

Financial and Environmental Impact of Conservation Practices



Precision Conservation Management

ILLINOIS



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precisionconservation.org



Precision Conservation Management

**Positioning farmers to benefit
from conservation outcomes**



Precision Conservation Management

• Full utilization of data and support
• Economic cost tables
• Environmental assistance
• New practice cooperation opportunities



Illinois Nutrient Loss Reduction Strategy



Goal: 45% Reduction in Total N & Total P Losses by **2035**

Interim: 15% Reduction in NO₃-N & **25% Reduction** in Total P by 2025

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A program of the *Illinois Corn Growers Association* and the *Illinois Soybean Association*

2015-2021 DATA SUMMARY

The Business Case for Conservation

Cost-Benefit Analysis of Conservation Practices



Precision Conservation Management

HOT OFF THE PRESS!
JUNE EDITION
PRAIRIE FARMER

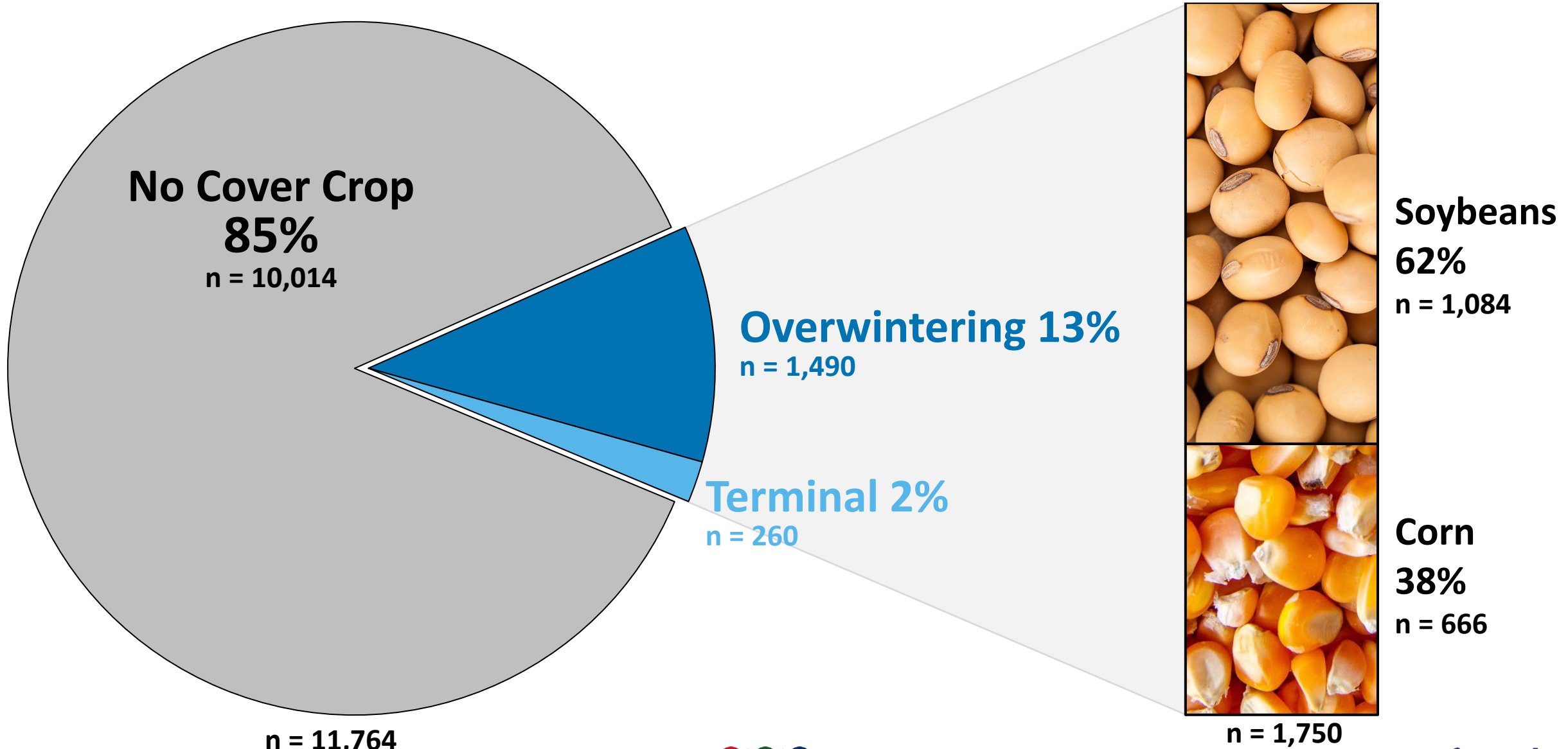


P | **C** | **M** Practice Standards

Precision Conservation Management

- **Cover Crops**
- **Nitrogen Management (for corn)**
- **Tillage**

Cover Crops Overview



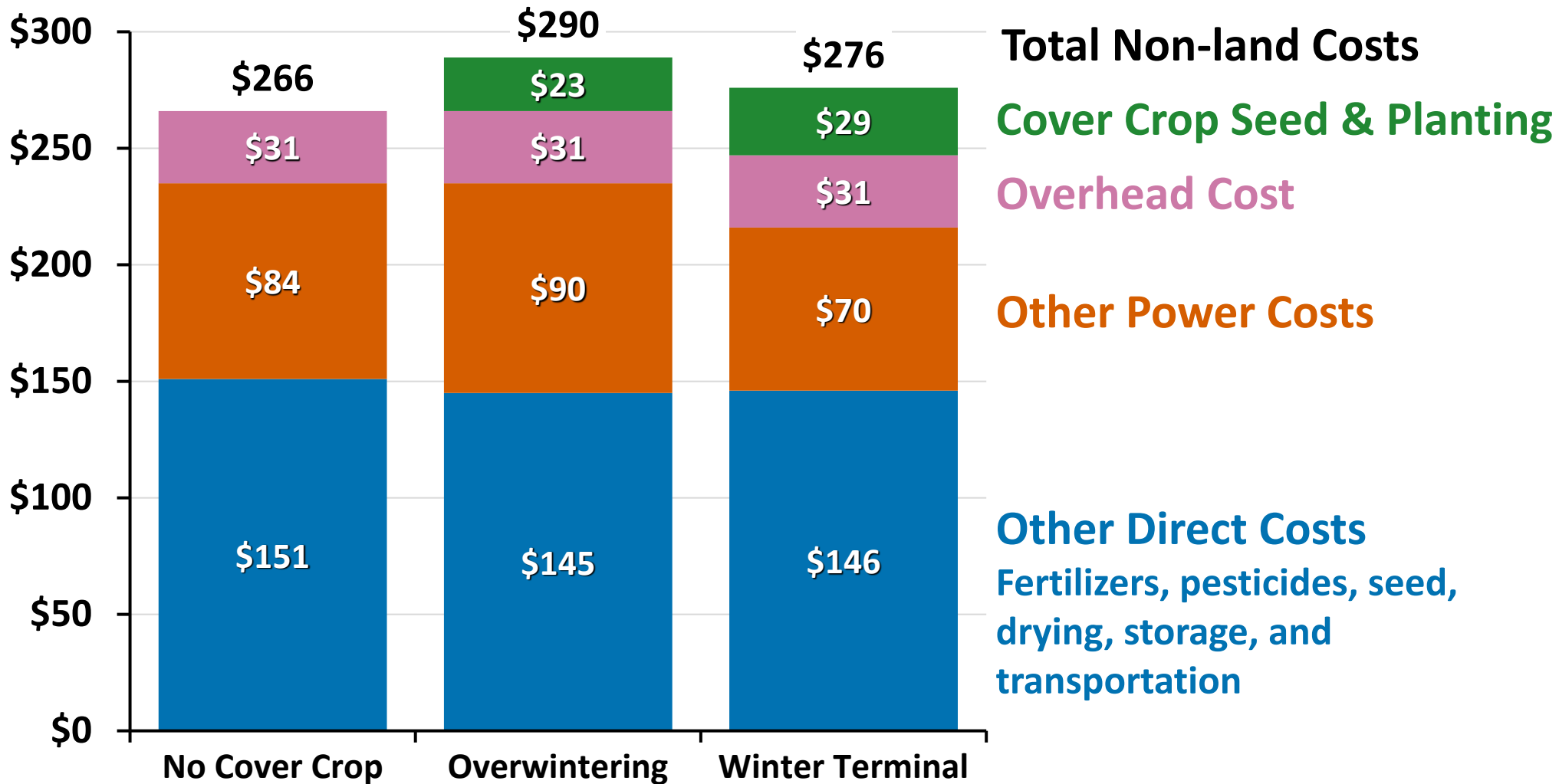
Cover Crops Overview

- For the cover crop fields:
 - 91% are reduced till
no-till, strip-till, or 1-pass light tillage benchmarks
 - 79% of the cover crop corn fields receive an in-season nitrogen application
- For all corn fields with a cover crop, 70% of the fields have a cover crop the next year the field is planted with corn
- For all soybean fields with a cover crop, 75% have a cover crop the next year the field is planted with soybeans

