This research is being conducted to identify major viruses infecting sweetpotato in Arkansas.

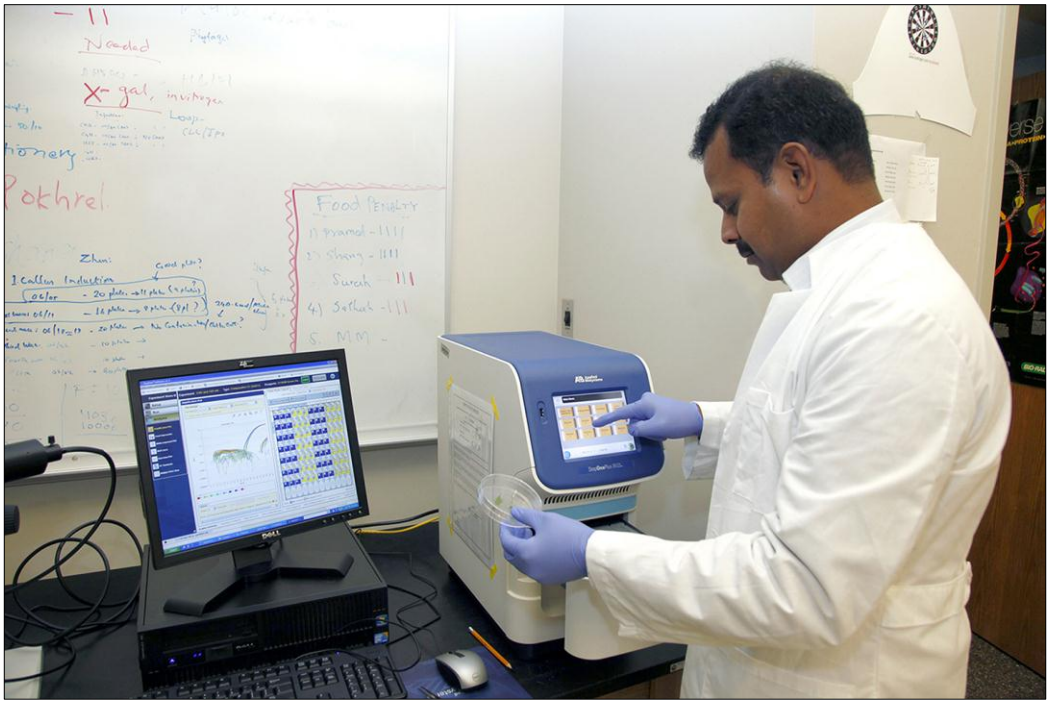
Sweetpotato Producers Reap Benefits of New Study

Who cares and why?

Viral diseases affect sweetpotato, an economically important crop in Arkansas, causing significant damage to yield. However, information on viral infections on sweetpotatoes grown in Arkansas is not available, so UAPB is working to identify major viruses that infect the crop in the state.

What has the project done so far?

Leaf samples were collected from 15 locations in Southeast Arkansas. RNA and DNA were isolated and Real-time Polymerase Chain Reaction was used to identify major viruses. Assays indicated that Sweetpotato Virus G infected 96.7 percent of samples analyzed, followed by Sweetpotato Leaf Curl Virus (83.3 percent), Ipomoea Vein Mosaic Virus (67.8 percent), Sweetpotato Feathery Mottle Virus (66.7 percent) and Sweetpotato Chlorotic Stunt Virus (58.2 percent). The third generation samples from Ashley County showed higher infection levels for all the major viruses tested than the first generation samples. Samples from Lee County, where producers used their own seeds over a period of time, showed clear accumulation of all the major viruses.



Impact Statement

As a result of the study UAPB researchers can now advise producers to not use their own seeds over a period of time as higher accumulation of viruses may lead to yield loss. This knowledge could save producers thousands of dollars over a period of time.

What research is needed?

Further screening of sweetpotato for a period of three to five years is required to validate viral infections in Arkansas.

Want to know more?

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Strategic Priority - Agricultural Systems

Additional Links - http://www.umes.edu/ard/Default.aspx?id=46285

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