A background image of a Purdue University campus. In the foreground, there is a large, modern fountain with several tall, curved, metallic structures. In the background, a large, classical-style building with a portico and columns is visible. The scene is set outdoors with trees and a clear sky.

# Crop Net Return Prospects

## December 12, 2023

Michael Langemeier

Department of Agricultural Economics

Purdue University

# Outline

- Ag Economy Barometer
- Expected Crop Prices
- Net Return Projections

# Ag Economy Barometer

# Ag Economy Barometer

## Survey Details

- **Monthly survey of 400 U.S. agricultural producers, focused on major crop and livestock enterprises**
  - Corn and Soybeans: 53%
  - Wheat: 14%
  - Cotton: 3%
  - Beef: 19%
  - Swine: 6%
  - Dairy: 5%

# Ag Economy Barometer Survey Details (continued)

- Respondents value of farm production is greater than \$500,000.
- Do not survey the same producers each month, but characteristics of survey sample are held constant from month to month.



# Ag Economy Barometer

Index

200

175

150

125

100

75

11/15

11/16

11/17

11/18

11/19

11/20

11/21

11/22

11/23

Month & Year

97

116

128

134

153

167

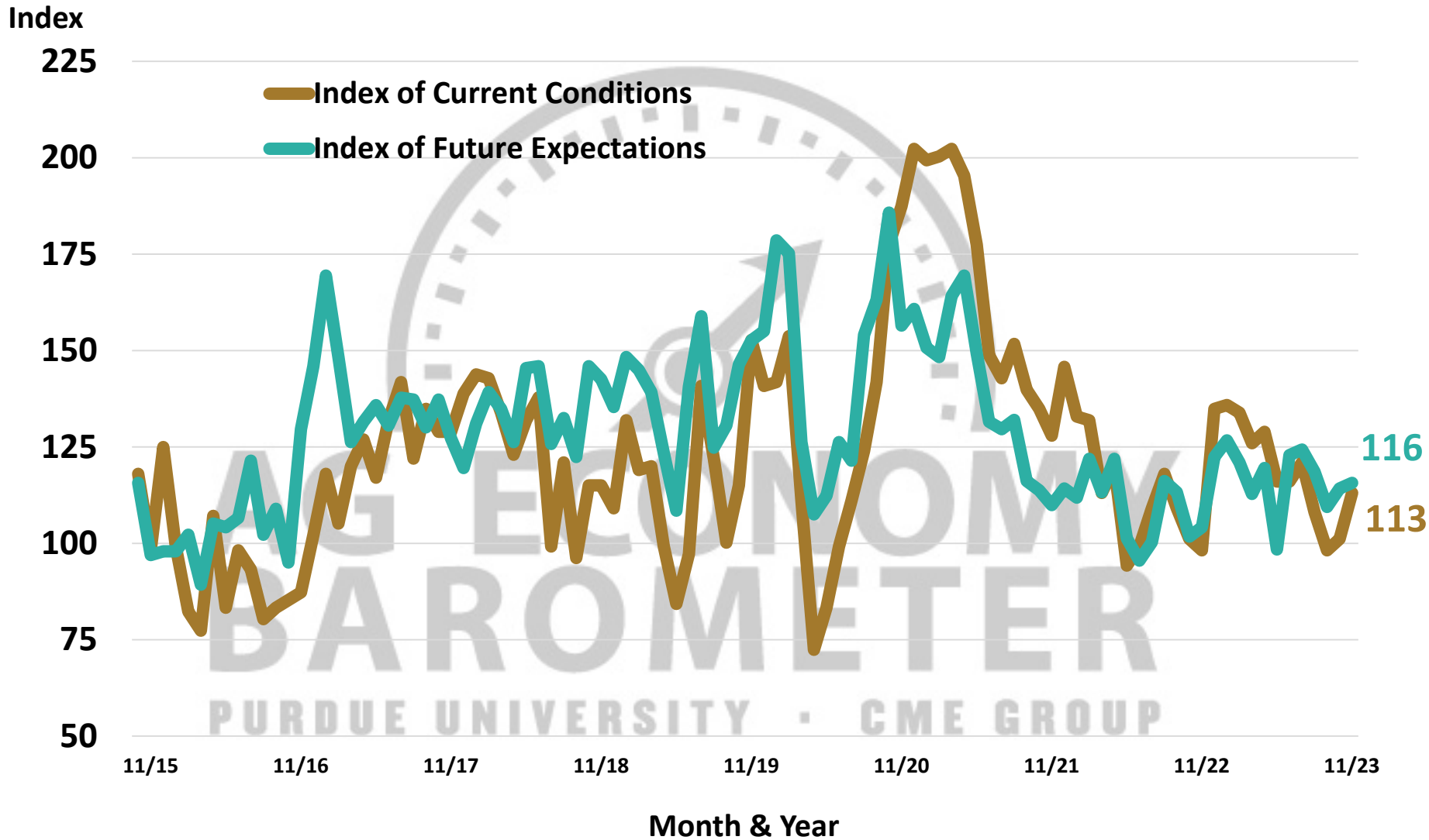
116

102

115

Source: Purdue University Center for Commercial Agriculture, Producer Survey, November 2023

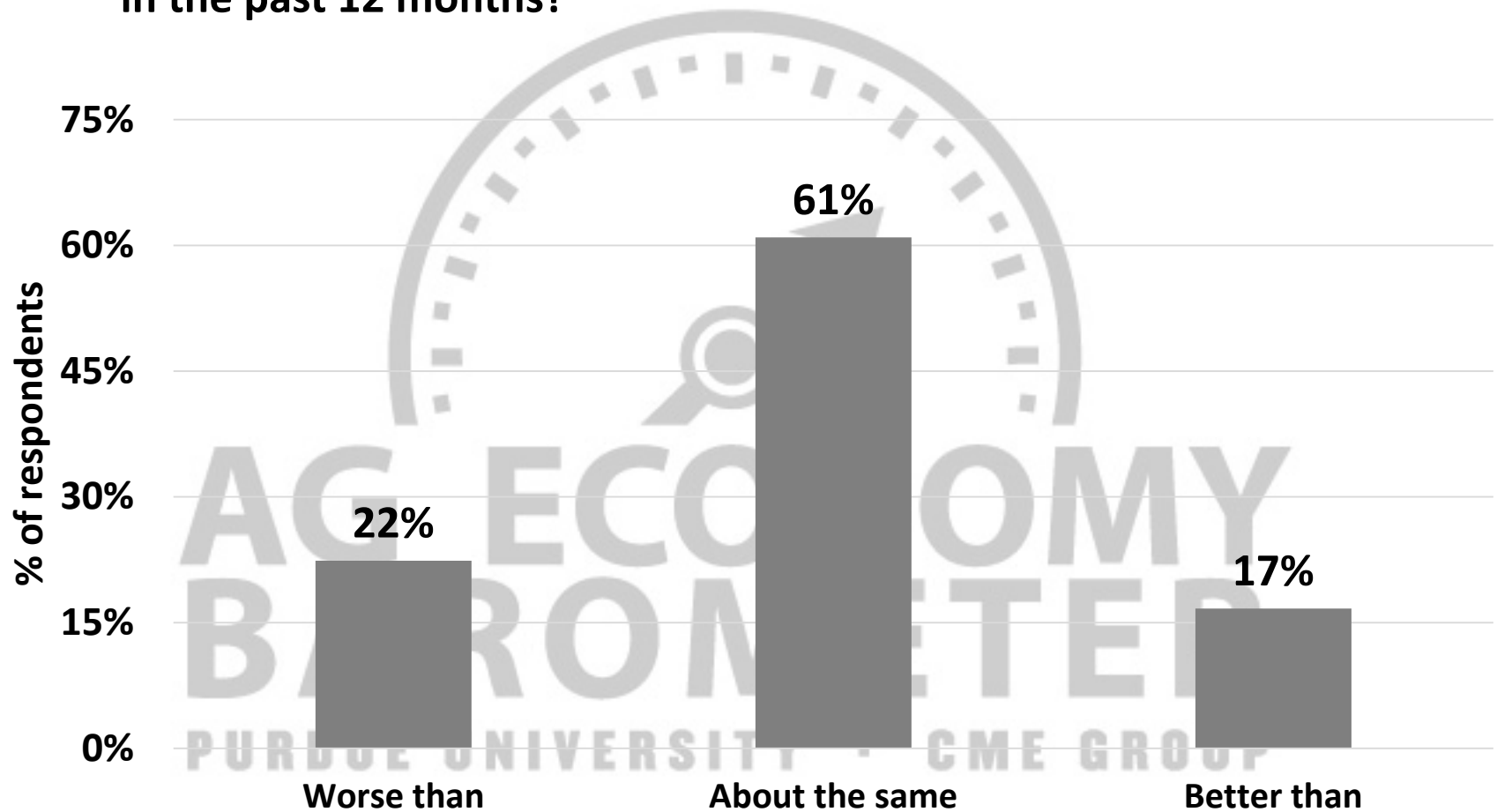
# Indices of Current Conditions and Future Expectations



Source: Purdue University Center for Commercial Agriculture, Producer Survey, November 2023

