



Managing the economic extremes

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Outline for today:

1. A year in review: Low-margins and weather extremes

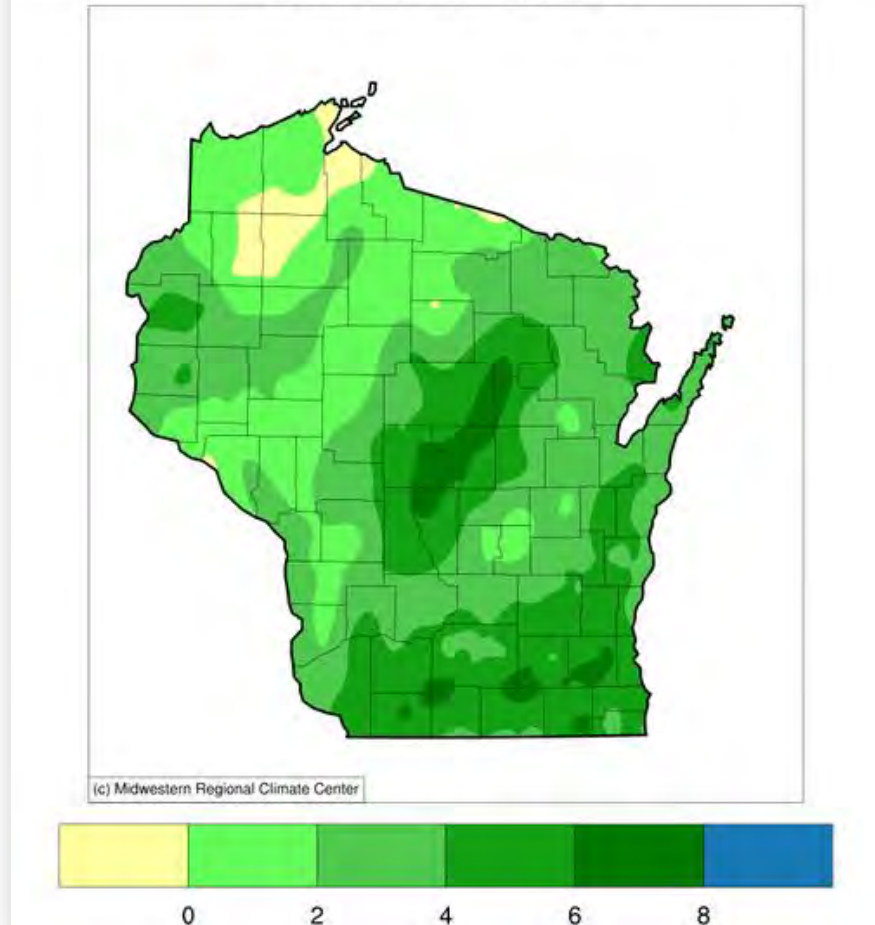
2. A decision tool for building resilient soils

3. Ag. policy outlook for 2025 and beyond
 - Tariffs
 - Farm bill

Abnormally wet spring:

- The state received, on average, 11.75 inches of precipitation this spring
- 4th wettest March-May on record
- Ended drought conditions in most of the state
- Provided early season field challenges and emergence disparities.

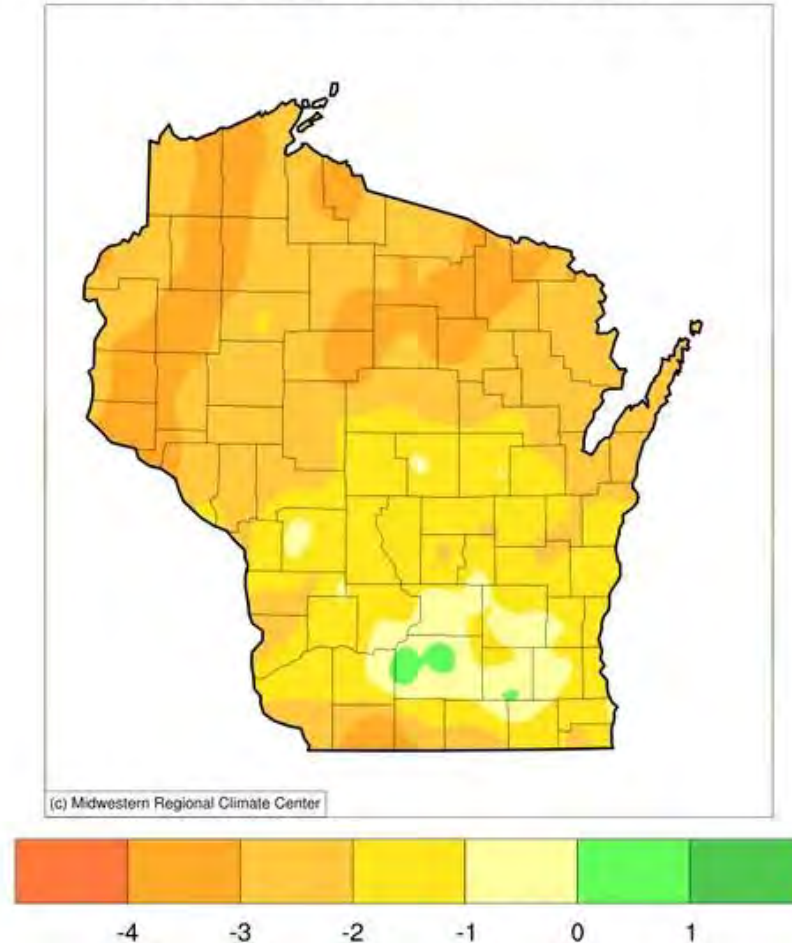
Accumulated Precipitation (in): Departure from 1991-2020 Normals
March 01, 2024 to May 31, 2024



