26-32 fl oz/A rates of Artisan, the amount of propiconazole may be sufficient; however growers are advised to add additional fungicide to iensure adequate leaf spot protection. Maximum rate is 84 fl oz/A/ season.
	fluxapyroxad + *pyraclostrobin* Priaxor	7 + 11	4-8 fl oz	12 H/ 14 D	**Priaxor** has proven to be a very good replacement product for Headline in peanut disease management programs. Priaxor at a rate of 4 fl oz/A is appropriate for management of leaf spot ; the eight8 ouncze rate is appropriate for management of leaf spot and soilborne diseases. Maximum rate is 24 fl oz/A/season.
	fluoxastrobin Evito 480 SC	11	5.7 fl oz	12 H/ 14 D	**Evito 480** SC is in the same chemical class as Abound, Headline, and Stratego and should not be used in the same program with these products. Maximum rate is 22.8 fl oz/A/season.

PEANUT DISEASE CONTROL

PEST	FUNGICIDE	MOA	AMOUNT PER ACRE	REI/PHI (Hours or Days)	REMARKS AND PRECAUTIONS
Southern Stem Rot (White Mold) and Rhizoctonia Limb Rot *(continued)*	*fluoxastrobin + tebuconazole* Evito T	3	9-11.2 fl oz	12 H/ 14 D	For control of white mold (stem rot), Rhizoctonia limb rot, and foliar diseases of peanut. Maximum rate is 44.8 fl oz/A/season.
	Labeled formulations of tebuconazole include, among others:				Apply **tebuconazole** products, or **Quash** (metconazole) 4 times per season starting at the second or third leaf spot spray.Growers are typically advised to tank-mix an additional leaf spot fungicide with tebuconazole products. Growers may also wish to tank-mix a fungicide with Quash for additional leaf spot control where leaf spot resistance to triazole fungicides has occurred. Maximum rate is 16.02 fl oz/A/season. The lower rate is generally considered effective for low-to-moderate pressure from white mold (stem rot) and Rhizoctonia limb rot. The higher rate is appropriate for more severe pressure from these diseases. Note: Research has shown that tebuconazole is often less effective in control of leaf spot than in the past. Where leaf spot is likely to be a problem, growers may consider tank-mixing tebuconazole with 0.75-1 pt/A chorothalonil or 5 fl oz Topsin (1st and 3rd applications only) to ensure adequate leaf spot control. For increased disease control, growers should consider tank-mixing Alto (cyproconazole, 5.5 fl oz/A) with Abound (12-24.5 fl oz/A) 60-90 days after planting.
	metconazole Quash	3	2.5-4 fl oz	12 H/ 14 D	
	Orius 3.6F, TriSum 3.6F, Integral 3.6F, T ebustar 3.6F, Muscle 3.6F, Tebuzol 3.6F	3	7.2 fl oz Maximum rate is 28.8 fl oz/A/season, except for Muscle 3.6 F (16 fl oz).	12 H/ 14 D	
	penthiopyrad Fontelis	7	12-24 fl oz	12 H/ 14 D	**Fontelis** is a new fungicide in the SDHI class for disease management in peanut and will work well with triazole and strobilurin fungicides for resistance management. Make no more than 3 sequential applications before switching to a fungicide with a different mode of action. Maximum rate is 72 fl oz/A/season.
	pyraclostrobin Headline	11	12-15 fl oz	12 H/ 14 D	**Headline** at this rate is an effective component of a soilborne program that also includes use of Provost, tebucoanzole, Convoy, Quash, or Artisan. **Note:** There is recent concern that pyraclostrobin is now less effective against leaf spot diseases and growers may consider tank-mixing additional fungicides with it for added protection from leaf spot. Maximum rate is 45 fl oz/A/season.
	tebuconazole + prothioconazole Provost	3	8-10.7 fl oz	12 H/ 14 D	**Provost** is a new fungicide labeled for the control of leaf spot diseases, peanut rust, white mold, and Rhizoctonia limb rot. It is also labeled for suppression of CBR. Provost is applied in a 4-block program. Higher rates can be used in fields where disease is a particular problem. Maximum rate is 42.8 fl oz/A/season.
Early emergence applications for management of White Mold and other Soilborne Diseases	*azoxystrobin* Abound 2.08F	11	0.4-0.8 fl oz/1000-row feet	4 H/ 14 D	Banded at 100% emergence for suppression of white mold. For greatest efficacy, concentrate the entire broadcast rate into a band wide enough to cover the peanuts. Check with your local Cooperative Extension office for recommendations on optimum timing of an early emergent application of Proline. Apply in a 4-6" band at 100% emergence. **Abound** – maximum rate is 49 fl oz/A/season. **Proline** – maximum rate is 22.8 fl oz/A/season.
	prothioconazole Proline 480SC	3	5.7 fl oz/A	24 H/ 14 D	
SUPPRESSION ONLY					
Southern Stem Rot (White mold)	Lorsban 15G	1B	13 lb	24 H/ 21 D	Apply in a 12" band over the row, 40-60 days after planting. This product only suppresses stem rot. Do not feed hay treated with Lorsban to livestock. Maximum rate is 4 lb ai/A/season

PEANUT DISEASE CONTROL

PEST	FUNGICIDE	MOA	AMOUNT PER ACRE	REI/PHI (Hours or Days)	REMARKS AND PRECAUTIONS
FOLIAR DISEASES					
Late leafspot *(Cercosporidium personatum),* Early leafspot *(Cercospora arachidicola)* Rust *(Puccinia arachidis)*	*fluoxastrobin + tebuconazole* Evito T	3	6-9 fl oz	24 H/ 14 D	Fungicide resistance management should be considered when this product is used with other tebuconazole products, Evito, Evito T, Stratego, Abound, Headline, Absolute, and Evito. Maximum rate is 44.8 fl z/A/season.
	propicanazole, trifloxystrobin Stratego	3	7 fl oz.	24 H/ 14 D	Fungicide resistance management should be considered when this product is used with tebuconazole product s, Absolute, Evito, Evito T, Headline, or Abound. Maximum of 6 applications/season
	pyraclostrobin Headline	11	6-9 fl oz	24 H/ 12 D	**NOTE:** all soilborne fungicides described in the section "Control of Southern stem rot/white mold" area also active against leaf spot diseases EXCEPT for Convoy. Efficacy of these fungicides ranges from fair/good for tebuconazole to excellent for Provost and Headline. Most of the fungicides listed above fall into the "good" category. Headline (pyraclostrobin) is a strobilurin fungicide and is in the same chemical class as Abound, Evito, the fluoxastrobin component of Evito T, and the trifloxystrobin component of Stratego and Absolute. To best adhere to fungicide resistance management guidelines, Headline should not be used in the same program with these fungicides. Maximum rate is 45 fl oz/A/season.
	tebuconazole, trifloxystrobin Absolute	3	3.5 fl oz	12 H/ 14 D	Absolute is a combination of tebuconazole and trifloxystrobin. Fungicide resistance management should be considered when this product is used with tebuconazole products, Stratego, or Abound. Maximum of 4 applications/season.
	cyproconazole Alto 100SL	3	5.5 fl oz/A	12 H/ 30 D	**NOTE:** Eminent 125S (7.2 fl oz/A) should be tank mixed with 16 fl oz/A Echo (chlorotahlonil). For foliar disease control, apply Alto 100SL up to two times as a part of a season-long disease management program; especially as a tank-mix partner for Abound. Alto maximum rate is 11 fl oz/A/season. Eminent maximum rate is 52 fl oz/A/season.
	tetraconazole 125S	3	7.2 fl oz/A	12 H/ 14 D	
Foliar Diseases	*chlorothalonil + sulfur* Bravo S is a pre-mix combination		68 fl oz		
	chlorothalonil Bravo Ultrex Bravo Weather Stik Chemnut 720 Chlorothalonil 720 Terranil 6L Echo 90DF Echo 720 Equus 720 Equus DF GK-Agragold 720	M5	 1.36 lb 1.5 pt 1.5 pt 1.5 pt 1.5 pt 1.25 lb 1.5 pt 1.5 pt 1.36 lb 1.5 pt	12 H/ 14 D Except for Bravo S (24 H)	Apply chlorothalonil or chlorothalonil + copper on a 10-14 day interval. The exact interval between applications depends on rotation, weather, etc. **Do not feed peanut hay treated with chlorothalonil to livestock.** If rust is found in a field, and the peanuts are more than 3 weeks from expected harvest, apply chlorothalonil every 10 days until 2 weeks from harvest. If peanuts are 2 weeks or less from harvest, no control is necessary.
	Tank-mix combinations of *chlorothalonil* and *copper hydroxide* *chlorothalonil* + Kocide 4.5LF	M5	(0.75 lb ai/A) 1 pt		Do not mix any copper fungicide with Folicur.

