

9-17-2009

Hail Damage – Grain Quality Survey

Bill Arndorfer

Iowa State University, barndorf@iastate.edu

Alison E. Robertson

Iowa State University, alisonr@iastate.edu

Gary P. Munkvold

Iowa State University, munkvold@iastate.edu


Charles R. Hurburgh

Iowa State University, tatry@iastate.edu

Steve Ensley

Iowa State University, sensley@iastate.edu

Follow this and additional works at: <http://lib.dr.iastate.edu/cropnews>

 Part of the [Agricultural Science Commons](#), [Agriculture Commons](#), [Agronomy and Crop Sciences Commons](#), [Plant Pathology Commons](#), and the [Veterinary Preventive Medicine, Epidemiology, and Public Health Commons](#)

Recommended Citation

Arndorfer, Bill; Robertson, Alison E.; Munkvold, Gary P.; Hurburgh, Charles R.; and Ensley, Steve, "Hail Damage – Grain Quality Survey" (2009). *Integrated Crop Management News*. 554.

<http://lib.dr.iastate.edu/cropnews/554>

The Iowa State University Digital Repository provides access to Integrated Crop Management News for historical purposes only. Users are hereby notified that the content may be inaccurate, out of date, incomplete and/or may not meet the needs and requirements of the user. Users should make their own assessment of the information and whether it is suitable for their intended purpose. For current information on integrated crop management from Iowa State University Extension and Outreach, please visit <https://crops.extension.iastate.edu/>.

Hail Damage – Grain Quality Survey

Abstract

There were two major hail events this summer during grain fill that resulted in significant corn crop damage in the path of the storm. The damage occurred over several thousand acres with some fields being a total loss and other fields having varying degrees of damage. This resulted in several crop hail damage meetings across the state to help farmers make informed harvest decisions. A common question from farmers and grain merchandisers dealt with grain quality issues. Specifically, what impact will the hail damage have on grain quality, ear rot severity and mycotoxin contamination in my corn crop?

Keywords

Plant Pathology, Agricultural and Biosystems Engineering, Veterinary Diagnostic and Production Animal Medicine

Disciplines

Agricultural Science | Agriculture | Agronomy and Crop Sciences | Plant Pathology | Veterinary Preventive Medicine, Epidemiology, and Public Health

Subscribe to Crop
News


Archives

[2015](#)[2014](#)[2013](#)[2012](#)[2011](#)[2010](#)[2009](#)[2008](#)[Previous Years](#)

ISU Crop Resources

[Extension Field
Agronomists](#)[Crop & Soils Info](#)[Pesticide Applicator
Training](#)[Agronomy Extension](#)[Entomology Extension](#)[Plant Pathology
Extension](#)[Ag and Biosystems
Engineering Extension](#)[Agribusiness
Education Program](#)[Iowa Grain Quality
Initiative](#)[College of Agriculture
and Life Sciences](#)[ISU Extension](#)

Integrated Crop Management NEWS

 PRINT STORY
 EMAIL STORY
 ADD TO DELICIOUS
 ATOM FEED
 FOLLOW ON TWITTER

Hail Damage – Grain Quality Survey

By **Bill Arndorfer**, Extension field agronomist; **Alison Robertson** and **Gary Munkvold**, Department of Plant Pathology; **Charlie Hurburgh**, Department of Ag and Biosystems Engineering; and **Steve Ensley**, Vet Medicine

There were two major hail events this summer during grain fill that resulted in significant corn crop damage in the path of the storm. The damage occurred over several thousand acres with some fields being a total loss and other fields having varying degrees of damage. This resulted in several crop hail damage meetings across the state to help farmers make informed harvest decisions. A common question from farmers and grain merchandisers dealt with grain quality issues. Specifically, what impact will the hail damage have on grain quality, ear rot severity and mycotoxin contamination in my corn crop?

To help answer this question, ISU Extension will be conducting a survey to assess the impact of hail damage on ear rot severity, mycotoxin contamination and grain quality in corn. Iowa State University plant pathologists Alison Robertson and Gary Munkvold along with Charles Hurburgh, Professor in Charge of Iowa Grain Quality Initiative are looking for fields that were damaged by hail this past summer to be included in this survey. The following information is required in order to be a part of the study: field location with GPS coordinates or section and township, hybrid involved, date of the hail storm, size of hail stones, duration of the storm, percent damage to the crop, growth stage of the crop at the time of the hail damage and whether fungicides were applied. To participate in this survey, first identify hail damaged corn fields, and then notify Bill Arndorfer at: barndorf@iastate.edu of intent to participate.

In order to further assess the impact of fungicide application on hail damaged corn, fields that have an untreated strip check should have ear samples taken from both the treated and untreated areas of the field. If an undamaged field of the same hybrid occurs nearby, then ear samples from the undamaged and damaged fields are encouraged.

A representative sample from each identified field (or strip in the case of fungicide application) should include twenty four ears collected from eight locations that are at least twenty five paces apart. The husks on the ear must not be peeled back or removed. The ear samples should be sent by overnight mail to:

Hail Damage Grain Quality Survey
351 Bessey Hall
Ames, IA 50014.

If possible, a digital photo of the area of the field from which the ears were sampled should be emailed to Bill Arndorfer.

For each field sample submitted a report of ear rot prevalence and severity, mycotoxin levels and grain quality characteristics of each sample, will be prepared and e-mailed to the person submitting the sample.

Bill Arndorfer is an Extension field agronomist assigned to special projects. He can be reached at (319)234-6811 or by emailing barnorf@iastate.edu. Alison Robertson is an assistant professor of plant pathology with research and extension responsibilities in field crop diseases. She can be reached at (515) 294-6708 or by email at alisonr@iastate.edu. Gary Munkvold is an associate professor of plant pathology and seed science endowed chair in the Iowa State University Seed Science Center with research and teaching responsibilities in seed pathology. He can be reached at (515) 294-7560 or by email at munkvold@iastate.edu. Charles Hurburgh is a professor of Agricultural and Biosystems. He can be contacted at (515) 294- or by email at tatry@iastate.edu. Steve Ensley is a Vet Diagnostic and Production Animal Medicine clinician. He can be reached at (515) 294-1950 or by email at sensley@iastate.edu.

This article was published originally on 9/17/2009 The information contained within the article may or may not be up to date depending on when you are accessing the information.

Links to this material are strongly encouraged. This article may be republished without further permission if it is published as written and includes credit to the author, Integrated Crop Management News and Iowa State University Extension. Prior permission from the author is required if this article is republished in any other manner.