Cover Crops before Soybean

Cover Crop Costs

Soybean, High SPR, Average from 2015 to 2021



Cover Crops

Soybean, High SPR, Average from 2015 to 2021

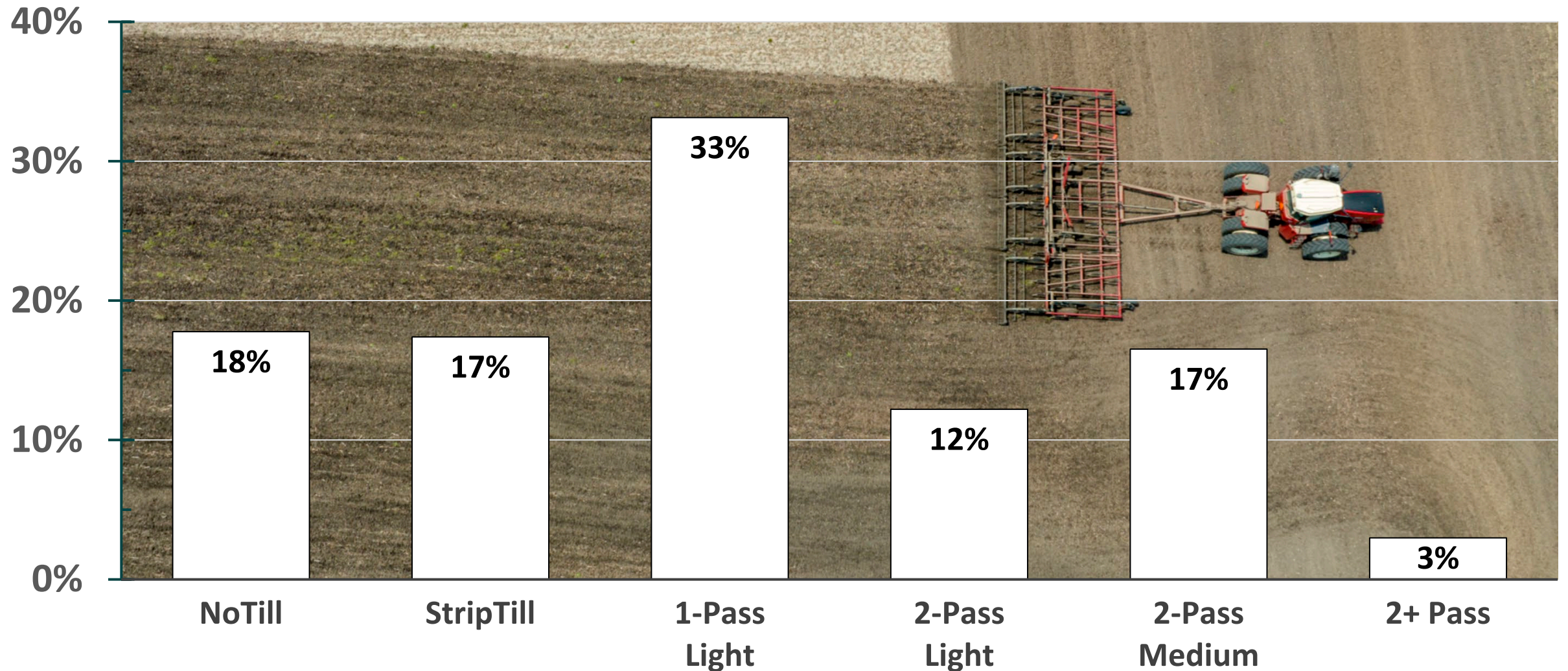
	Overwintering	Winter Terminal	No Cover Crop
Number of fields	588	28	3,066
Yield per acre	68	68	70
Soil Productivity Rating	139	139	140
Gross Revenue	\$666	\$675	\$686
Total Non-land Costs	\$290	\$276	\$266
Operator & Land Return	\$376	\$399	\$420