PEANUT DISEASE CONTROL

PEST	FUNGICIDE	MOA	AMOUNT PER ACRE	REI/PHI (Hours or Days)	REMARKS AND PRECAUTIONS
FOLIAR DISEASES *(continued)*					
Foliar Diseases *(continued)*	Tank-mix combinations of *chlorothalonil* Bravo + Tilt *propiconazole* chlorothalonil + Tilt	M5, 3	 (0.75 lb ai/A) 2 oz	12 H/ 14 D	The rate of chlorothalonil when tankmixed with Tilt will vary depending on formulation (ie. 6 lb/gal would require 16 oz and 4.2 3 lb/gal would require 22.6 oz) **If RUST is detected and peanuts are more than 3 weeks from expected harvest, use a full rate of chlorothalonil every 10 days until 2 weeks from harvest. Using DMIs (ie. Folicur and Tilt) full season increases the possibility for fungal resistance. If DMIs are used full season make the last leaf spot application with chlorothalonil.** Tilt does not control rust.
	chlorothalonil + *propiconazole* Echo-PropiMax	M5, 3	(0.75 lb ai/A) 2 oz	12 H/ 14 D	
	chlorothalonil + *propiconazole* Tilt/Bravo	M5, 3	1.5 pt	12 H/ 14 D	Maximum rate is 12 pints/A/season.
	thiophanate methyl Topsin M 70WP T-Methyl 70W Topsin 4.5FL Topsin 4.5 FL + *tebuconazole*	1	 1/2 lb 1/2 lb 10 fl oz 5 fl oz + 7.2 fl oz	24 H/ 14 D	Neither Top sin, thiophanate methyl 85WDG nor any other formulation of thiophanate methyl should be used alone for control of foliar diseases of peanut, but should be tank mixed and/or rotated with other non-benzimidazole fungicides such as chlorothalonil. Use of thiophanate methyl should be restricted to a single solo application or 2 tank-mix applications per season.
	thiophanate Methyl 85WDG	1	0.4 lb	24 H/ 14 D	The maximum rate of thiophanate methyl 85WDG is 1.65 lb/A/season.
	dodine ELAST 400F	U12	12.8-15 fl oz	48 H/ 14 D	The rate for ELAST 400F is 12.8 fl oz if it is tank-mixed with another fungicide, e.g. tebuconazole for added control of peanut leaf spot. The rate is 15 fl oz if it is used alone or tank-mixed with a fungicide that is not effective against leaf spot.
Cylindrocladium Black Rot (CBR)	*metam sodium* 42%	M3	10 gal/A		To be effective, the fumigant metam sodium must be applied very carefully. To avoid injury to the seed and the seedlings, the fumigant must be applied at least 14 days before planting to a depth of 8-10". Metam sodium should be applied only when the soil temperature is greater than 60°F and when the soil moisture is like it would be for suitable seed germination. It is critical to get a good seal on the chisel trace left after fumigation so that the metam sodium does not escape directly into the atmosphere. The rows must be marked so that seed can be planted directly above where the fumigant was applied. **Growers who are using this treatment for the first time may want to consult with their local county Cooperative Extension agent.**
	prothioconazole Proline 480SC	3	0.4 fl oz/1000 row ft 5.7 fl oz/A	48 H/ 14 D	**Proline 480SC** is applied in-furrow for the management of CBR. See label for rate information and additional application strategies for management of CBR and perhaps white mold (stem rot). Maximum rate is 22.8 fl oz/A/season.
	tebuconazole Abound 2.08F tebuconazole 3.6F Headline Provost Fontelis	 11 3 11 3 7	 18.5-24.6 fl oz 7.2 fl oz 12-15 fl oz 8-10.7 fl oz 16-24 fl oz	12 H/ 14 D Except Headline – 4 H	Provost tebuconazole, Abound, Fontelis and Headline are labeled for the "suppression" of CBR. This means that they may have some limited benefit to the grower in the management of this disease; however neither is likely to result in significant reduction in CBR when compared to the benefits of metam sodium.

RECOMMENDATIONS SET FORTH BY THE NORTH AMERICAN FUNGICIDE RESISTANCE ACTION COMMITTEE

1. Reduce initial inoculum (fungal populations) through good cultural practices.
2. Do not use less than the minimum label rate alone or in tank mixtures.
3. If more than four sprays of DMI (for example tebuconazole and propiconazole) fungicides will be made in a season, it is strongly recommended that all DMI sprays be mixed with an effective non-DMI fungicide.
4. Use in a preventative application schedule.
5. Calibrate sprayer and configure spray tips to ensure thorough coverage of peanut foliage.
6. DMI fungicides are not recommended for season-long use alone. Use alternating blocks of sprays of DMI fungicides with non-DMI fungicides, OR use tank mixes of DMI and non-DMI fungicides. See label directions!
7. Alternating sprays or tank mixtures with other DMI fungicides will not help prevent resistance development
8. When using a strobilurin fungicide as a solo product, for example Headline, Abound, or Evito, the number of applications should be no more that 1/3 (33%) of the total number of fungicide applications per season.
9. For strobilurin mixes (e.g. Absolute, Evito T and Stratego) in programs which tank mixes or pre mixes a strobilurin with mixing partners of a different mode of action are used, the number of strobilurin containing applications should be no more than ½ (50%) of the total number of fungicide applications per season.
10. In programs in which applications of strobilurin fungicides are made with both solo products and mixtures, the number of strobilurin containing applications should be no more than 1/2 (50%) of the total number of fungicide applications per season.

PEANUT SEED TREATMENT

Bob Kemerait, Extension Plant Pathologist, Tim Brenneman and Albert Culbreath, Plant Pathologists

Dynasty PD (azoxystrobin + fludioxonil + mefenoxam)	3-4 fl oz/100 lb
Vitavax PC	4-5 oz/100 lb

PEANUT NEMATODE CONTROL

PEST	NEMATICIDE	AMOUNT PER ACRE	REI/PHI (Hours or Days)	REMARKS AND PRECAUTIONS
Nematodes	*fluopyram + imidacloprid* Velum Total	18 fl oz	12 H/ 14 D	Apply specified dosage in the following methods: 1) In-furrow spray during planting directed on or below seed; 2) Chemigation into the root-zone through low pressure drip or trickle irrigation. Do not apply more than 19 fl oz/A of Velum Total per year. Do not apply Velum Total within 30 days of harvest. Regardless of formulation or method of application, apply no more than 0.5 lb imidicloprid or 0.45 lb fluopyram ai/A/year, including seed treatment, soil and foliar uses. **Note:** PROPULSE (fluopyram + prothioconazole) can be applied at 13.6 fl oz/A at pegging time for additional control of nematodes following and in-furrow application of Velum Total. Propulse offers additional nematode control through chemigation that usesing overhead irrigation equipment. Applications should be made using 0.1 to 0.25 acre-inch of water to move PROPULSE into the soil.
	Aldicarb AgLogic 15G	7 lb/A at-plant followed by 10 lb/A post emergence.		**At-Planting:** Apply granules in a 4-6" band over open seed furrow (T-band) and immediately cover with soil by mechanical means. OR Apply granules in a 6-12" band and immediately cover with soil by mechanical means to a depth of 2-4". Plant seed into treated zone. **Post-Emergence:** Apply granules in a band 12-18" wide on the row and into the plant canopy. Ensure that plant foliage is dry prior to application. Dislodge granules from foliage by suitable means that will not damage the plant. Apply 6-9 gal/A rates broadcast with a moldboard plow. Apply 4.5-6 gal/A rates with a single chisel in-row application. All applications should be made at least 7-14 days before planting.
	Telone II	4.5-9 gal	5 D Post application/ –	Apply 6-9 gal/A rates broadcast with a moldboard plow. Apply 4.5-6 gal/A rates with a single chisel in-row application. All applications should be made at least 7-14 days before planting.
	Vydate C-LV	17-34 fl oz	48 H/ –	Vydate C-LV is used to supplement use of a pre-plant or at-plant application of a nematicide. Recommended is a split application of 17 fl oz/A at 14-28 days after planting followed by a second application of 17 fl oz/A 14 days later. Best used in low nematode fields. Maximum rate is 136 fl oz/A/season.
	A nematicide application at pegging is recommended regardless of which nematicide is used at planting.**DO NOT FEED PEANUT HAY TREATED WITH THESE NEMATICIDES TO LIVESTOCK.**			

NEMATICIDE CONTROL RATING

NEMATICIDE	RATING
Telone II	excellent
Vydate	poor to fair.

Nematicides listed below are rated on a scale of excellent, good, fair and poor. Those listed as poor to fair would be acceptable in low nematode population fields, but should not be used in fields where root-knot nematodes cause severe problems.

