## Peanut leaf spot control calendar and objectives

<table>
<thead>
<tr>
<th>Approx. Date</th>
<th>July 1</th>
<th>July 14</th>
<th>July 28</th>
<th>Aug 11</th>
<th>Aug 25</th>
<th>Sep 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approx. DAP</td>
<td>45 - 55</td>
<td>60 - 70</td>
<td>75 - 85</td>
<td>90 - 100</td>
<td>105 - 115</td>
<td>120 - 130 (see advisory)</td>
</tr>
<tr>
<td>Objective</td>
<td>Leaf spot control, curative activity, and resistance management</td>
<td>Leaf spot and stem rot control</td>
<td>Leaf spot and stem rot control</td>
<td>Leaf spot and stem rot control, curative activity; Sclerotinia blight suppression</td>
<td>Leaf spot control and resistance management if last planned spray</td>
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</tbody>
</table>

### Critical periods for control

<table>
<thead>
<tr>
<th>Leaf spot</th>
<th>5 or 6 sprays total needed for control unless advisories indicate otherwise</th>
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<tbody>
<tr>
<td>Stem rot</td>
<td>Midseason: 1 to 3 sprays total needed for control</td>
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<tr>
<td>Sclerotinia blight</td>
<td>Mid to late season: 1 to 3 sprays needed for control</td>
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Follow advisories to determine critical times

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**Dates are approximate**
- Start no later than July 10 or R3, whichever comes first. Assumes a good rotation and normal disease pressure.
- After the first spray, stay on a 14-day schedule or use advisory
  - Sprays before July 1 are rarely justified
<table>
<thead>
<tr>
<th>Fungicide oz/A²</th>
<th>Group</th>
<th>Strengths/Roles</th>
<th>Limitations¹</th>
</tr>
</thead>
</table>
| Abound (azoxystrobin) 12 to 24 oz | 11 | • Very good stem rot control  
• Excellent Rhizoctonia limb and pod rot control at 18 to 24 oz  
• Very good leaf spot and web blotch control where still effective | • Many leaf spot populations are resistant. Higher rates will NOT help.  
• Must be mixed with an effective leaf spot fungicide such as Bravo (chlorothalonil)  
• Less effective against established stem rot infections than some other products  
• Rain or irrigation is needed to optimize stem rot control |
| Alto (cyproconazole) 5.5 oz | 3 | • Systemic leaf spot control  
• Good choice for first spray  
• Very good leaf spot control when mixed with Bravo | • Mix with chlorothalonil  
• Limited control of soil borne pathogens  
• 30 day PHI |
| Approach Prima (picoxystrobin + cyproconazole) 5 to 6.8 oz | 3 + 11 | • Systemic leaf spot control  
• First spray is best niche, similar to Alto + Bravo  
• Very good leaf spot control when mixed with Bravo | • Mix with chlorothalonil  
• Limited control of soil borne pathogens  
• 30 day PHI |
| Bravo (chlorothalonil) 1 to 1.5 pt (or generic) | M | • Low cost  
• Resistance management  
• Very good leaf spot control  
• Use for last spray | • No control of soil borne pathogens  
• Full season use can flare spider mites and make Sclerotinia blight worse  
• Non-systemic with no curative action |
| Convoy (flutolonil) 16 to 32 oz | 7 | • Very good – excellent stem rot control  
• Long residual at high rates (see label) | • NO leaf spot control  
• MUST be mixed with a leaf spot fungicide  
• Good option for tank mixing with Miravis for stem rot control  
• 40 day PHI |

Recommended rates. The lowest label rate may not be shown. Recommended number of applications or rotations are based on FRAC guidelines for 5 to 6 sprays and may be more conservative than indicated on the label.
### Comparison of commonly used peanut fungicides 2020 (cont)