Tillage Practices



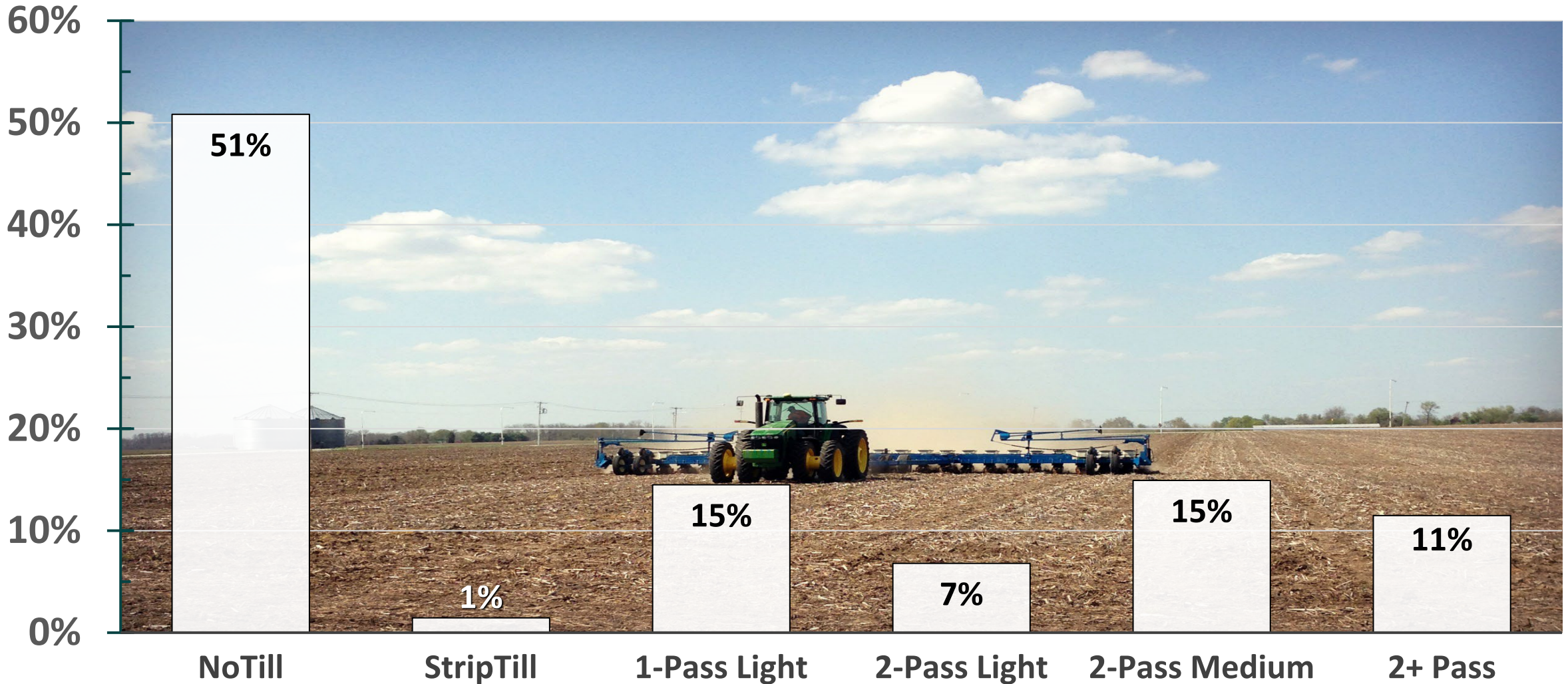
Percent of Fields by Tillage Benchmark

2015-2021, Corn



Percent of Fields by Tillage Benchmark

2015-2021, Soybeans



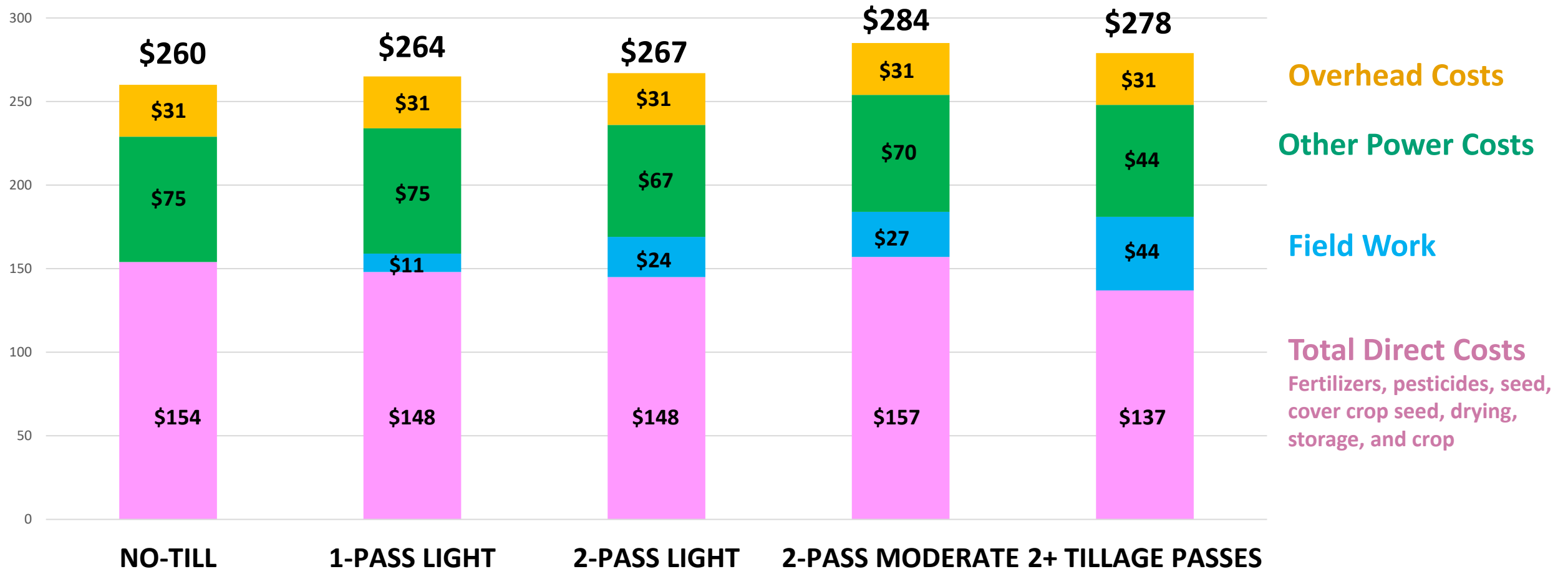
Tillage

Soybean, High SPR, Average from 2015 to 2021

	No-Till	Strip-Till	1 Pass Light	2 Pass Light	2 Pass Moderate	2+ Passes
# fields	1739	76	549	184	641	417
Yield per acre	67	73	70	69	72	69
Gross Revenue	\$665	\$721	\$686	\$686	\$707	\$684
Total Non-land Cost	\$260	\$325	\$264	\$267	\$284	\$278
Operator & Land Return	\$405	\$396	\$422	\$419	\$423	\$406

