

PEANUT SEEDLING DISEASES (Commercial Production)

Travis Faske

| Disease | Fungicide | Active Ingredient | FRAC Code | Rate/cwt Seed | Comments |
|--|---------------------|--|-------------------|----------------|---|
| Commercial Seed Treatments | | | | | |
| <i>Rhizoctonia solani</i> and <i>Pythium</i> spp. | Dynasty PD | azoxystrobin + mefenoxam + fludioxonil | 11 + 4 + 12 | 3 - 4 oz | |
| | Maxim 4 FS | fludioxonil | 12 | 0.08 oz | |
| | CruiserMaxx Peanuts | thiamethoxam + mefenoxam + fludioxonil + azoxystrobin | --- + 4 + 12 + 11 | 3 - 4 oz | |
| | Rancona V PD | ipconazole + carboxin + metalaxyl | 3 + 7 + 4 | 4 oz | |
| <i>Pythium</i> | Apron XL | mefenoxam | 4 | 0.32 oz | |
| In-Furrow or Band Applications | | | | | |
| <i>Rhizoctonia solani</i> and <i>Pythium</i> spp. | Uniform | azoxystrobin + mefenoxam | 11 + 4 | 0.34 oz/row ft | At planting. |
| 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. |

PEANUT NEMATODES (Commercial Production)

Travis Faske

| 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. |
| | Telone II | 1,3-dichloropropene | 4 - 6 gal | Inject 12 inches below the soil surface. Allow 2 weeks before planting. |

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)

