## WISCONSIN– Silage Snap: Image Processing-Based Kernel Processing Score Determination App Closer to Release

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MFA has funded a portion of the development of a smart phone app designed to allow farmers the ability to assess their kernel processor performance in the field. Most recently, MFA funded Brian Luck's project titled, "*Image Processing–Based Kernel Processing Score Determination via Smart Device: Smart Device Application Testing and Release.*" The goal of this research is to finalize the smart device image-based kernel processing score determination application and validate accurate results produced from data collected with the application.

Figure 1. SilageSnap application start screen and result screens.
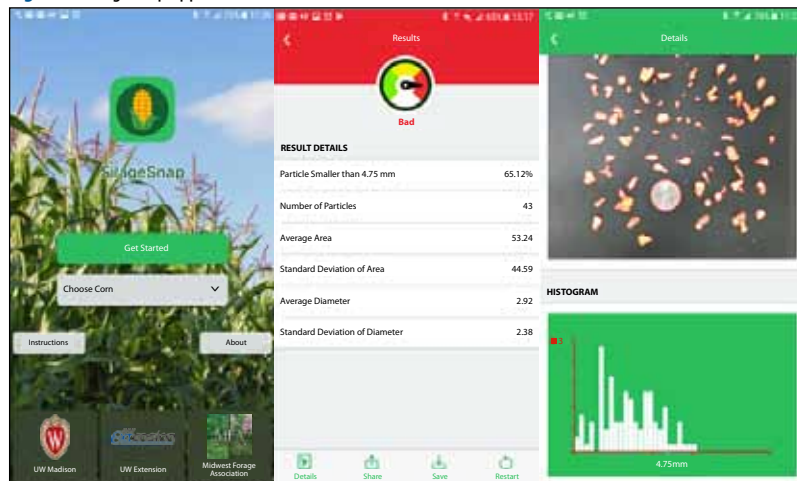
Over the past year, substantial progress has been made toward testing and finalizing the image processing application. Testing was completed within the lab to finalize methods needed to improve accuracy. In early 2018 a beta version was available and accuracy and robustness testing is ongoing.

Finally, working with a commercial software development firm, we have received a beta version of the SilageSnap application. This application has all screen navigation functionality and a functioning image processing algorithm (Figure 1). The current measurement accuracy of the application is incorrect, so some work is yet to be completed. Once measurement accuracy is corrected we plan to have Rock River Laboratories, Chr. Hansen, and Alltech do more extensive testing before public release in Q2 of 2018.

A full copy of this final report can be found on the Member's Only page of MFA's website at: midwestforage.org/membersOnly.php.