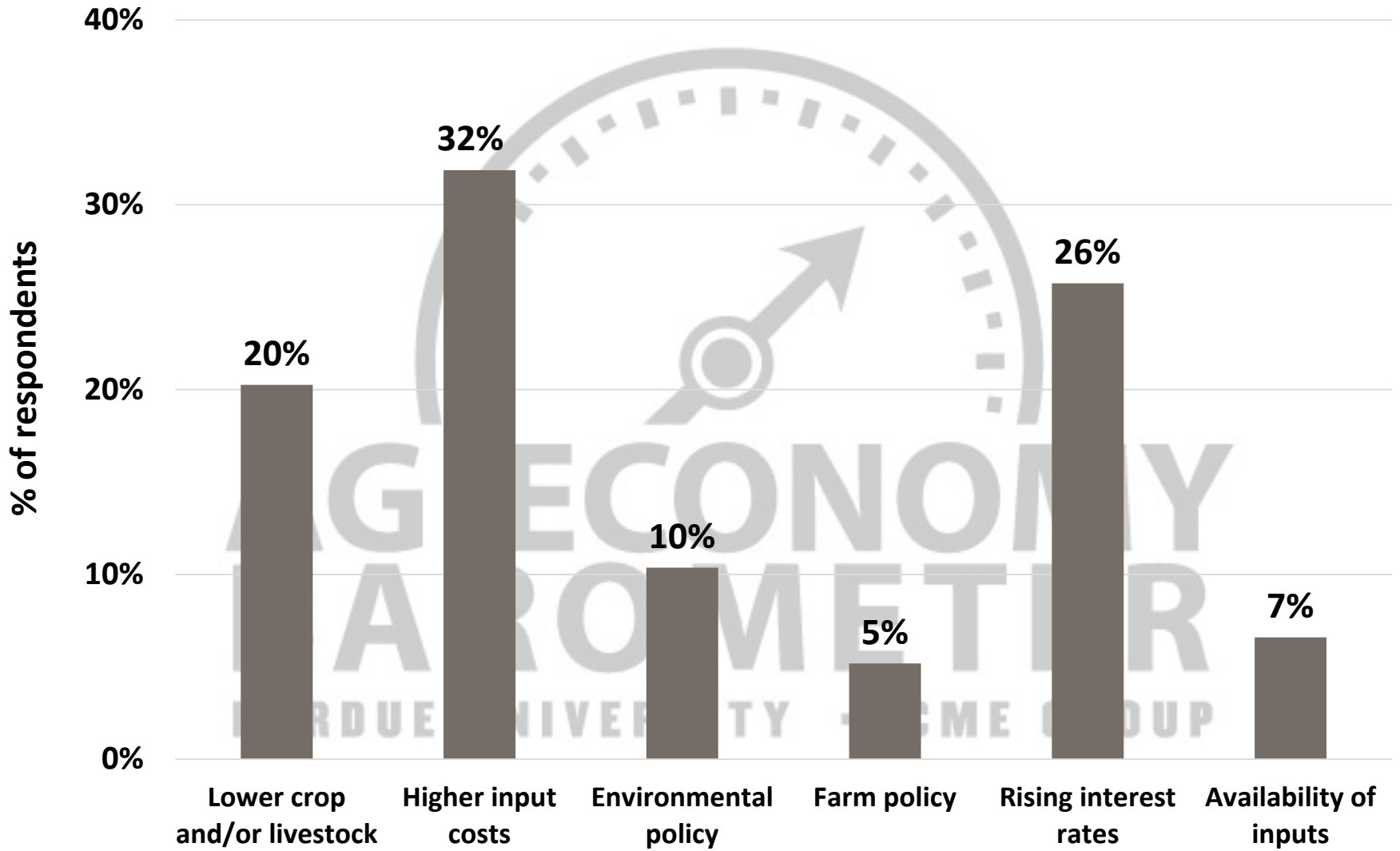


As of today, do you expect your farm's financial performance in the next 12 months to be better than, worse than, or about the same as in the past 12 months?



Source: Purdue Center for Commercial Agriculture, Producer Survey, November 2023

# Looking ahead to next year what are your biggest concerns for your farming operation?



Source: Purdue Center for Commercial Agriculture, Producer Survey, November 2023

# Expected Crop Prices

# November WASDE Report: Corn

## % Changes from 2022/23

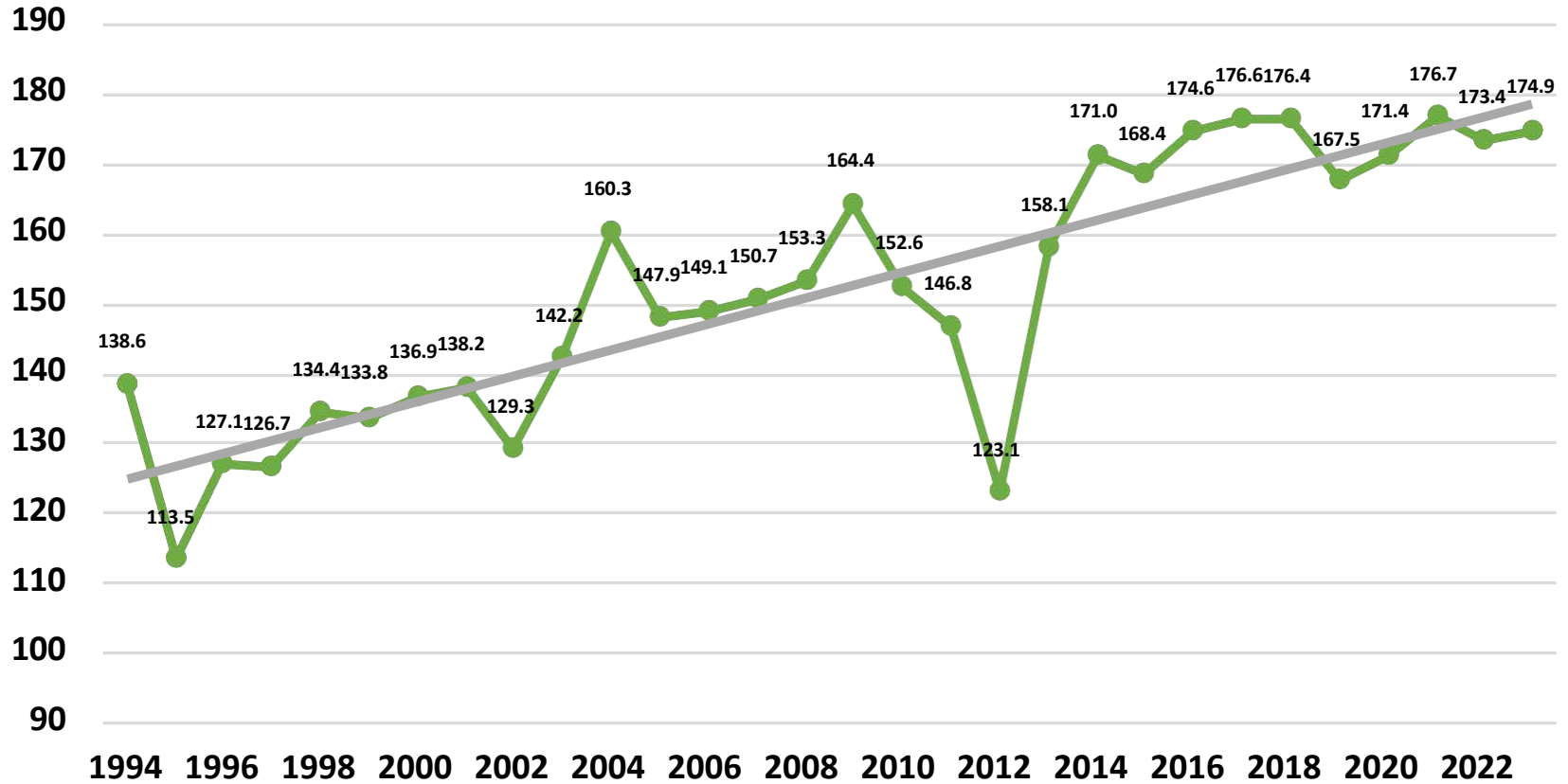
- **Supply (23/24):**
  - Acreage: 7.1% increase (88.6 to 94.9)
  - Yield: 0.9% increase (173.4 to 174.9); Trend = 181.5
  - Production: 11.1% increase
- **Demand (23/24):**
  - Feed: 1.8% increase
  - Ethanol: 2.9% increase
  - Exports: 24.9% increase
- **Stocks to Use: 9.9% to 14.9%**
- **Corn Price: \$6.54 to \$4.85 (25.8% decrease)**