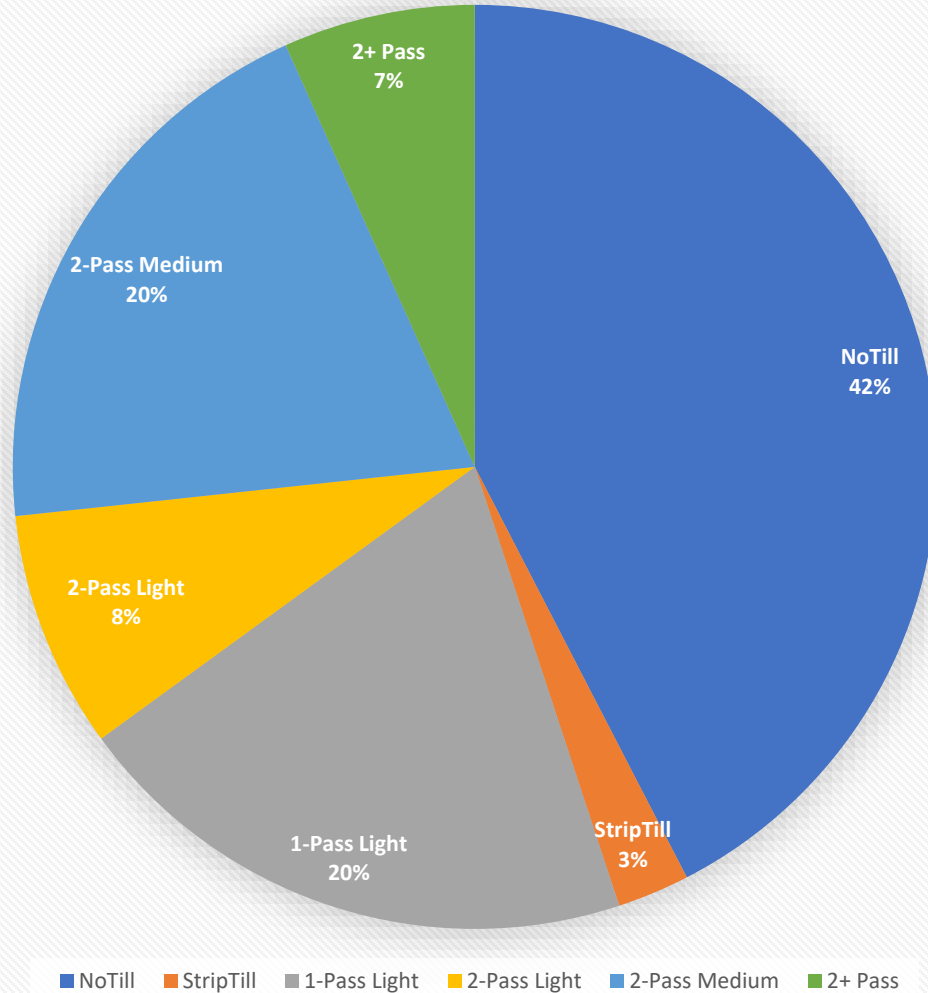
Total Non-Land Costs, Tillage

Soybean, High SPR, Average from 2015 to 2021



Most Profitable Fields by Tillage Class

Soybean, High SPR, Average from 2015 to 2021



Most Profitable Fields by Tillage Class

Soybean, High Soil Productivity Rating (SPR)