Abnormally dry September:

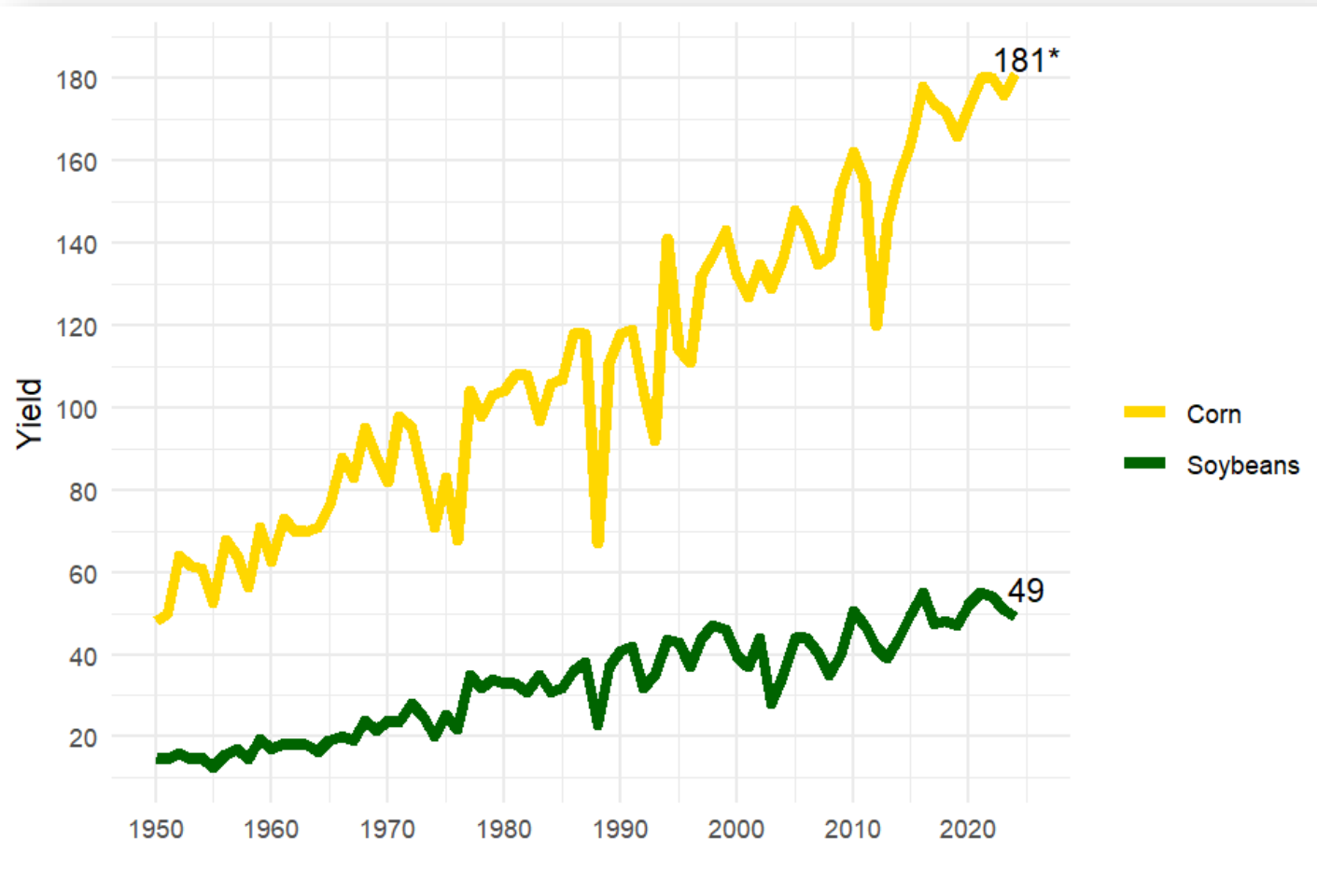
- September precipitation totaled only 1.35 on average statewide.
- 6th driest September on record
- September 22nd was the fifth wettest day in Madison.
- 3rd hottest September on record

Accumulated Precipitation (in): Departure from 1991-2020 Normals
September 01, 2024 to September 30, 2024