# November 2023 Corn Yield United States

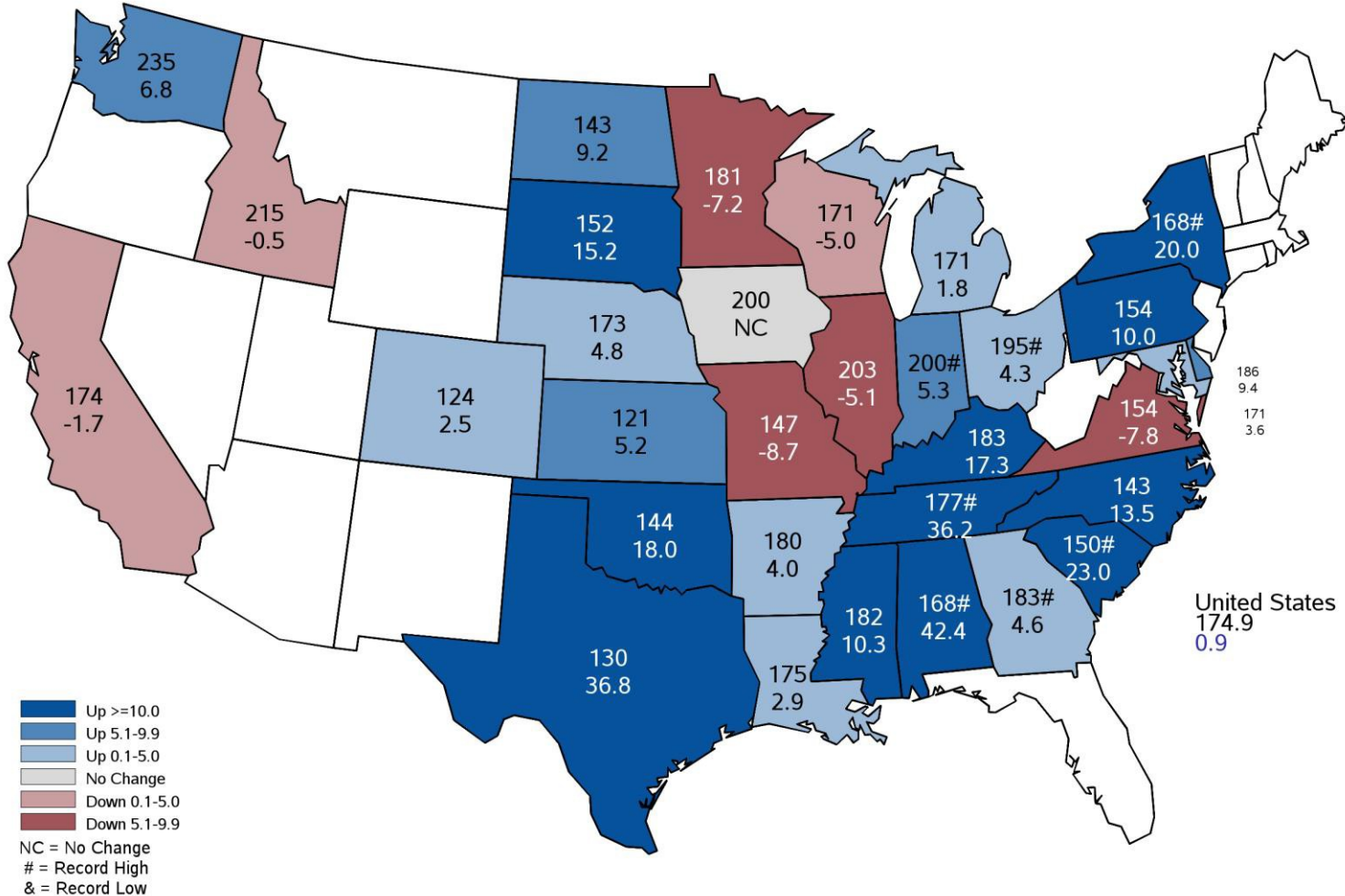


Bushels per Acre



# November 2023 Corn Yield

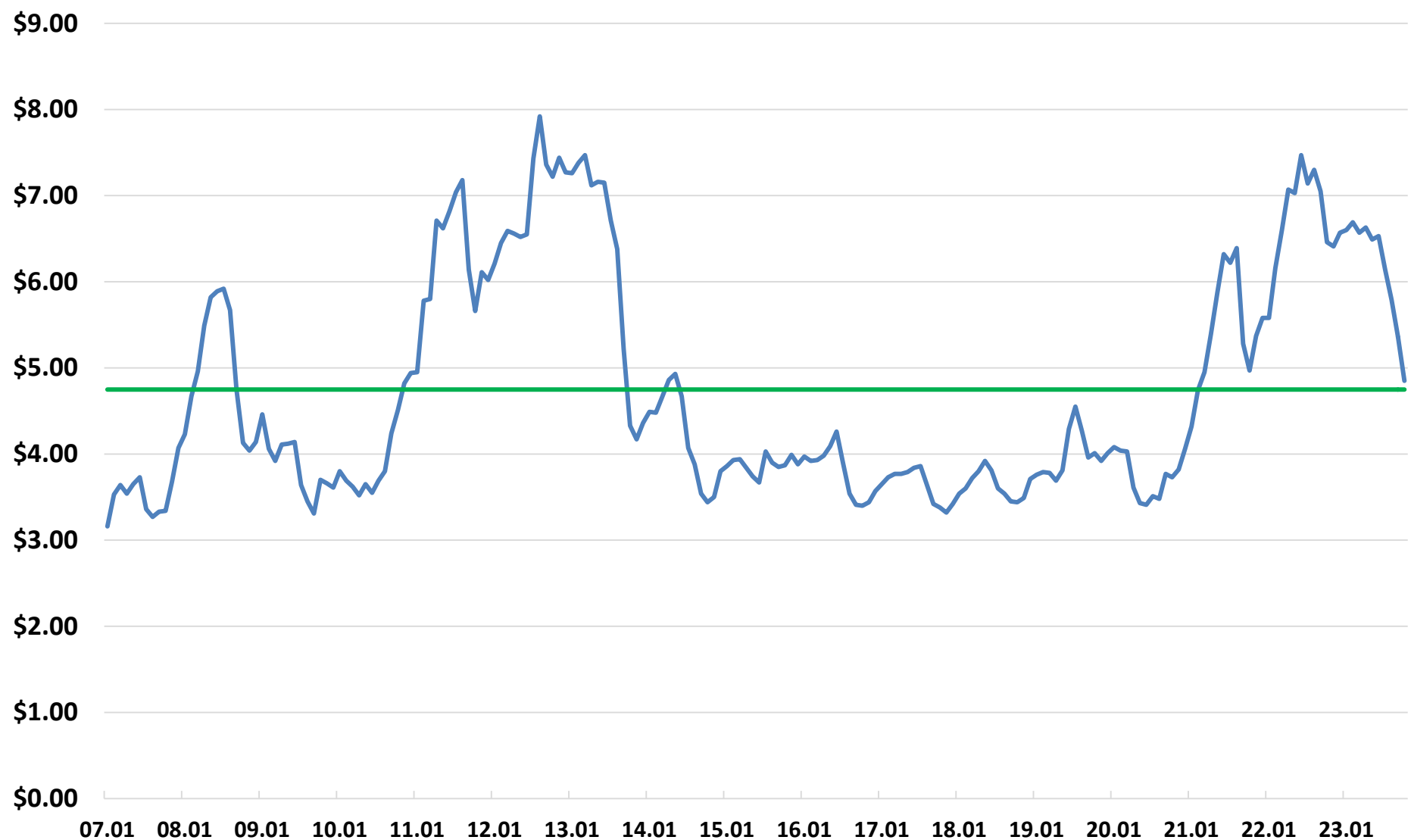
## Bushels and Percent Change from Previous Year





# Monthly Indiana Corn Prices, 2007 to 2023

Corn Price 2007-2023 Price



# November WASDE Report: Soybeans

## % Changes from 2022/23

- **Supply (23/24):**
  - Acreage: 4.5% decrease (87.5 to 83.6)
  - Yield: 0.6% increase (49.6 to 49.9); Trend = 52.0
  - Production: 3.3% decrease
- **Demand (23/24):**
  - Crush: 4.0% increase
  - Exports: 11.9% decrease
- **Stocks to Use: 6.2% to 5.9%**
- **Corn Price: \$14.20 to \$12.90 (9.2% decrease)**

