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2007: Tri-modal planting dates for corn

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2007: Tri-modal planting dates for corn

Abstract

Corn was planted generally in three time windows this year, with only slight variation due to location. Rainfall was constant and consistent in areas this spring, causing week-long delays at times for field work. The impact of this type of planting season will be fully realized later, although it is obvious across the state that some plantings look better than others. Oftentimes, the "first" planting looks the best, then the "third," with the middle planting looking the poorest in terms of stand uniformity and plant color.

Keywords

Agronomy

Disciplines

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2007: Tri-modal planting dates for corn

by Lori Abendroth and Roger Elmore, Department of Agronomy

Corn was planted generally in three time windows this year, with only slight variation due to location. Rainfall was constant and consistent in areas this spring, causing week-long delays at times for field work. The impact of this type of planting season will be fully realized later, although it is obvious across the state that some plantings look better than others. Oftentimes, the "first" planting looks the best, then the "third," with the middle planting looking the poorest in terms of stand uniformity and plant color.

One important point to remember as we progress through this growing season is to correlate crop progress and health to the time it was planted. This will help to characterize why some fields look poorer or do not yield as well as other fields.

Planting progress is shown for Iowa during 2006 and 2007 in Figure 1 as million acres of corn planted. Data is released by the [National Agricultural Statistics Service \(NASS\)](#), Iowa field office, each week. The solid lines in Figure 1 represent total corn acreage planted while the dashed lines represent the same data but on a weekly basis, not cumulative. The value associated with each solid line in Figure 1 is the acreage planted up to that calendar date. Data are originally released from NASS as percent acreage planted; therefore, the percent values were converted to total corn acreage based on the 13.9-million-acre estimate from NASS earlier this spring (see the Planting Intentions Report released March 30, 2007, by NASS).

soybean is very important

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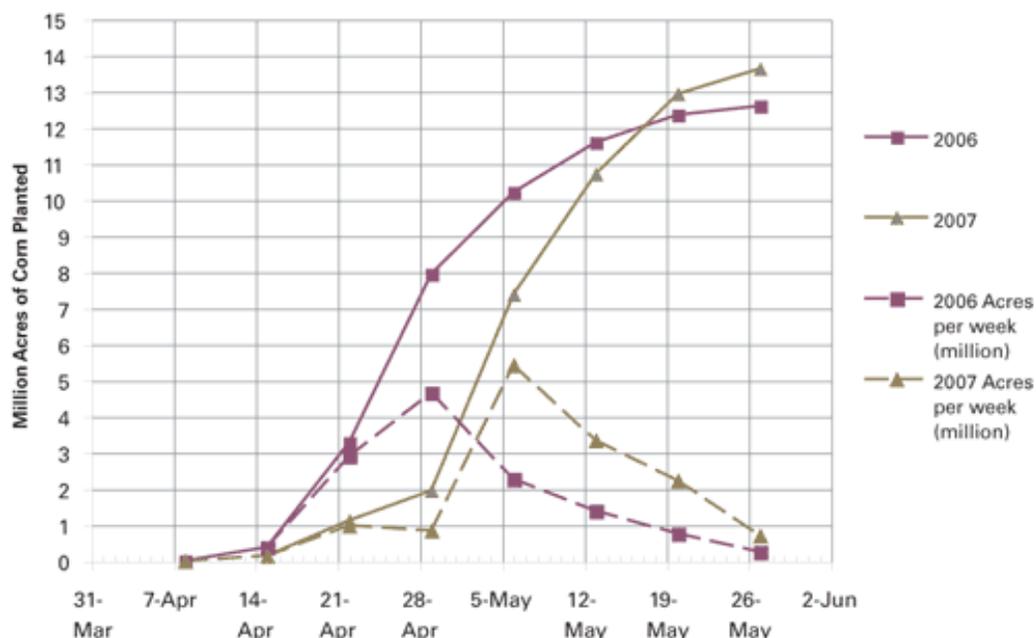


Figure 1. Corn planting progress: cumulative and weekly acreage in Iowa (2006 and 2007).

The amount of corn acreage planted per week was greatest for the week ending May 6, 2007; more than 5.4 million acres were planted that week! The most corn planted in 2006 was in the week ending April 29. The 2007 planting rate is similar to planting progress in 2001 and 2002 when approximately half the corn in Iowa was planted by the first few days in May.

Planting in 2007 was five days behind the five-year average for 2002 to 2006, and nine days behind the 2006 state average.

This delay in planting was due to a lack of days suitable for field work. The number of suitable days statewide is shown in Figure 2 for 2006 and 2007.

The tri-modal nature of the 2007 planting season becomes evident with three general peaks of activity in Figure 2 (this is evident when looking at occurrences of significant increases in slopes of the lines):

