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Getting the 2020 Crop Planted



Emerson Nafziger
Crop Sciences



Gary Schnitkey
Soybean Industry Chair in Agricultural Strategy

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What do you expect cash prices to be for corn in July 2020?

- Below \$3.00
- Between \$3.00 and \$3.20
- Between \$3.20 and \$3.40
- Between \$3.40 and \$3.60
- Over \$3.60



Gary Schnitkey

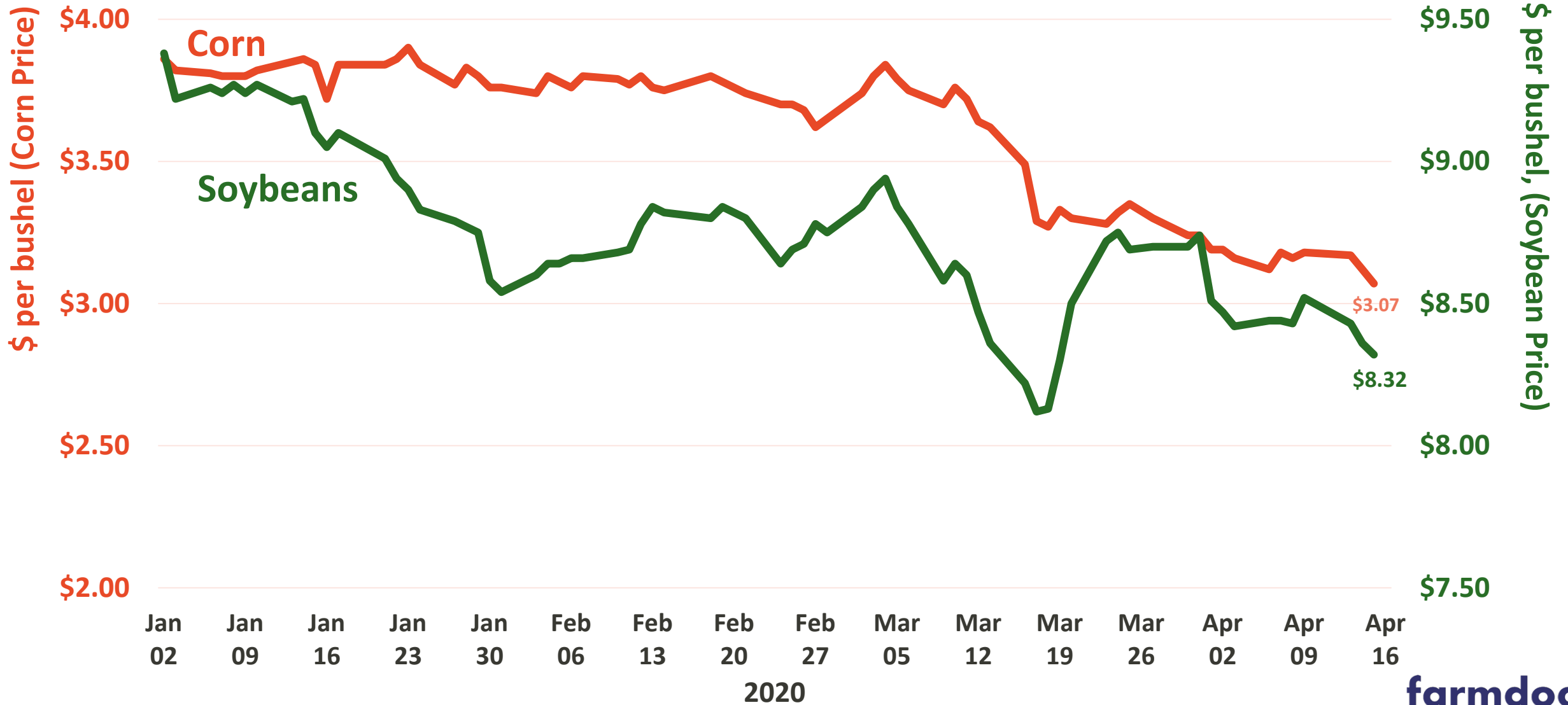
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Central Illinois Cash Corn and Soybean Prices

January 2, 2020 to April 15, 2020



Change in Revenue Per Acre After Coronavirus, U.S. 2019-2020 Marketing Year

Crop	Unit	Pre-COVID¹
		\$/bu
Corn	Bu	3.85
Soybeans	Bu	8.75
Wheat	Bu	4.55

2019 ARC/PLC Payment Estimates

Corn

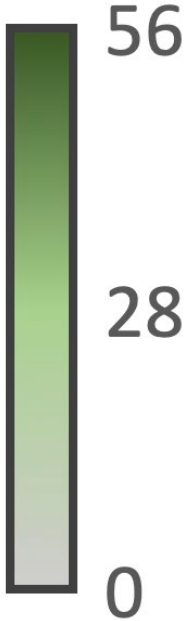
- PLC make payment about \$20 per base acre in Illinois
- ARC/CO: Most counties are zero

Soybeans

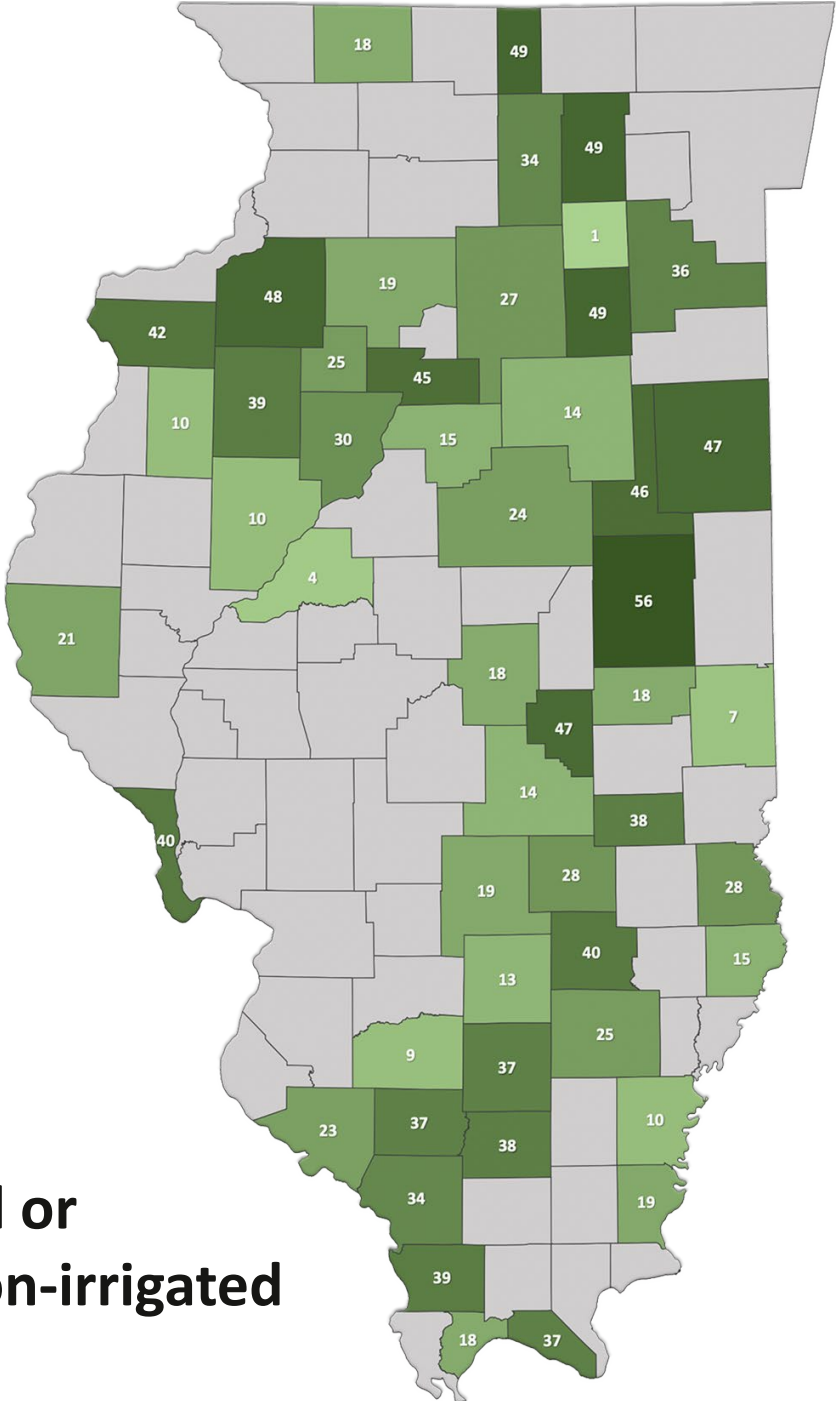
- PLC will not make payments
- ARC/CO: Increase payments or stay the same