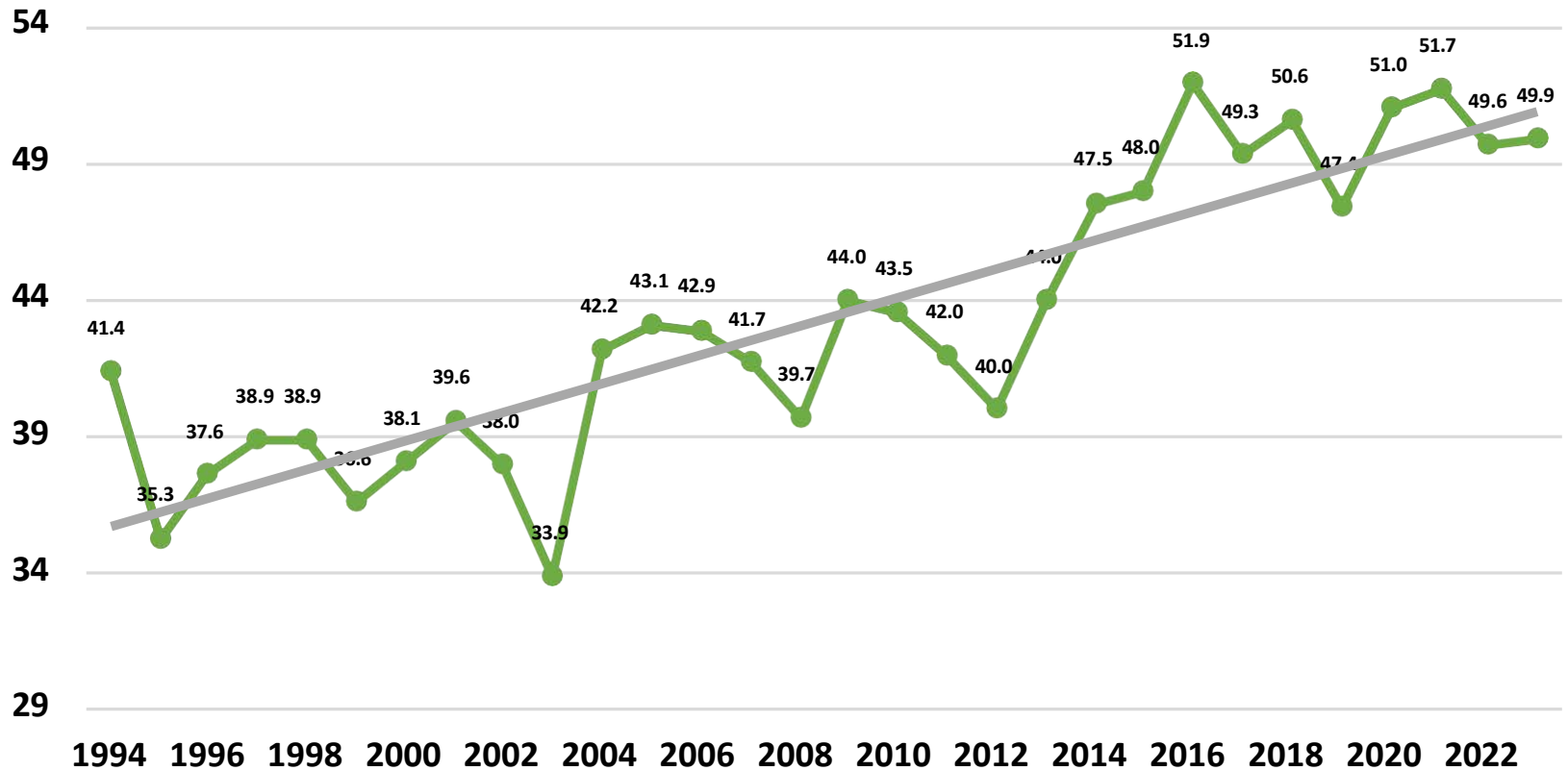




# November 2023 Soybean Yield United States

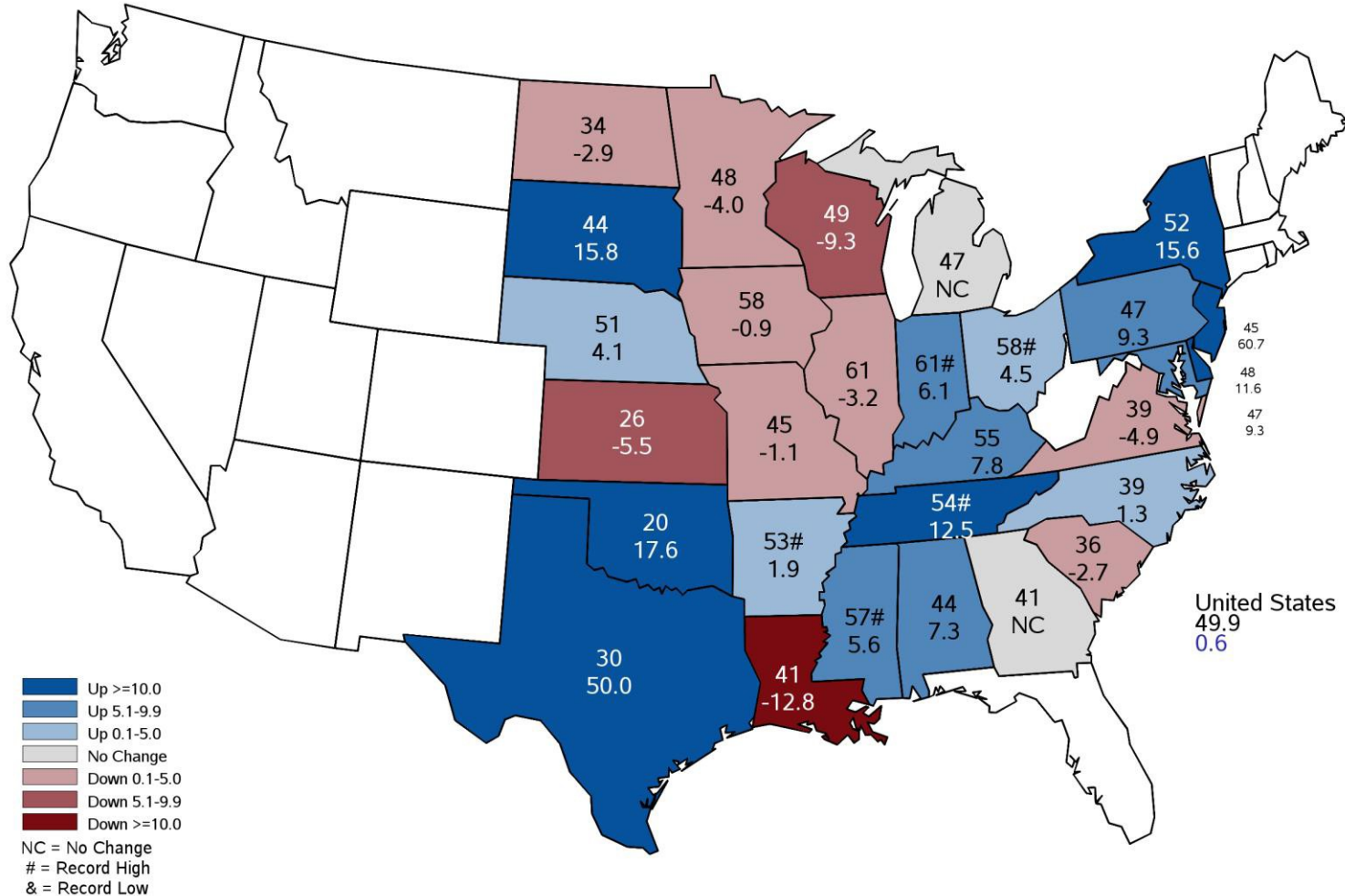


Bushels per Acre



# November 2023 Soybean Yield

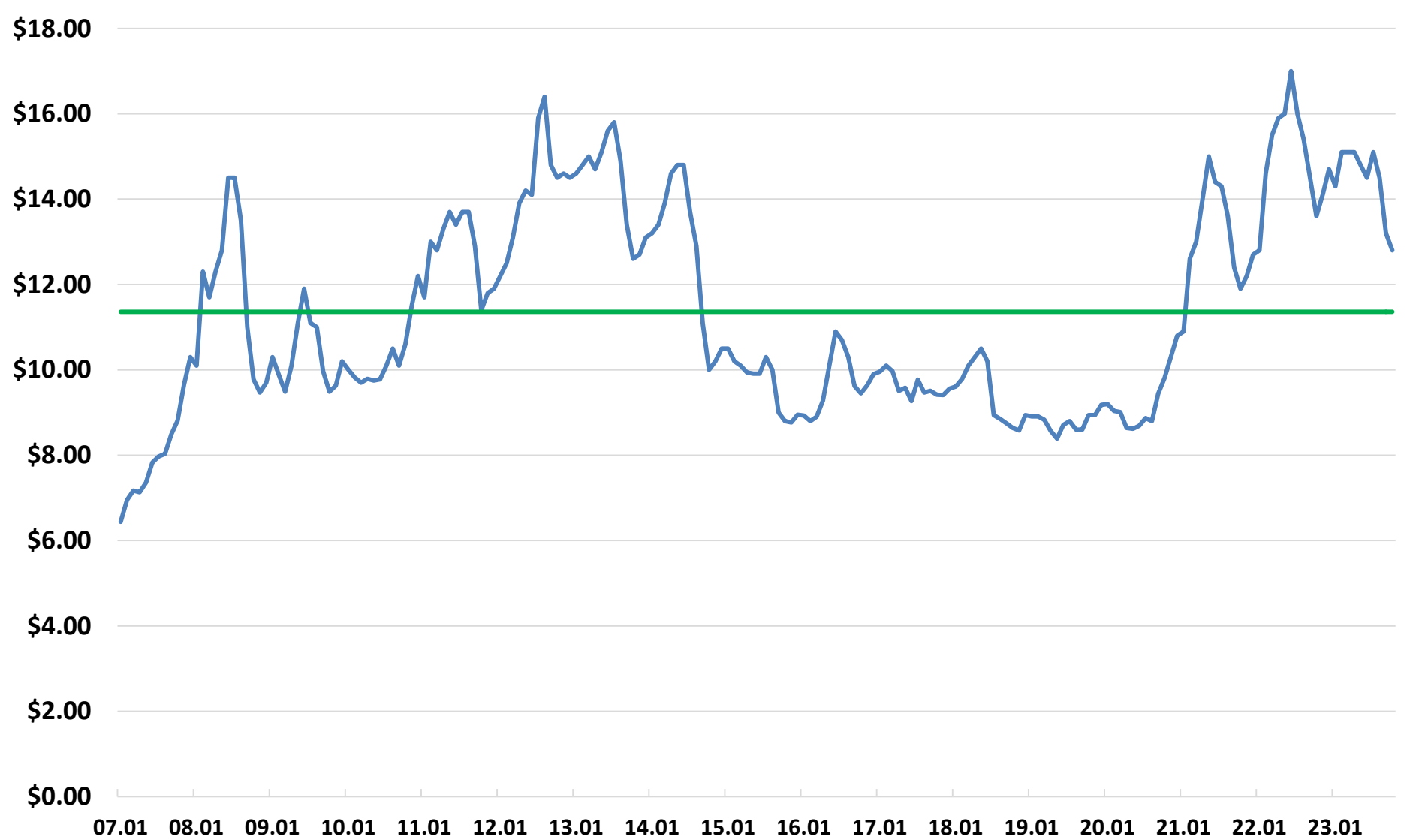
## Bushels and Percent Change from Previous Year





