

4-23-2007

## Adjust planters when working in wetter soil

H. Mark Hanna

Iowa State University, hmhanna@iastate.edu

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

 Part of the [Agricultural Science Commons](#), [Agriculture Commons](#), and the [Bioresource and Agricultural Engineering Commons](#)

---

### Recommended Citation

Hanna, H. Mark, "Adjust planters when working in wetter soil" (2007). *Integrated Crop Management News*. 1090.  
<http://lib.dr.iastate.edu/cropnews/1090>

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 Users are hereby notified that the content may be inaccurate, out of date, incomplete and/or may not meet the needs and requirements of the user.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

---

# Adjust planters when working in wetter soil

## **Abstract**

Spring rains have kept growers out of some Iowa fields. Although we don't want to plant when soil is too wet, as the season progresses, the potential for diminished yield may compromise what are considered acceptable soil conditions for planting. Planting equipment operators should recall important adjustments that may be necessary in these conditions.

## **Keywords**

Agricultural and Biosystems Engineering

## **Disciplines**

Agricultural Science | Agriculture | Bioresource and Agricultural Engineering

# INTEGRATED CROP MANAGEMENT

Search

Get the latest research-based information on crops. [Sign up to be notified](#) when new content is available!

ICM > 2007 > IC-498 (7) -- April 23, 2007

## Current Newsletter

You are viewing **archives** for the newsletter from 1993-2007. For current news, see [Integrated Crop Management News](#).

## Archives 1993-2007



Announcements



Crop Production



Insects and Mites



Pesticide Education



Plant Diseases



Soils



Weed Management

[Image Gallery](#)

## Printable Version

Printable version of this page

## Related Articles

Equipment considerations for producing corn after corn  
**February 12, 2007**

Equipment maintenance: Planters  
**April 8, 2002**

## Adjust planters when working in wetter soil

by Mark Hanna, Department of Agricultural and Biosystems Engineering

Spring rains have kept growers out of some Iowa fields. Although we don't want to plant when soil is too wet, as the season progresses, the potential for diminished yield may compromise what are considered acceptable soil conditions for planting. Planting equipment operators should recall important adjustments that may be necessary in these conditions.

Wet, plastic soil is easily compacted. Virtually all planters have down pressure springs on closing wheels or discs. Spring pressure should be lighter in wet soil conditions to avoid compacting soil excessively in the seed zone. In wet soils, not as much surface pressure is required to establish seed-to-soil contact and moisture is readily available for seed germination. Particular problems of furrow sidewall compaction and general compaction in the seed zone often occur when the planter overcompacts wet soil and then the soil dries for several days after planting, building soil strength in the compacted areas and inhibiting early root growth.



*Use no more down spring pressure on planter closing and depth-gauge wheels than is necessary if soils are wet. (Mark Hanna)*

In addition to lightening down spring pressure on the planter closing system, no more force than is necessary should be transferred to depth-gauge wheels on the sides of the double-disc

seed opener. Apply only enough down spring pressure through the parallel linkage so that depth-gauge wheels are in firm contact with the soil surface. Applying excess pressure on the depth-gauging wheels compacts soil in the seed zone and builds excessive soil strength, which early roots must overcome if the soil dries after planting. Be prepared to readjust down spring pressure as necessary for different soil moisture or tillage conditions.

Summarizing, in wetter soil conditions, lessen down spring pressure on both the planter closing wheels and depth-gauge wheels to no more than is necessary. Excessive pressure compacts soil, and if it dries later, roots may have difficulty penetrating compacted areas around the seed.

*Mark Hanna is an extension agricultural engineer in agricultural and biosystems engineering with responsibilities in field machinery.*

This article originally appeared on page 118 of the IC-498 (7) -- April 23, 2007 issue.

Updated 04/24/2007 - 4:43pm