2019 Estimated Soybean ARC-CO Payments with 0.55 MYA Price

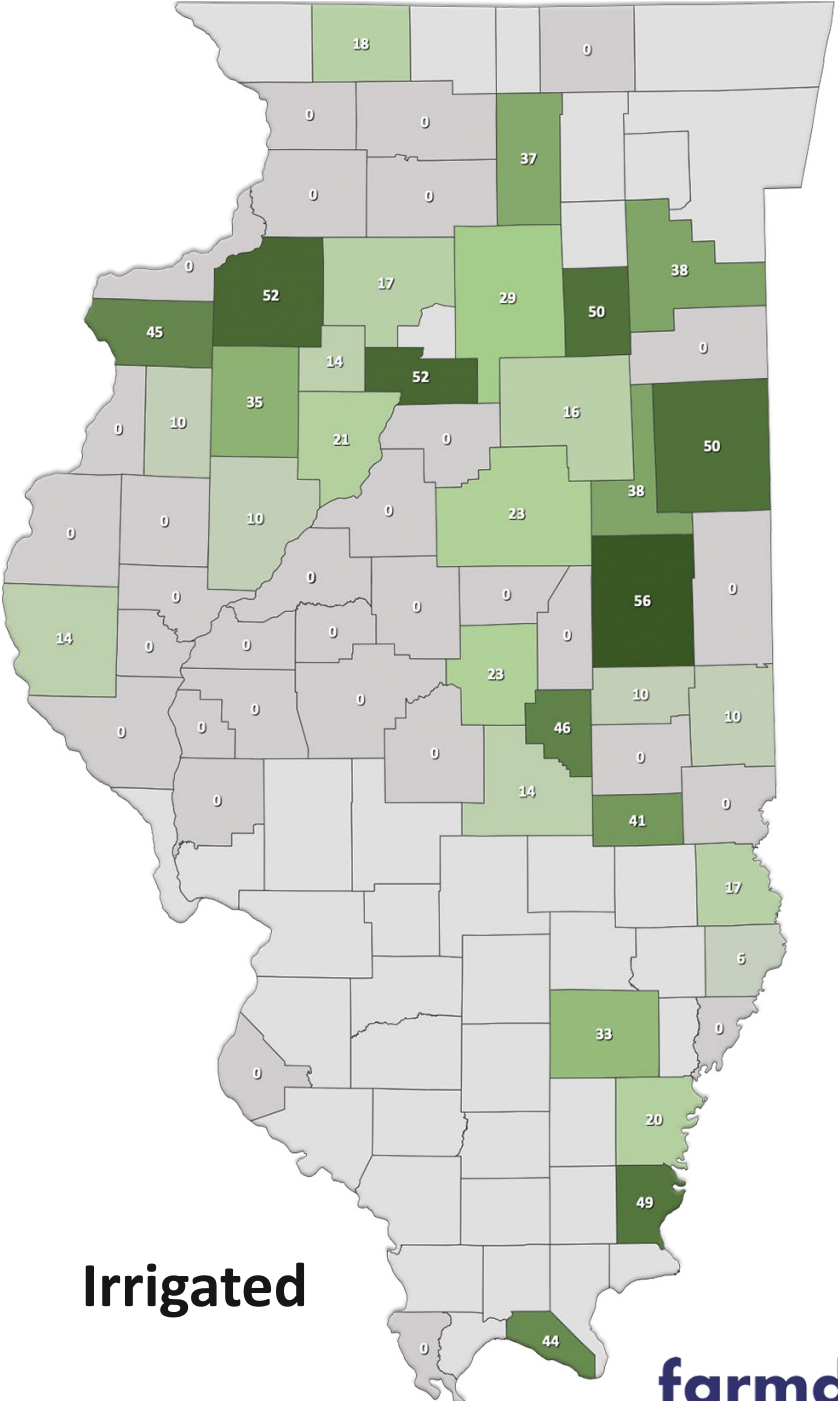
Dollars/acre



All or non-irrigated



Irrigated



Summary

- Serious losses of 2019 revenue, particularly on corn
- Increased ARC/PLC will make up a small portion of the losses in revenue
- See farmdoc daily, April 17, 2020

How much of the 2020 corn crop will be planted in Illinois during the next two weeks (by the end of April)?

- Less than 25%
- Between 25% and 50%
- Between 50% and 75%
- Over 75%



Emerson Nafziger



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Current status of planting

- By April 12, according to NASS:
 - 1% (5-yr avg 2%) of Illinois corn was planted
 - 3% (5-yr avg 4%) of US corn was planted
 - Of other CB states, only IN (1%) reported any corn planted
- No soybean planting was reported
- IL reported 4.7 days suitable for fieldwork Apr. 5-12
- With little rainfall in IL over the past week, we expect corn and soybean numbers to increase this week

