

## PEANUT SEEDLING DISEASES (Commercial Production)

Travis Faske

Disease	Fungicide	Active Ingredient	FRAC Code*	Rate/cwt Seed	Comments
<b>Commercial Seed Treatments</b>					
<i>Rhizoctonia solani</i> and <i>Pythium</i> spp.	Dynasty PD	azoxystrobin +	11	3 - 4 oz	
		mefenoxam +	4		
		fludioxonil	12		
	Maxim 4FS	fludioxonil	12	0.08 oz	
	CruiserMaxx Peanuts	thiamethoxam +	---	3 - 4 oz	
		mefenoxam +	4		
		fludioxonil +	12		
		azoxystrobin	11		
<i>Pythium</i>	Apron XL	mefenoxam	4	0.32 oz	
<b>In-Furrow or Band Applications</b>					
<i>Rhizoctonia solani</i> and <i>Pythium</i> spp.	Uniform	azoxystrobin +	11	0.34 oz/row ft	At planting.
		mefenoxam	4		
Southern Blight ( <i>Sclerotium rolfsii</i> )	Proline	prothioconazole	3	5.7 oz/A	Apply 4- to 6-inch band over the row at or near emergence.

\*FRAC Code – Fungicides with the same FRAC Code have the same mode of action. See <http://www.frac.info/> for an explanation of the FRAC Codes. Rotation of fungicides with different FRAC Codes could minimize the development of fungicide-resistant strains.

## PEANUT NEMATODES (Commercial Production)

Terry Kirkpatrick

Disease	Nematicide	Active Ingredient	Rate Per Acre	Comments
Nematodes	Velum Total	fluopyram	18 fl oz	Apply as in-furrow spray with 5 - 6 gal/ac water at planting.
	Vapam HL or K-Pam HL	sodium methyldithiocarbamate or potassium methyldithiocarbamate	7.5 - 11 gal	
	Telone II	1,3-dichloropropene	4 - 6 gal	

Nematodes are not currently a serious threat to peanut production in Arkansas; therefore, we do not routinely recommend nematicides, even though certain products are labeled for this use. The peanut root-knot nematode is extremely rare in the state. It is possible, however, that other nematode species such as the lesion nematode or the ring nematode may reach economic levels in some fields. If nematodes are suspected, soil samples should be collected in the fall (September-October) and sent to the Nematode Diagnostic Laboratory for analysis before the next crop is planted.

## PEANUT DISEASES (Commercial Production)

Travis Faske

Disease	Fungicide	Active Ingredient	FRAC Code*	Rate/Acre	Days to Harvest	Comments
<b>Seedling Diseases</b>						
Aspergillus crown rot ( <i>Aspergillus niger</i> ) <i>Pythium</i> spp. <i>Rhizoctonia solani</i>	Abound 2.08SC or Azaka 2.08SC	azoxystrobin	11	0.4 - 0.8 fl oz/ 1,000 row ft	14	Apply as in-furrow at planting.
<b>Leaf Spots</b>						
<b>Chemical Control of Leaf Spot Diseases:</b>						
<ol style="list-style-type: none"> <li>1. In any given field, circular-shaped spots can be found on peanut leaves; however, these spots may not be caused by the leaf spot pathogens. Sporulation (fuzzy tufts of fungal structures) can be seen with the aid of a hand lens on the upper leaf surfaces for ELS and lower leaf surface for LLS.</li> <li>2. Fungicides on peanut are applied to prevent leaf spot disease development, which typically begins 60 days after planting, when conditions favor disease development. Fungicide programs consist of repeated applications at 14 - 21 day intervals depending on disease development and weather conditions.</li> <li>3. Apply fungicides with sufficient water volume (15 to 20 GPA) to adequately cover foliage.</li> <li>4. Do not make consecutive applications of the same mode of action (i.e., same FRAC code number) except for those applications that contain chlorothalonil in a cropping season. It is recommended to tank mix fungicides with a single mode of action with chlorothalonil.</li> </ol>						
Early leaf spot ( <i>Cercospora arachidicola</i> )	Cercobin	thiophanate-methyl	1	10.9 fl oz	14	Very good activity on leaf spot diseases. ALWAYS mix with chlorothalonil.
Late leaf spot ( <i>C. personatum</i> )	Topsin or T-Methyl 70W	thiophanate-methyl	1	8 oz	14	
	Topsin or T-Methyl 4.5F	thiophanate-methyl	1	10 fl oz	14	
Web blotch ( <i>Phoma arachidicola</i> )	Thiophanate Methyl 85WDG	thiophanate-methyl	1	6.4 oz	14	
and	Alto	cyproconazole	3	5.5 fl oz	30	Good activity on leaf spots.
Rust ( <i>Puccinia arachidis</i> )	Topguard	flutriafol	3	7 - 14 fl oz	14	
	Quash	metconazole	3	2.5 - 4 fl oz	14	
	Tilt, Propimax, or Bumper 3.6E	propiconazole	3	4 fl oz	14	
	tebuconazole (various trade names 3.6F)	tebuconazole	3	7.2 fl oz	14	Good activity on leaf spots.
	Eminent 125SL	tetraconazole	3	13 fl oz	14	Good activity on leaf spots.
	Fontelis	penthiopyrad	7	12 - 24 fl oz	14	Good activity on leaf spots.
	Abound 2.08SC or Azaka 2.08SC	azoxystrobin	11	6 - 18.5 fl oz	14	
	Evito 480SC or Aftershock	fluoxastrobin	11	5.7 fl oz	14	
(continued)	Headline	pyraclostrobin	11	6 - 15 fl oz	14	Very good activity on leaf spots.