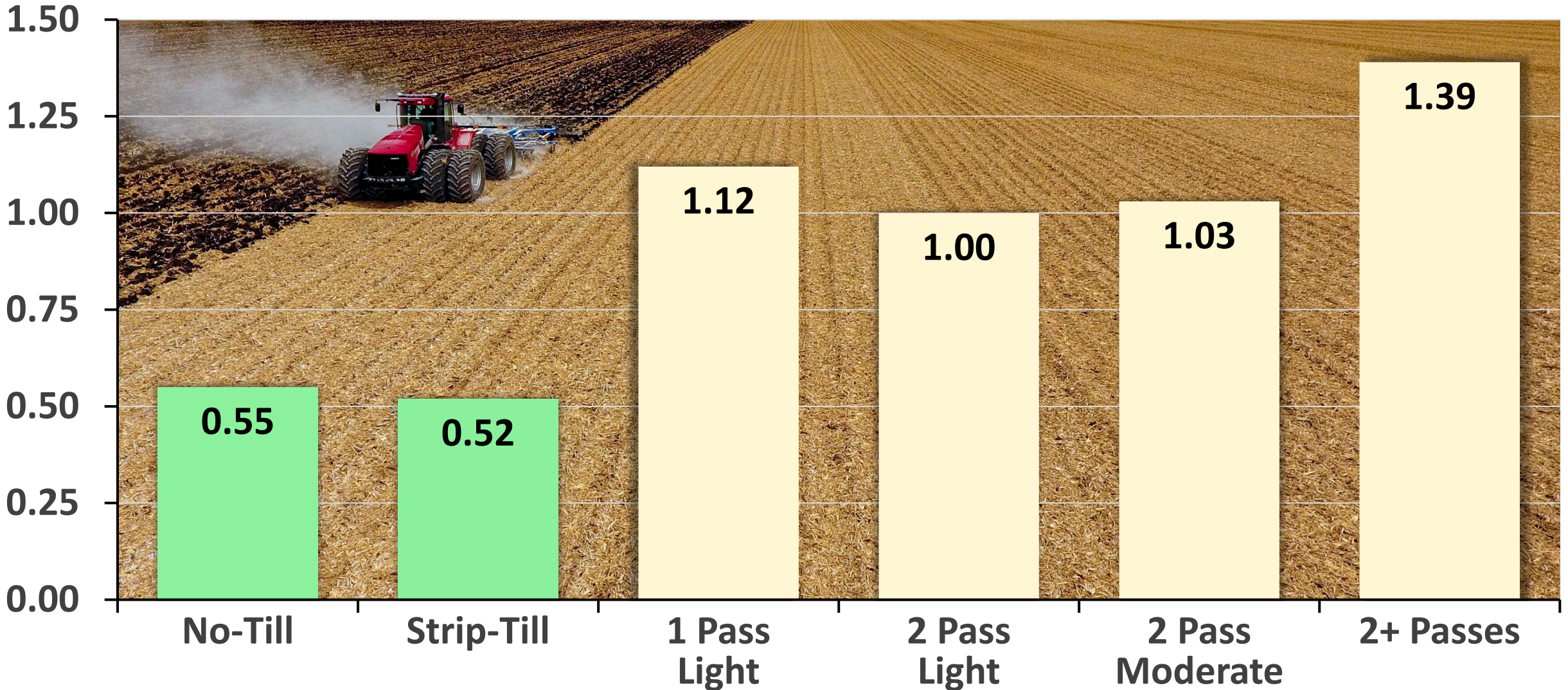
	2015	2016	2017	2018	2019	2020	2021	Average
NoTill	33%	54%	40%	23%	59%	41%	47%	42%
StripTill	0%	1%	12%	0%	0%	1%	4%	3%
1-Pass Light	33%	13%	24%	27%	6%	20%	17%	20%
2-Pass Light	33%	14%	0%	0%	0%	3%	7%	8%
2-Pass Medium	0%	15%	20%	40%	24%	21%	20%	20%
2+ Pass	0%	3%	4%	10%	12%	14%	4%	7%