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| **Elatus** (benzovindiflupyr + azoxystrobin) 7.3 to 9.5 oz | 7 + 11 | • Very good – excellent stem rot, limb rot and pod rot control  
• Good systemic leaf spot control where effective  
• Longer residual at high rates | • May show reduced efficacy against some leaf spot populations. Consider mixing with an effective leaf spot fungicide (e.g., chlorothalonil) if using primarily for leaf spot control  
• 9.5 oz can be tank-mixed with Miravis to for extended stem rot control |
| **Fontelis** (penthiopyrad) 16 to 24 oz | 7 | • Very good to excellent stem rot control  
• Very good leaf spot control  
• Some suppression of Sclerotinia blight at high rate (24 oz) | • No more than 2 of 5 applications of unmixed group 7 fungicides due to resistance risk  
• Alternate with fungicides from a different group (not group 7). Should not be used in alternation with Miravis due to resistance risk. |
| **Headline** (pyraclostrobin) 6 to 15 oz | 11 | • Rapid uptake, good residual and wash–off resistance  
• Excellent systemic leaf spot and web blotch control in areas where still effective | • Many populations are resistant. Higher rates will NOT help.  
• Must be mixed with an effective leaf spot fungicide such as Bravo (chlorothalonil)  
• High rates are needed for stem rot control and stem rot control can be erratic |
| **Lucento 5.5 oz** (Flutriafol + Bixafen) | 3 + 7 | • Very good systemic leaf spot and stem rot control | • Moderate resistance risk. Rotate with fungicides in other groups  
• Do not alternate with Miravis or Fontelis |
| **Miravis** 3.4 oz (Pydiflumetofen) | 7 | • Very long residual (21 to 28 days)  
• Excellent leaf spot control  
• Best fit is at 60 DAP | • Not effective against stem rot. Mix with a stem rot fungicide.  
• Protectant only  
• Resistance risk is high if overused or used as a rescue treatment  
• Alternate with a fungicide from a different group (not group 7). |
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| Priaxor 6 to 8 oz | 11 + 7 | • Good residual and wash–off resistance  
• Very good systemic leaf spot control  
• Stem rot control at 8 oz rate | • May show reduced efficacy against some leaf spot populations. Consider mixing with an effective leaf spot fungicide (e.g., chlorothalonil) for extra protection |
| Propulse 13.6 oz  | 3 + 7 | • Excellent leaf spot and stem rot control  
• Suppresses nematodes when applied in early season (see label for details)  
• Long residual | • Expensive  
• Resistance risk |
| Provost Silver    | 3 + 3 | • Very good stem rot, limb rot and pod rot control  
• Very good leaf spot control | • Resistance risk; tank mix or alternate with other chemistry to prevent loss of efficacy  
• Add sulfur to boost activity against leaf spots |
| Revytek 12 – 15 oz| 3 + 7 + 11 | • Very good systemic (limited) leaf spot and stem rot control  
• Faster uptake than other group 3’s  
• Good rainfastness | • Less mobile than other group 3’s  
• 3-way mix limits choices for mixing partners |
| Tebuconazole      | 3     | • Very good – excellent stem rot, limb rot and pod rot control  
• Systemic and redistributes well  
• Inexpensive | • Poor leaf spot control due to fungicide resistance in most locations; not effective against late leaf spot due to resistance  
• Always mix with Bravo or other product for leaf spot control |
| Topguard          | 3     | • Good systemic leaf spot control, some stem rot control  
• Mix with Bravo for first spray | • Most useful tank mixed with another a.i.  
• Moderate resistance risk  
• Add sulfur to boost activity against leaf spots |
<p>| | | | |
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<td>Topsin M 70 WP 8 oz dry wt (Thiophanate-methyl; many brands and formulations)</td>
<td>1</td>
<td>• Very good leaf spot control&lt;br&gt;- Use in tank mixes as an alternative to Bravo</td>
<td>• Must be tank mixed with an effective leaf spot fungicide due to resistance risk&lt;br&gt;- Very high risk of resistance development; use no more than once per season in a 5-spray program</td>
</tr>
<tr>
<td>Generic premixes of azoxystrobin + tebuconazole Variable rates</td>
<td>3 + 11</td>
<td>• Good stem rot and limb rot control</td>
<td>Probably ineffective against leaf spot in many locations&lt;br&gt;Mix with Chlorothalonil&lt;br&gt;Usually have less a.i. than rate recommended for brand-name product</td>
</tr>
<tr>
<td>Microthiol Diperss (sulfur) 5 lb.</td>
<td>M</td>
<td>• May enhance performance of group 3 fungicides when mixed with them&lt;br&gt;- May suppress mites&lt;br&gt;- Data for NC is limited</td>
<td></td>
</tr>
<tr>
<td>Omega (fluazinam) 1 to 1.5 pt</td>
<td>C5</td>
<td>• Controls Sclerotinia blight. Level of control depends on rate and frequency used.&lt;br&gt;- Long residual (21 to 28 days)&lt;br&gt;- May control stem rot&lt;br&gt;- Use in addition to a leaf spot control program</td>
<td></td>
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In well-rotated fields, the first fungicide spray should be applied by the very early pod stage (R3), but no later than July 10. After the first spray, apply fungicides according to the leaf spot advisory.

Each day’s advisory: “spray today” or “do not spray today” can be found on the 7th line for each location. This is all you really need to know for your location. The other lines give additional information that you may find useful.

Advisory information:
lines 1 & 2 – Date, name location of station. ECONET stations are indicated by an abbreviated name; airport stations are indicated by call letters. It is a good idea to check advisories the two stations nearest you.
line 3 – Set date. This is used to calculate the advisory.
line 4 – Lethal conditions. A temperature of 99°F or higher for 5 straight hours OR humidity less than 40% for 8 straight hours will kill the pathogen. If lethal conditions = true, favorable hours (below) are reset to 0.
line 5 - Favorable hours. An hour is favorable for leaf spot development when the humidity is at least 95% and temperature is between 61°F and 90°F during that hour. A spray is advised when there have been at least 48 favorable hours since the set date.
line 6 – LESD (Last Effective Spray Date). A fungicide spray is assumed to protect for 14 days. You do not need to spray if you have sprayed since the LESD even when the advisory says “spray today.” Example: LESD = 2019-06-09 means you do not have to spray today if you have sprayed on or after June 9.
line 7 – Today’s advisory. If the advisory is “spray today” conditions are favorable for leaf spot and you should spray if no fungicide has been applied in the past 14 days. If the advisory is “do not spray today” a spray is not required.
lines 8 & 9 - Growing degree days for peanuts (base 56) since the LESD and since May 1.
line 10 – Records count. The number of hourly weather observations out of the total possible observations. The advisory may not be reliable if there are several missing records.
line 11 – Most recent hourly observation. This should be 7:00:00 (7 a.m.) on the date of the advisory.

The North Carolina peanut leaf spot advisory is a cooperative effort by the State Climate Office of North Carolina and the Department of Entomology and Plant Pathology at NC State University. The advisory is a safe way to minimize fungicide applications by spraying only when weather conditions favor disease.

June 26, 2019 PEANUT LEAF SPOT ADVISORY FOR ROCK
Upper Coastal Plain Res Stn (Rocky Mount, NC)
setDate = 2019-06-16 07:00:00
lethal conditions = false
favorable hours = 44
LESD = 0000-00-00
ROCK Advisory: do not spray today
Growing degree days (base 56) since LESD = 0
Growing degree days (base 56) since May 1 = 1072.3
Records count: 239 out of 241
Most recent db ob to 8am EDT: 2019-06-26 06:00:00

Peanut Leaf spot advisories
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