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| Disease | Fungicide | Active Ingredient | FRAC Code | Rate/Acre | Days to Harvest | Comments |
|--|--|--------------------|-----------|----------------------------------|-----------------|---|
| Seedling Diseases | | | | | | |
| Aspergillus crown rot (<i>Aspergillus niger</i>) <i>Pythium</i> spp. <i>Rhizoctonia solani</i> | Abound 2.08 SC (multiple generics) | azoxystrobin | 11 | 0.4 - 0.8 fl oz/ 1,000 row ft | 14 | Apply as in-furrow at planting. |
| Leaf Spots | | | | | | |
| Chemical Control of Leaf Spot Diseases: | | | | | | |
| <ol style="list-style-type: none"> 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. 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. 3. Apply fungicides with sufficient water volume (15 to 20 GPA) to adequately cover foliage. 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. | | | | | | |
| 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, T-Methyl 70 W | thiophanate-methyl | 1 | 8 oz | 14 | |
| | Topsin, T-Methyl 4.5 F | thiophanate-methyl | 1 | 10 fl oz | 14 | |
| Web blotch (<i>Phoma arachidicola</i>) | Thiophanate Methyl 85 WDG | thiophanate-methyl | 1 | 6.4 oz | 14 | |
| and | Alto 100 SL | cyproconazole | 3 | 5.5 fl oz | 30 | Good activity on leaf spots. |
| Rust (<i>Puccinia arachidis</i>) | Topguard 1.04 SC | flutriafol | 3 | 7 - 14 fl oz | 14 | |
| | Quash 50 WDG | metconazole | 3 | 2.5 - 4 fl oz | 14 | |
| | Tilt 3.6 E (multiple generics) | propiconazole | 3 | 4 fl oz | 14 | |
| | tebuconazole 3.6 F (multiple generics) | tebuconazole | 3 | 7.2 fl oz | 14 | Good activity on leaf spots. |
| | Eminent 125 SL | tetraconazole | 3 | 13 fl oz | 14 | Good activity on leaf spots. |
| | Fontelis 1.67 SC | penthopyrad | 7 | 12 - 24 fl oz | 14 | Good activity on leaf spots. |
| | Abound 2.08 SC (multiple generics) | azoxystrobin | 11 | 6 - 18.5 fl oz | 14 | |
| | Evito 480 SC (multiple generics) | fluoxastrobin | 11 | 5.7 fl oz | 14 | |
| (continued) | Headline 2.09 SC | 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 |
|---|--|------------------------------------|-----------|-----------------|-----------------|---|
| Leaf Spots (cont.) | | | | | | |
| Early leaf spot (cont.) (<i>Cercospora arachidicola</i>) | Bravo Weather Stik, Chlorothalonil, Echo 6 F | 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 82.5 DF | chlorothalonil | M5 | 0.9 - 1.36 lb | 14 | |
| | Acropolis 2.38 F | thiophanate-methyl + tetraconazole | 1 + 3 | 23 fl oz | 14 | |
| Web blotch (<i>Phoma arachidicola</i>) | Provost 433 SC | prothioconazole + tebuconazole | 3 + 3 | 7 - 8 fl oz | 14 | Very good activity on leaf spot diseases. |
| and | Artisan 3.6 F | flutolanil + propiconazole | 7 + 3 | 26 - 32 fl oz | 40 | |
| Rust (<i>Puccinia arachidis</i>) | Topguard EQ 4.0 SC | azoxystrobin + flutriafol | 11 + 3 | 5 - 8 fl oz | 14 | |
| | Evito T 4 F | fluoxastrobin + tebuconazole | 11 + 3 | 6 - 9 fl oz | 14 | |
| | Stratego 2.08 SC | trifloxystrobin + propiconazole | 11 + 3 | 7 fl oz | 14 | |
| | Absolute 500 SC | trifloxystrobin + tebuconazole | 11 + 3 | 3.5 fl oz | 14 | |
| | Elatus 45 WG | azoxystrobin + benzovindiflupyr | 11 + 7 | 7.3 - 9.5 fl oz | 30 | |
| | Priaxor 4.17 SC | pyraclostrobin + fluxapyroxad | 11 + 7 | 4 - 8 fl oz | 14 | |
| | Tilt Bravo SE 4.3 F | chlorothalonil + propiconazole | M5 + 3 | 1.5 - 2.25 pt | 14 | |
| | Muscle ADV 3.84 SC | chlorothalonil + tebuconazole | M5 + 3 | 2 pt | 14 | |
| | Echo 6 F – Eminent 125 SL Co-Pack | chlorothalonil + tetraconazole | M5 + 3 | 1.45 pt | 14 | |
| | Mazinga ADV 3.23 SC | chlorothalonil + tetraconazole | M5 + 3 | 2 pt | 14 | |
| | Arius ADV 6.65 SC | chlorothalonil + azoxystrobin | M5 + 11 | 21 - 30 fl oz | 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 50 WDG | metconazole | 3 | 2.5 - 4 fl oz | 14 | Very good activity on southern blight. |
| | Tilt 3.6 E (multiple generics) | propiconazole | 3 | 4 - 8 fl oz | 14 - 21 | |
| | tebuconazole 3.6 F (multiple generics) | tebuconazole | 3 | 7.2 fl oz | 14 | Very good activity on southern blight. |
| | Convoy 3.8 F | flutolanil | 7 | 16 - 32 fl oz | 40 | Excellent activity on southern blight. |
| (continued) | Fontelis 1.67 SC | penthiopyrad | 7 | 12 - 24 fl oz | 14 | Excellent activity on southern blight. |

