

# Limitations For Corn Production In The Mid-South

**DR. ERICK LARSON**

---

## **MISSISSIPPI STATE, MISS.**

**F**armers are always looking for keys which may improve productivity and profitability. Corn is a crop known to be quite responsive to numerous inputs including crop rotation, early planting, plant population, nitrogen fertilizer, irrigation water and others. However, once these inputs are implemented or at acceptable levels, pushing the envelope with these variables produce diminishing returns. Therefore, production gains are more likely to come through incorporation of new technology or more efficient utilization of practices and/or inputs. Mississippi State University's Corn Verification program has identified several key limitations which often drastically reduce productivity in Mid-south corn fields.

Several factors involved in the planting process often create undesirable results. Soil temperature and soil moisture must be acceptable to germinate seeds and produce healthy, vigorous plants. Planter settings must be set for the spe-

cific seed size and weight, and seed depth and operation should be continuously monitored during the planting process. Growers should also be aware that seed treatments have shortfalls and either select appropriate products for anticipated pests, supplement the treatment rate, or use alternative pest control methods.

Utilization of corn in crop rotation systems can substantially reduce pest management issues, but proactive planning and thorough crop scouting can greatly improve results and profitability. For instance, you should be prepared to implement management changes to address pesticide resistance problems, not only for glyphosate resistant weeds, but other issues as well. Active management and scouting will also greatly improve performance and also often avoid unnecessary application expenses. Growers can make considerable improvements regarding irrigation scheduling relative to crop needs and environmental conditions. Δ

*DR. ERICK LARSON: Grain Crops Agronomist, Mississippi State University*