PEANUT WEED CONTROL

Eric P. Prostko, Extension Agronomist – Weed Science

HERBICIDE	MOA	BROADCAST RATE/ACRE		REI/PHI (Hours or Days)	REMARKS AND PRECAUTIONS
		AMOUNT OF FORMULATION/A	LBS ACTIVE INGREDIENT/A		
EARLY PREPLANT FOLIAR BURNDOWN OF EMERGED ANNUAL WEEDS AND/OR COVER CROPS IN REDUCED TILLAGE SYSTEMS					
glyphosate Various trade names 3 lb ae/gal 3.73 lb ae/gal 4 lb ae/gal 4.17 lb ae/gal 4.50 lb ae/gal 5 lb ae/gal	9	 16-48 oz 13-39 oz 12-36 oz 11.7-35 oz 11-32 oz 10-29 oz	0.38-1.13 ae	4 H/ –	Apply any time prior to planting to control emerged weeds. Refer to specific label for weeds controlled, application rates, adjuvants, and precautions. Glyphosate does not adequately control cutleaf eveningprimrose or Carolina geranium, and may not provide acceptable control of wild radish. For cover crop control only, use the following rates: wheat < 12", 0.56 lb ae/A; wheat > 12", 0.75 lb ae/A; rye < 18", 0.56 lb ae/A; rye > 18", 0.75 lb ae/A. Glyphosate can also be tank-mixed with Valor (1-3 ozs/A), Aim (1-2 ozs/A), or ET (0.5-2 oz/A) to improve the spectrum of control, particularly for annual morningglories. Refer to specific comments for Valor. Sequence 5.25EC (glyphosate + S-metolachlor) is also labeled for preplant use in peanut at 2.5-3.4 pt/A. Sequence at 3.4 pt/A is equivalent to 1.28 lb ai/A of S-metolachlor + 0.96 lb ai/A glyphosate. Applications of glyphosate to wheat and rye should be made before the boot stage or after the small grain is fully headed.
paraquat Gramoxone Inteon/Gramoxone SL 2 SL Firestorm/Parazone/Helmquat 3 SL	22	 2.5-3.75 pt 1.7-2.5 pt	0.63-0.94	12 H/ –	Apply prior to planting to control emerged weeds. Add non-ionic surfactant at 1qt/100 gals or crop oil at 1 gal/100 gals. Paraquat will not adequately control horseweed, swinecress, purslane speedwell, curly dock, cutleaf eveningprimrose, and larger wild radish. For cover crop control only, use the following rates: wheat, 0.63 lb ai/A (2.5 pt/A of 2 lb/gal or 1.7 pt/A of 3 lb/gal); rye, 0.50 lb ai/A (2 pt/A of 2 lb/gal or 1.3 pt/A oz/A of 3 lb/ gal). Cover crops must be mature (seedheads) for adequate control. Can also be tank-mixed with Valor (1-3 ozs/A) to improve the spectrum of control and provide residual weed control. Refer to specific comments for Valor.
2,4-D amine Various trade names 3.8 lb/gal	4	0.5-1 pt	0.24-0.48	48 H/ –	Tank-mix with glyphosate or paraquat. 2,4-D is the most cost-effective option available for burndown of cutleaf eveningprimrose. 2,4-D does not control Carolina geranium. Some 2,4-D products are labeled for application to previous crop stubble or fallow land. In this case, the label directs the user to not plant a crop "until 3 months after application or until the product disappears from the soil." UGA research suggests that peanut can be planted 7 days after a preplant burndown application of 2,4-D.
thifensulfuron + tribenuron FirstShot 50SG	2	0.5-0.8 oz	0.008-0.013 + 0.008-0.013	12 H/ –	Tank-mixed with glyphosate or paraquat. FirstShot will help improve the control of many broadleaf weeds such as henbit, wild radish, Carolina geranium, and chickweed. Peanut can be planted 30 days after application. Add a NIS at 0.25% v/v or COC at 1% v/v unless tank-mixed with a loaded glyphosate formulation.
carfentrazone Aim 2EC	14	1-2 oz	0.016-0.031	12 H/ 7 D	Tank-mix with glyphosate to improve the burndown control of annual morningglory, tropical spiderwort, and small pigweed (<1" tall). Apply prior to planting or up until 24 hours after planting. Add a NIS at 0.25% v/v or COC at 1% v/v unless tank-mixed with a "loaded" glyphosate formulation.
pyraflufen ET 0.208EC	14	0.5-2 oz	0.001-0.003	12 H/ 7 D	Tank-mix with glyphosate to improve the burndown control of annual morningglory and small pigweed (<1" tall). Apply as preplant burndown or after planting but before crop emergence. Add a COC at 1% v/v unless tank-mixing with a "loaded" glyphosate formulation.

PEANUT WEED CONTROL

HERBICIDE	MOA	BROADCAST RATE/ACRE		REI/PHI (Hours or Days)	REMARKS AND PRECAUTIONS
		AMOUNT OF FORMULATION/A	LBS ACTIVE INGREDIENT/A		
PREPLANT SOIL INCORPORATED					
ethalfluralin Sonalan HFP 3EC	3	2 pt	0.75	24 H/ –	Controls annual grasses and small-seeded broadleaf weeds. Soil incorporate 2-3 inches deep within 2 days of application. Incorporation with implements other than power tiller requires two passes, preferably at cross angles. May be tank-mixed with Frontier/Outlook or Dual for control of mixed infestations of annual grasses and nutsedge. *Sonalan may also be applied as a surface application to freshly prepared seedbeds but must be incorporated by 0.5-1" of rainfall or irrigation within 2 days after application.*
pendimethalin Prowl/Pendimax 3.3EC Prowl H_2O 3.8 ACS	3	1.8-2.4 pt 2 pt	0.75-1 0.95	24 H/ –	Controls annual grasses and small-seeded broadleaf weeds. Soil incorporate 1-2 inches deep within 7 days of application. Incorporation with implements other than power tiller requires two passes, preferably at cross angles. Use high rate for Texas panicum or where heavy weed populations are anticipated. May be tank-mixed with Frontier/Outlook, Dual, or Pursuit for control of mixed infestations of annual grasses and nutsedge. Prowl can be applied immediately after planting to a freshly prepared seedbed up to 2 days after planting but before crop emergence. However, adequate incorporation in the form of 0.75" of irrigation or rainfall is needed within 48 hours for optimum activation when applied by this method. **In strip-tillage production systems, the rate of pendimethalin should be increased to 2.6 pt/A (Prowl 3.3EC) or 2.2 pt/A (Prowl H_2O).**
metolachlor Stalwart, Parallel PCS, Me-Too Lachlor 8EC *S-metolachlor* Dual Magnum 7.62EC Dual II Magnum 7.64EC Cinch 7.62EC	15	1-1.33 pt 1-1.33 pt	1-1.33 0.95-1.27	24 H/ 90 D	Controls some annual grasses (not Texas panicum) and small-seeded broadleaf weeds. May provide limited Florida beggarweed suppression. Controls or suppresses yellow nutsedge but not purple nutsedge. Incorporation with implements other than power tiller requires two passes, preferably at cross angles. Deep incorporation may reduce effectiveness. May be tank-mixed with Prowl/Pendimax or Sonalan to control mixed infestations of annual grasses and yellow nutsedge. PPI treatments generally provide better control of nutsedge. Heavy rainfall after planting and/or non-uniform incorporation may result in crop injury expressed as delayed emergence and stunted growth of emerging plants. The generic formulations of metolachlor **(Parallel PCS, Stalwart, Me-Too-Lachlor)** have not provided the same length of residual control of certain weeds as similar rates of Dual Magnum formulations in some UGA field trials.
diclosulam Strongarm 84WG	2	0.45 oz	0.024	12 H/ –	Provides general broadleaf weed control. Incorporate into top 1-3" of final seedbed. Good to excellent control of many species including bristly starbur, wild poinsettia, eclipta, and copperleaf. Should be tank-mixed with a grass herbicide. **Poor control of sicklepod.** Control of nutsedge has been variable and inconsistent. Can also be applied preemergence. **Crop rotation restrictions: soybeans – 0 months; wheat, barley – 4 months; oats, rye – 6 months; cotton – 10 months; corn, sorghum, tobacco – 18 months; other crops – 30 months.** Pre-slurry in water before adding to larger spray/mix tank.
imazethapyr Pursuit 2 AS 70 DG	2	 4 oz 1.44 oz	0.063	4 H/ 85 D	Controls purple and yellow nutsedge, wild poinsettia, wild radish, pigweed, burgherkin, and several other annual species. Does not control Florida beggarweed or sicklepod. Shallow incorporation is preferred. May be tank-mixed with Dual, Prowl/Pendimax, or Sonalan. Incorporated treatments are more persistent than preemergence or postemergence applications and are more likely to result in carryover. **Rotation intervals for various crops include the following: peanut, peas, southern pea, soybean – anytime; snap bean – 2 months; rye and wheat – 4 months; field corn – 8.5 months; barley, tobacco – 9.5 months; cotton, oat, sorghum, sunflower, sweet corn – 18 months.**

PEANUT WEED CONTROL

HERBICIDE	MOA	BROADCAST RATE/ACRE		REI/PHI (Hours or Days)	REMARKS AND PRECAUTIONS
		AMOUNT OF FORMULATION/A	LBS ACTIVE INGREDIENT/A		
CHEMIGATION					
metolachlor Stalwart, Parallel PCS Me-Too-Lachlor	15	Refer to PPI section for rates			May be applied by injection through center pivot irrigation systems. Use at normal recommended rates. Apply after planting but before crop emergence. Requires proper system calibration and safety devices (check valves, cutoff switches, etc.) to provide effective weed control and prevent environmental contamination. Accurate herbicide application through chemigation may provide superior weed control compared to conventional ground applications. The generic formulations of metolachlor (Parallel PCS, Stalwart, Me-Too-Lachlor) have not provided the same length of residual control of certain weeds as similar rates of Dual Magnum formulations in some UGA field trials.
S-metolachlor Dual Magnum 7.62E Cinch 7.64EC	15	Refer to PPI section for rates			
pendimethalin Prowl/Pendimax3.3EC Prowl H_20 3.8ACS	3	Refer to PPI section for rates			
PREEMERGENCE					
imazethapyr Pursui 2.0 AS Pursui 70 DG	2	4 oz 1.44 oz	0.063	4 H/ 85 D	See comments for Pursuit PPI. Controls the same weeds as listed for Pursuit PPI but with greater dependency on rainfall or irrigation for activation.
metolachlor Stalwart, Parallel PCS, Me-Too-Lachlor	15	1-1.33 pt	1-1.33	24 H/ 90 D	Controls some annual grasses (not Texas panicum) and small-seeded broadleaf weeds. Provides some suppression of sicklepod and Florida beggarweed. Apply after planting and before crop and weeds emerge. If Dual is used as a PPI treatment, any additional application of Dual should be delayed until peanuts begin emerging (AC). Multiple applications–preplant incorporated followed by at-cracking treatments—improve control of sicklepod, Florida beggarweed, and yellow nutsedge. Preemergence treatments generally provide better broadleaf weed control/suppression. Up to 2 pt/A of any metolachlor formulation can be applied preemergence for the partial control of Florida beggarweed in the southeast Do not apply more than 2.66 pt/A/year of Stalwart/Parallel/ Me-Too-Lachlor or 2.8 pt/A/year of Dual Magnum/Dual II Magnum/Cinch formulation. The generic formulations of metolachlor **(Parallel, Stalwart, Me-Too-Lachlor)** have not provided the same length of residual control of certain weeds as similar rates of Dual Magnum formulations in some UGA field trials.
S-metolachlor Dual Magnum 7.62EC Dual II Magnum 7.64EC Cinch 7.64EC		1-1.33 pt	0.96-1.27		
diclosulam Strongarm 84WG	2	0.45 oz	0.024	12 H/ –	Refer to PPI section.
flumioxazin Valor SX 51WG Outflank 51WG Panther 51WG Rowel 51WG	14	3 oz	0.096	12 H/ –	Apply immediately after planting but no later than 2 days after planting. Plant peanuts at least 1.5" deep. **DO NOT** irrigate when peanuts are cracking. Rainfall or irrigation at cracking will cause temporary crop injury that should not result in reduced yields if applied according to the label. Valor will provide good to excellent control of many broadleaf weeds including Florida beggarweed, Palmer amaranth, and tropic croton. **Valor will not control annual/perennial grasses, sicklepod, nutsedge, and cocklebur.** Valor can be tank-mixed with Prowl, Sonalan, Dual Magnum, or Warrant. Dual or Warrant tank-mixes with Valor would only be suggested when planting late in fields with a history of tropical spiderwort. **Can also be used in strip-tillage peanut production systems in combination with glyphosate or paraquat to improve burndown control.** Rotation restrictions include the following: soybeans – 0 months; field corn – 1 month; cotton, tobacco, wheat – 2 months. Refer to current product label for additional rotational restrictions. **Completely clean spray equipment THE SAME DAY OF USE as directed on the herbicide label!!!** Pre-slurry in water before adding to larger spray/mix tank. **Panther SC** and Valor EZ are liquid formulations of flumioxazin but have not been adequately tested by UGA. **RedEagle** is another dry formulation of flumioxazin but has not been adequately tested by UGA.