**PEANUT DISEASES (Commercial Production) – continued**

Disease	Fungicide	Active Ingredient	FRAC Code*	Rate/Acre	Days to Harvest	Comments
<b>Leaf Spots (cont.)</b>						
Early leaf spot ( <i>cont.</i> ) ( <i>Cercospora arachidicola</i> )	Bravo Weather Stik, Chlorothalonil, Echo 6F	chlorothalonil	M5	1 - 1.5 pt	14	Very good activity on leaf spots when applied prior to disease development. Use high rate when applied alone or low rate in tank mix.
Late leaf spot ( <i>C. personatum</i> )	Bravo Ultrex, Chlorothalonil 82.5DF	chlorothalonil	M5	0.9 - 1.36 lb	14	
Web blotch ( <i>Phoma arachidicola</i> )	Provost 433SC	prothioconazole + tebuconazole	3 + 3	7 - 8 fl oz	14	Very good activity on leaf spot diseases.
and	Artisan 3.6F	flutolanil + propiconazole	7 + 3	26 - 32 fl oz	40	
Rust ( <i>Puccinia arachidis</i> )	Evito T 4F	fluoxastrobin + tebuconazole	11 + 3	6 - 9 fl oz	14	
	Stratego	trifloxystrobin + propiconazole	11 + 3	7 fl oz	14	
	Absolute 500SC	trifloxystrobin + tebuconazole	11 + 3	3.5 fl oz	14	
	Priaxor	pyraclostrobin + fluxapyroxad	11 + 7	4 - 8 fl oz	14	
	Tilt Bravo SE 4.3F	chlorothalonil + propiconazole	M5 + 3	1.5 - 2.25 pt	14	
	Muscle ADV	chlorothalonil + tebuconazole	M5 + 3	2 pt	14	
	Echo 6F – Eminent 125SL Co-Pack	chlorothalonil + tetraconazole	M5 + 3	1.45 pt	14	

**Soilborne Diseases**

**Chemical Control of Soilborne Peanut Diseases:**

1. Southern blight is the most common soilborne disease of peanut in Arkansas, which is most active when weather conditions are hot and humid.
2. Fungicides on peanut are applied to prevent soilborne disease development, which typically begins 60 days after planting, when conditions favor disease development. Fungicide programs consist of repeated applications at 14 - 21 day intervals depending on disease development and weather conditions.
3. Apply fungicides with sufficient water volume (15 to 20 GPA) to penetrate canopy or before rainfall. Applications at night when leaves are folded have been shown to improve fungicide penetration into the lower canopy.
4. Do not make consecutive applications of the same mode of action (i.e., FRAC group number) except for those applications that contain chlorothalonil.

Southern blight ( <i>Sclerotium rolfsii</i> )	Quash	metconazole	3	2.5 - 4 fl oz	14	Very good activity on southern blight.
	Tilt, Propimax, or Bumper 3.6E	propiconazole	3	4 - 8 fl oz	14 - 21	
	tebuconazole (various trade names 3.6F)	tebuconazole	3	7.2 fl oz	14	Very good activity on southern blight.
	Convoy 3.8F	flutolanil	7	16 - 32 fl oz	40	Excellent activity on southern blight.
	Fontelis	penthiopyrad	7	12 - 24 fl oz	14	Excellent activity on southern blight.
	Abound 2.08SC or Azaka 2.08SC	azoxystrobin	11	12 - 24.5 fl oz	14	Good activity on southern blight.
	Headline	pyraclostrobin	11	6 - 15 fl oz	14	Combine with triazole or flutolanil for effective southern blight control.
(continued)	Provost 433SC	prothioconazole + tebuconazole	3 + 3	7 - 8 fl oz	14	Prothioconazole has very good activity on southern blight.

