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Revisions in Corn Field Guide Reduce Uncertainty

AMES, Iowa — Identifying pests, diseases, disorders and developmental stages in Midwestern corn crops just became easier. New and larger color photographs, updated information on plant diseases and crop production, and additional topics are included in the second edition of Iowa State University's popular Corn Field Guide, now available for purchase online at <https://store.extension.iastate.edu/>.

Growers and agronomists will appreciate new environmental criteria added to help identify diseases.

"If a farmer is field scouting for disease and discovers something abnormal, he can use the photo and description in the guide to begin to identify what might be happening," said Daren Mueller, assistant professor of plant pathology and microbiology, who assisted with guide revisions. "Then, if he reads under the "Environment" section that the disease exists in moist cool conditions, but it's been hot and dry, he knows he needs to look further in the guide."

Mueller is a principal investigator on the Integrated Pest Management (IPM) team of the Climate and Corn-based Cropping Systems Coordinated Agricultural Project, also known as the [Sustainable Corn Project](#). It's a 10-university research project in the Corn Belt, funded by the U.S. Department of Agriculture and lead by Iowa State University. Team members are gathering and analyzing field trial data from 35 field sites and thousands of farmers in eight Midwestern states in an effort to create a suite of practices that make corn-based cropping systems more resilient in response to climate change. Mueller's team collects and analyzes IPM data to assess the impact of the field practices on pests, weeds and diseases, under specific environmental conditions.

"With the guide scheduled to be updated, it was an opportunity to incorporate what is known about how climate and extreme weather events affect corn production, insects and diseases. The new guide provides the farmer with more information for making decisions," said Jamie Benning, a program specialist with Iowa State University Extension and Outreach and principal investigator on the Sustainable Corn Project.

Updating the guide was a collaborative effort between ISU Extension and Outreach, Integrated Pest Management and the Sustainable Corn Project, said Mueller.

“Numerous extension specialists, engineers, agronomists, plant pathologists, entomologies, weed scientists and nematologists with Iowa State provided text and images. It was a team effort,” said Mueller.

Over 200 photos and illustrations are packed into this updated version of the pocket-sized **Corn Field Guide**, now available for purchase online at <https://store.extension.iastate.edu/>.

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