PEANUT WEED CONTROL

HERBICIDE	MOA	BROADCAST RATE/ACRE		REI/PHI (Hours or Days)	REMARKS AND PRECAUTIONS
		AMOUNT OF FORMULATION/A	LBS ACTIVE INGREDIENT/A		
PREEMERGENCE					
sulfentrazone + *carfentrazone* Spartan Charge 3.5L	14 + 4	3-3.75 oz	0.074-0.092 + 0.008-0.01	12 H/ –	Will provide good to excellent residual control of pigweed. Can be tank-mixed with Prowl or Dual. Can be tank-mixed with glyphosate or paraquat pre-plant burndown in strip-tillage systems. Can be applied up to 3 days after planting. **However, do not apply after peanut emergence, at cracking, or if seedling is close to the soil surface. Do not use on soils classified as sand, which have less than 1% OM.** Do not irrigate when peanuts are cracking. Rotation Restrictions: soybeans, sunflowers, tobacco – anytime; field corn, small grains – 4 months; sorghum – 10 months; cotton – 18 months; canola – 24 months.
acetochlor Warrant 3ME	15	48 oz	1.125	12 H/ Forage-90 D	Can be applied PRE and/or EPOST (after crop emergence up through the R1 stage of growth. R1 ends when 50% of plants have a visible peg (R2)). Will provide good to excellent control of annual grasses (except Texas panicum), pigweed, and tropical spiderwort. Crop injury potential will increase if used in cold/wet soils. In wet years or environments, the length of residual control with Warrant may be reduced.
AT CRACKING OR EARLY POSTEMERGENCE					
imazethapyr Pursuit 2.0 AS 70 DG	2	 4 oz 1.44 oz	0.063	4 H/ 95 D	See comments for Pursuit PPI and PRE. Provides effective control of nutsedge, wild poinsettia, wild radish, bristly starbur, prickly sida, and several other annual species. Weed size is especially critical for effective control of nutsedge, bristly starbur, and prickly sida. If weeds are emerged, surfactant or crop oil concentrate should be included. May be tank-mixed with paraquat or 2,4-DB for broader spectrum control of emerged weeds.
metolachlor Stalwart Parallel PCS Me-Too-Lachlor 8EC	15	1-1.33 pt	1-1.33	24 H/ 90 D	See comments for Dual PPI and PRE. Compared to PPI and PRE treatments, AC applications provide better control of non-emerged broadleaf weeds such as Florida beggarweed and sicklepod. May be tank-mixed with paraquat + Basagran, paraquat + Storm , or Cadre or Cobra treatments for improved contact activity and for suppression/control of problem broadleaf weeds and yellow nutsedge. **Do not use Dual II Magnum/Cinch formulations after peanut emergence.** Do not apply more than 2.66 pt/A/year of Stalwart/Parallel/Me-Too-Lachlor or 2.8 pt/A/year of Dual Magnum. Research has shown that Dual will provide good to excellent residual control of tropical spiderwort if applied before weed emergence. The generic formulations of metolachlor **(Parallel PCS, Stalwart, Me-Too-Lachlor)** have not provided the same length of residual control of certain weeds as similar rates of Dual Magnum formulations in some UGA field trials. **Adjuvants are not needed when Dual is tank-mixed with POST treatments.**
S-metolachlor Dual Magnum 7.62EC		1-1.33 pt	0.95-1.27		
acetochlor Warrant 3ME	15	48 oz/A	1.125	12 H/ Forage-90 D	Can be applied after emergence through the R1 (flowering) stage of growth. R1 ends when 50% of plants have a visible peg (R2). Can be tank-mixed with paraquat + Basagran or paraquat + Storm treatments or Cadre or Cobra. Total amount of Warrant that can be applied PRE + EPOST = 6 pt/A/year. Use a NIS at 0.25% v/v when tank-mixed with POST herbicides.
paraquat Firestorm/Parazone/Helmquat 3 SL	22	5.4 oz	0.125	12 H/ –	Provides effective contact control of sicklepod, Florida beggarweed, Texas panicum, and many other problem weeds. When used alone, paraquat is not effective on smallflower morningglory, prickly sida, wild radish, or tropic croton. Apply anytime **up to 14 days after ground crack.** After in combination with Basagran or Storm 14 days after ground crack. Include NIS at 1 qt/100 gal spray solution with all paraquat treatments. Do not make more than 2 applications per season. Do not apply a total of more than 10.8 ozs/A/year (Firestorm/Parazone) or 16 ozs/A/year (Gramoxone SL/Inteon). Peanut foliage injury is usually temporary. Conditions of high humidity, wet foliage, and/or wet soils result in greater foliage burn. Thrips injury retards crop recovery. Research indicates no adverse effects of adding chlorothalonil products with paraquat tank-mixtures where fungicide treatments are needed. **The success of "at-crack" sprays can be greatly improved by 1) applying herbicides in a minimum of 15 GPA; 2) using flat fan nozzles; 3) decreasing ground speed; and 4) using lower spray pressures (30 PSI). Rain-free period for paraquat is 30 minutes.**
Gramoxone Inteon/ Gramoxone 2SL		8 oz			

PEANUT WEED CONTROL

HERBICIDE	MOA	BROADCAST RATE/ACRE: AMOUNT OF FORMULATION/A	BROADCAST RATE/ACRE: LBS ACTIVE INGREDIENT/A	REI/PHI (Hours or Days)	REMARKS AND PRECAUTIONS
AT CRACKING OR EARLY POSTEMERGENCE *(continued)*					
paraquat Firestorm/Parazone/Helmquat 3 SL or Gramoxone Inteon/ Gramoxone 2SL + *bentazon+acifluorfen* Storm 4EC	22 + 6 + 14	8 oz 12 oz + 1-1.5 pt	0.188 + 0.5 + 0.25	48 H/ 75 D	Provides effective, broad-spectrum weed control. Provides some suppression of yellow nutsedge. Addition of Dual or Frontier/Outlook improves contact activity and provides residual weed suppression/control, but could result in increased foliar peanut burn. Apply anytime up to 28 days after ground crack. Include NIS at 0.25% (1 qt/100 gal) with all paraquat treatments. **The success of "at-crack" sprays can be greatly improved by: 1) applying herbicides in a minimum of 15 GPA; 2) using flat fan nozzles; 3) decreasing ground speed; and 4) using lower spray pressures (30 PSI).** Research indicates no adverse effects of adding chlorothalonil products with paraquat tank-mixtures where fungicide treatments are needed ***Warrant, Dual Magnum or generic metolachlor can be used in combination with this treatment to provide residual control of pigweed and tropical spiderwort. NIS is not recommended if Dual Magnum or generic metolachlors are used with paraquat + Storm.**
paraquat Firestorm/Parazone/Helmquat 3 SL or Gramoxone Inteon/ Gramoxone 2SL + *bentazon* Basagran 4EC 5EC	22 + 6 + 14	8 oz 12 oz + 8-16 oz 6.4-12.8 oz	0.189 + 0.25 + 0.5	48 H/ Forage-50 D	Provides effective, broad-spectrum weed control. Provides some suppression of yellow nutsedge. Generally reduces peanut injury compared to other paraquat treatments. The lower rate of Basagran (0.5 pt) is usually sufficient to reduce peanut foliar burn and provide control of smallflower morningglory. The higher rate (1 pt) is necessary for control of weeds such as bristly starbur and prickly sida. Apply anytime up to 28 days after ground crack. Include NIS at 1 qt/100 gal spray solution with all paraquat treatments. **The success of "at-crack" sprays can be greatly improved by 1) applying herbicides in a minimum of 15 GPA; 2) using flat fan nozzles; 3) decreasing ground speed; and 4) using lower spray pressures (30 PSI).** Research indicates no adverse effects of adding chlorothalonil products with paraquat tank-mixtures where fungicide treatments are needed. ***Warrant (48 oz/A) or Dual Magnum or generic metolachlor (16 oz/A) can be used in combination with this treatment to provide residual control of pigweed and tropical spiderwort. NIS is not recommended if Dual Magnum or generic metolachlors are used with paraquat + Basagran.**
diclosulam Strongarm 84WG	2	0.45 oz	0.024	12 H/ –	24(c) label for use in Georgia. The o**nly weed on current 24(c) label is tropical spiderwort but Strongarm also has POST activity on annual morningglory, bristly starbur, common cocklebur, common ragweed, eclipta, and horseweed.** Can be applied up until 30 days after planting. Use in combination with a NIS at 0.25% v/v (1 qt/100 gals). **When applied postemergence in peanut, cotton rotation restriction is 18 months.** Follow other rotation restrictions listed in PPI section. Label must be in the possession of user at the time of application.
POSTEMERGENCE					
acifluorfen Ultra Blazer 2L	14	0.5-1.5 pt	0.125-0.38	–/ 75 D	Especially useful for control of morningglories, tropic croton, wild radish, wild poinsettia, hophornbeam copperleaf, and spider flower. Adjust rate according to weed size and species as noted on the label. Use 1 pt/A or less for control of highly sensitive species such as hemp sesbania and showy crotalaria. Slight to moderate peanut foliage burn may result. Do not apply more than 2 pt/A per season as a postemergence treatment. Apply with nonionic surfactant at 1 qt/100 gal spray solution (0.25% v/v). May be tank-mixed with 2,4-DB (1 pt/A). The Blazer + 2,4-DB tank mixture is generally more injurious to peanuts than either product alone. May be tank-mixed with Basagran for improved control of broadleaf weeds such as cocklebur, and prickly sida. A pre-packaged mix of acifluorfen + bentazon is marketed as Storm. Ultra Blazer can be tank-mixed with Dual Magnum or Warrant + 2,4-DB. **Rain-free period for Ultra Blazer is 4 hrs.**