# Monthly Indiana Soybean Prices, 2007 to 2023

— Soybean Price — 2007-2023 Price



# What about Prices in Fall 2024?

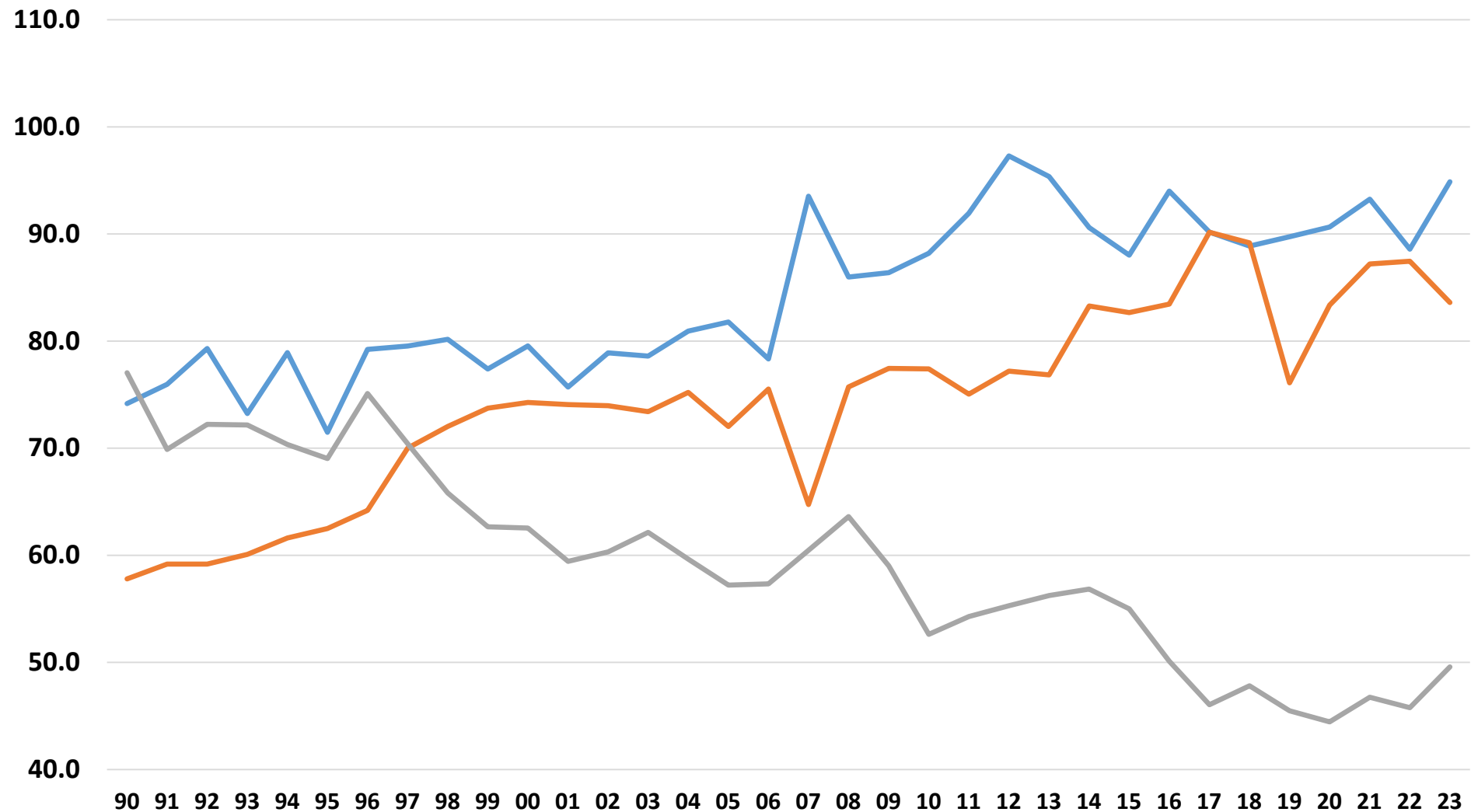




# U.S. Corn, Soybean, and Wheat Acres (millions)

Source: USDA-NASS, Quick Stats

Corn Soybeans Wheat





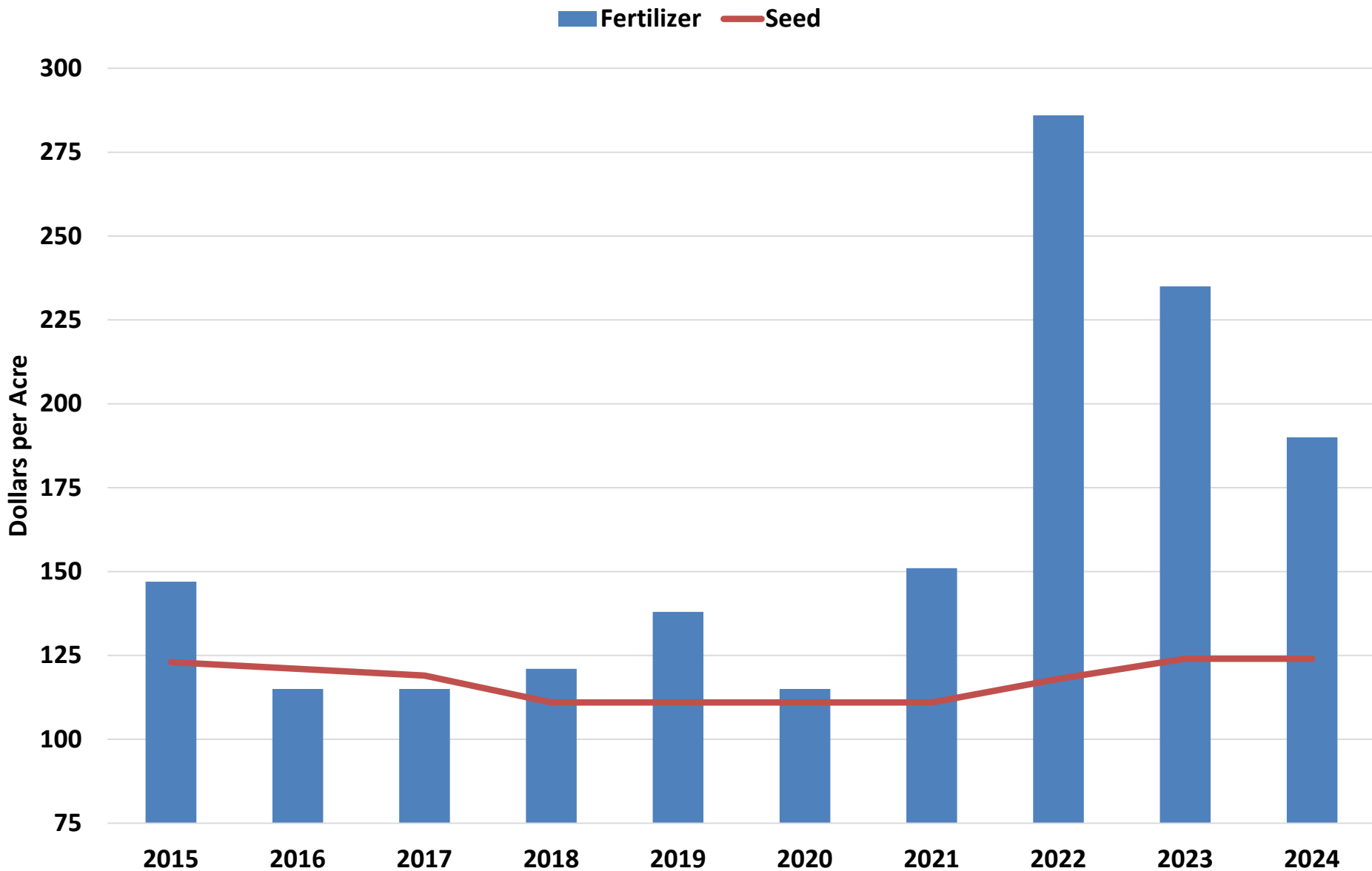
# Fall 2024 Futures Prices (12/6)

## Source: iFarm Price Distribution Tool

At Expiration Probability Below	Corn (Dec)	Soybeans (Nov)
25%	4.40	11.27
50%	5.05	12.56
75%	5.78	14.01

