

# Crop Management Outlook for 2020



**Nick Seiter**



**Nathan Kleczewski**



**Aaron Hager**



**Gary Schnitkey**

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# Crop Management Outlook for 2020



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# Insect Management Outlook



**Nick Seiter**  
Research Assistant Professor

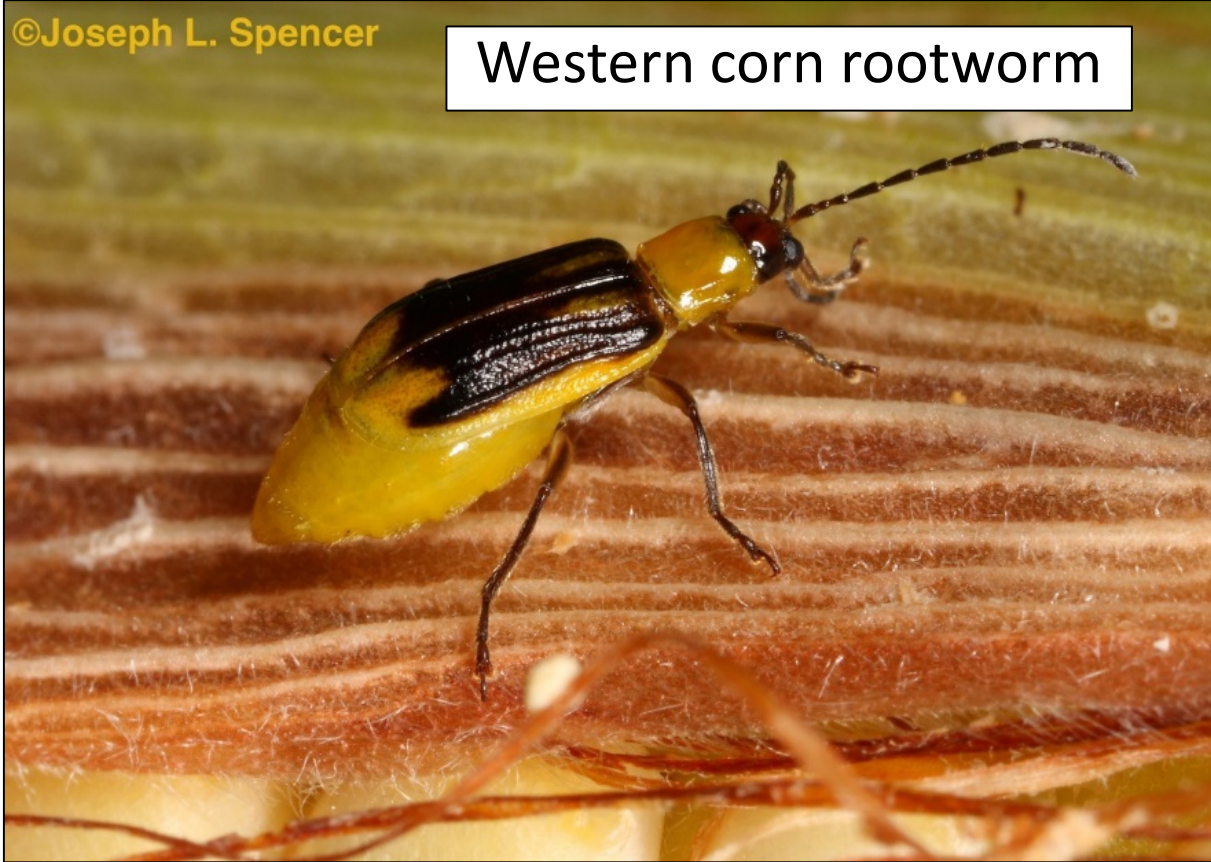




# Corn rootworm in 2020

©Joseph L. Spencer

Western corn rootworm



Northern corn rootworm



**Generally low populations observed over the last several years (compared with historical averages)**

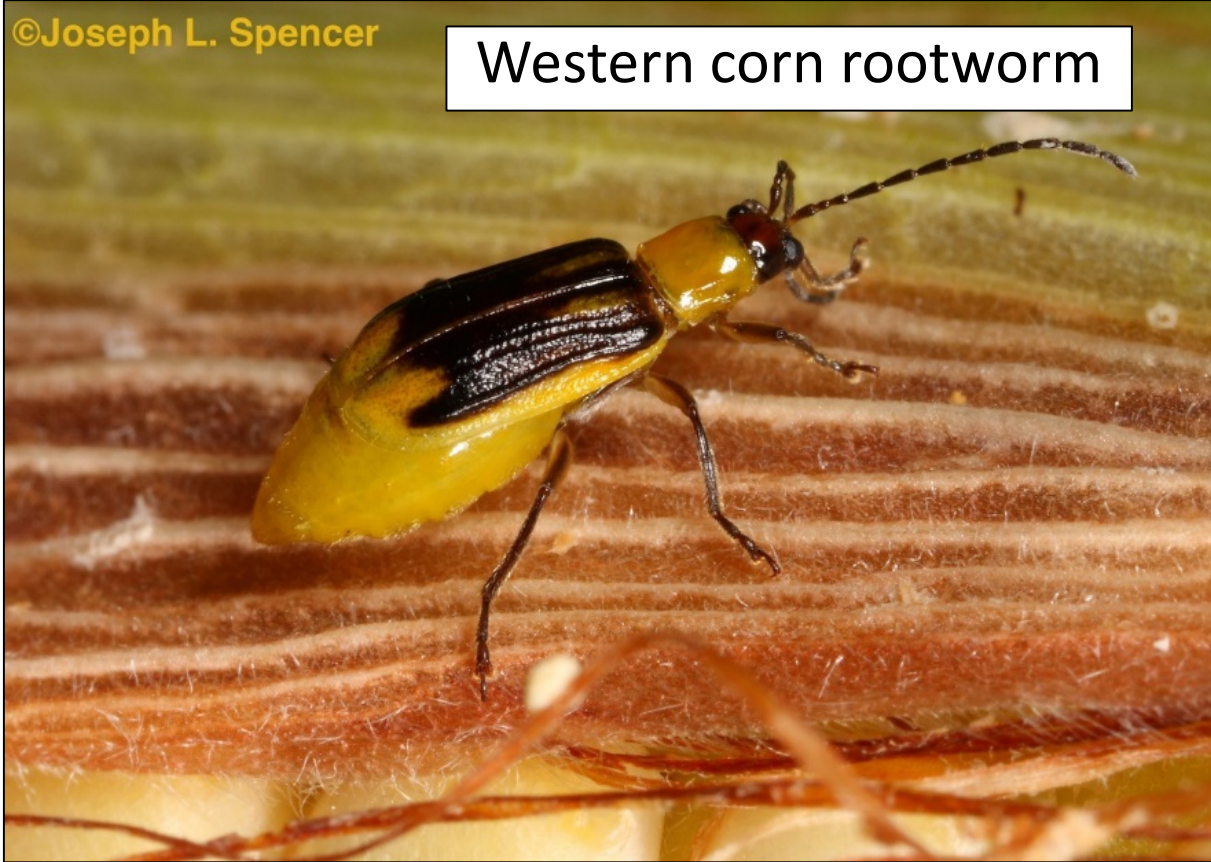
*Photos: Dr. Joe Spencer,  
Illinois Natural History Survey*