**PEANUT DISEASES (Commercial Production) – continued**

<b>Disease</b>	<b>Fungicide</b>	<b>Active Ingredient</b>	<b>FRAC Code*</b>	<b>Rate/Acre</b>	<b>Days to Harvest</b>	<b>Comments</b>
<b>Soilborne Diseases (cont.)</b>						
Southern blight ( <i>Sclerotium rolfsii</i> )	Artisan 3.6F	flutolanil + propiconazole	7 + 3	26 - 32 fl oz	40	
	Evito T 4F	fluoxastrobin + tebuconazole	11 + 3	9 - 11 fl oz	14	
	Absolute 500SC	trifloxystrobin + tebuconazole	11 + 3	7 fl oz	14	
	Priaxor	pyraclostrobin + fluxapyroxad	11 + 7	8 fl oz	14	Good activity on southern blight.
	Muscle ADV	chlorothalonil + tebuconazole	M5 + 3	2 pt	14	Very good activity on southern blight.
Limb rot ( <i>Rhizoctonia solani</i> )	Quash	metconazole	3	2.5 - 4 fl oz	14	
	tebuconazole (various trade names 3.6F)	tebuconazole	3	7.2 fl oz	14	Good activity on Rhizoctonia limb rot.
	Convoy 3.8F	flutolanil	7	1 - 2 pt	40	Very good activity on Rhizoctonia limb rot.
	Fontelis	penthiopyrad	7	12 - 24 fl oz	14	Very good activity on Rhizoctonia limb rot.
	Abound 2.08SC or Azaka 2.08SC	azoxystrobin	11	12 - 24.5 fl oz	14	Excellent activity on Rhizoctonia limb rot.
	Headline	pyraclostrobin	11	9 - 15 fl oz	14	Combine with triazole or flutolanil for effective Rhizoctonia limb rot control.
	Provost 433SC	prothioconazole + tebuconazole	3 + 3	7 - 8 fl oz	14	
	Artisan 3.6F	flutolanil + propiconazole	7 + 3	26 - 32 fl oz	40	
	Evito T 4F	fluoxastrobin + tebuconazole	11 + 3	9 - 11 fl oz	14	
	Absolute 500SC	trifloxystrobin + tebuconazole	11 + 3	7 fl oz	14	
	Muscle ADV	chlorothalonil + tebuconazole	M5 + 3	2 pt	14	
Sclerotinia blight ( <i>Sclerotinia minor</i> ) ( <i>S. sclerotiorum</i> )	Endura 70WG	boscalid	7	8 - 10 oz	14	
	Omega 500F	fluazinam	29	1 - 1.5 pt	30	Fields with a history of Sclerotinia blight should be treated beginning 60 to 70 days after planting or when conditions favor disease.

**PEANUT DISEASES (Commercial Production) – continued**

Disease	Fungicide	Active Ingredient	FRAC Code*	Rate/Acre	Days to Harvest	Comments
<b>Pod Rots</b>						
<i>Pythium</i> spp.	Ridomil Gold SL	mefenoxam	4	4 - 8 fl oz	See label.	Pythium rot only. Apply at pegging or early pod set (45 to 60 DAP) followed by irrigation.
<i>Rhizoctonia solani</i>	Metastar 2E	metalaxyl	4	2 - 4 pt		Pythium rot only.
	Ridomil Gold 2.5G	mefenoxam	4	11.8 lb	See label.	Pythium rot only. Apply in 12-inch band at pegging or early pod set (45 to 60 DAP).
	Abound 2.08SC or Azaka 2.08SC	azoxystrobin	11	18 - 24.5 fl oz	14	Suppress <i>Rhizoctonia</i> pod rots. Apply 60 to 70 DAP. Do not make more than 2 sequential applications of FRAC group 11 fungicides.
	Fosphite 3.9L or KPhite 4.4L	phosphorus acid	33	1 - 4 qt	14	Pythium rot only. Apply at pegging (45 DAP) followed by irrigation.

\***FRAC Code** – Fungicides with the same FRAC Code have the same mode of action. See <http://www.frac.info/> for an explanation of the FRAC Codes. Rotation of fungicides with different FRAC Codes could minimize the development of fungicide-resistant strains.

**PEANUT DISEASES (Commercial Production) – AFLATOXIN**

Travis Faske

Contamination	Biological Product	Active Ingredient	Rate/A	Comments
Aflatoxin Contamination by <i>Aspergillus flavus</i>	Afla-Guard	Atoxigenic strain of <i>A. flavus</i>	20 lb	Apply by ground 40 - 80 days after planting or canopy closure.

**Note:** Aflatoxin has not been an issue in Arkansas peanut production because the crop is 100% irrigated.