PEANUT WEED CONTROL

HERBICIDE	MOA	BROADCAST RATE/ACRE		REI/PHI (Hours or Days)	REMARKS AND PRECAUTIONS
		AMOUNT OF FORMULATION/A	LBS ACTIVE INGREDIENT/A		
POSTEMERGENCE					
bentazon Basagran 4EC 5EC	6	 1.5-2 pt 1.2-1.6 pt	0.75-1	48 H/ Forage-50 D	Apply for postemergence control of yellow nutsedge, cocklebur, bristly starbur, smallflower morningglory, prickly sida, and certain other weeds. Treat when broadleaf weeds are small and actively growing. Adjust rate according to weed size as noted on label. Two applications may be required for control of yellow nutsedge. For yellow nutsedge, include crop oil concentrate at 1 qt/A. Do not foliarly apply sulfur 14 days before or after use of crop oil concentrate to minimize risk of peanut foliage burn. May be tank-mixed with 2,4-DB amine 2L (0.5 pt/A) for improved control of morninglories. Early-season applications of bentazon at high rates following in-furrow applications of Di-Syston may infrequently result in SEVERE peanut injury**. Rain-free period for Basagran is 4 hours.**
bentazon + *acifluorfen* Storm 4EC	6 + 14	 1.5 pt	0.5 + 0.25	48 H/ 75 D	Controls morninglories, cocklebur, prickly sida, ragweed, eclipta, tropic croton, and several other broadleaf weeds with less injury than Blazer alone. Application timing is critical–weeds must be small. Include surfactant or crop oil concentrate. Can be mixed with 2,4-DB for control of larger weeds and for control of sicklepod. May be tank-mixed with paraquat. **Rain-free period for Storm is 4 hours.**
2,4-DB Butyrac 175 - 1.75 lb/gal Butyrac 200 - 2 lb/gal Butoxone 175 - 1.75 lb/gal Butoxone 200 - 2 lb/gal	4	 14-18 oz 13-16 oz 16-28 oz 14-26 oz	 0.19-0.25 0.20-0.25 0.22-0.38 0.22-0.40	48 H/ 30-45 D (Depends upon formulation)	Apply up to 2 applications per season as an over-the-top treatment for broadleaf weed control. Use rates and application timing varies by specific product label. Apply in the seedling stage for control of morningglory and citronmelon. Cocklebur that is 1 foot or more in height can be controlled; however, earlier treatment is preferred. Also effective for control of escaped sicklepod. Do not apply if peanuts are under drought stress. Butyrac may be applied up to 12 weeks after planting. Research indicates no adverse effects of adding chlorothalonil products with 2,4-DB where fungicide treatments are needed. **Rain-free period for 2,4-DB is 1 hour. Do not tank-mix with postemergence grass herbicides.**
imazethapyr Pursuit 2 AS 70 DG	2	 4 oz 1.44 oz	0.063	4 H/ 85 D	See comments for Pursuit PPI, PRE, and AC/EP. Generally should be used early postemergence-when weeds are extremely small. Controls wild radish, pigweeds, morninglories, cocklebur, and several other annual species. Compared to PPI, PRE. and AC/EP treatments, POST applications are less effective on nutsedge, wild poinsettia, and some other species. Applications should be made before nutsedge exceeds 3-4 inches and bristly starbur exceeds 2”. May be tank-mixed with paraquat or 2,4-DB. Post control of escaped wild poinsettia is greatly enhanced in combination with paraquat. **Rain-free period for Pursuit is 1 hour.**
imazapic Cadre/Impose 2AS	2	 4 oz	0.063	12 H/ 90 D	Provides excellent control of many broadleaf and grass weeds and both purple and yellow nutsedge. Apply as an early postemergence treatment when weeds are less than 2-3 inches in height. Under conditions of heavy weed pressure, applications of Cadre 10-14 days following an at-cracking treatment (paraquat combination) has resulted in superior weed control. Use with NIS (0.25% v/v) or COC (1 qt/A). Do not tank-mix with postemergence grass herbicides. **Rotation restrictions include: wheat, rye-4 months; corn, snapbeans, southern peas, soybeans, tobacco-9 months; cotton, oats, sweet corn, grain sorghum-18 months; canola-40 months. See label for additional restrictions. Rain-free period for Cadre is 3 hours. Cadre can be tank-mixed with Dual Magnum or Warrant + 2,4-DB**
lactofen Cobra 2EC	14	 12.5 oz	0.195	12 H/ 45 D	Apply after peanuts reach 6 true leaf stage of growth. Use a crop oil concentrate at 1% v/v (1 gal/100 gals). Provides good control of pigweeds, morninglories, ragweed, copperleaf, wild poinsettia, and eclipta. Cobra can be tank-mixed with Basagran, Dual Magnum, Cadre, Pursuit, Select, Warrant and 2,4-DB. **Rain-free period is 30 minutes.**

PEANUT WEED CONTROL

HERBICIDE	MOA	BROADCAST RATE/ACRE: AMOUNT OF FORMULATION/A	BROADCAST RATE/ACRE: LBS ACTIVE INGREDIENT/A	REI/PHI (Hours or Days)	REMARKS AND PRECAUTIONS
POSTEMERGENCE *(continued)*					
sethoxydim Poast 1.5EC Poast Plus 1EC	1	 1-1.5 pt 1.5-2.25 pt	0.19-0.28	12 H/ 40 D	For control of annual and perennial grasses. Apply when annual grasses are small (1-6 inches) and actively growing. Under favorable conditions, large Texas panicum can be controlled. For perennial grass control, two applications are usually required for satisfactory control. Always apply with 1 qt/A crop oil concentrate. Tank-mixtures with other herbicides, such as 2,4-DB, may reduce grass control. Do not apply sulfur 14 days before or after application to minimize risk of peanut foliage burn. Reduced spray volumes (10 GPA) may improve grass control. Refer to Table 1 at the end of this chapter for more specific information about grass control. **Rain-free period for Poast is 1 hour.**
clethodim Select, Arrow, others 2EC Select Max / TapOut 0.97EC Section Three, Shadow 3EC	1	 6-8 oz 12-16 oz 3.84-5.33	0.09-0.125	24 H/ 40 D	For control of annual and perennial grasses. Apply when grasses are small (<6 inches) and actively growing. Under favorable conditions, large Texas panicum and bermudagrass can be effectively controlled. Heavy bermudagrass pressure or larger Texas panicum requires a follow-up treatment. When tank-mixing with a broadleaf herbicide or controlling perennial grasses, increase rates (8-16 ozs/A-Select; 16-32 oz/A-Select Max/TapOut). Do not apply more than 21.33 oz/A/year (Section Three, Shadow), 32 oz/A/year (Select) or 64 oz/A/year (Select Max/TapOut). Always apply with a crop oil concentrate at 1% v/v (Select/Arrow). A NIS (0.25% v/v) can be used with Select Max/TapOut to reduce crop injury potential. May be tank-mixed with Basagran, Blazer, Storm, or Orthene. **Do not tank-mix with chlorothalonil products or reduced grass control can occur.** Refer to Table 1 at the end of this chapter for more specific information about grass control. **Rain-free period is 1 hour.**
fluazifop-P Fusilade DX 2EC	1	 8-24 oz	0.125-0.375	12 H/ 40 D	For the control of annual and perennial grass weeds. Use rate depends on weed and weed size. Refer to table at the end of this section for specific information about rates and timings. Do not apply more than 48 oz/A/season. Do not apply more than 24 oz/A/application. Maintain a minimum of 14 days between applications. Use a NIS at 0.25% v/v or COC at 1% v/v. Refer to Table 1 at the end of this chapter for more specific information about grass control. **Rain-free period is 1 hour.** Fusilade also has some activity on bristly starbur (i.e. goathead or Texas sandspur).
chlorimuron Classic 25DF	2	 0.5 oz	0.008	–/ 45 D	Make one application per season as an over-the-top treatment for mid-season Florida beggarweed and bristly starbur control or suppression. Under favorable conditions—good soil moisture, moderate temperatures, and high relative humidity—other species such as cocklebur, ragweed, and sicklepod may be suppressed. Avoid applications during periods of drought/heat stress because of potential for poor weed control and crop injury. **Applications of Classic may not provide acceptable control of Florida beggarweed that has escaped control or is re-growing after a previous application of Cadre.** Include nonionic surfactant at 1 qt/100 gals spray solution with all Classic applications. Addition of ammonium sulfate (2 lb/A) or feed grade urea (2 gal/A) improves activity on bristly starbur. Classic can be applied from 60 days after peanut emergence to within 45 days of harvest. **APPLICATIONS OF CLASSIC APPLIED FROM 60 DAYS AFTER CROP EMERGENCE TO 45 DAYS BEFORE HARVEST MAY CAUSE A SLIGHT INCREASE IN TSWV SYMPTOMS.** Temporary yellowing of peanut foliage and reduction of canopy growth sometimes can occur. Can be tank-mixed with Bravo or 2,4-DB. However, combinations of Classic + 2,4-DB can result in significantly more foliar crop injury compared to Classic alone. Do not use on Spanish pecananut. Do not tank-mix with elemental sulfur. **Rain-free period for Classic is 1 hour**. In recent weed-free trials conducted in Georgia, Classic has caused 7-11% yield reductions when applied to Georgia-06G and Tifguard. Significant yield losses have not occurred when Classic has been applied to Florida-07, Georgia Greener, and Georgia-07W. In 2013, GA-09B yields were reduced 5% when Classic was applied 74 DAE. Yields were not affected when applied to 60, 92, and 105 DAE.