Topsoil
Moisture
6% Short

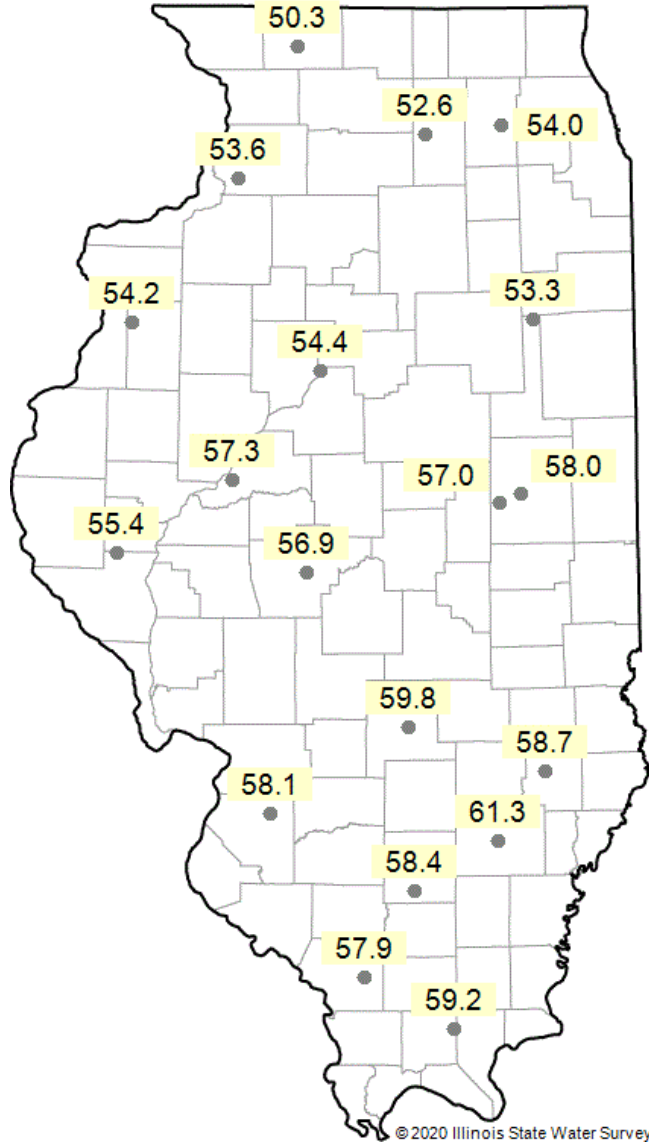
79%
Adequate

15%
Excessive

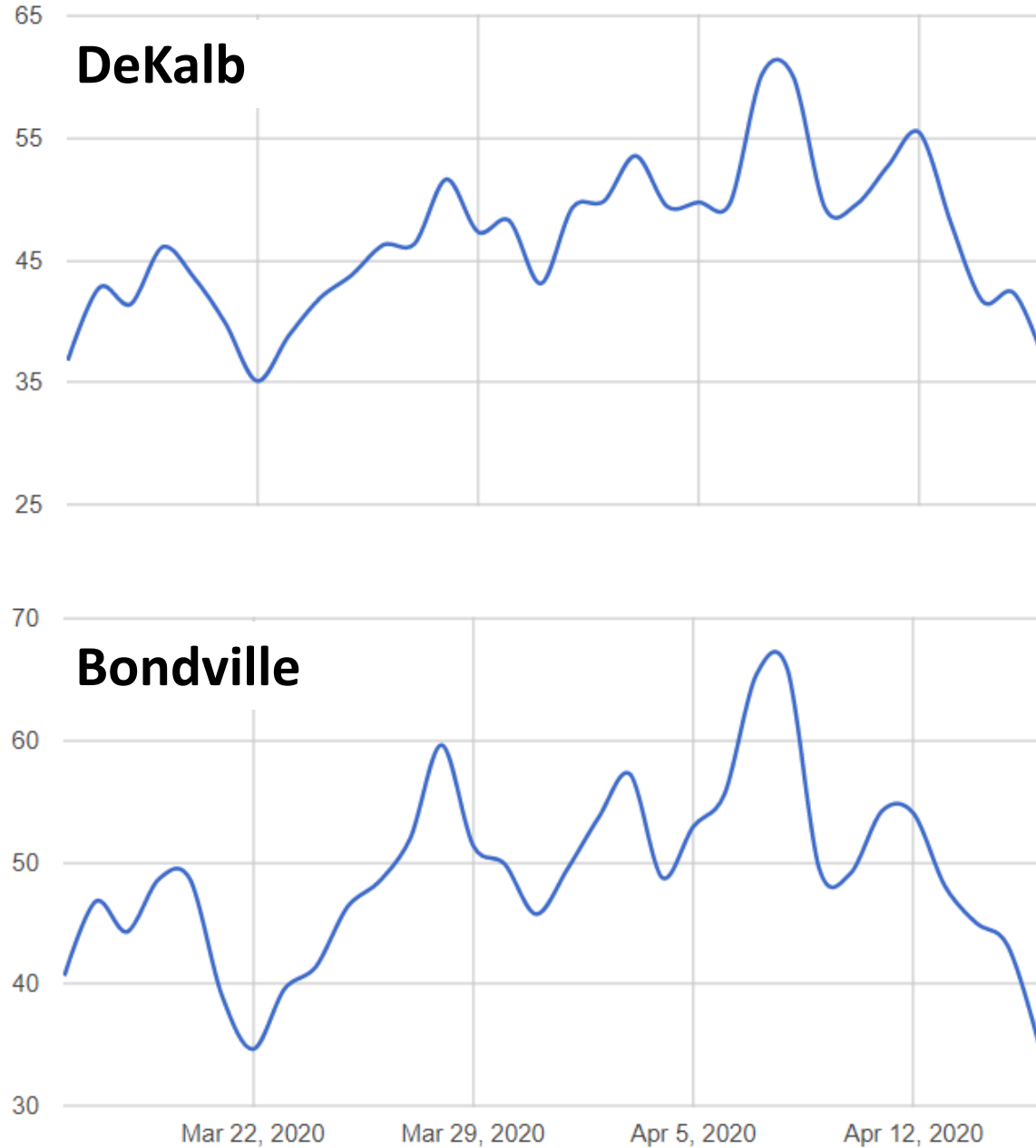
2-inch bare-soil temperature, Mar. 16-Apr. 15

April 7, 2020

10 AM 4-Inch Soil Temperature Under Bare Soil (° F)

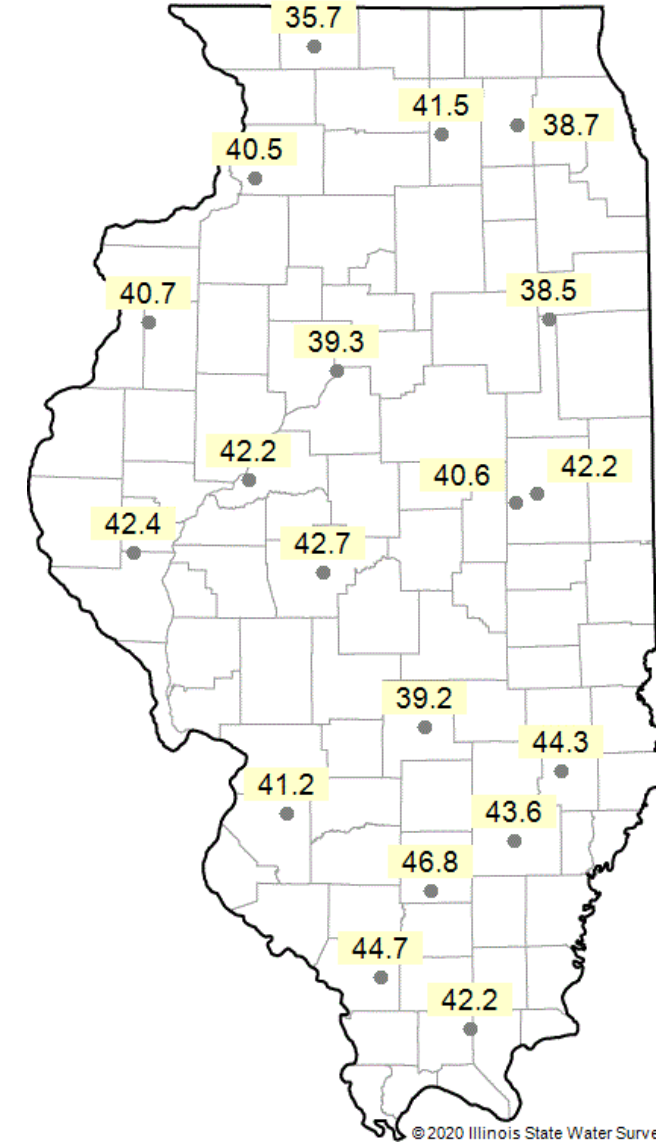


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April 15, 2020

10 AM 4-Inch Soil Temperature Under Bare Soil (° F)

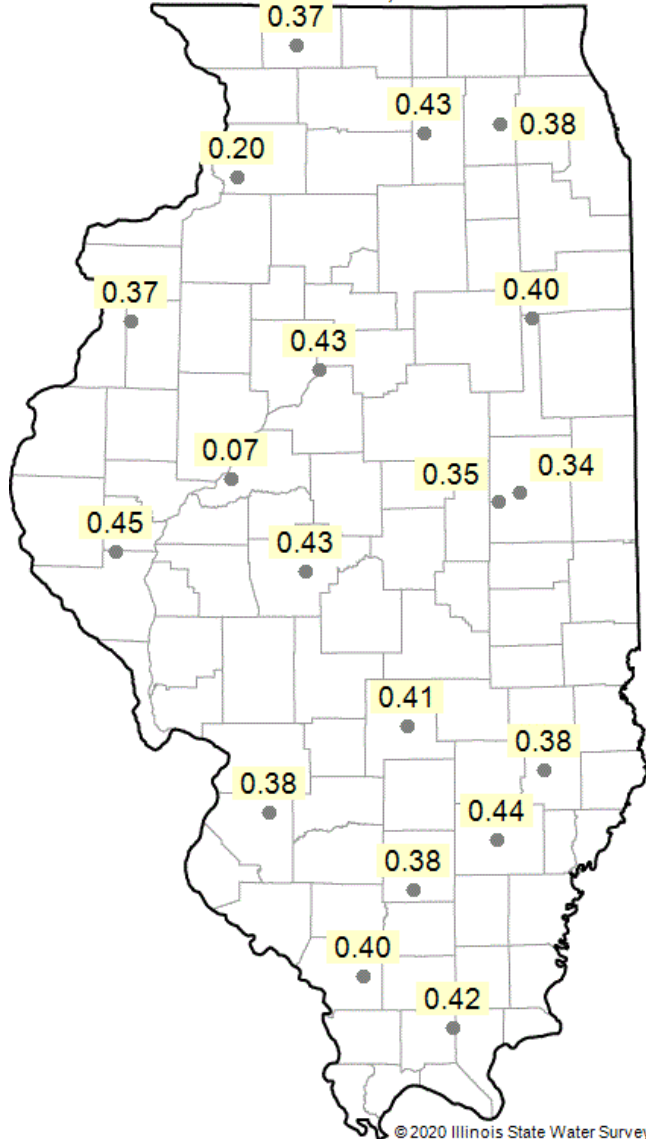


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4-inch soil moisture (wfv), Mar. 16-Apr 15

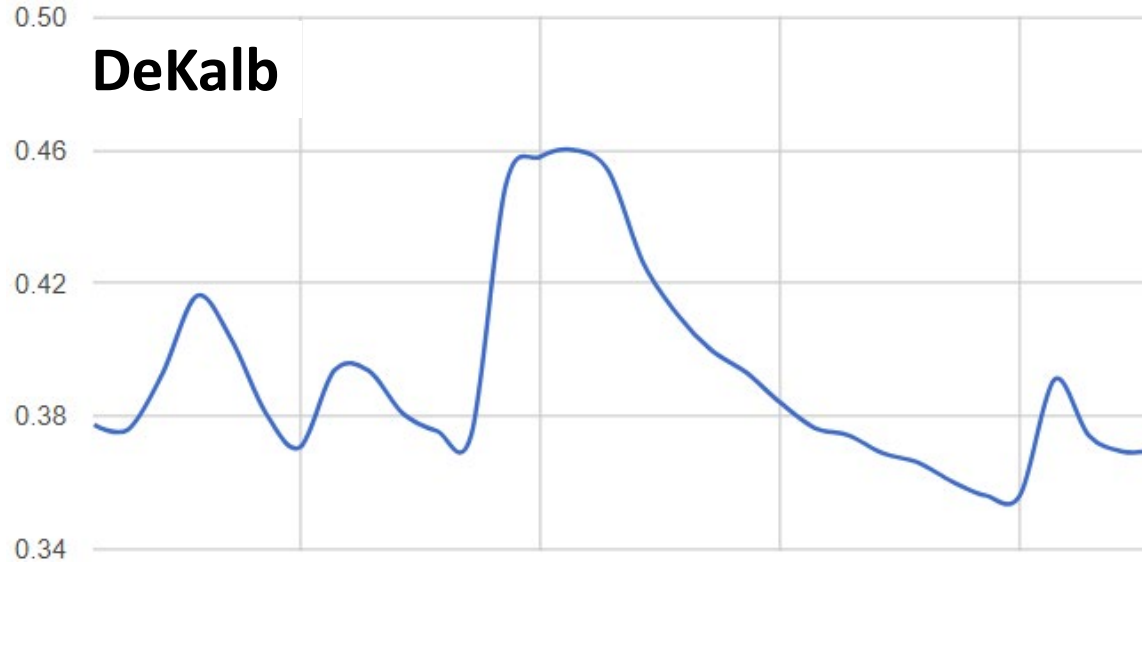
April 1, 2020

Daily 4-inch (10cm) Average Soil Moisture (water fraction by volume)

