NC STATE EXTENSION

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Peanut Leaf spot advisories 2020

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.

August 19, 2019 PEANUT LEAF SPOT ADVISORY FOR ROCK
Upper Coastal Plain Res Stn (Rocky Mount, NC)
setDate = 2019-08-14 07:00:00
lethal conditions = false
favorable hours = 53
LESD = 2019-08-05
ROCK Advisory: spray today
Growing degree days (base 56) since LESD = 355.5
Growing degree days (base 56) since May 1 = 2435.5
Records count: 119 out of 121
Most recent db ob to 8am EDT: 2019-08-19 06:00:00

In well-rotated fields, **the first fungicide spray should be applied no later than the very early pod stage (R3) or July 10**, whichever comes first. 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.

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 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 = 2019-08-05 (see above) means you do not have to spray today if you have sprayed on or after August 5.

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 peanut (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 6:00:00 or 7:00:00 (6 or 7 a.m.) on the date of the advisory.

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Peanut fungicide comments 2020

- Apply the first spray no later R3 (very early pod) or July 10, whichever comes first. **Well rotated** peanuts need a total 5 sprays applied at 2 week intervals in most seasons. The number of sprays required can be reduced by using the peanut leaf spot advisory after the first spray.
- The right program for a particular field depends on the overall disease risk for that fields. For additional help, see the peanut risk decision aid
    - **High risk** fields include those on short rotations (less than three years between peanut crops), fields with a previous disease history, irrigated fields, and fields planted to susceptible cultivars. Each of these factors increases disease risk.
    - **Low risk** fields include dryland fields with long rotations and no previous history of difficult disease problems. Planting a resistant cultivar helps to reduce disease risk. Each of these factors reduces disease risk.
- Rotational crops that increase risk of soilborne diseases include soybeans, tobacco, tomatoes, melons, and many other vegetables. Remember that diseases caused by peanut pathogens can have different names in other crops or regions. For example: stem rot = white mold (peanut) , Southern blight; Rhizoctonia = sore-shin, belly rot, damping off; CBR = red crown rot; Sclerotinia blight = white mold (vegetables)
- **There is no perfect product or program for peanut disease control in all situations.** All products have relative strengths and weaknesses. Fungicides from different groups (3, 7, 11) tend to be complementary in their activity. A fungicide program that includes different groups of fungicides takes advantage of the strengths of these groups (3, 7, 11) and also helps to reduce the risk of fungicide resistance.
- However, Group 11 fungicides are not effective against leaf spot in many locations in NC. Be aware of resistance management guidelines and follow them to conserve activity of other fungicide groups.
- Use a multisite (Group M) fungicide to prevent resistance to any group. Be aware that Group M fungicides provide foliar disease control only.
- Repeated applications of the fungicide chlorothalonil (Bravo; Group M) can flare spider mites and make Sclerotinia blight worse. Switch to a different fungicide during hot, dry periods. Avoid repeated applications of chlorothalonil in fields with a history of Sclerotinia blight
- Minimize applications of all fungicides during dry weather. **CAUTION: weather can be favorable for leaf spot even without rain**. Check leaf spot advisories to determine whether it is safe to delay fungicide applications.
- Please check the North Carolina Agricultural Chemicals Manual for a complete listing of fungicides registered on peanuts in North Carolina