Digging for Answers

Jason Woodward stands in the middle of nowhere, in a field full of dirt and rows. All he has to do is reach down, pull a peanut sample up, shake off the dirt and mark it positive or negative. Managing your crop to prevent diseases is important for every farmer. Doing it correctly is where Jason Woodward comes in.

"Applied research is very much synchronized with general production practices. With the most severe disease (or problems) we will go out and establish research trials, in fields, where peanuts are being produced and then we will follow all management and production practices," Woodward said.

Woodward grew up in the Southwest Oklahoma farming community Indiahoma. His family raised cattle, wheat, a little bit of hay and even club lambs. Woodward is now an Associate Professor and Plant Pathologist at Texas A&M University; he also serves as an Extension and State Peanut Specialist with a 75% appointment at Texas A&M AgriLife Extension and a 25% teaching appointment at Texas Tech University.

Woodward started out wanting to go to college for pharmacy because of his interest in science. While in college, he decided that he wasn't as interested in chemistry as he was in biology. He decided to transition to Plant Science and worked in a green house as a student worker. He took interest in sickly looking plants, which made him interested in plant diseases.

Woodward graduated from southwestern Oklahoma State University and then obtained a Master's degree from Oklahoma State University. While going to school, Woodward worked in Plant Pathology with turf grass.

Following graduation Woodward took an assistantship at the University of Georgia. He moved to south Georgia and not long after transitioned from turf grass back to row crops. Woodward's strong agriculture background combined with the experience gained at Georgia made him a great match for his current position at AgriLife.

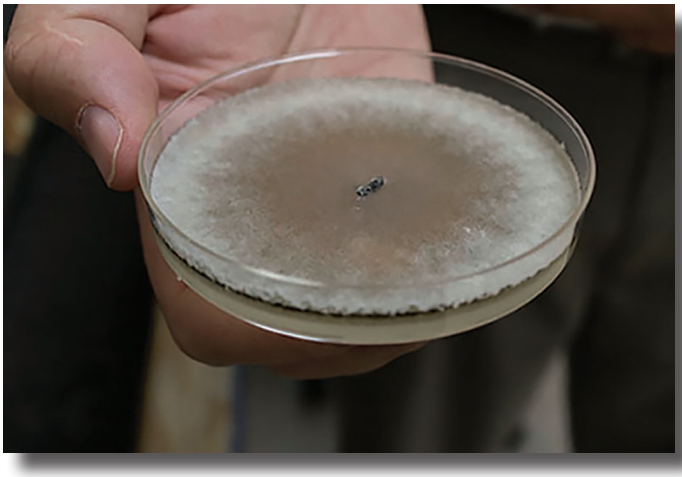
> "Texas is unique in the ability to grow the four types of peanuts that are grown."

Woodward, along with Terry Wheeler, Plant Pathologist and Nematologist, and other researchers, do applied research that is geared towards helping peanut farmers do the following: identify problems, develop leadership tactics, and become and maintain stability and profitability. Researchers also deal with disease management in fields where peanuts are grown. In addition, field and lab research both aid in the chemical treatment of these diseases.

Trials are usually implemented in the first part of April and part of May, and they try to coordinate this with the producer's planting time. The farmers have these scouts in their fields in order to monitor the situation and suggest when the spraying should start.

One issue that Woodward and Wheeler have is getting the farmers to know when and how to scout these diseases. They need to make sure to take enough samples to tell if the peanut field needs help or not. Scouts usually only go around to ten locations and that is not sufficient enough to be able to detect one percent incidence in pod rot. If they find one location in ten that is positive for disease, then they might have that one percent incidence threshold, but that means they really aren't enough points in the field to have confidence that they have one percent incidence.

If scouts go to at least 50 areas of concern in the field, and they retrieve five that are positive for Pod rot, that is a level of reliability they should be using. This information then gives them a better idea of which management/



treatment techniques will be more effective.

Another issue these specialists face is what happens to the farmers who are spraying by the calendars. These farmers know they have a problem with their fields, so they go ahead and put the applications out before they have any diseases.

"They actually have cleaner fields and have actually knocked out the diseases later in the season by doing that," Wheeler said.

The two main diseases that the High Plains deal with are Sclerotinia blight and Pod rot. Pod rot is caused by different organisms, Pythium and Rhizoctonia. Sclerotinia is a fungus that causes Sclerotinia blight, which is another

important disease of peanuts in this region.

Woodward works with the National Peanut and Texas Peanut Producers Board in order to make sure that consumers understand that peanuts are extremely nutritious and they should incorporate peanuts into their diets. They also work together to inform consumers that Texas produces high quality and high value peanuts that are used in a number of different products.

"Jason Woodward joined our team eight years ago and has proven himself as a leading peanut pathologist in the county. His knowledge plus the way he relates to peanut farmers makes him, in my opinion, one of the leading researchers and educators in the country," said Shelly Nutt, executive director of the Texas Peanut Producers board.

Chuck Rowland, a Peanut producer in Gaines County and member of the Texas Peanut Producers board, met Woodward when he as well as other members of the board interviewed him for his current job at Texas A&M AgriLife.

Rowland has a peanut field of his own and has had diseases and problems come up before. Rowland said that Woodward can come out to a field and pretty much tell you what you have and what needs to be done in order to treat it. He said that Woodward is very good to work with.

"I enjoy being with him when he's in the field, and we are very fortunate to have him," Rowland said.

Woodward's and Wheeler's overall target is trying to get a handle on the spray parameters that will lead to the best application. They started working on timing aspects about five years ago and then shifted their efforts to working with chemicals the last two years. Every year they switch the protocols and try to find a combination that is effective. They want to figure out whether they can put the application out early or can wait for the percentage results.

"I think timing will work itself out," Wheeler said.

When asked what Woodward wants consumers to take away from his research, he said, "Sustainability."

"If we look at the opportunity of peanut breeders to develop cultivars that have improved resistance to these pests that we're working with," Woodward said, "that ultimately provides a good foundation for the producer."

Shylo Rinehart
Gail, Texas