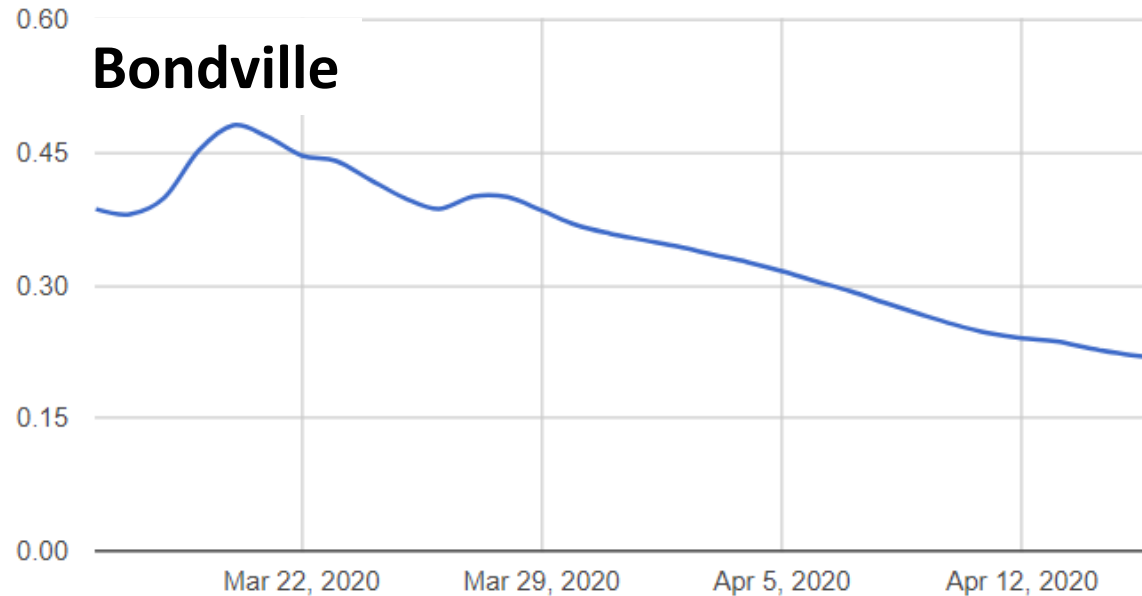


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DeKalb

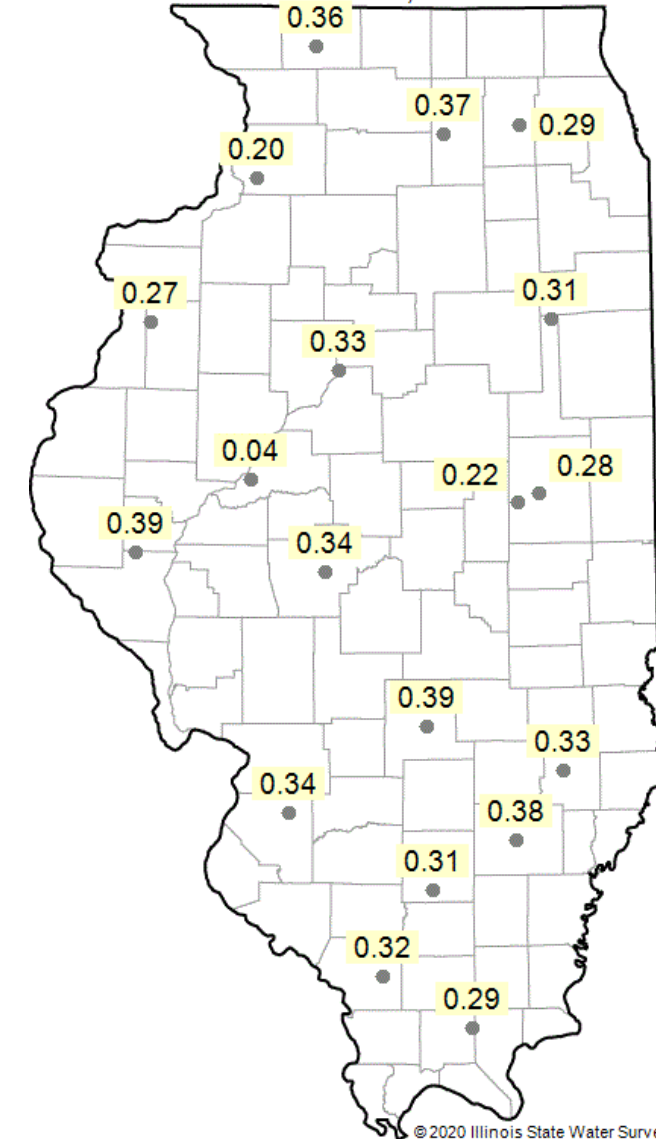


Bondville



April 15, 2020

Daily 4-inch (10cm) Average Soil Moisture (water fraction by volume)



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Planting: full speed ahead or not?

Soils are in fair to good condition to plant in much of central and southern Illinois; there's little reason not to plant

With cool soils and a cool forecast, germination and emergence will be slow:

GDD at Champaign

April 1-8 = 71

April 9-16 = 21

Forecast Apr 17-30 = 94

Corn planted

April 15-20 will take

~20 days (120 GDD)

to emerge (May 3-7)

As long as soils remain moist but **not wet**, emergence should be good

Planting: full speed ahead or not?

Moderate rainfall over the coming weeks would be helpful in drier areas, and more helpful if temperatures rise as well

In much of northern Illinois, soils are still wet. Wet soils and slow GDD accumulation diminish the benefit of early planting

Any issues with planting under these conditions?

Corn planted by April 5 or 6

will emerge with soils still cool the last week of April

Cool soil tends to stretch out the time (not the GDDs) between first and last plants to emerge in a field, increasing early plant size variability. This should diminish quickly as soils warm

Frost? 30° or less some days this week,
not forecast (now) for the rest of April

Little concern about direct frost injury
on either corn or soybeans planted in mid-April

Any issues with planting under these conditions?

Corn planted in April is taking up, or will take up, cool water as it germinates, which could cause some “imbibitional chilling injury.” This is relatively rare, especially when soils are on the dry side, but could happen this year.