PEANUT DISEASES (Commercial Production) – continued

| Disease | Fungicide | Active Ingredient | FRAC Code | Rate/Acre | Days to Harvest | Comments |
|---|--|------------------------------------|------------------|------------------|------------------------|---|
| Soilborne Diseases (cont.) | | | | | | |
| Southern blight (<i>cont.</i>) (<i>Sclerotium rolfsii</i>) | Abound 2.08 SC (multiple generics) | azoxystrobin | 11 | 12 - 24.5 fl oz | 14 | Good activity on southern blight. |
| | Headline 2.09 SC | pyraclostrobin | 11 | 6 - 15 fl oz | 14 | Combine with triazole or flutolanil for effective southern blight control. |
| | Provost 433 SC | prothioconazole + tebuconazole | 3 + 3 | 7 - 8 fl oz | 14 | Prothioconazole has very good activity on southern blight. |
| | Artisan 3.6 F | flutolanil + propiconazole | 7 + 3 | 26 - 32 fl oz | 40 | |
| | Elatus 45 WG | azoxystrobin + benzovindiflupyr | 11 + 7 | 7.3 - 9.5 fl oz | 30 | |
| | Evito T 4 F | fluoxastrobin + tebuconazole | 11 + 3 | 9 - 11 fl oz | 14 | |
| | Absolute 500 SC | trifloxystrobin + tebuconazole | 11 + 3 | 7 fl oz | 14 | |
| | Priaxor 4.17 SC | pyraclostrobin + fluxapyroxad | 11 + 7 | 8 fl oz | 14 | Good activity on southern blight. |
| | Muscle ADV 3.84 SC | chlorothalonil + tebuconazole | M5 + 3 | 2 pt | 14 | Very good activity on southern blight. |
| Arius ADV 6.65 SC | chlorothalonil + azoxystrobin | M5 + 11 | 30 fl oz | 14 | | |
| Limb rot (<i>Rhizoctonia solani</i>) | Quash 50 WDG | metconazole | 3 | 2.5 - 4 fl oz | 14 | |
| | tebuconazole 3.6 F (multiple generics) | tebuconazole | 3 | 7.2 fl oz | 14 | Good activity on Rhizoctonia limb rot. |
| | Convoy 3.8 F | flutolanil | 7 | 1 - 2 pt | 40 | Very good activity on Rhizoctonia limb rot. |
| | Fontelis 1.67 SC | penthiopyrad | 7 | 12 - 24 fl oz | 14 | Very good activity on Rhizoctonia limb rot. |
| | Abound 2.08 SC (multiple generics) | azoxystrobin | 11 | 12 - 24.5 fl oz | 14 | Excellent activity on Rhizoctonia limb rot. |
| | Headline 2.09 SC | pyraclostrobin | 11 | 9 - 15 fl oz | 14 | Combine with triazole or flutolanil for effective Rhizoctonia limb rot control. |
| | Acropolis 2.38 F | thiophanate-methyl + tetraconazole | 1 + 3 | 23 fl oz | 14 | |
| | Provost 433 SC | prothioconazole + tebuconazole | 3 + 3 | 7 - 8 fl oz | 14 | |
| | Artisan 3.6 F | flutolanil + propiconazole | 7 + 3 | 26 - 32 fl oz | 40 | |
| | Evito T 4 F | fluoxastrobin + tebuconazole | 11 + 3 | 9 - 11 fl oz | 14 | |
| | Absolute 500 SC | trifloxystrobin + tebuconazole | 11 + 3 | 7 fl oz | 14 | |
| | Elatus 45 WG | azoxystrobin + benzovindiflupyr | 11 + 7 | 7.3 - 9.5 fl oz | 30 | |
| | Muscle ADV 3.84 SC | chlorothalonil + tebuconazole | M5 + 3 | 2 pt | 14 | |
| | Arius ADV 6.65 SC | chlorothalonil + azoxystrobin | M5 + 11 | 30 fl oz | 14 | |

PEANUT DISEASES (Commercial Production) – continued

| Disease | Fungicide | Active Ingredient | FRAC Code | Rate/Acre | Days to Harvest | Comments |
|--|------------------------------------|-------------------|-----------|-----------------|-----------------|--|
| Soilborne Diseases (cont.) | | | | | | |
| Sclerotinia blight (<i>Sclerotinia minor</i>) (<i>S. sclerotiorum</i>) | Endura 70 WG | boscalid | 7 | 8 - 10 oz | 14 | |
| | Omega 500 F | 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. |
| Pod Rots | | | | | | |
| <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 2 E | metalaxyl | 4 | 2 - 4 pt | | Pythium rot only. |
| | Ridomil Gold 2.5 G | 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 2.08 SC (multiple generics) | azoxystrobin | 11 | 18 - 24.5 fl oz | 14 | Suppress Rhizoctonia pod rots. Apply 60 to 70 DAP. Do not make more than 2 sequential applications of FRAC group 11 fungicides. |
| | Fosphite 3.9 L, KPhite 4.4 L | phosphorus acid | 33 | 1 - 4 qt | 14 | Pythium rot only. Apply at pegging (45 DAP) followed by irrigation. |
| | | | | | | |

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.