PEANUT WEED CONTROL

HERBICIDE	MOA	BROADCAST RATE/ACRE		REI/PHI (Hours or Days)	REMARKS AND PRECAUTIONS
		AMOUNT OF FORMULATION/A	LBS ACTIVE INGREDIENT/A		
NON-SELECTIVE APPLICATOR (NSA)					
paraquat Gramoxone Inteon/ Gramoxone 2SL	22	50:50 solution in water		24 H/ 30 D	Section 24C Special Local Need label: For the salvage control/suppression of Palmer amaranth and Florida beggarweed. To prevent seed production in Palmer amaranth, apply within 2 weeks of pollen shed. Tractors should be operated at speeds of 5 MPH or less. NSAs that have performed well (>85% control) in UGA tests include the following: GrassWorks Weed Wiper, Smucker's Top Crop Super Sponge, and LMC-Cross Wick-Bar Do not apply more than 1 pt/A of Gramoxone. In order for NSAs to be effective, at least 60%-70% of the weed must be wicked/wiped. Additionally, this treatment may also be more effective on pigweed plants that are just starting to produce seed-heads. **Rain-free time is 30 minutes. 24C Label must be in possession of user at the time of application.**
HARVEST AID					
carfentrazone Aim 2EC	14	1-2 oz	0.156-0.031	12 H/ 7 D	Useful for the late-season dessication/defoliation of annual morningglories (*Ipomoea* spp.). Aim is less effective on smallflower morningglory. Use in combination with either a NIS (0.25% v/v) or COC (1% v/v). Aim may cause peanut leaf spotting or burning. Use at least 15 GPA for optimum results. Do not graze or feed peanut hay to livestock. Only 1 application per season is permitted. **Rain-free period is 6-8 hours**.
pyraflufen ET 0.208EC	14	1-2 oz	0.0016-0.0032	12 H/ 7 D	Useful for the late-season dessication/defoliation of annual morningglories (*Ipomoea* spp). Use in combination with a NIS at 0.25% v/v (1 qt/100 gals). Apply a minimum of 7 days before harvest. Use at least 15 GPA for optimum results. ET will cause peanut leaf speckling/burn. **Rain-free period is 1 hour**.

WEED RESPONSE TO BURNDOWN HERBICIDES USED IN PEANUT

Eric P. Prostko and A. Stanley Culpepper, Extension Agronomists – Weed Science

WEED SPECIES	Burndown Treatment[1]							
	2,4-D [3]	glyphosate acid[2]	glyphosate acid [2] + 2,4-D [3]	glyphosate acid [2] + Valor	glyphosate acid[2] + Aim or ET	paraquat	paraquat + 2,4-D	paraquat + Valor[4]
GRASSES / SEDGES								
annual bluegrass	N	E	E	E	E	G-E	G-E	
bermudagrass	N	F	F	F	F	P	P	
crabgrass	N	E	G-E	E	E	G		
goosegrass	N	E	G-E	E	E	F-G		
Italian ryegrass	N	G-E	G	G	G	P-F	P-F	
johnsongrass	N	G-E	G	G-E	G-E	P		
little barley	N	E	E	E	E	G	G	
sandbur	N	E	G-E	E	E	G		
Texas panicum	N	E	G-E	E	E	G		
volunteer corn	N	E	E	E	E	F-G		
purple nutsedge	N	F-G	F-G	G	F-G	P-F		
yellow nutsedge	N	F	F	F	F	P-F		
BROADLEAVES								
bristly starbur	G	G-E	G-E	E	E	E		
buttercup	G	G-E	E	G-E	G-E	E		
Carolina geranium	F	P-F	G	G	F-G	G-E	G-E	
chickweed	P	E	E	E	E	E	E	
citronmelon	F	G-E	E	E	E	F		
cocklebur	E	E	E	E	E	G-E		
coffee senna	G	E	E	E	E	F		
corn spurry	P-F	G-E	G-E			F-G		
cowpea	G	E			E	E		
cudweed	P-F	G-E	G-E	E		F-G		
curly dock	P-F	F	F-G	F	F	P	P-F	
eveningprimrose	E	P-F	E	F-G	F	P-F	E	F-G

WEED RESPONSE TO BURNDOWN HERBICIDES USED IN PEANUT

WEED SPECIES	Burndown Treatment[1]							
	2,4-D [3]	glyphosate acid[2]	glyphosate acid [2] + 2,4-D [3]	glyphosate acid [2] + Valor	glyphosate acid[2] + Aim or ET	paraquat	paraquat + 2,4-D	paraquat + Valor[4]
BROADLEAVES *(continued)*								
eclipta	P	F			G-E	F		G
Florida beggarweed	P-F	E	E	E	E	E		
Florida pusley	F	F	G	F-G	G	F		G
field pansy	P-F	F-G	F-G	G		G-E		
hemp sesbania	G-E	P-F	E		G-E	F		
henbit	P-F	F	G-E	E	E	G	G-E	
horsenettle	F	F			P-F	P-F		
Horseweed	F-G	F-G	G-E	F-G	G	F	G	F
ALS-resistant	F-G	F-G	G-E	F-G	G	F	G	F
Glyphosate-resistant	F-G	P	F-G	P	F	F	G	F
lambsquarters	E	G	G		G-E	F-G		
morningglory, Ipomoea	G	F	E	E	E	F-G		
morningglory, smallflower	F	G	E	E	G-E	P		
Pennsylvania smartweed	F	G	G		G-E	P		
Pigweed	G-E	G-E	E	E	E	G	G-E	G-E
ALS-resistant	G-E	G-E	G-E	E	E	G	G-E	G-E
Glyphosate-resistant	G-E	P	F-G	P	F	G	G-E	G-E
prickly sida	F-G	F-G	G		F-G	P-F		
purslane	G-E	F-G	G-E	G	F-G	G		
ragweed	E	G	E		G-E	G		
redweed	F	G			G-E	F		
shepherdspurse	G	G			G	G	G-E	
sicklepod	F-G	G-E	E	E	G-E	E		
speedwell	P-F	G-E	G-E	E	E	F	G	
spurred anoda	F-G	G			G	F-G		
swinecress	F-G	F-G	G	F-G	F-G	P	P-F	
tropic croton	F	G-E	G-E	E	G-E	F		

WEED RESPONSE TO BURNDOWN HERBICIDES USED IN PEANUT

WEED SPECIES	Burndown Treatment[1]							
	2,4-D[3]	glyphosate acid[2]	glyphosate acid[2] + 2,4-D[3]	glyphosate acid[2] + Valor	glyphosate acid[2] + Aim or ET	paraquat	paraquat + 2,4-D	paraquat + Valor[4]
BROADLEAVES *(continued)*								
tropical spiderwort	G-E	P	G-E	F	Aim = G-E ET = P-F	G	G-E	
velvetleaf	F-G	G			E	P		
vines (maypop, trumpet creeper, bigroot mg)	F	P-F			P-F	P		
Virginia pepperweed	G-E	G			G	P-F	G-E	
volunteer peanuts	P	F	F	F-G	F	P	P	F-G
wild lettuce	G	G	G-E	E	G-E	P		
wild poinsettia	F-G	G			G-E	G-E		
wild radish	G	F-G	E	G	G	F	F-G	G
COVER CROPS								
clover	F	F	F-G		F	F-G		
lupine	G	G	G		G	F-G		
small grains	N	E	G-E	E	E	G		G
vetch	G	F	G-E	F	F	F		

Key:
E – 90% or better control
G – 80% to 90% control
F – 60% to 80% control
P –30% to 60% control
N – < 30% control

[1] Application rates per acre: 2,4-D, 1 pt; glyphosate acid, 0.75 lb a.e.; paraquat , 0.63 lb a.i.; Valor, 1 to 2.0 oz (Note: if 3 oz/A of Valor is used, burndown control may be better than indicated and residual control will be increased); Aim, 1-2 oz/A; ET, 0.5-2 oz/A.

[2] Mixing herbicides with glyphosate occasionally reduces grass control (including cover crops). This is more likely to occur with large weeds in dry conditions.

[3] Labels for 2,4-D are ambiguous concerning the waiting period between application and planting.