# Net Return Projections

# Fertilizer and Seed Costs for Rotation Corn (Average Productivity Soil)

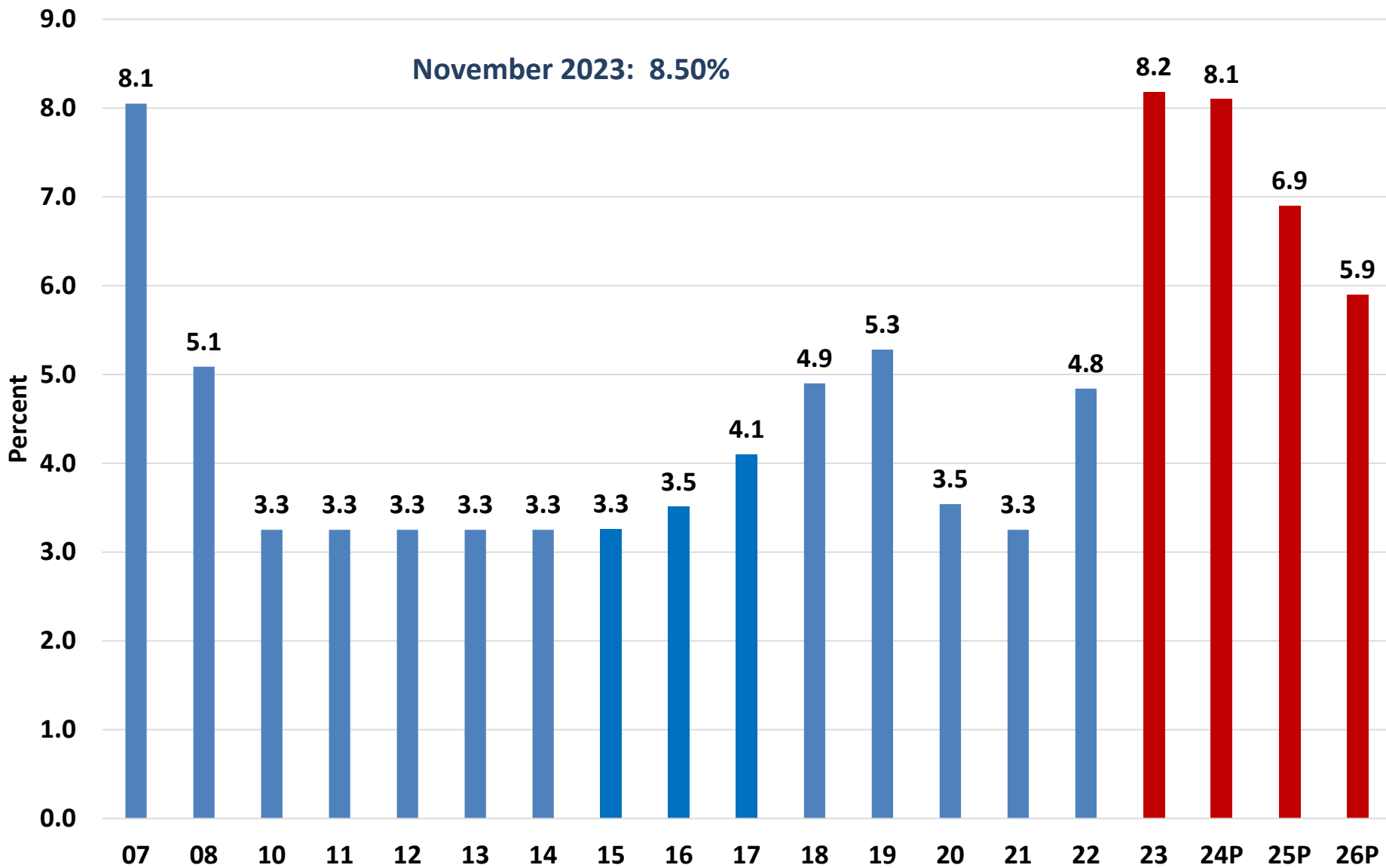






# Annual Prime Interest Rate

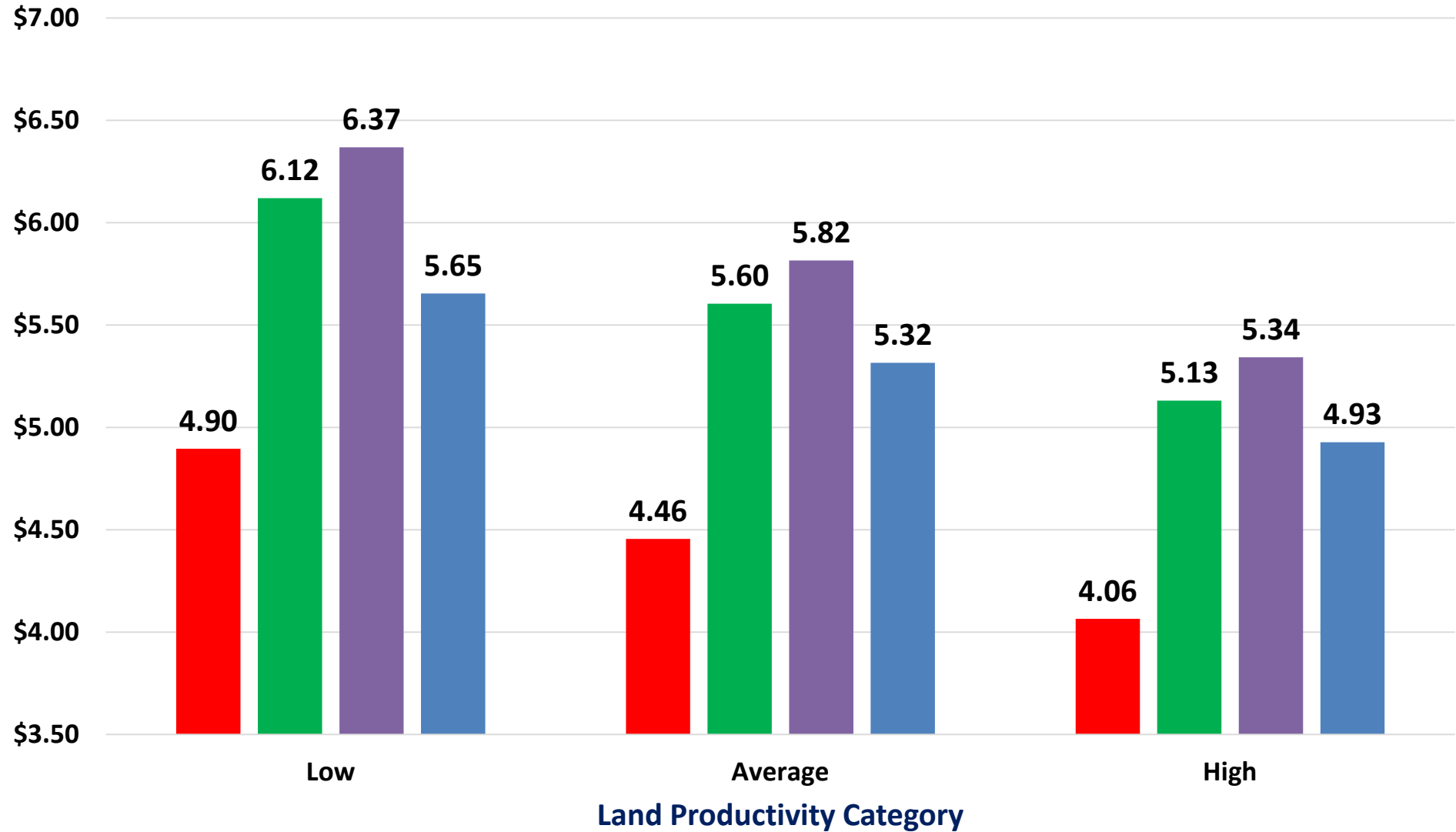
Source: Federal Reserve Economic Data





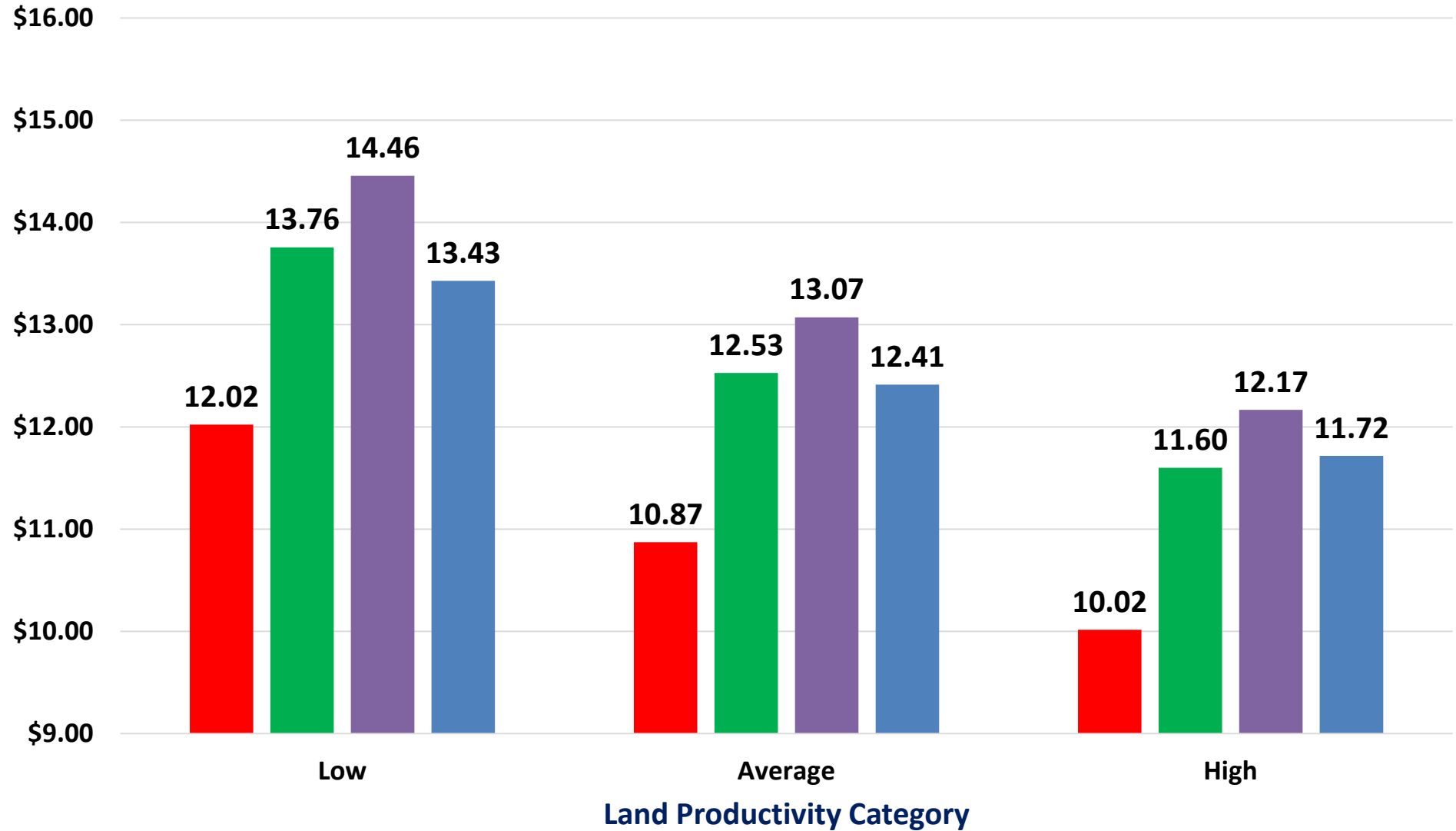
# Breakeven Prices for Rotation Corn in Indiana