# Corn rootworm in 2020

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Western corn rootworm



Northern corn rootworm



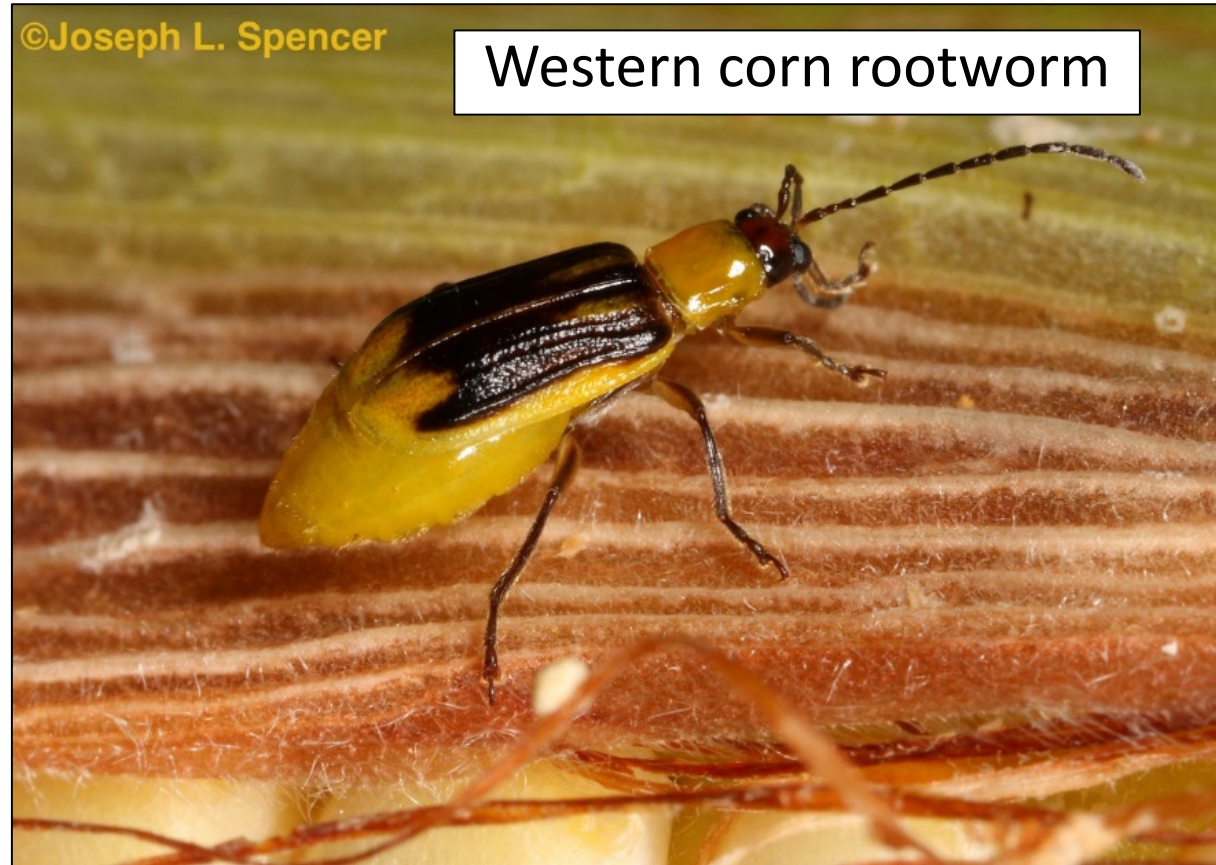
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Surveyed populations in 2019 were particularly low