Environmental Factors



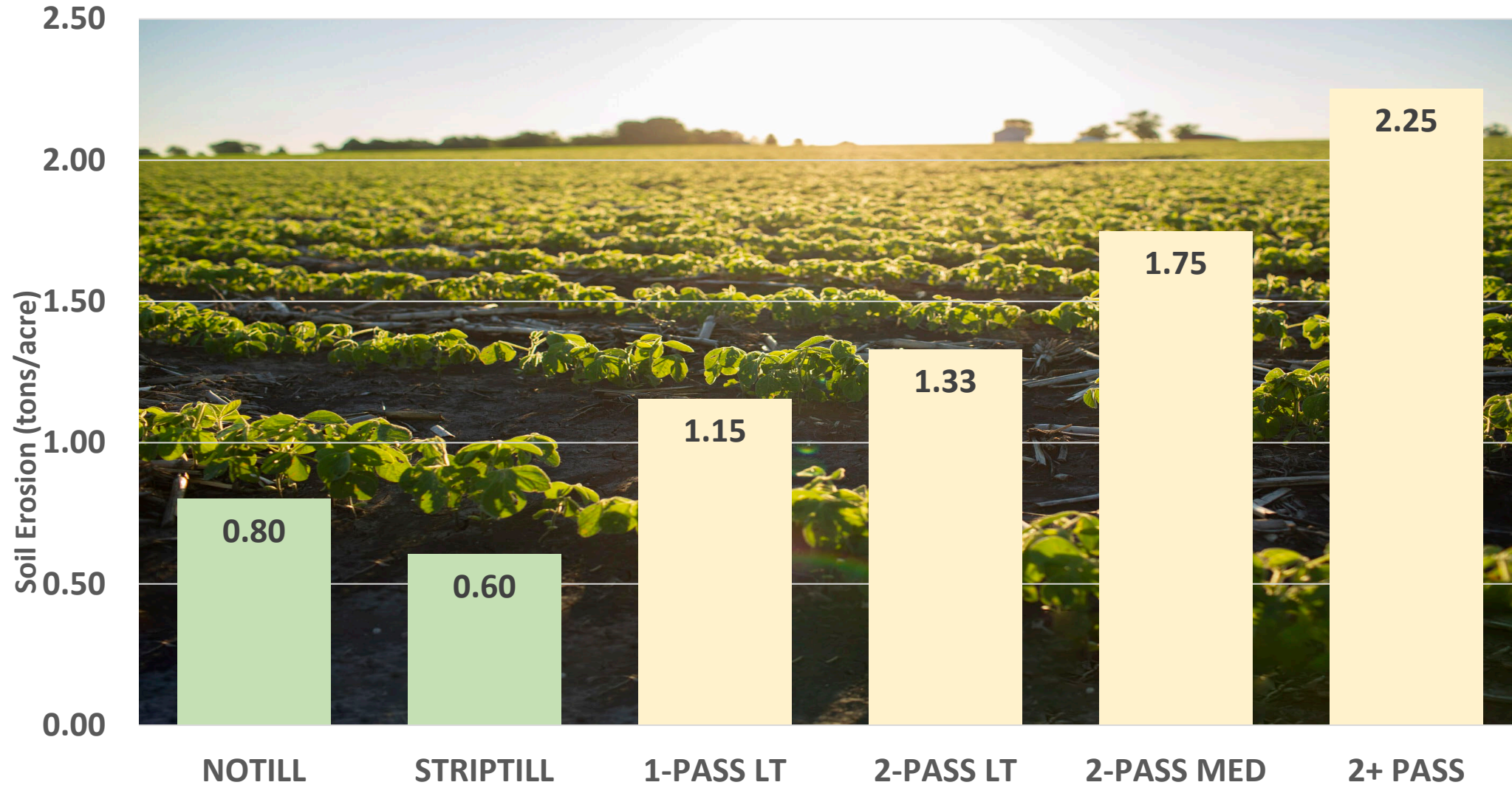
Soil Loss (Tons/acre), by Tillage Class

Corn, High SPR, Averages from 2015 to 2021



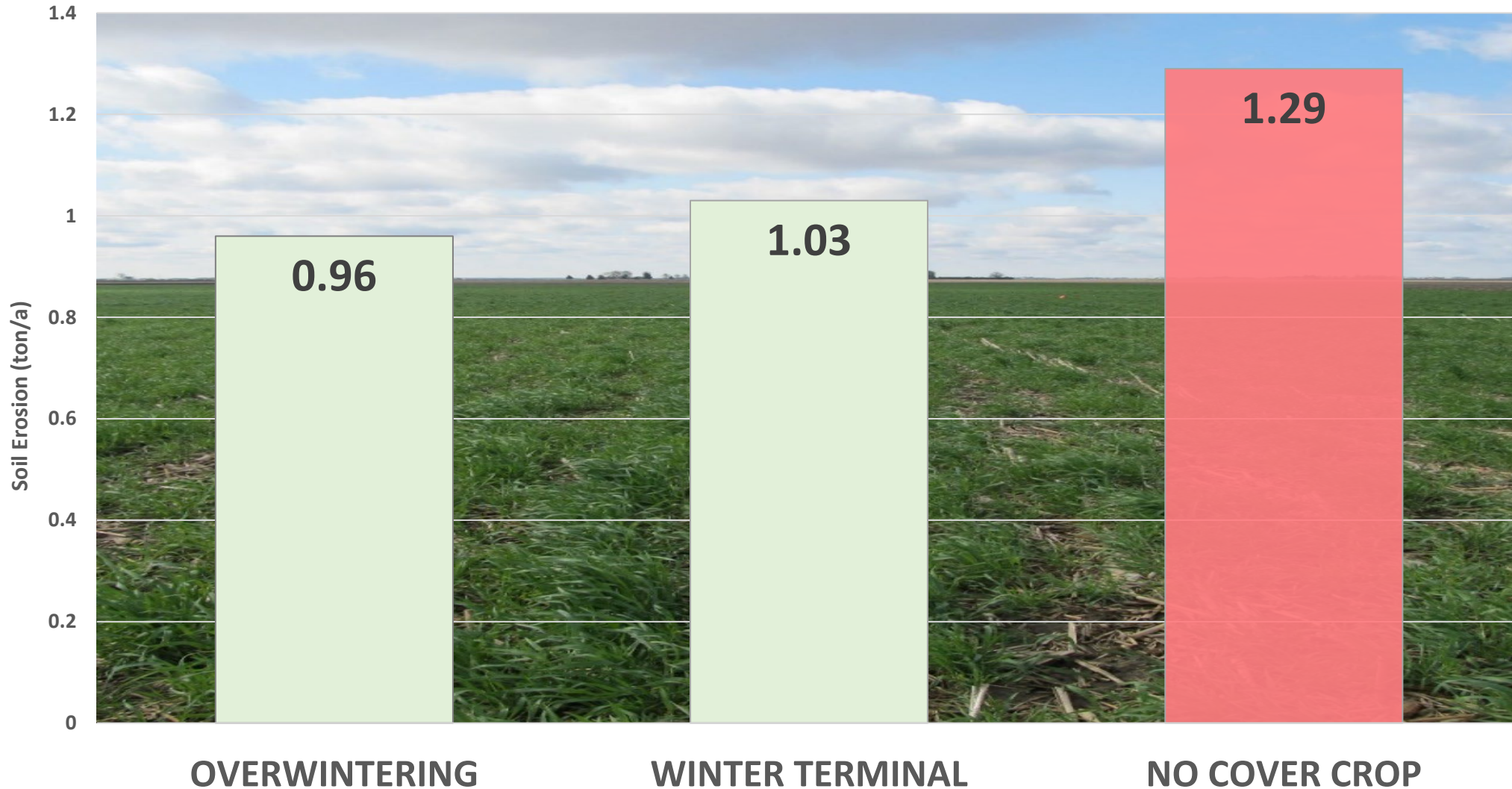
Soil Loss (Tons/acre), by Tillage Class

Soybean, High SPR, Averages from 2015 to 2021



Soil Loss (Tons/acre), by Cover Crop Class

Soybean, High SPR, Averages from 2015 to 2021



PCM Impact, 2021

Conservation Acres

118,418

reduced tillage

125,081

of in-season
N fertilizer
application,
corn

36,080

cover crop

PCM Impact, 2021

Environmental Outcomes

578,550 lb

**NO₃-N loss
reductions**

84,040 lb

**P loss
reductions**

124,875 tons

**Sediment loss
reductions**

THANK YOU!

Learn more at
www.precisionconservation.org



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