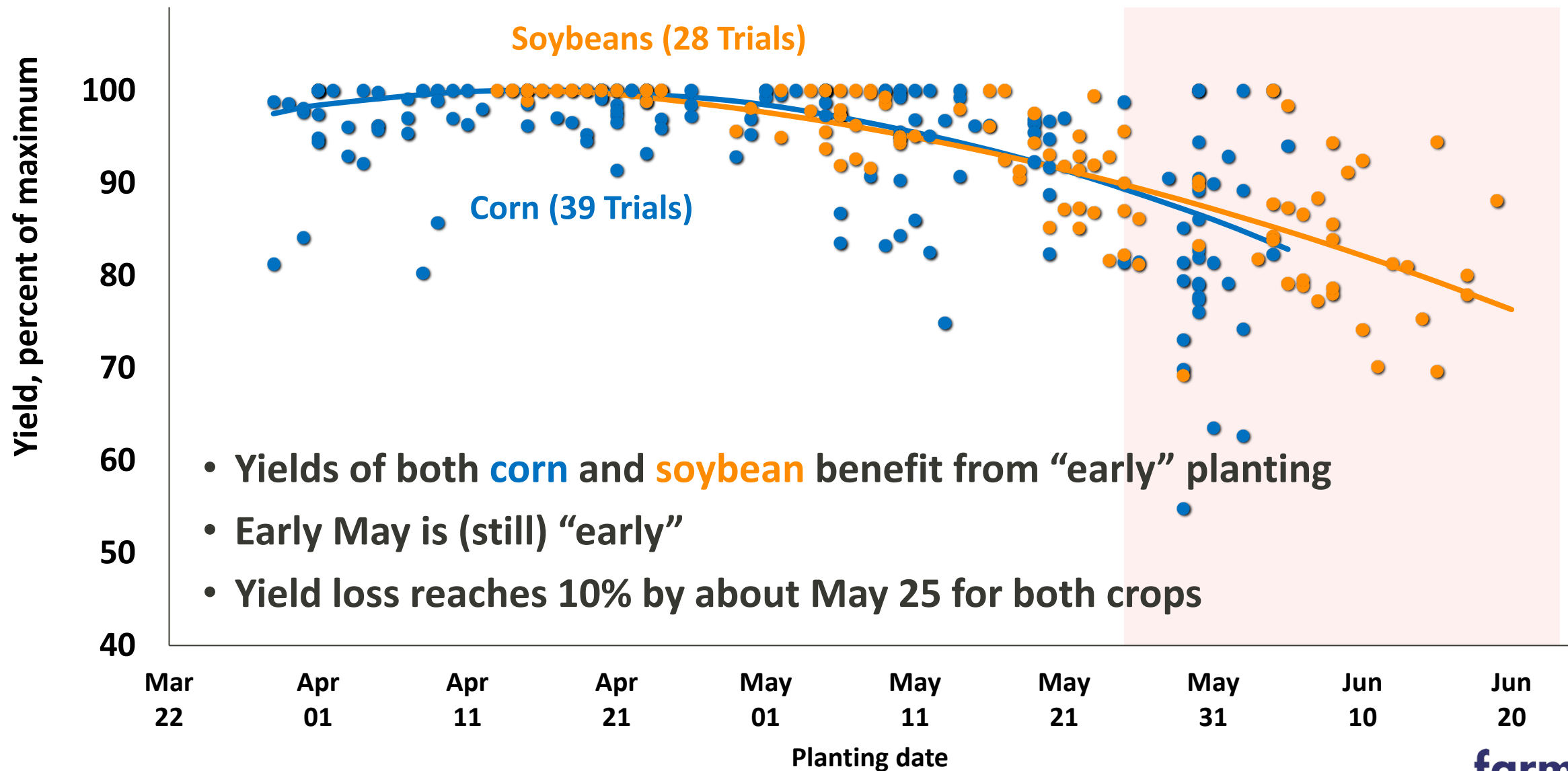
Check unemerged plants soon after first emergence to see if their growth is normal

Where soils dried after they were worked wet, cloddiness that compromises seed-soil contact could be an issue

Wait to plant until after it rains? Probably not in most cases in April, but try planting and see how well seeds are in contact with crumbly soil

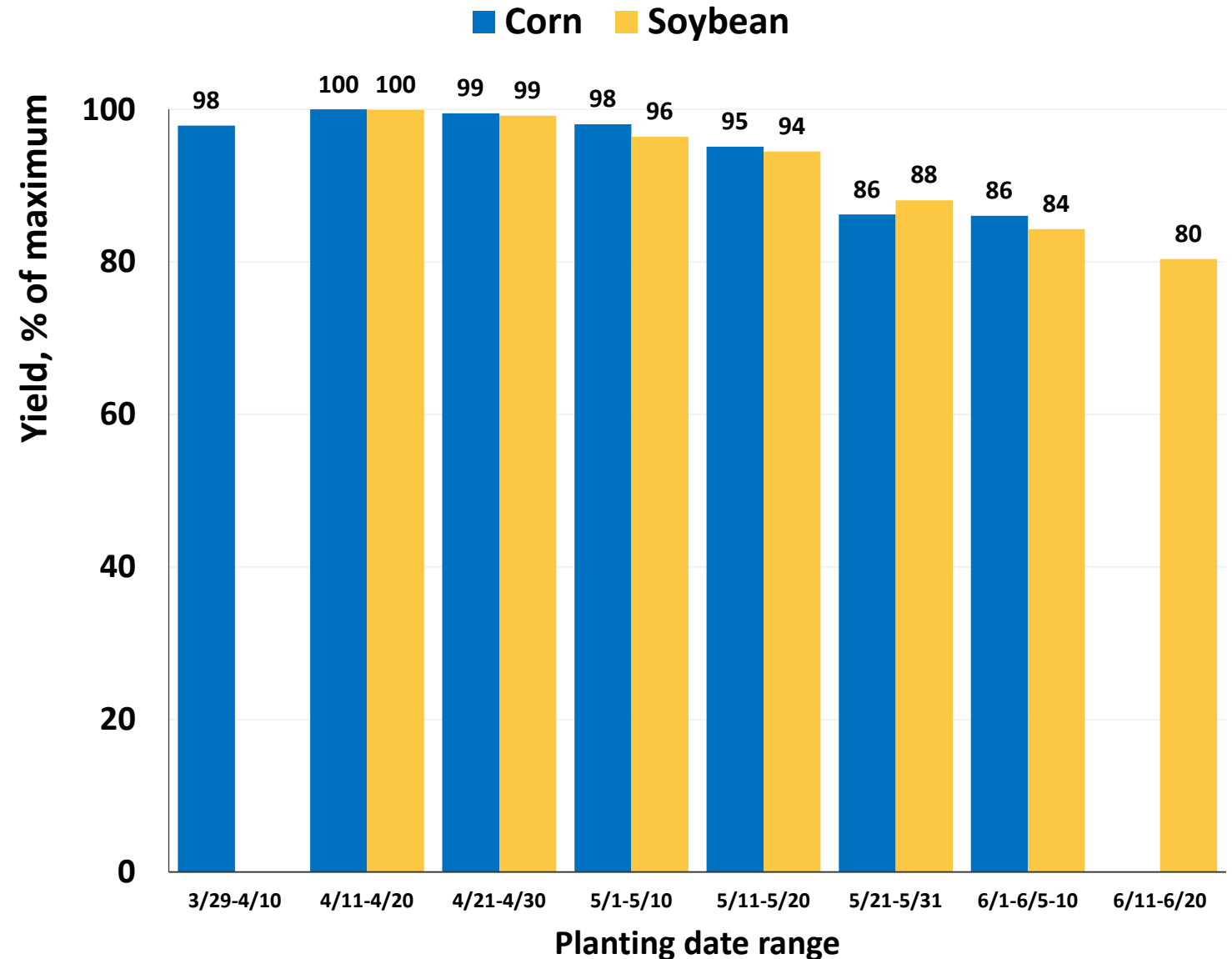
Some soils can form crusts after heavy rains followed by rapid drying (warm, windy) conditions. Such conditions aren’t expected in April this year; May?