*Photos: Dr. Joe Spencer,  
Illinois Natural History Survey*



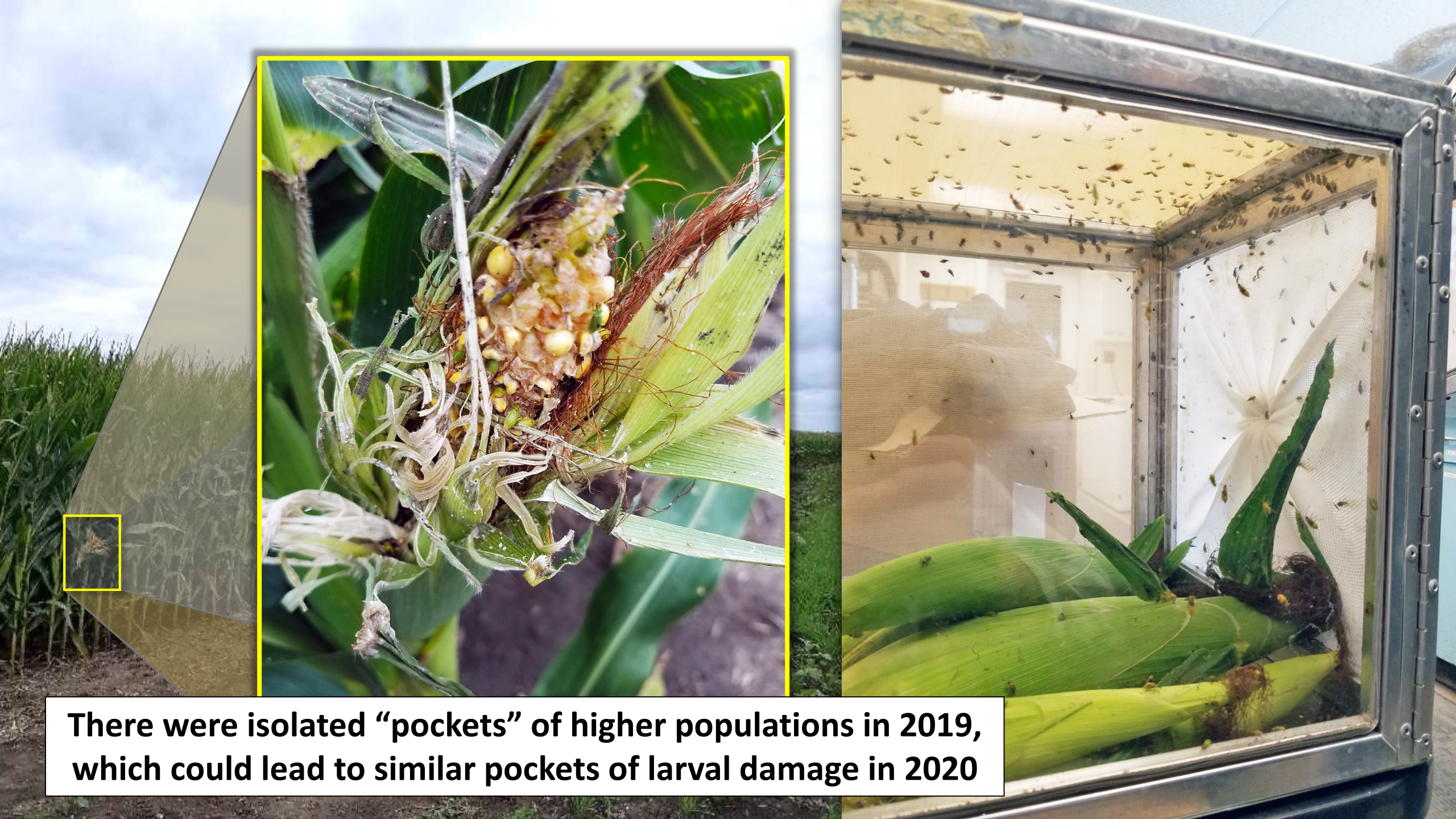
# Corn rootworm in 2020



**General risk of damage in 2020 is therefore low.  
However.....**

*Photos: Dr. Joe Spencer,  
Illinois Natural History Survey*





**There were isolated “pockets” of higher populations in 2019, which could lead to similar pockets of larval damage in 2020**



**Control: while we have resistance or reduced susceptibility to all below-ground Bt proteins in Illinois.....**



*Photo: John Obermeyer, Purdue University*



## Pyramided trait packages remain effective in general



Photo: John Obermeyer, Purdue University



Evaluate trait/insecticide performance by examining roots for pruning (mid-late July)



Photo: John Obermeyer, Purdue University



Evaluate trait/insecticide performance by examining  
roots for pruning (mid-late July)



Pruned roots





# Slugs

*(photo: Talon Becker)*

Insecticides are not effective

*(photo: Brodie Dunn)*

*(photo: Jennifer Woodyard)*



# Slugs

*(photo: Talon Becker)*

Wet conditions, slow crop growth  
are risk factors

*(photo: Brodie Dunn)*

*(photo: Jennifer Woodyard)*



# Seedling Diseases in Soybean and Corn



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**Nathan Kleczewski**  
Extension Field crop Pathologist



## Effects of seedling diseases

- Death of seedlings prior to emerging from ground
- Death of plants soon after emergence
- Reduced plant growth rates and yield potential



# Seedling diseases

- Pythium, Phytophthora (soybeans) oomycetes
- Fusarium, Rhizoctonia
- Wet soil and delayed germination (cool temperatures, deep planting, heavy soil)





