

1-22-2013

Reflections on Iowa's 2012 Drought

Mahdi Al-Kaisi

Iowa State University, malkaisi@iastate.edu

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

 Part of the [Agricultural Science Commons](#), [Agriculture Commons](#), and the [Agronomy and Crop Sciences Commons](#)

Recommended Citation

Al-Kaisi, Mahdi, "Reflections on Iowa's 2012 Drought" (2013). *Integrated Crop Management News*. 108.
<http://lib.dr.iastate.edu/cropnews/108>

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 Users are hereby notified that the content may be inaccurate, out of date, incomplete and/or may not meet the needs and requirements of the user.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/>.

Reflections on Iowa's 2012 Drought

Abstract

Enormous challenges were presented by the 2012 drought. Poor water availability and high temperatures resulted in significant stress during critical phases of corn (*Zea mays* L.) and soybean (*Glycine max* L.) development.

Keywords

Agronomy

Disciplines

Agricultural Science | Agriculture | Agronomy and Crop Sciences

[ICM Home](#)[ISU Extension Calendar](#)[Publications](#)[Extension News](#)[County Offices](#)[Contact Us](#)
[Subscribe to Crop News](#)

Archives

[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](#)

Reflections on Iowa's 2012 Drought

By Mahdi Al-Kaisi, Department of Agronomy

Enormous challenges were presented by the 2012 drought. Poor water availability and high temperatures resulted in significant stress during critical phases of corn (*Zea mays* L.) and soybean (*Glycine max* L.) development. These stress factors lead to management challenges with insects, diseases and reduced nutrient availability and uptake by plants. The drought triggered soil changes, particularly in conventional tillage systems, such as increased fracturing, crusting and deterioration of soil structure and aggregation. All this reinforced the need for soil conservation planning, especially its necessary role in buffering against unpredictable conditions and the impacts of dry and wet events on production and soil quality. In 2011, the USDA's National Drought Mitigation Center reported that 43 percent of Iowa experienced moderate-drought conditions and nearly 10 percent experienced severe-drought conditions. In 2012, 100 percent of Iowa experienced severe-drought conditions, while 65 percent experienced extreme-drought conditions by October. The article in the following link, <http://www.jswnonline.org/content/68/1/19A.full.pdf+html>, addresses several effects of drought on soil and crop production and lessons learned that will help develop appropriate drought mitigation strategies for future soil and crop management practices.

Mahdi Al-Kaisi is a professor in agronomy with research and extension responsibilities in soil management and environmental soil science. He can be reached at malkaisi@iastate.edu or 515-294-8304.

This article was published originally on 1/22/2013. 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.