2021 2022 2023 2024

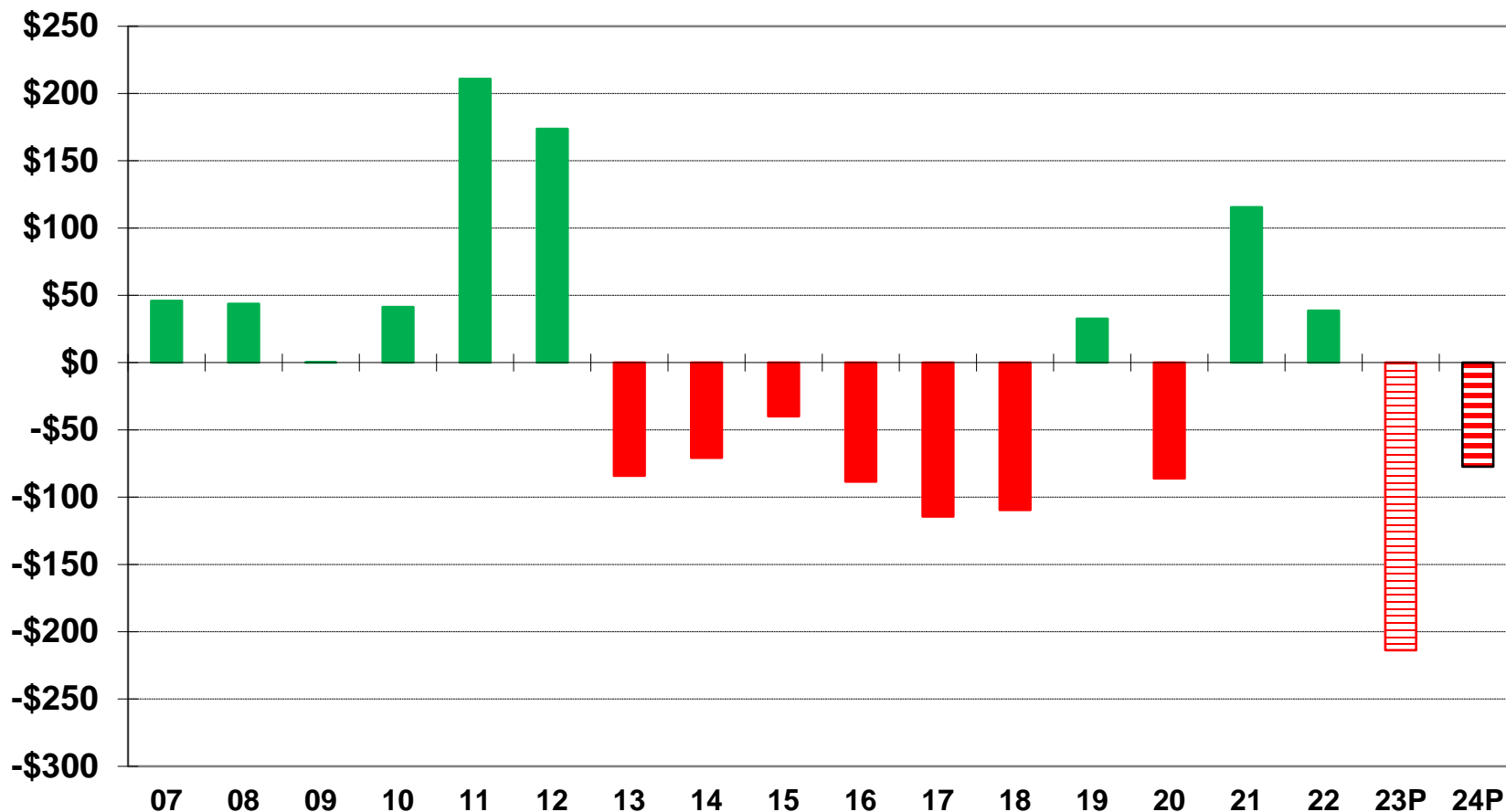


# Breakeven Prices for Rotation Soybeans in Indiana

2021 2022 2023 2024



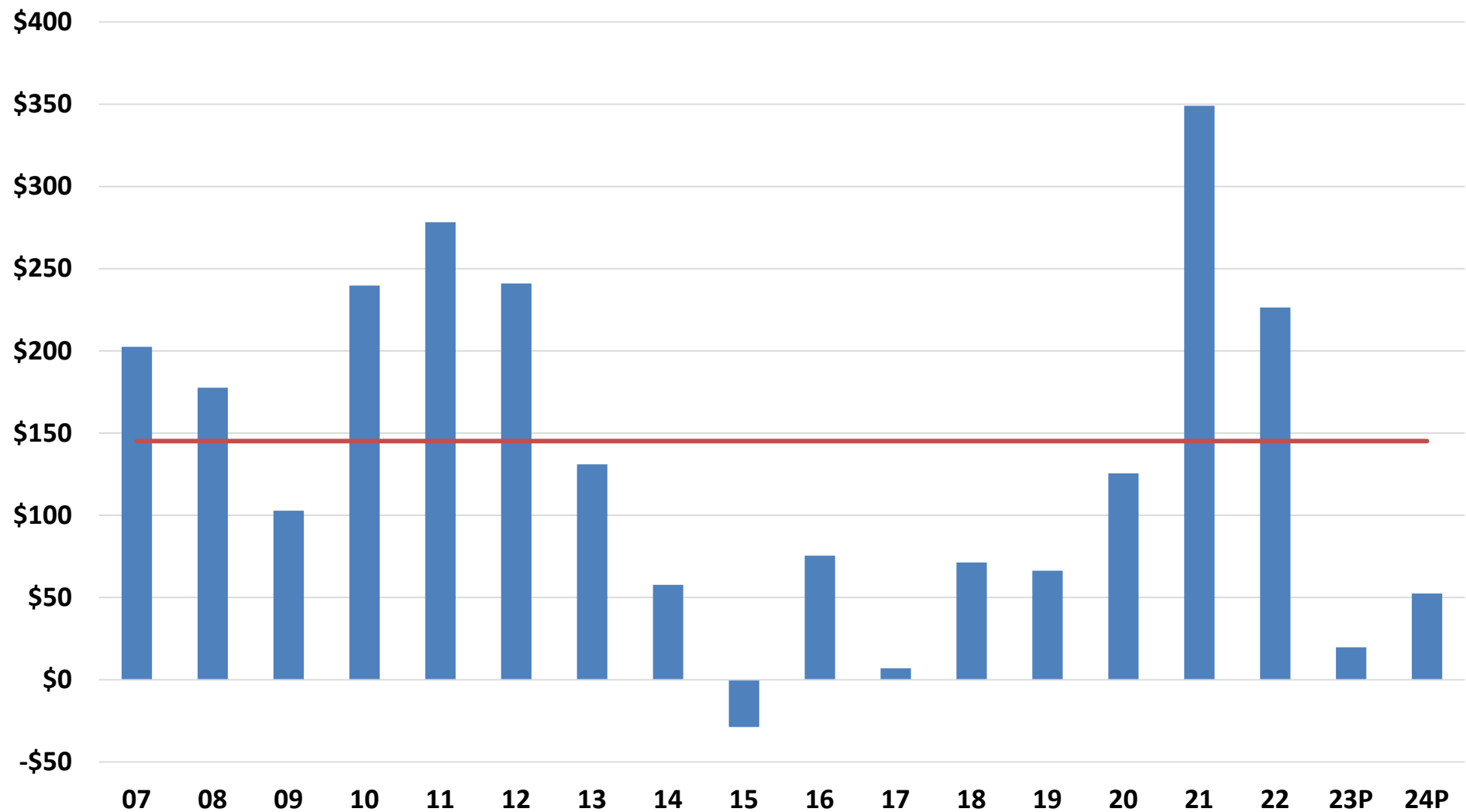
# Difference in Earnings per Acre West Central Indiana (Corn Minus Soybeans)





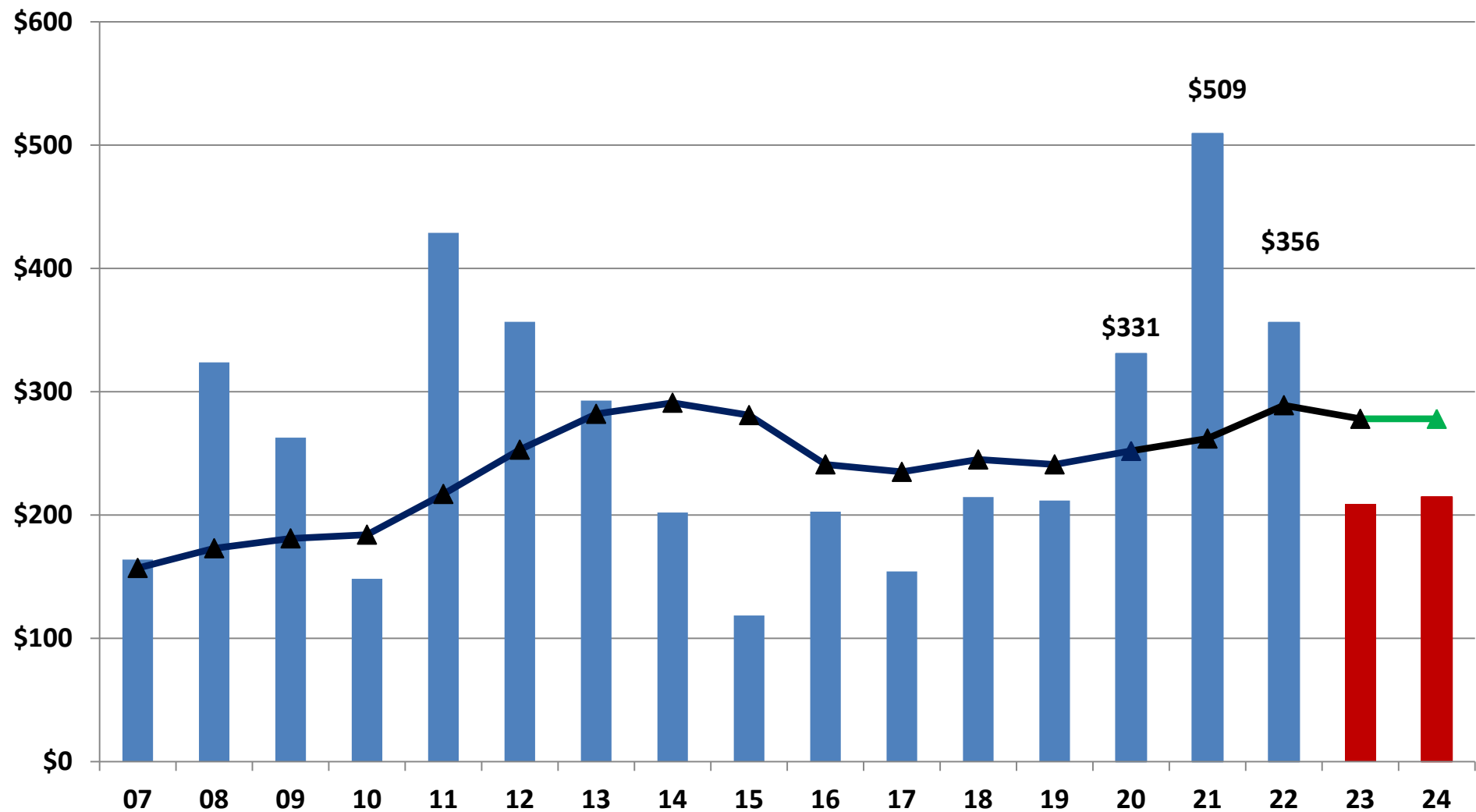
# Net Farm Income, Corn/Soybean Rotation (\$ per Acre) West Central Indiana Case Farm