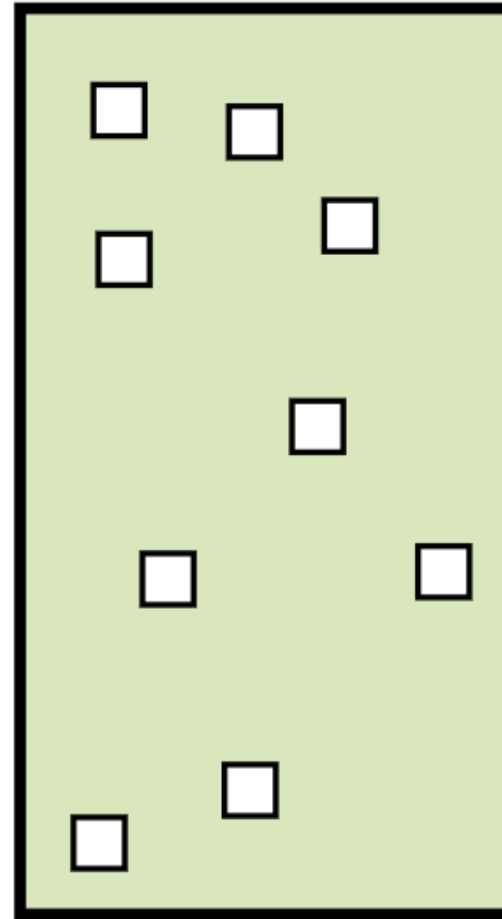
## Keep in mind

- Often it is hard to tell what was the primary disease and what came in afterwards
- The “deader” the sample the more types of fungi will be recovered or detected
- In general- factors that reduce germination and keep the soil wetter for a longer period favor all root rots.
- If resistance is available and issues are consistently an issue, use it (SDS, Phytophthora).

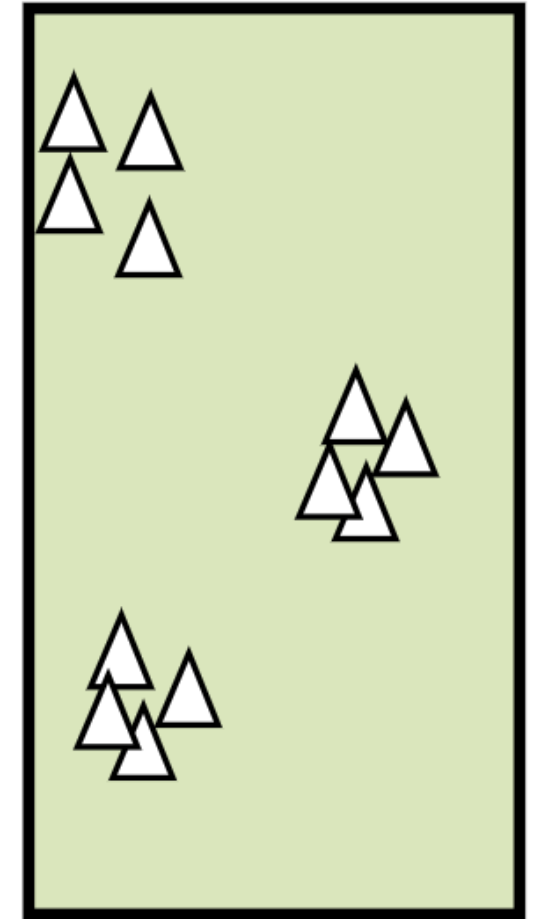


# Scouting

- Stand counts 14-21 DAP
- Assess at least 1 location for every 10-15 field acres
- Representative of field
- 10-20 ft row
- Look for skips, pre and post emergent damping off



Random



Clumped



# Seed treatments for soybeans

	Pythium	Phytophth.	Rhizoc	Fusarium	SDS ( <i>Fusarium virguliforme</i> )	Phomopsis
Azoxystrobin	P-G	NS	VG	F-G	NR	P
Carboxin	U	U	G	U	NR	U
Ethaboxam	E	E	NR	NR	NR	NR
Fludioxonil	NR	NR	G	F-VG	NR	G
Fluopyram	NR	NR	NR	NR	VG	NR
Fluxapyroxad	U	U	E	G	NR	G
Ipconazole	P	NR	F-G	F-E	NR	G
Mefenoxam	E <sup>2</sup>	E	NR	NR	NR	NR
Metalaxyl	E <sup>2</sup>	E	NR	NR	NR	NR
Oxathiapiprolin	P-G	E	NR	NR	NR	NR
PCNB	NR	NR	G	U	NR	G
Penflufen	NR	NR	G	G	NR	G
Prothioconazole	NR	NR	G	G	NR	G
Pydiflumetofen	NS	NS	NS	NS	VG	NS
Pyraclostrobin	P-G	NR	F-G	F	NR	G
Sedaxane	NR	NR	E	NS	NR	G
Thiabendazole	NR	NR	NS	NS	P	G
Trifloxystrobin	P	P	F-E	F-G	NR	P-F

<sup>1</sup>Products may vary in efficacy against different *Fusarium* and *Pythium* species.