[4] Use a NIS (0.25% v/v) or COC (1% v/v) with this tank-mixture. A COC may be preferred if weeds are large

WEED RESPONSE TO HERBICIDES USED IN PEANUTS

Eric P. Prostko, Extension Agronomist - Weed Science

	I PPI/PRE[1,2]						PRE			POSTEMERGENCE	
	Prowl Pendimax Sonalan	Dual Magnum[3]	Lasso Intrro	Propel Outlook	Pursuit	Strongarm	Warrant	Spartan Charge	Valor	Paraquat[4]	Paraquat + Storm
PERENNIALS											
bermudagrass	P	P	P	P	P	P	P		P	P	P
johnsongrass-rhizome	P	P	P	P	P	P	P		P	P	P
nutsedge, purple	P	P	P	P	G	P-F	P		P	P-F	F
nutsedge, yellow	P	F-G	F	F	F-G	P-F	P-F		P	P-F	F-G
broadleaf signalgrass	G-E	F-G	P	F	P	P	F-G		P	G	G
crabgrass	E	E	E	E	F	P	E		P	F-G	F-G
crowfootgrass	E	E	E	E	P	P	E		P	G	G
fall panicum	G	G	G	G	P-F	P	G		P	G	G
goosegrass	E	E	E	E	F	P	E		P	F-G	F-G
johnsongrass-seedling	E	F	F	F	G	P	F		P	G	G
sandbur	E	F-G	F-G	F-G		P	F-G		P	F	F-G
Texas panicum	G-E	P-F	P	P	P-F	P-F	P-F		P	G-E	G-E
BROADLEAVES											
bristly starbur	P	P	F	P	F	E	P		F	P-F	F-G
burgherkin	P	P	P	P	E	G	P		G	F	G
carpetweed	G	P-F	P-F	G	F-G	G	P			F-G	G
citronmelon	P	P	P	P	P	G	P		G	F	G
cocklebur	P	P	P	P	G-E	G-E	P		P	G	G-E
coffee senna	P	P	P	P	F-G	P	P		P-F	F	E
copperleaf	P	P		F-G	P	G-E	P		G-E	P	G
cowpea	P	P	P	P	P	P	P		P-F	F-G	F

WEED RESPONSE TO HERBICIDES USED IN PEANUTS

	I PPI/PRE[1,2]						PRE			POSTEMERGENCE	
	Prowl Pendimax Sonalan	Dual Magnum[3]	Lasso Intrro	Propel Outlook	Pursuit	Strongarm	Warrant	Spartan Charge	Valor	Paraquat[4]	Paraquat + Storm
BROADLEAVES *(continued)*											
crotalaria	P	P	P	P			P		G		F-G
croton, tropic	P	P	P-F	P	P	F-G	P		G	P	G
dayflower, Benghal tropical spiderwort	P	G-E	F	F	G	G	G-E		F	G	G
eclipta	P	P-F	P-F	P-F	P	G-E			G-E	P-F	F-G
Florida beggarweed	P	P-F	F	P-F	P	F-G	P-F		G-E	G-E	G-E
Florida pusley	E	G-E	G-E	G-E	G	G-E	G		G-E	P	P
groundcherry, cutleaf	P	G	G	G							
jimsonweed	P				G	G-E			G	P	F
hairy indigo	P	F				G			G	F	
hemp sesbania	P	P	P	P	P	P-F	P		G		G
horseweed							P		G-E	P	P
lambsquarters	E	F	F	G	F	G-E	F		G-E	F	F-G
morningglory spp.	P	P	P	P	G	F-G	P		F-G	P	F
cypressvine	P	P	P	P	G		P		G	F-G	F-G
entireleaf/ivyleaf	P	P	P	P	G	F-G	P		F-G	F	G
pitted	P	P	P	P	G	F-G	P		F	F	G
purple moonflower	P	P	P	P			P			F	G
red	P	P	P	P	G	F	P		G	F	G
smallflower	P	P	P	P	E	G	P		G-E	P	G-E
tall	P	P	P	P	G		P		F-G	F	G
Pigweed ALS-resistant	G G	G G	G G	G G	E P	G P		G-E G-E	E E	F F	G-E G-E

WEED RESPONSE TO HERBICIDES USED IN PEANUTS

	I PPI/PRE[1,2]						PRE			POSTEMERGENCE	
	Prowl Pendimax Sonalan	Dual Magnum[3]	Lasso Intrro	Propel Outlook	Pursuit	Strongarm	Warrant	Spartan Charge	Valor	Paraquat[4]	Paraquat + Storm
BROADLEAVES *(continued)*											
poorjoe											
prickly sida	P	F	F	F	G-E	F-G	F		G-E	F	G
primrose, cutleaf evening										P	G (+2,4DB)
purslane	G-E	G	G	G	G		G		G-E	G	G
ragweed	P	P	P	F-G	P	G-E			G-E	P-F	G
redweed	P					G			G-E	F	G
spurred anoda	P	P	P	P		F-G			F	P	G
sicklepod	P	P	F	P	P	P	P		P	G-E	G-E
smartweed	P				G	G			P-F	G-E	G
spider flower	P	P	P	P	G						
spurge spp.	P	P-F	P	P-F					G-E		
velvetleaf	P	P	P	P	P-F	G-E			F	F	F-G
wild poinsettia	P	P	P	P	E	G-E			F-G	F	G
wild radish	P	P	P	P	E					F	G

Abbreviations:
E – Excellent (> 90%)
G – Good (80-89%)
F – Fair (70-79%)
P – Poor (< 70%)
If no letter is given, response is unknown.
PPI = Preplant Incorporated,
PRE = Preemergence.

[1] Ratings for Pursuit PPI and PRE are similar.
[2] Ratings for Dual, Lasso and Outlook/Propel PRE and AC are similar. See remarks for additional information.
[3] The generic formulations of metolachlor (Parallel PCS, Stalwart, Me-Too-Lachlor) have not provided the same length of residual control of certain weeds as similar rates of Dual Magnum formulations in some UGA field trials.
[4] Commercially available as Firestorm or Parazone or Gramoxone Inteon or Gramoxone SL.

WEED RESPONSE TO HERBICIDES USED IN PEANUTS

	POSTEMERGENCE												
	Strongarm**	**Paraquat + Basagran**	**2,4-DB**	**Pursuit**	**Basagran**	**Ultra Blazer**	**Cobra**	**Storm**	**Cadre**	**Fusilade**	**Select**	**Poast**	**Classic**
PERENNIALS													
bermudagrass	P	P	P	P	P	P	P	P	P	G	G	F-G	P
Johnsongrass-(rhizome)	P	P	P	P	P	P	P	P	F-G	G-E	G	F-G	P
nutsedge, purple		F	P	G	P	P	P	P	G-E	P	P	P	P
nutsedge, yellow		F-G	P	F-G	G	P	P-F	F	G-E	P	P	P	F-G
GRASSES													
broadleaf signalgrass	P	G	P	P	P	P	P-F	P	G	G	G-E	G-E	P
crabgrass	P	F-G	P	P-F	P	P	P-F	P	G	G	G-E	G-E	P
crowfootgrass	P	G	P	P-F	P	P	P	P	G	F-G	G	F-G	P
fall panicum	P	G	P	P	P	F	P	P	G	G-E	G-E	G-E	P
goosegrass	P	F-G	P	P	P	P	P	P	F	G	G	G	P
johnsongrass-seedling	P	G	P	F	P	P	P	P	F-G	G-E	G-E	G-E	P
sandbur	P	F-G	P		P	P	P-F	P	G	G	G	G	P
Texas panicum	P	G-E	P	P-F	P	P	P	P	F-G	G	G-E	G-E	P
BROADLEAVES													
bristly starbur	E	F	P-F	P-F	G	P-F	G	F-G	F	F	P	P	F
burgherkin		F	F	F	P	G	G	F	G-E	P	P	P	P
carpetweed		P	P	F-G	P	G-E	G-E	G	F-G	P	P	P	
citronmelon		F	G	P	P	F	G	F	G	P	P	P	P
cocklebur	E	G	E	E	E	G	G-E	E	E	P	P	P	F
coffee senna		E	F-G	F	G	P	P-F	F	G	P	P	P	P
copperleaf	P	P	P	P	P	G-E	G-E	F	P-F	P	P	P	P
cowpea		P-F	P-F	P	P	P-F	P-F	P-F	P-F	P	P	P	F
crotalaria					P	E	E	G-E		P	P	P	

WEED RESPONSE TO HERBICIDES USED IN PEANUTS

	POSTEMERGENCE												
	Strongarm**	**Paraquat + Basagran**	**2,4-DB**	**Pursuit**	**Basagran**	**Ultra Blazer**	**Cobra**	**Storm**	**Cadre**	**Fusilade**	**Select**	**Poast**	**Classic**
BROADLEAVES *(continued)*													
croton, tropic	P	P	P	P	P	E	E	G-E	P	P	P	P	P
dayflower, Benghal tropical spiderwort	G	G	P	F-G	G	P	P	P	F-G	P	P	P	F
eclipta	G-E	F	P	P	G	F-G	F-G	G	P-F	P	P	P	P
Florida beggarweed	P-F	G-E	P	P	P	P	P-F	P	F-G	P	P	P	F-G
Florida pusley		P	P	P	P	P	F-G	P	P	P	P	P	P
groundcherry, cutleaf		F-G			P	G	G	F-G		P	P	P	
jimsonweed		E	P	F-G	E	E	E	G	E	P	P	P	
hairy indigo			F	P	P	G	G	F	F	P	P	P	F-G
hemp sesbania				P	P	E	E	G-E	P	P	P	P	F-G
horseweed ALS-resistant	G P	P	P	P	P	P	P	P	P	P	P	P	F P
lambsquarters		F	F	P	F	P-F	P-F	F	P-F	P	P	P	P
morningglory spp.	G-E	F-G	F-G	G	F	G-E	G-E	G	G	P	P	P	
cypressvine		G-E	F	G	G	G	G-E	G	G	P	P	P	
entireleaf/ivyleaf	G-E		G	F-G	P	G	F-G	F	G	P	P	P	
pitted	G-E		F-G	G	P	G-E	G	F-G	G	P	P	P	
purple moonflower	F-G		F-G	P	P	G-E	G-E	G	F	P	P	P	P
red			G		F-G	G-E	G-E	G-E		P	P	P	
smallflower	G-E	G-E	F	E	E	G-E	G-E	G-E	E	P	P	P	
tall			G		P	G	G	F-G	G	P	P	P	
Pigweed ALS-resistant	P P	F-G F-G	F F	E P	P P	G-E G-E	G-E G-E	G G	E P	P P	P P	P P	F-G P

WEED RESPONSE TO HERBICIDES USED IN PEANUTS

	POSTEMERGENCE												
	Strongarm**	**Paraquat + Basagran**	**2,4-DB**	**Pursuit**	**Basagran**	**Ultra Blazer**	**Cobra**	**Storm**	**Cadre**	**Fusilade**	**Select**	**Poast**	**Classic**
BROADLEAVES *(continued)*													
poorjoe			F			G	G			P			
prickly sida		G	P	P-F	G	P	G	G	G	P	P	P	P
primrose, cutleaf evening	P	F (+2,4-DB)	F	P	P	P	P	P	P	P	P	P	P
purslane		G	G	P-F	G	E	E	G-E	P-F	P	P	P	
ragweed	E	F	F	P	F	E	E	G	F	P	P	P	P-F
redweed		G	P	P	G	P	F	G	G	P	P	P	P
spurred anoda		F-G	P		G	P	P	F	G	P	P	P	
sicklepod	P	G	F-G	P	P	P	P-F	P	G-E	P	P	P	P-F
smartweed		G	P	G-E	G-E	G-E	G-E	G-E	F-G	P	P	P	P
spider flower				F-G		G	G	F	F-G	P	P	P	F
spurge spp.			P	P	P	F	F	F		P	P	P	P
velvetleaf		G	P	P-F	G	P-F	G	F-G		P	P	P	
wild poinsettia	P-F	G-E	P	P-F	P	G-E	G-E	G	E	P	P	P	P
wild radish	G-E	F	P	G-E	P-F	E	E	G	E	P	P	P	P

Abbreviations: E – Excellent (> 90%) G – Good (80-89%) F – Fair (70-79%) P – Poor (<70%)	If no symbol is given, response is unknown. ** 24(c) label for use in Georgia only for tropical spiderwort.

