



Mississippi National Clean Plant Network-Sweet Potato—December 2020

Mississippi State University / Pontotoc Ridge-Flatwoods Branch Experiment Station

Mississippi State University- Pontotoc Branch (MSU-PB) constructed a new greenhouse in March 2020 that will be utilized as the “mother greenhouse” to supply starter plant material from tissue culture in the clean lab for the Certified Clean Foundation Seed (CCFS) Program in Mississippi. The MSU-PB provided an estimated 216,000 clean sweetpotato slips in May and June of 2020. Industry feedback as of October indicates yield of G1 foundation seed from a certified grower location was estimated to be 450-500 Bu/A. Also, a grower stated that commercial production increased 100 Bu/A with plant material from G1 seed beds compared to later generation seed roots. Mississippi clean plant material is in high demand and several greenhouses are being constructed by industry stakeholders in order to propagate clean plant material for their own commercial operations and/or as a new business enterprise to supply clean plants to other growers. MSU-PB will be the leading source of clean plant cuttings for these new operations in early 2021. As a result of this growth and demand, the MSU-PB is building capacity in the area of “quality management” in the laboratory as well as greenhouse operations. Equipment such as a MP Biomedicals FastPrep-24 5G Instrument and an Applied Biosystems QuantStudio 3 Real-Time PCR System was purchased in August 2020 for the development of a sweetpotato diagnostics program. In addition, the MSU-PB is working with other NCPN-SP centers in the network to develop objectives to improve, promote, and educate industry stakeholders about the CCFS programs across the nation with a project planning grant from the Specialty Crops Research Initiative program awarded by USDA-NIFA.