<sup>2</sup>Areas with mefenoxam or metalaxyl insensitive populations may see less efficacy with these products.

<sup>3</sup> Listed seed treatments do not have efficacy against *Fusarium virguliforme*, causal agent of sudden death syndrome.



# Early-season weed management



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**Aaron G. Hager**  
Extension Weed Science  
University of Illinois



# Common Chickweed





# Henbit





# Purple Deadnettle





# Field Pennycress





# Yellow Rocket





# Cressleaf Groundsel





# Horseweed Marestail









# Preplant Control of Marestalk

- One-shot burndown application in the spring
  - earlier better than later,  
but expect more variability in burndown efficacy
- Split burndown applications in spring
  - burndown + low rate residual in late March/early April
    - 2,4-D + glyphosate + metribuzin (4–8 ounces) or saflufenacil
  - burndown + remaining residual close to planting
    - paraquat or glufosinate + Authority or Valor



# Marestail Control with dicamba

## 2016 burndown trial\*

<b>Treatment</b>	<b>Rate</b>	<b>Marestail Control</b>	
		<b>14 DAT</b>	<b>30 DAT</b>
<b>Clarity</b>	<b>0.25 lb</b>	<b>67</b>	<b>91</b>
<b>Clarity</b>	<b>0.375 lb</b>	<b>83</b>	<b>95</b>
<b>Clarity</b>	<b>0.50 lb</b>	<b>91</b>	<b>99</b>
<b>Glyphosate + 2,4-D</b>	<b>1.125 + 0.5</b>	<b>67</b>	<b>78</b>

**\*Marestail ranged from 2–14 inches at time of application**



# Herbicides for Residual Marestalk Control

- Sulfentrazone
  - Authority XL, First, Assist, Elite, MTZ, Sonic
- Flumioxazin
  - Valor, XLT, Gangster, Sonic, Fierce, Envive/Enlight
- Metribuzin
  - 8–12 ounces per acre if the primary herbicide
  - add 6–8 ounces to sulfentrazone or flumioxazin-containing products
- Canopy, Boundary, etc. also contain metribuzin
  - add more metribuzin to reach 8–12 ounces as necessary