Response to planting date in Illinois trials

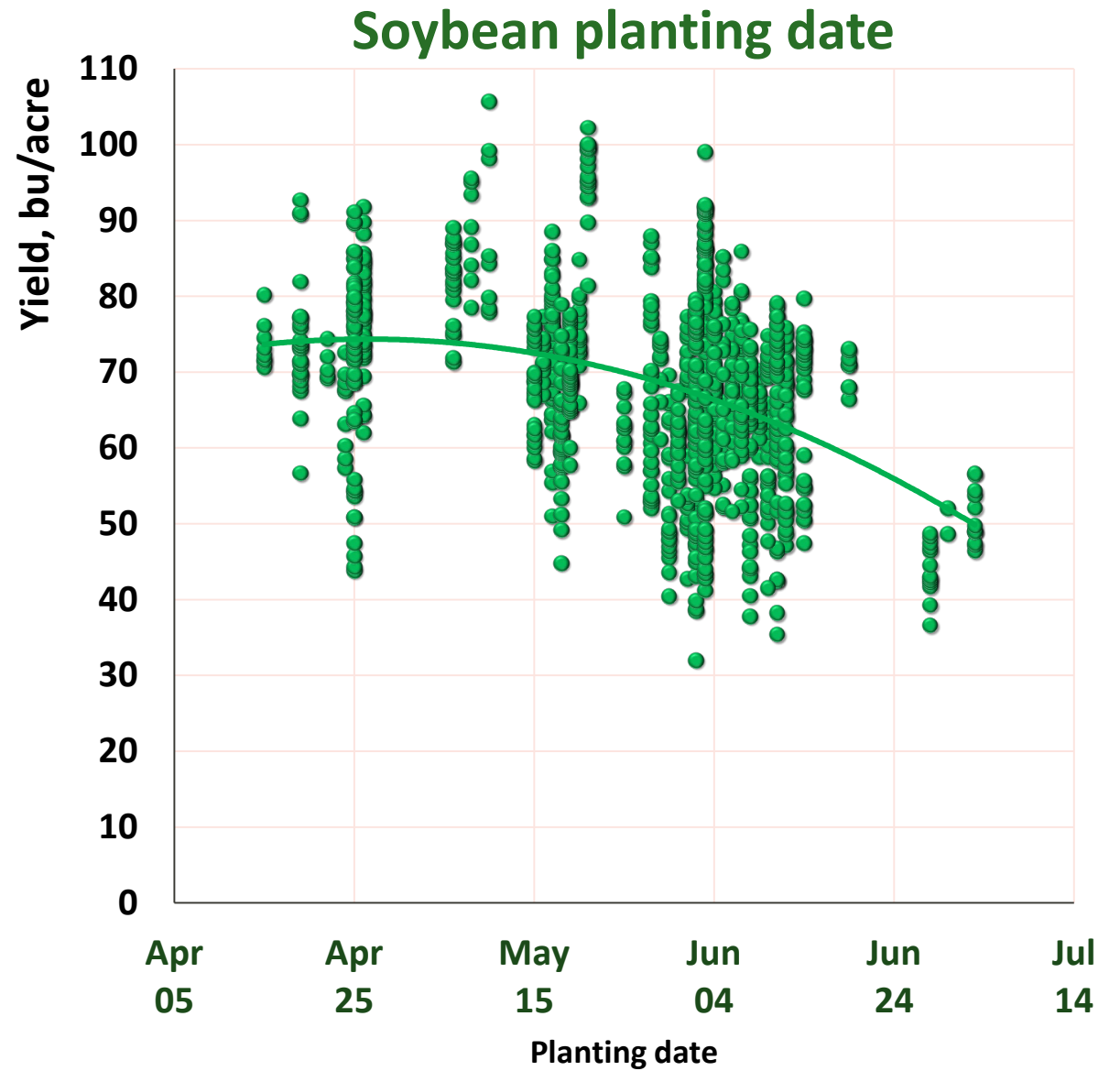
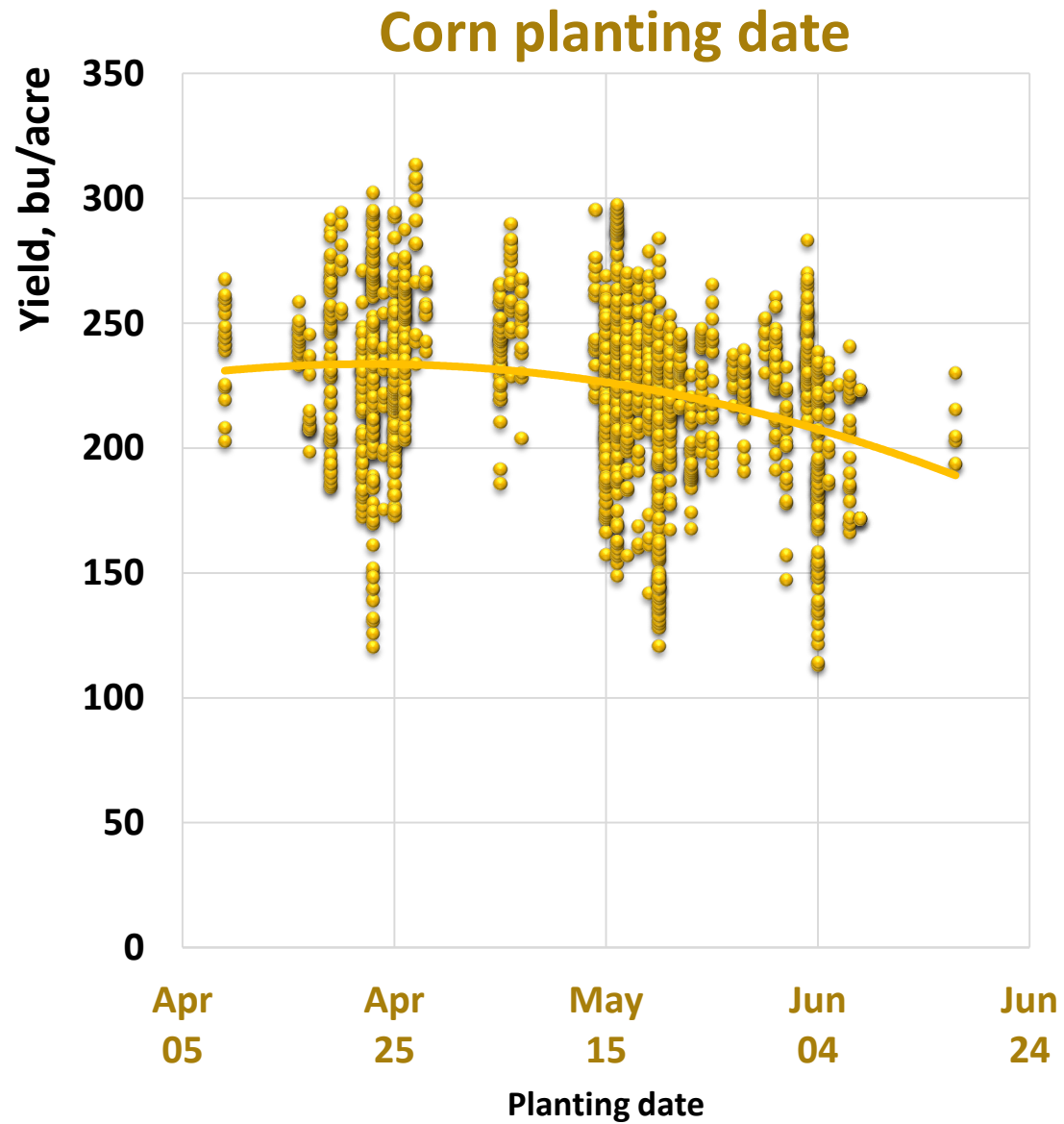


Same data, different format

- Yield losses with planting delays are slow through mid-May, totaling only 5-6%
- These losses roughly double by the end of May on average; yields also get more variable
- We have little data for corn planted past early June
- Losses for soybean total 20% by mid-June

