

Peanut Disease Advisories

THE NEED

North Carolina produces \$60-70 million of peanuts annually, ranking about 5th in the nation. But two major diseases concerning peanut growers are peanut leaf spot and Sclerotinia blight. If uncontrolled, peanut leaf spot can cause yield losses of 50 percent or more in one season. Sclerotinia blight can spread rapidly under a peanut canopy and result in yield losses of up to 80 percent in severe cases. Disease prevention is an integral part of crop management. Appropriately timed chemical applications can mitigate yield losses by preventing disease onset, but should only be used when environmental conditions favor disease development.

SERVING THE NEED

The NC Climate Office provides climate-based peanut disease advisories that take advantage of the close relationships between disease outbreaks and weather. The advisories are based on published, research-based algorithms that compute the number of favorable hours for disease development. The algorithms consider specific environmental parameters such as air and soil temperatures, humidity, and daily precipitation. Once a sufficient number of favorable disease hours have accumulated, an affirmative spray advisory is generated. If conditions do not yet exist for disease development, the advisories contain pertinent information about degree days and other useful statistics. The advisories enable growers to skip or delay fungicide sprays during periods of unfavorable disease development.

IMPACT

Depending on the growing season, 0-4 sprays can be saved. Leaf spot fungicide costs \$7-20 per acre while Sclerotinia fungicide is \$30-40 per acre. Annual statewide savings average around \$2-6 million. By reducing sprays, growers can maintain or increase yields and reduce non-target effects and operating costs.

PARTNERS & SUPPORT

Climatic and other environmental data are used to create this climate service. Sources of data include the NC ECONet, NOAA's NCDC, and the National Weather Service. This product is offered in close collaboration with faculty at NC State University and the NC Cooperative Extension Service.