

REAL WORLD (*ON-FARM*) IMPLEMENTATION OF SENSOR BASED VRN IN MID-ATLANTIC CORN PRODUCTION

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ABSTRACT

Researchers and producers have long sought a reliable and efficient method for determining the nitrogen (N) status of corn during the early growing season. Sprayer-mounted active optical sensors that measure crop vigor have been developed along with algorithms that guide variable rate N (VRN) application in corn or wheat. In the mid-Atlantic, Virginia Tech researchers developed both corn and wheat algorithms and have been evaluating these algorithms for several years along with researchers from the Universities' of Maryland and Delaware. Sensor guided, variable rate N shows tremendous promise, with potential savings of 10 - 20% N and therefore has caught the attention of policy makers, who are tasked with achieving substantial reductions in agricultural N loads to the Chesapeake Bay. However, user apprehension is a major obstacle to adoption of the technology in the mid-Atlantic. This talk will cover the current research, development, and extension efforts underway in the mid-Atlantic whose goal is to increase farmer understanding and therefore acceptance of sensor-guided VRN technology.