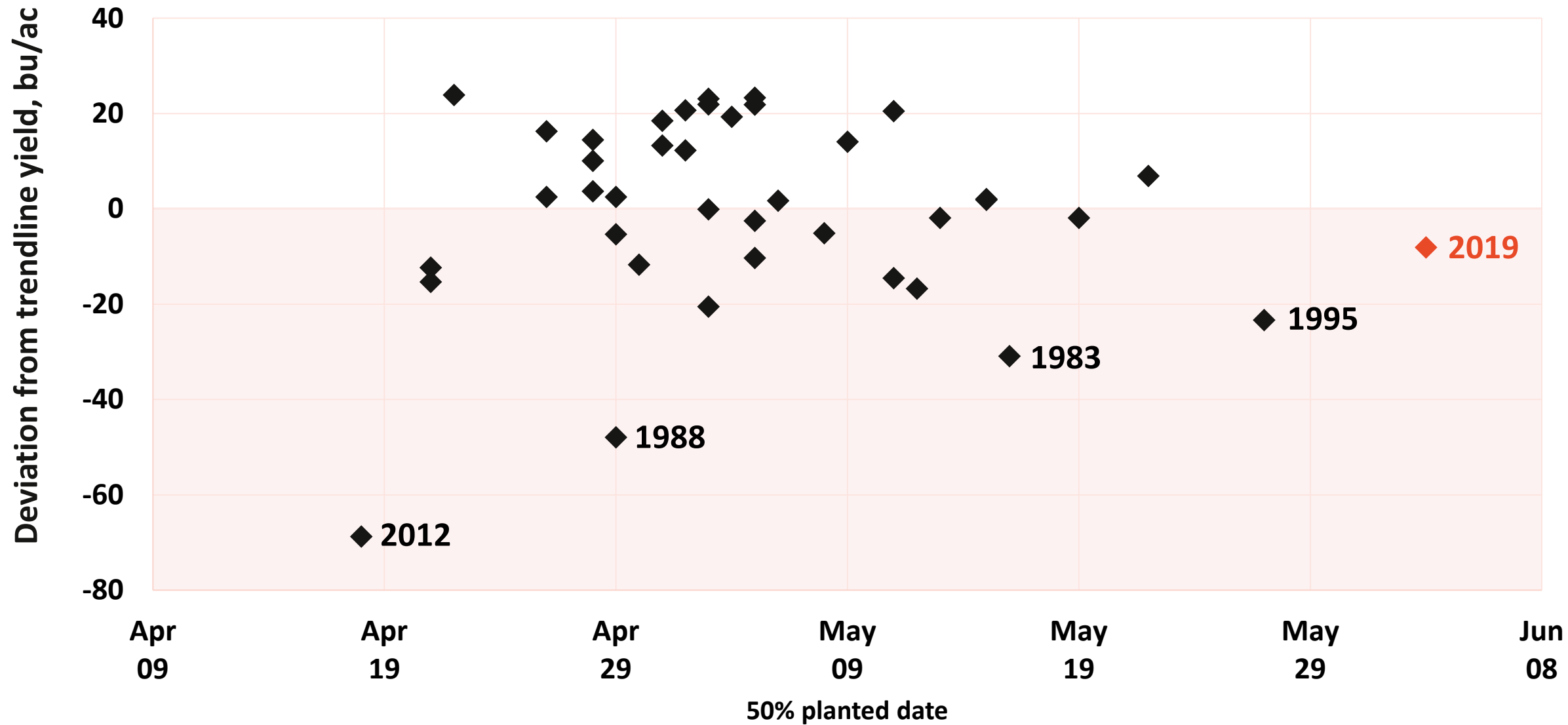


Pioneer IL strip trials, 2019

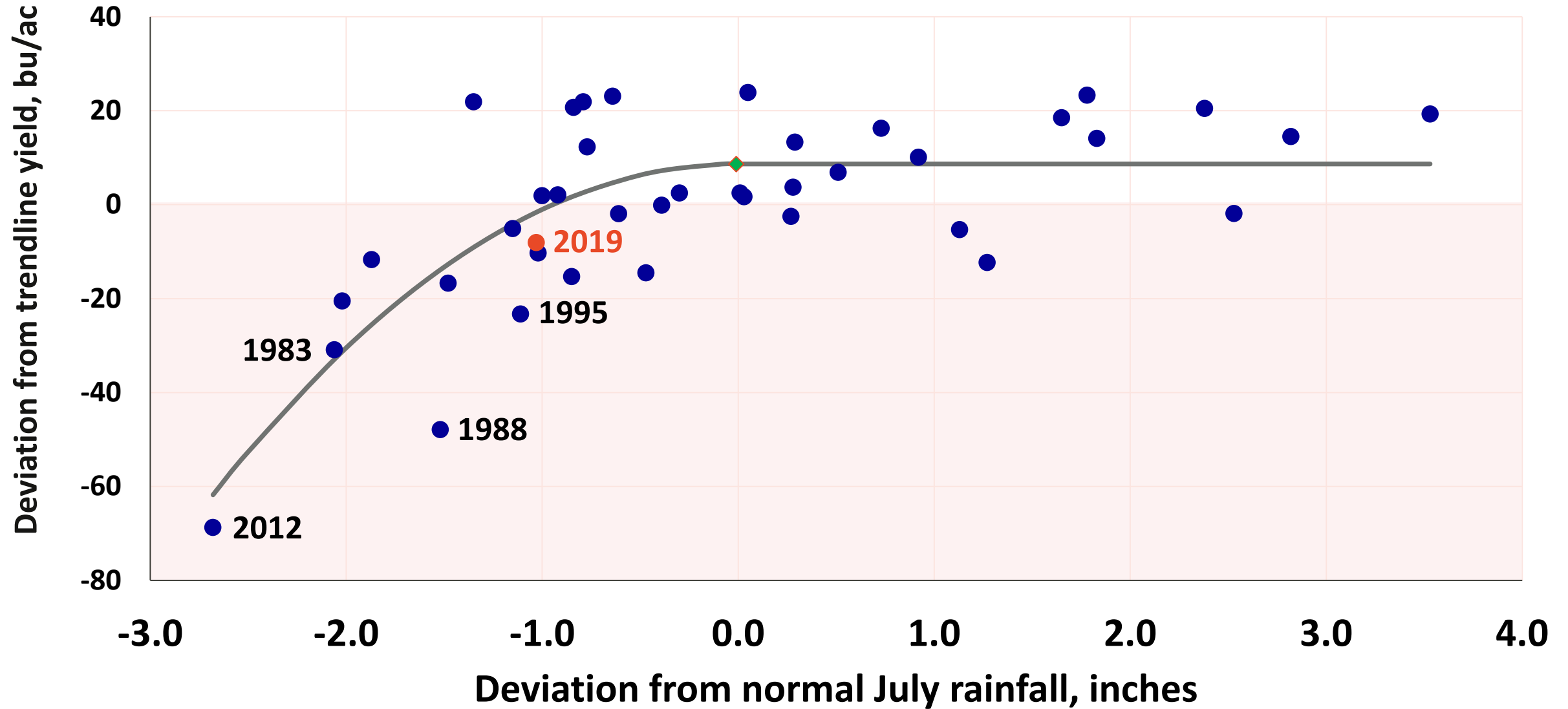


Yields from late planting in 2019 agreed well with previous UI data

Illinois corn, 1980-2019

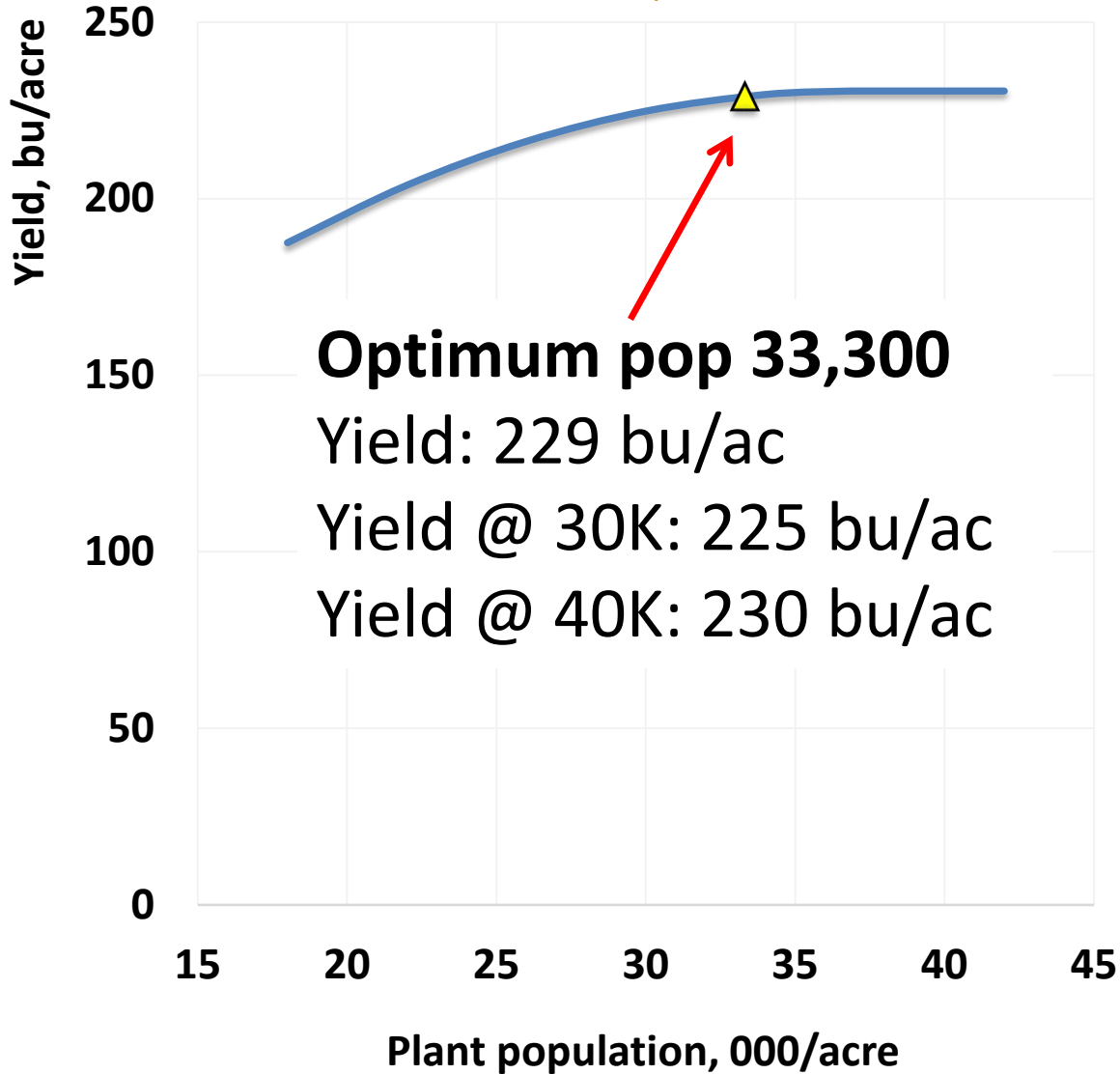


It's RAIN that counts...



