

PCG Alerts Growers to Importance of Sourcing Seed in Pima Cotton due to FOV4 Risk

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It's planting time on the Texas High Plains, and growers throughout the region are sitting on "Go," ready to plant their 2019 cotton acreage, if they haven't already started.

A few growers have indicated an intention to experiment with Pima cotton this season as well, which raises a point of concern due to the recent identification of the soil-borne fungus *Fusarium oxysporum f. sp. vasinfectum* Race 4 (FOV4) in the El Paso Valley production region.

Before making good on that decision, representatives from Texas A&M AgriLife Extension and Lubbock-based Plains Cotton Growers are encouraging growers to verify the source of the seed they intend to plant and avoid planting any seed that has been sourced from California or the El Paso Valley regions where the FOV4 fungus has been confirmed to exist.

Texas A&M AgriLife Extension recently published a new informational bulletin highlighting the risk that FOV4 poses to the Texas cotton industry. A copy of that bulletin is available for download here: <http://www.plainscotton.org/FOV-4-Bulletin.pdf>

Pima plantings are not unheard of on the Texas High Plains, but growers considering this choice need to be aware of the new risks that are associated with that decision in 2019.

Due to the recent identification of FOV4 in the El Paso Valley production region, PCG and other experts have grave concerns about the potential for this devastating disease to be spread to the Texas High Plains.

"We want it to be abundantly clear that by no means are we discouraging growers who decide to plant Pima cotton," PCG Executive Vice President Steve Verett said. "Our concern centers around helping ensure that growers are one hundred percent aware and sure of where their Pima seed is coming from."

Fusarium wilt is a highly virulent cotton disease caused by the soil-borne fungus *Fusarium oxysporum f. sp. vasinfectum*. This new Race 4 was first detected in California in the early 2000s and most recently was discovered in the Upper Rio Grande Valley area in Texas, in El Paso and Hudspeth counties.

One reason this is especially alarming is that there currently is no variety of upland cotton that is resistant to FOV4, and once it's introduced onto a farm, it will be a permanent infestation and there are no chemical control options for controlling FOV4.

Dr. Terry Wheeler, Texas A&M AgriLife Research plant pathologist, said that a troubling point related to the potential introduction of FOV4 via infected planting seed is that it would take at least five years for the populations to build to a point where symptoms would be readily identifiable, and that the introduction of the disease in the region would significantly limit the opportunity to maintain commercial seed production in this area in addition to negatively impacting yields in infected fields. The

pathogen is easily spread by infected seed and movement of soil infested with the pathogen.

"We advise not to plant any Pima seed from California or the El Paso Valley. Other sources, both domestic and international, cannot be guaranteed to be FOV4-free," Wheeler said. "The first field that shows FOV4 shuts down this whole area from an upland cotton planting seed production perspective."

Impact on seed production is a short-term effect of FOV4, but long-term impacts include decreases in yield and overall ability to grow upland cotton unless resistant varieties are developed.

"This issue isn't about individual growers. It's about the opportunity to produce upland cotton," Verett said. "At the very least, it could be a significant problem until resistant (upland) seed can be developed and commercially available, but that will be several years down the line."

Agronomically, planting Pima cotton after May 1 in most counties on the Texas High Plains is not advised, Texas AgriLife Extension cotton agronomist Dr. Murilo Maeda said.

Pima cotton (*Gossypium barbadense*), or extra long staple cotton (ELS), is known for its exceptional lint quality; however, Pima also is known for delayed maturity when compared to upland-type cotton (*Gossypium hirsutum*), the more widely grown cotton species in the Texas High Plains region.

Producers who are still considering planting Pima cotton in the High Plains region must now be very aware of the limitations that the calendar will impose on the crops' ability to reach maturity and produce an acceptable yield.

In general, yield expectations for Pima cotton should be tempered in the High Plains region, particularly due to season length limitations often encountered in the region.

Research in California has shown that a greater proportion of Pima cotton yield come from second and third position bolls, as well as from an increased number of fruiting branches, when compared to *Gossypium hirsutum* which typically produces 75-80 percent of its yield from first position bolls.

Although this can provide management opportunities in regions with longer growing seasons, growers in the High Plains should be aware of increased attention to controlling plant height, as well as possible shortcomings on being able to finish the crop.

"Planting Pima cotton on the High Plains has always been a 'buyer beware' proposition," Maeda said. "The best advice for growers considering this option is to verify the source of the seed that they are planting and follow as closely as possible the management and phytosanitary recommendations to limit potential risks."

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