■ Annual    — Average, 2007 to 2022

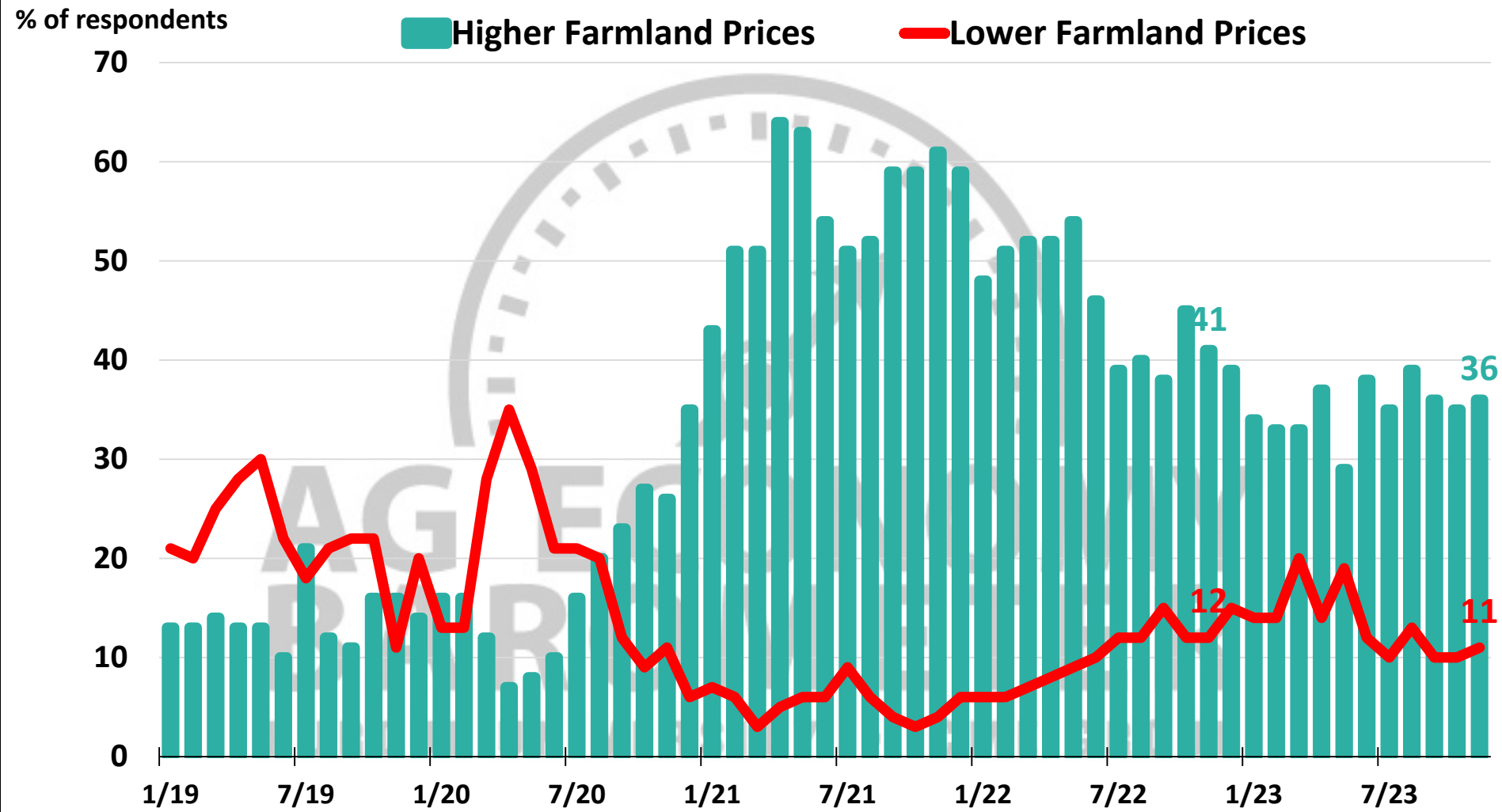


# Cash Rent and Net Return to Land (\$/Acre) West Central Indiana

Net Return to Land Cash Rents

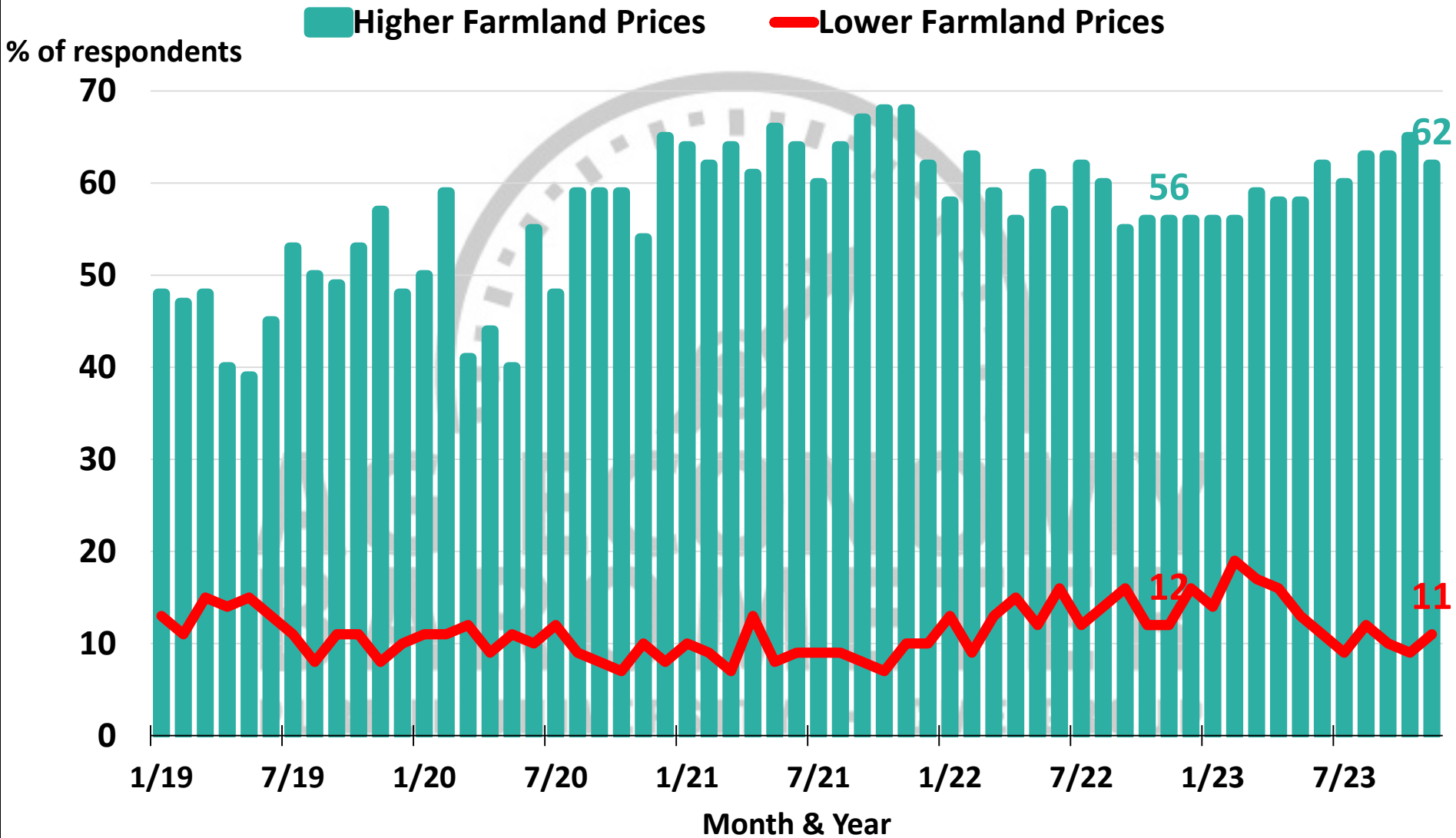


# Farmland Price Expectations, 12 Months Ahead



Source: Purdue Center for Commercial Agriculture, Producer Survey, November 2023

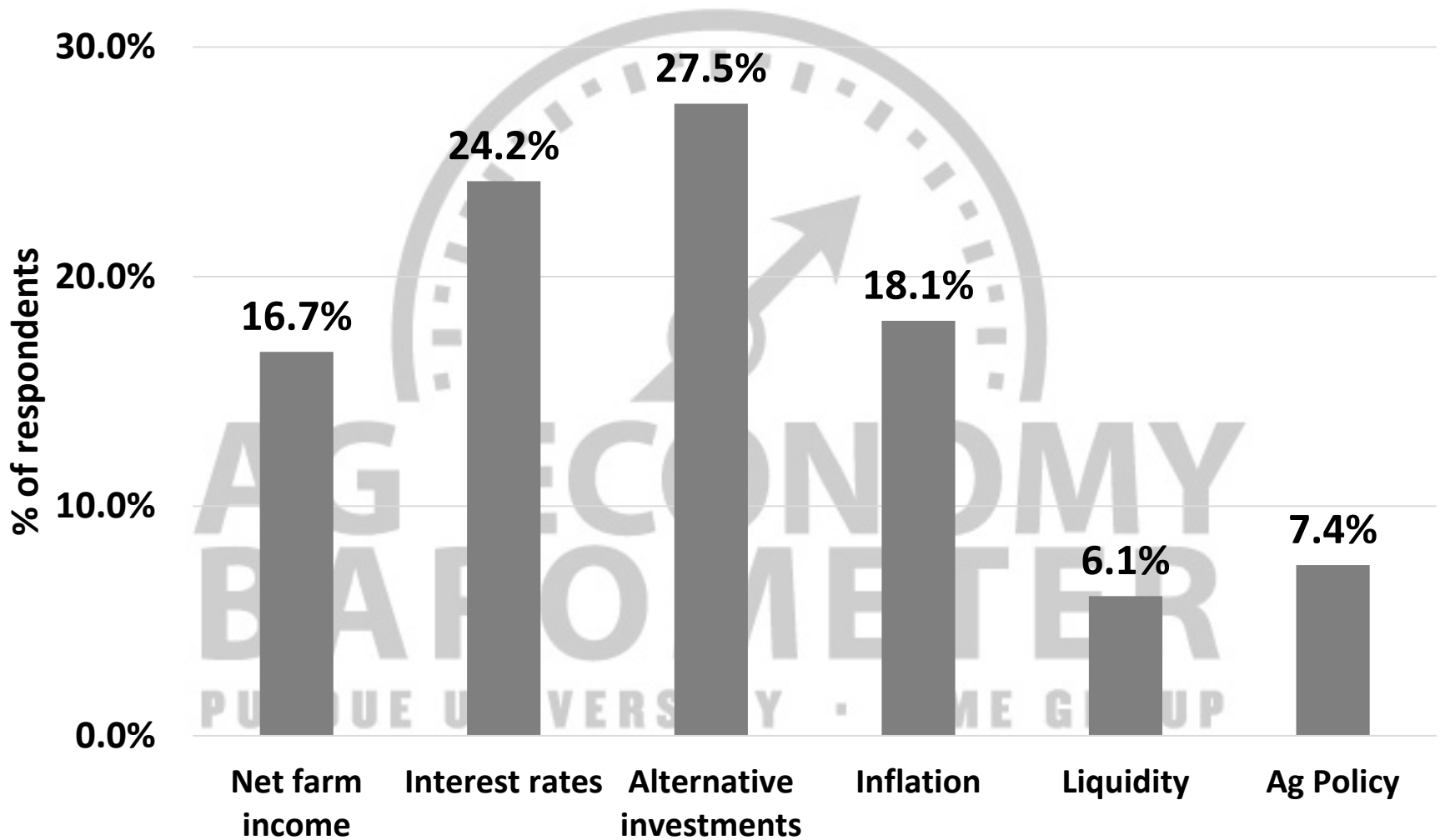
# Farmland Price Expectations, 5 Years From Now



Source: Purdue Center for Commercial Agriculture, Producer Survey, November 2023



# Which of the following factors is having the most influence on farmland values in your area (check up to two items)?



Source: Purdue Center for Commercial Agriculture, Producer Survey, November 2023

# Final Thoughts

- Supply
  - World Acreage
  - Crop Yields
  - Production Restrictions
- Demand
  - Domestic:
    - Feed
    - Biofuels
  - International:
    - Population and Per Capita Income

# Questions, Comments

[www.ag.purdue.edu/commercialag](http://www.ag.purdue.edu/commercialag)