# Update



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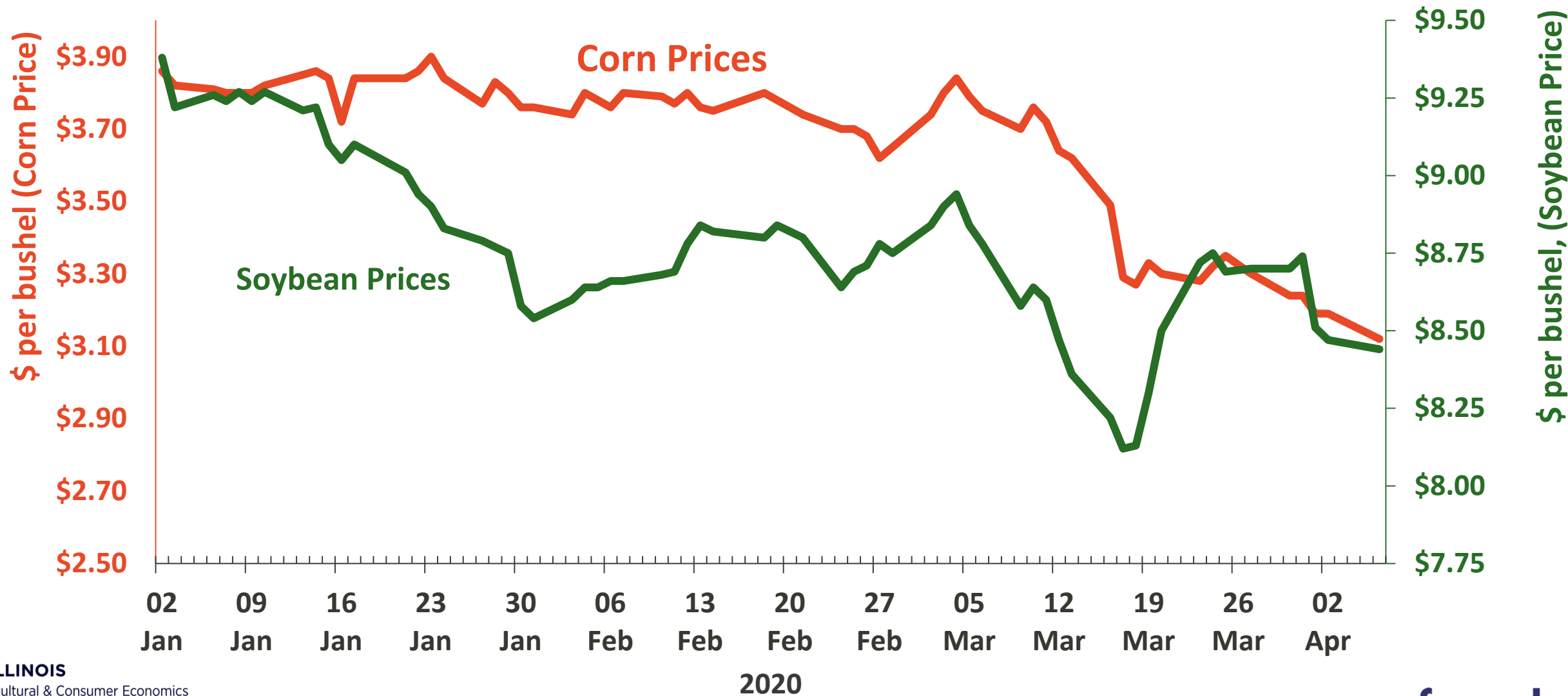
**Gary Schnitkey**

**Soybean Industry Chair in Agricultural Strategy**



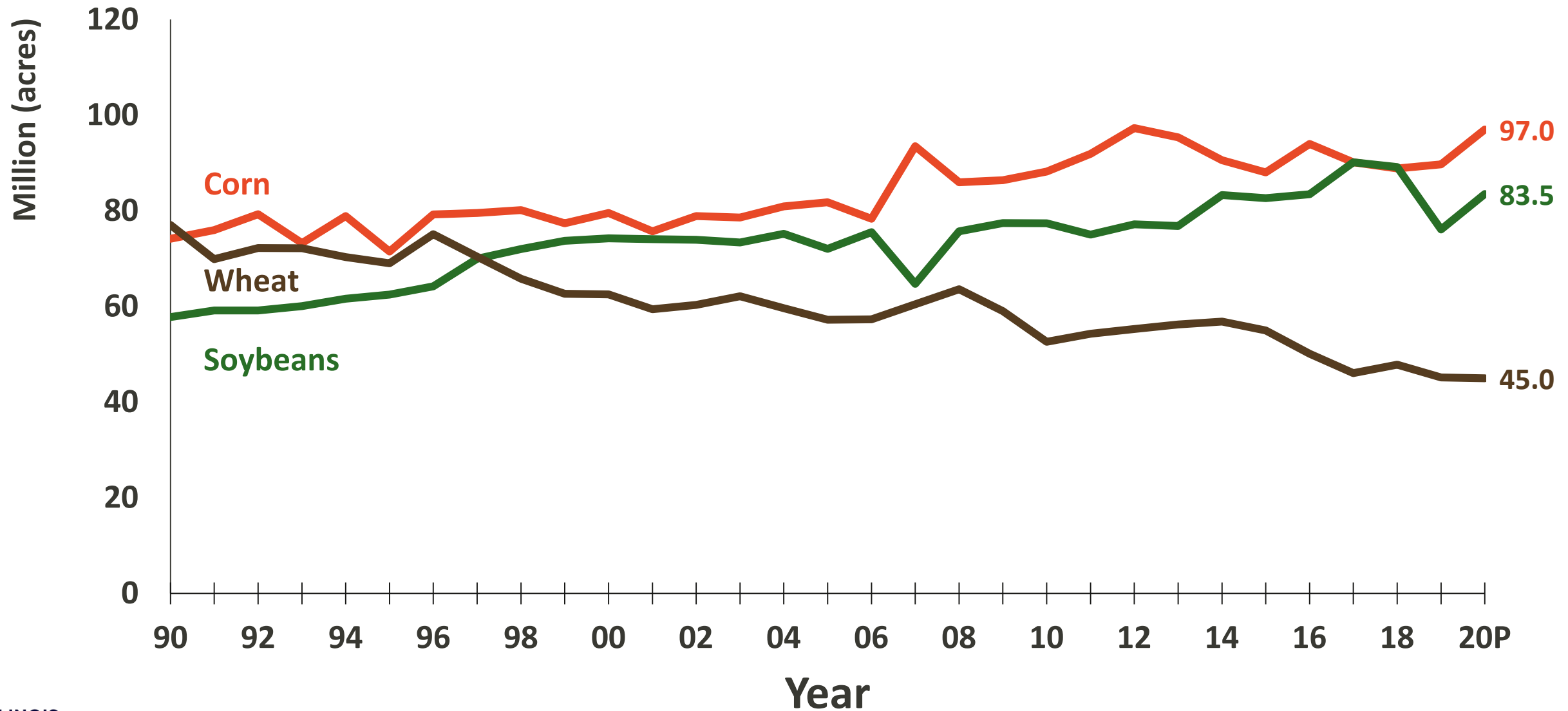
# Central Illinois Cash Corn and Soybean Prices