TABLE 1. SUMMARY OF PEANUT GRASS HERBICIDES

	HERBICIDE					
	Fusilade DX	**Poast**	**Poast Plus**	**Select/Arrow/Others (2 lb ai/gal)**	**Select Max/TapOut (0.97 lb ai/gal)**	**Section Three Shadow (3 lb ai/gal)**
Maximum Rate/A/ Season	48 oz	2.5 pt	3.75 pt	32 oz	64 oz	21.33 oz
Maximum Rate/A/ Application	24 oz	1.5 pt	1.5 pt	16 oz	32 oz	10.67 oz
broadleaf signalgrass	12 oz (2-4”)	1 pt (up to 8”)	1.5 pt (up to 8”)	6-8 oz (2-6”)	9-16 oz (2-6”)	3.33 oz
crabgrass	12 oz (1-2”)	1 pt (up to 6”)	1.5 pt (up to 6”)	6-8 oz (2-6”)	9-16 oz (2-6”)	3.33 oz (1-4”)
crowfootgrass	NL*	NL	NL	6-8 oz (2-6”)	9-16 oz (2-6”)	NL
field sandbur	12 oz (2-4”)	1.25 pt (up to 3’)	1.875 pt (up to 3”)	6-8 oz (2-6”)	9-16 oz (2-6”)	NL
goosegrass	8 oz (2-4”)	1 pt (up to 6”)	1.5 pt (up to 6”)	6-8 oz	9-16 oz (2-6”)	NL
Texas panicum	12 oz (2-8”)	1 pt (up to 8”)	1.5 pt (up to 8”)	6-8 oz (2-6”)	9-16 oz (2-6”)	3.33 oz (1-4”)
rhizome johnsongrass	12-24 oz (1st) (8-18”) 8-24 oz (2nd) (6-12”)	1.5 pt (1st) (up to 25’) 1 pt (2nd) (up to 12”)	2.25 pt (1st) (up to 25”) 1.5 pt (2nd) (up to 12”)	8-16 oz (1st) (12-24”) 6-8 oz (2nd) (6-18”)	12-32 oz (1st) (12-24”) 9-24 oz (2nd) (6-18”)	5.33-10.67 oz (1st) (12-24”) 4-5.33 oz (2nd) (6-18”)
bermudagrass	12-24 oz (1st) (4-8” runners) 8-24 oz (2nd) (4-8” runners)	1.5 pt (1st) (up to 6” stolon) 1 pt (2nd) (up to 4” stolon	2.25 pt (1st) (up to 6” stolon 1.5 pt (2nd) (up to 4” stolon	8-16 oz (1st) (3-6” runners) 8-16 oz (2nd) (3-6” runners	12-32 oz (1st) (3-6” runners) 12-32 oz (2nd) (3-6” runners)	5.33-10.67 oz (1st) (up to 6” runners) 5.33-10.67 oz (up to 6” runners)

*NL= crowfootgrass was not listed on the product label.

SUGGESTED HERBICIDE PROGRAMS FOR THE CONTROL OF TROPICAL SPIDERWORT (BENGHAL DAYFLOWER) IN PEANUT:

PROGRAM 1

a) **PRE Immediately After Planting:** Valor at 3 oz/A + Dual Magnum or generic metolachlor (Stalwart, Parallel PCS, Me-Too-Lachlor) at 1 pt/A or Warrant at 3 pt/A **and**

b) **POST when spiderwort is 1-2" tall:** Cadre/Impose 2L at 4 oz/A or Strongarm at 0.45 oz/A + Dual Magnum or generic metolachlor (Stalwart, Parallel PCS, Me-Too-Lachlor) at 1pt/A Warrant at 3 pt/A.

PROGRAM 2

a) **AT-CRACK (before 28 days after peanut cracking):** Apply Gramoxone Inteon/Gramoxone SLat 12 oz/A or Firestorm/Parazone/Helmquat at 8 oz/A + Storm at 16 oz/A + Dual Magnum or generic metolachlor (Stalwart, Parallel PCS, Me-Too-Lachlor) at 1 pt/A or Warrant at 3 pt/A **and**

b) **POST (2-3 weeks after at-crack spray):** Apply Cadre/Impose 2L at 4 oz/A or Strongarm at 0.45 oz/A + Dual Magnum or generic metolachlor (Stalwart, Parallel PCS, Me-Too-Lachlor) at 1 pt/A or Warrant at 3 pt/A.

** When using Dual Magnum or generic metolachlor POST in combination with Cadre/Impose, Gramoxone/Firestorm, or Strongarm, additional spray adjuvants (NIS, COC) are not necessary.*

The maximum amount/A/year of Dual Magnum that can be applied is 2.8 pt/A. The maximum amount/A/year of Stalwart, Parallel PCS, or Me-To-Lachlor that can be applied is 2.66 pt/A.

The maximum amount of Warrant that can be applied PRE + POST is 6 pt/A/year.
When Warrant is applied POST, a NIS (0.25% v/v) is needed.

TABLE 2. SUGGESTED HERBICIDE PROGRAMS FOR MANAGING ALS – RESISTANT PALMER AMARANTH IN PEANUT[1]

PREPLANT INCORPORATED	PREEMERGENCE[2]	CRACKING OR EARLY POSTEMERGENCE[3] (PALMER < 3 IN.)	POSTEMERGENCE[4] (PALMER < 3 IN.)
Prowl[5] or Sonalan	Valor[9] or Spartan Charge[6,7]		Cobra[7] or Ultra Blazer[7]+ Dual Magnum[8] or Warrant[8] + 2,4-DB
Prowl[5] or Sonalan		Gramoxone SL or Firestorm or Parazone or Helmquat + Storm + Warrant[8] or Dual Magnum[8]	Cobra[7] or Ultra Blazer[7]+ Dual Magnum[8] or Warrant[8] + 2,4-DB

[1] ALS-resistant Palmer amaranth is a very serious concern. An aggressive management program is necessary to slow spread of the resistant biotypes and to reduce selection pressure in areas currently not infested with resistant biotypes. A combination of soil residual and postemergence herbicides will be required for optimum control.

[2] Strongarm is not included in this table because it is an ALS-inhibiting herbicide. However, it can be used for the control of other broadleaf weeds.

[3] Apply cracking or early postemergence treatment only if weeds have emerged.

[4] Cadre or Pursuit may be tank-mixed with Cobra or Ultra Blazer if needed for control of other weed species. Cadre and Pursuit are ALS- inhibitors. Because of concerns with weed resistance to ALS-inhibitors, a mixture of Cobra or Ultra Blazer with Cadre or Pursuit would be preferred over Cadre or Pursuit alone. When using Cadre or Pursuit, follow all labeled crop rotation restrictions.

[5] Generic brands of Prowl (pendimethalin) are available and perform similarly. Prowl or Sonalan can be applied preemergence if 0.5-0.75" of water can be applied within 48 hours of application. They can be tank-mixed with Valor or Spartan Charge in this situation.

[6] If Valor or Spartan Charge is properly activated with 0.5-0.75" of rainfall or irrigation within 7 days of application, it is unlikely that an "at-cracking" treatment will be required. However, if control with Valor or Spartan Charge is unacceptable, an "at-cracking" treatment of Gramoxone SL or Firestorm or Parazone or Helmquat + Storm + Dual Magnum or Warrant should be applied.

[7] Valor, Cobra, Spartan Charge, Storm, and Ultra Blazer have the same mode of action (PPO inhibitor). Consequently, no more than 2 applications of these herbicides should be used in a season.

[8] Generic brands of metolachlor are available (Stalwart, Parallel PCS, Me-Too-Lachlor). However, these generic brands have not provided the same length of residual control as Dual Magnum (*S*-metolachlor) in some UGA field trials. When tank-mixing paraquat, Cobra or Ultra Blazer with Dual Magnum/generics, additional spray adjuvants (NIS, COC) are ***not*** recommended and will likely increase peanut injury. When using Warrant with POST application, add NIS (0.25% v/v).

[9] Generic brands of Valor 51WG (flumioxazin) are also available including Outflank, Panther, and Rowel. Panther SC and Valor EZ are liquid formulations of flumioxazin but have not been adequately tested by UGA. RedEagle is another dry formulation of flumioxazin but has not been adequately tested by UGA.

SPECIAL NOTE: Dual Magnum and Warrant are in the same herbicide family and have the same mode of action (inhibit very long chain fatty acids). Multiple applications (> 2) of these herbicides in a single year should be avoided to prevent or delay the evolution of resistance. These herbicides have no postemergence activity.