1. April 15 to April 22
2. April 29 to May 13
3. May 13 to May 19

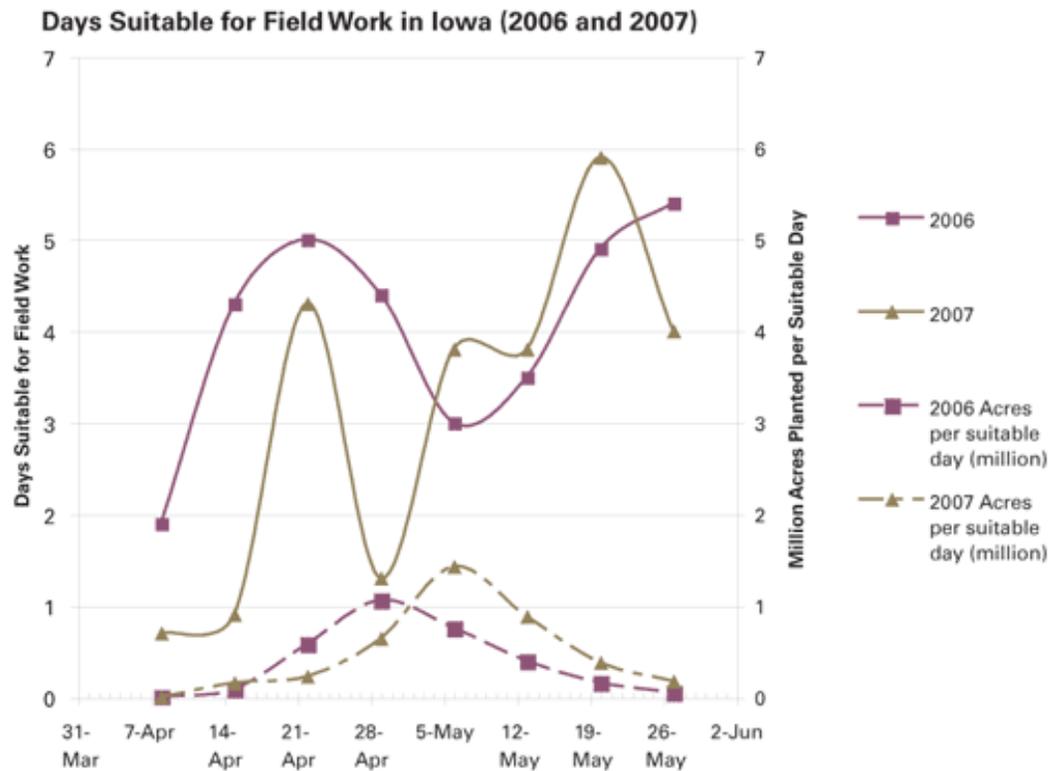


Figure 2. Days suitable for field work and acreage planted per suitable day in Iowa (2006 and 2007).

The first and third peaks are the strongest with the middle area (April 29 to May 13) less defined. Corn planted in this second "window" is the corn reported to have poorer stands and inferior overall color; which is likely because it was planted in between rain storms and conditions were not as ideal as during the first or third peak. The dashed lines in Figure 2 are a combination of data in Figure 1 with the amount of days suitable for field work (solid lines in Figure 2); these represent million acres planted per suitable day. The greatest amount of acreage planted per day was during the week ending May 6, 2007. An astounding 1.4 million acres of corn were planted per suitable working day in Iowa.

Regional planting data are shown in Table 1. Considerable variation exists within any region due to rainfall differences. Data for Table 1 are contributed by the Iowa State University Extension field agronomists.

To a great extent, corn was unfortunately planted into marginal conditions especially during that second window of planting dates listed above. This has been documented already with fields showing side-wall compaction, rootless corn, uneven plant heights, etc.

The tri-modal nature of the 2007 planting season will result in crop maturity differences among adjoining fields at any one time. Having corn planted across three windows presents an interesting dynamic to risk and pest management. Risk associated with short-term stress conditions, such as a dry period during pollination or silking, will be minimized and reduce the likelihood of having widespread crop failure. The influx of pests may be accentuated, though, in some fields and not others, depending on the insect.

Please find other information concerning corn management at www.agronext.iastate.edu/corn.

Table 1. Corn planting dates across Iowa in 2007.

Extension Field Agronomist Areas in Iowa**Planting Date
Windows, 2007*****(1) Joel DeJong, NW**

Lyon, Osceola, Sioux, O'Brien, Plymouth, Cherokee, Woodbury counties

April
19-
22 April 28-
May 3 May
10-18**(2) Paul Kassel, NNW**

Dickinson, Emmet, Kossuth, Clay, Palo Alto, Buena Vista, Pocahontas counties

April
20-
22 April 28-
May 3 May
10-18**(3) George Cummins, NC**

Winnebago, Worth, Mitchell, Hancock, Cerro Gordo, Floyd, Franklin, Butler, Bremer, Grundy, Black Hawk counties

April
19-
21 May 1-5 May
8-15**(4) John Holmes, C**

Humboldt, Wright, Webster, Hamilton, Hardin, Boone, Story, Marshall, Tama counties

April
19-
21 May 2-3 May
9-17**(5) Brian Lang, NE**

Howard, Winneshiek, Allamakee, Chickasaw, Fayette, Clayton, Buchanan, Delaware, Dubuque counties

April
19-
21 April 29-
May 16**(6) Mark Licht, WC**

Ida, Sac, Calhoun, Monona, Crawford, Carroll, Greene counties

April
18-
21 April 30-
May 3 May
10-16**(7) Mike White, SC**

Dallas, Polk, Jasper, Poweshiek, Madison, Warren, Marion counties

April
18-
23 May 1-2 May
11-14**(8) John Kennicker, WSC**

Guthrie, Adair, Adams, Union, Clarke, Lucas, Taylor, Ringgold, Decatur, Wayne counties

April
18-
22 May 1-2 May
11-18**(9) Jim Fawcett, EC**

Benton, Linn, Jones, Iowa, Johnson, Keokuk, Washington counties

April
19-
24 May 1-4 May
11-18**(10) Virgil Schmitt, SE**

Jackson, Clinton, Cedar, Scott, Muscatine, Louisa, Henry, Des Moines counties

April
20-
22 April 29-
May 5 May
11-18**(11) Kyle Jensen, SW**

Harrison, Shelby, Audubon, Pottawattamie, Cass, Mills, Montgomery, Fremont, Page counties

April
18-
21 April 28-
May 3 May
10-16**(12) Mark Carlton, SSE**

Mahaska, Monroe, Wapello, Jefferson, Appanoose, Davis, Van Buren, Lee counties

April
20-
21 May 1-4 May
11-15

Dates are an approximation for each region. Variability in rainfall likely resulted in differences within counties and regions.

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