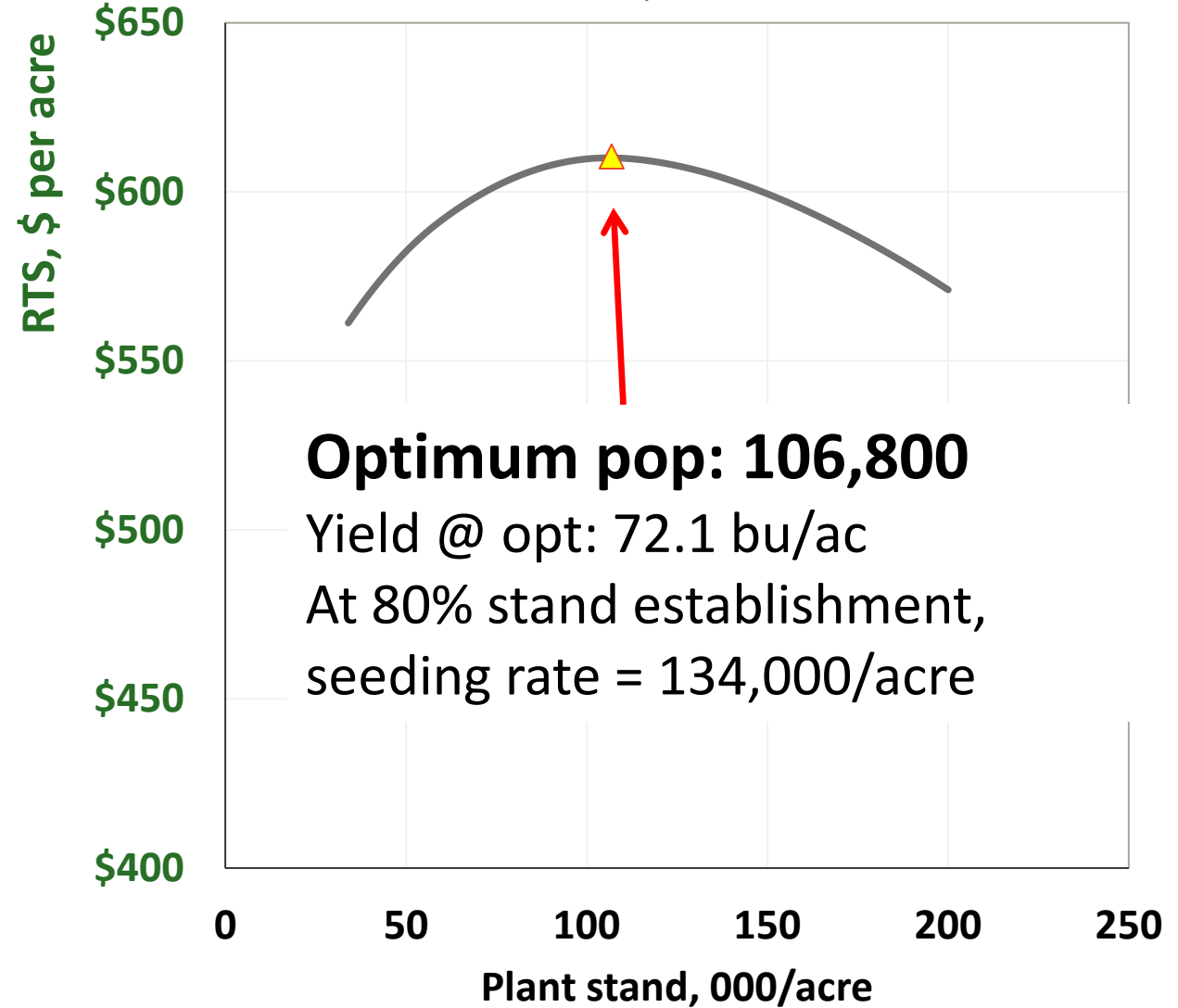
Corn population response

44 IL trials, 2012-18



Soybean population response

25 IL sites, 2015-2018

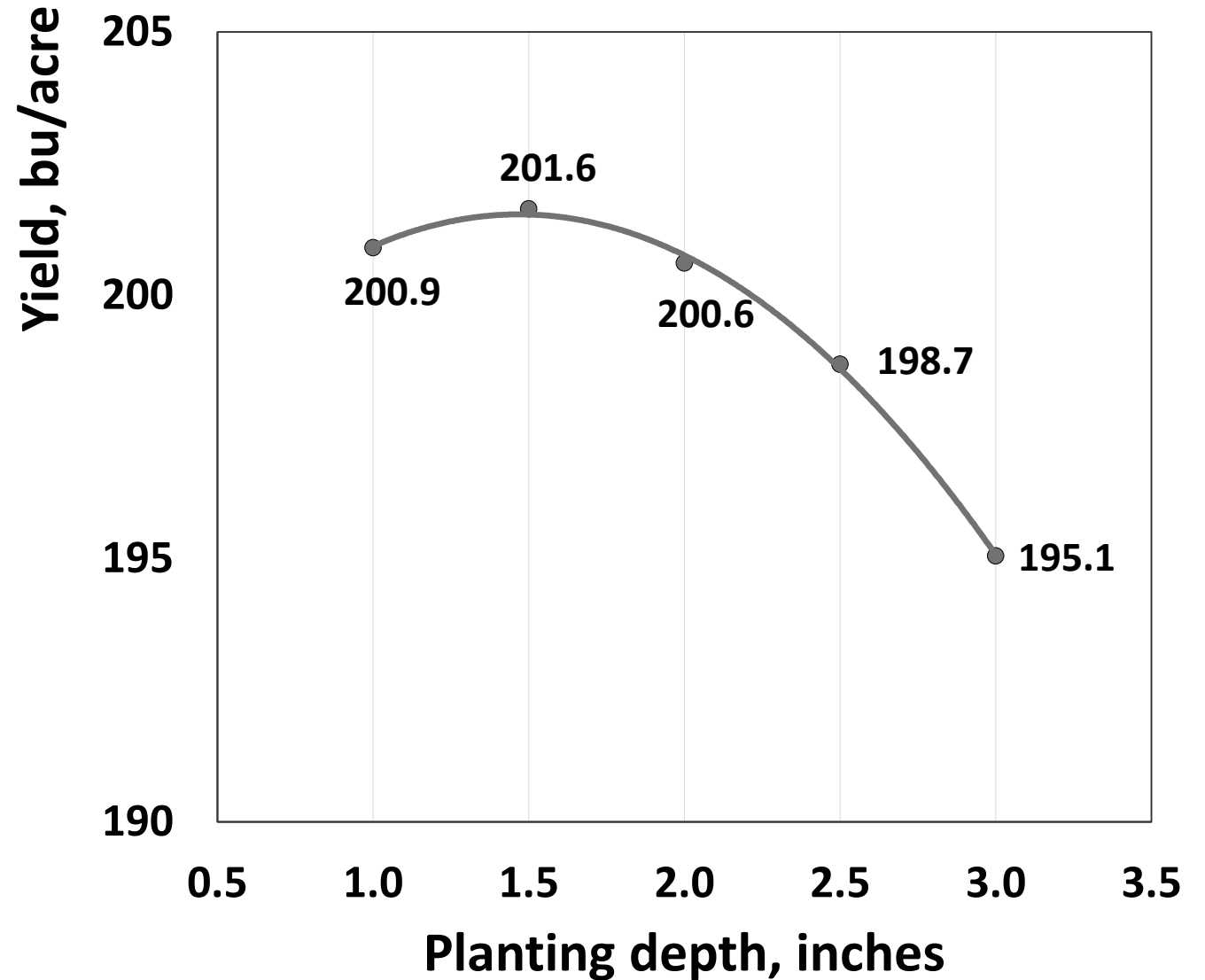


Planting depth

There should be a good reason to plant corn (or soybean) outside the range of **1.5 to 2.25" deep** in Illinois

Soil moisture-sensed planting depth or variable down-pressure need to be used carefully, if at all

Corn planting depth, Urbana, 1998-2000



Does anything need adjustment this year?

Cool soils through the end of April will mean a slow start to soil N mineralization, so corn's need for early N should be supplied with fertilizer. If this waits until planting:

- UAN broadcast, placed 2 x 2, or dribbled onto/near the planted row at 10-15 gal (30-50 lb N) per acre
- Stabilized (?) urea, broadcast at planting, 2 x 2, or dropped on top of the row after planting

Does anything need adjustment this year?

Low rainfall following early NH_3 application could result in some release of NH_3 (gas) in the soil that could damage seeds/seedlings.

Soils will dry slowly, and rainfall before emergence usually keeps such damage away. If these seem in doubt, not planting on top of knife tracks is the only “sure thing”

Other adjustments should be ones that improve chances for emergence of a uniform stand: these will be **field and equipment-specific**, not general

What if it's May before we finish planting?

- **No need to panic:** yields are good to outstanding when corn and soybeans are planted in the first half of May
- Change nothing with regard to maturity of hybrid/variety, seeding rate, etc.
- Soils will be warmer, which will mean faster (and probably more uniform) emergence
- Warmer soils will help get N mineralization started, but young corn plants will still need fertilizer N near the roots by V1/V2
- If things go badly for April-planted crops, consider May replanting if soybean stands are less than 90-95,000/acre, and corn stands are less than 25-28,000, uniformly distributed

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The Impact of the Coronavirus Pandemic on Food Prices and Retail Food Sector

Tuesday April 21st from 11:00 to 11:45am CT

The retail food sector has been put under substantial stress by the coronavirus pandemic. What started out with runs on toilet paper quickly escalated to empty meat and bread aisles at grocery stores. Scott Irwin will join Jayson Lusk of Purdue University to discuss the how the pandemic has impacted food prices and logistical issues in this crucial sector of the American economy.

An update on Policy and Political Outlook for Coronavirus Pandemic Relief

Friday April 24th from 11:00 to 11:45am CT

Less than a month ago, Congress enacted the CARES Act to provide \$2 trillion in relief for the wide range of challenges from the Coronavirus pandemic. Questions remain about implementation, the outlook for additional relief and a general perspective on the political and policy discussions at the federal level for the food and agricultural sector.

Thank You for joining us!

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