January 2, 2020 to April 6, 2020





# Planted Acres in the U.S., 1990 - 2020P





# Costs in Northern Illinois, Corn

Item	2018	2019	2020P
Fertilizers	126	134	125
Drying	15	28	15
Fuel and oil	21	17	16
Interest (non-land)	23	26	26
Total non-land	580	584	575

**Will see lower costs in 2020**

- Fertilizer, drying will likely lead the way
- No increase in depreciation
- Interest costs are increasing



# Corn, Central Illinois, High-Productivity Farmland

	Year		
	2018	2019	2020P
Yield per acre	237	208	215
Price per bu	\$3.60	\$3.84	\$3.30
Crop revenue	\$853	\$799	\$710
ARC/PLC	\$0	\$10	\$30
MFP	\$1	\$82	\$0
Crop insurance	\$2	\$10	\$0
<b>Gross revenue</b>	<b>\$856</b>	<b>\$901</b>	<b>\$740</b>
<b>Total non-land costs</b>	<b>\$574</b>	<b>\$606</b>	<b>\$571</b>
<b>Operator and land return</b>	<b>\$282</b>	<b>\$295</b>	<b>\$169</b>
Cash rent	\$274	\$275	\$275
<b>Farmer return</b>	<b>\$8</b>	<b>\$20</b>	<b>-\$106</b>



# Soybeans, Central Illinois, High-Productivity Farmland

	Year		
	2018	2019	2020P
Yield per acre	75	64	68
Price per bu	\$9.36	\$9.00	\$8.30
Crop revenue	702	576	564
ARC/PLC	0	10	30
MFP	122	82	0
Crop insurance	2	10	0
<b>Gross revenue</b>	<b>826</b>	<b>678</b>	<b>594</b>
<b>Total non-land costs</b>	<b>353</b>	<b>372</b>	<b>359</b>
<b>Operator and land retu</b>	<b>473</b>	<b>306</b>	<b>235</b>
Cash rent	274	275	275
<b>Farmer return</b>	<b>199</b>	<b>31</b>	<b>-40</b>



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# Upcoming Webinars

## Impacts of Covid-19 on Agricultural Assets and Lending Markets

**11:00 to 11:30am CT, Friday April 10<sup>th</sup>**

COVID-19 is affecting America's farmers, ranchers, and landowners in numerous and varied ways. Join Jackson Takach, chief economist with Farmer Mac, and Bruce Sherrick, Professor and Director of the TIAA Center for Farmland Research and a farmdoc team member, as they explore the drivers and linkages between the global pandemic, the related economic stoppage, farm assets, and agricultural finance.

Register at <https://go.illinois.edu/fddLive>



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