Record breaking corn yields:





At near record low prices:

Table 6: U.S. corn long-term projections												
Item	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35
Area (million acres):												
Planted acres	94.6	90.7	92.0	91.0	90.0	90.0	89.5	89.5	89.5	89.0	89.0	88.5
Harvested acres	86.5	82.7	84.1	83.1	82.1	82.1	81.6	81.6	81.6	81.1	81.1	80.6
Yield:												
Bushels per harvested acre	177.3	183.8	182.0	184.0	186.0	188.0	190.0	192.0	194.0	196.0	198.0	200.0
Supply and use (million bushels):												
Beginning stocks	1,360	1,760	1,999	2,269	2,349	2,289	2,294	2,274	2,291	2,301	2,281	2,301
Production	15,341	15,203	15,305	15,290	15,270	15,435	15,505	15,665	15,830	15,895	16,060	16,120
Imports	28	25	25	25	25	25	25	25	25	25	25	25
Supply	16,729	16,989	17,329	17,584	17,644	17,749	17,824	17,964	18,146	18,221	18,366	18,446
Feed and residual	5,814	5,825	5,925	6,000	6,050	6,100	6,150	6,225	6,350	6,400	6,475	6,500
Food, seed, and industrial	6,862	6,840	6,860	6,910	6,930	6,930	6,925	6,923	6,920	6,915	6,915	6,910
Ethanol and byproducts	5,471	5,450	5,475	5,525	5,550	5,550	5,550	5,550	5,550	5,550	5,550	5,550
Domestic use	12,676	12,665	12,785	12,910	12,980	13,030	13,075	13,148	13,270	13,315	13,390	13,410
Exports	2,292	2,325	2,275	2,325	2,375	2,425	2,475	2,525	2,575	2,625	2,675	2,725
Total use	14,969	14,990	15,060	15,235	15,355	15,455	15,550	15,673	15,845	15,940	16,065	16,135
Ending stocks	1,760	1,999	2,269	2,349	2,289	2,294	2,274	2,291	2,301	2,281	2,301	2,311
Stocks-to-use ratio, percent	11.8	13.3	15.1	15.4	14.9	14.8	14.6	14.6	14.5	14.3	14.3	14.3
Prices (dollars per bushel):												
Farm price	4.55	4.10	3.90	4.00	4.10	4.20	4.30	4.30	4.30	4.30	4.30	4.30
Variable costs of production (dollars):												
Per acre	472	440	431	434	438	441	445	450	451	452	453	455
Returns over variable costs (dollars per acre):												
Net returns	334	314	279	302	324	348	372	376	383	391	398	405
Note: Totals may not add due to rounding. Marketing year beginning September 1 for corn. The projections were completed in October 2024. Source: USDA, Economic Research Service, based on data from USDA, Interagency Agricultural Projections Committee.												



At near record low prices:





ARC and PLC prospects for 2024:

- PLC: Triggers payments if MYA price falls below reference price
 - Corn: \$4.01 (Nov. projections: \$4.10)
 - Soybean: \$9.26 (Nov. projections: \$10.80)
- ARC: Triggers if revenue falls below 86% the historical county average
 - $0.86 > (\text{Price}^{24/25} / \text{Av. Price}) * (\text{Yield}^{24/25} / \text{Av. Co. Yields})$
 - Corn: At \$4.10, will trigger if yields are <101% of county average
 - Soybeans: At \$10.80, will trigger if yields are <88% of county average
- ARC for corn has the highest likelihood of payout if small deviation from county average
- Would need even worse conditions for crop insurance payouts; not likely in most areas.

Many factors drive production decisions:

- 1. Profit
 - a) Short-run
 - b) Long-run (incorporating discount rates)
 - 2. Risk
 - a) Market
 - b) Agronomic**
 - 3. Knowledge barriers
 - 4. Traditions, values, or beliefs
- Few of these factors are absolute



A risk management decision tool



Partial Budget Analysis: Cover Crop Example

	Harry Vetch		Cereal Rye	
Per acre direct costs¹	\$	76.27	\$	43.47
Seed	\$	44.80	\$	12.00
Drilling	\$	22.51	\$	22.51
Herbicide (termination)	\$	8.96	\$	8.96
Per acre input savings	\$	45.16	\$	11.96
Nitrogen ²	\$	33.20	\$	-
Soil Erosion ³	\$	11.96	\$	11.96
Av. Corn yield (bu/acre)		175		175
Corn price	\$	4.80	\$	4.80
Breakeven yield effect:				
w/o cost-share		3.7%		3.8%
w/ EQIP @ \$61.64/acre		-3.6%		-3.6%
w/ CSP @ \$10.28/acre		2.5%		2.5%
w/ rebate @\$5/acre		3.1%		3.2%

¹ Costs based on 2023 WI custom rate

² Assumes a 40lb N credit from Vetch

³ Assumes a 4.35 tons/acre erosion prevention



Downsides of this approach:

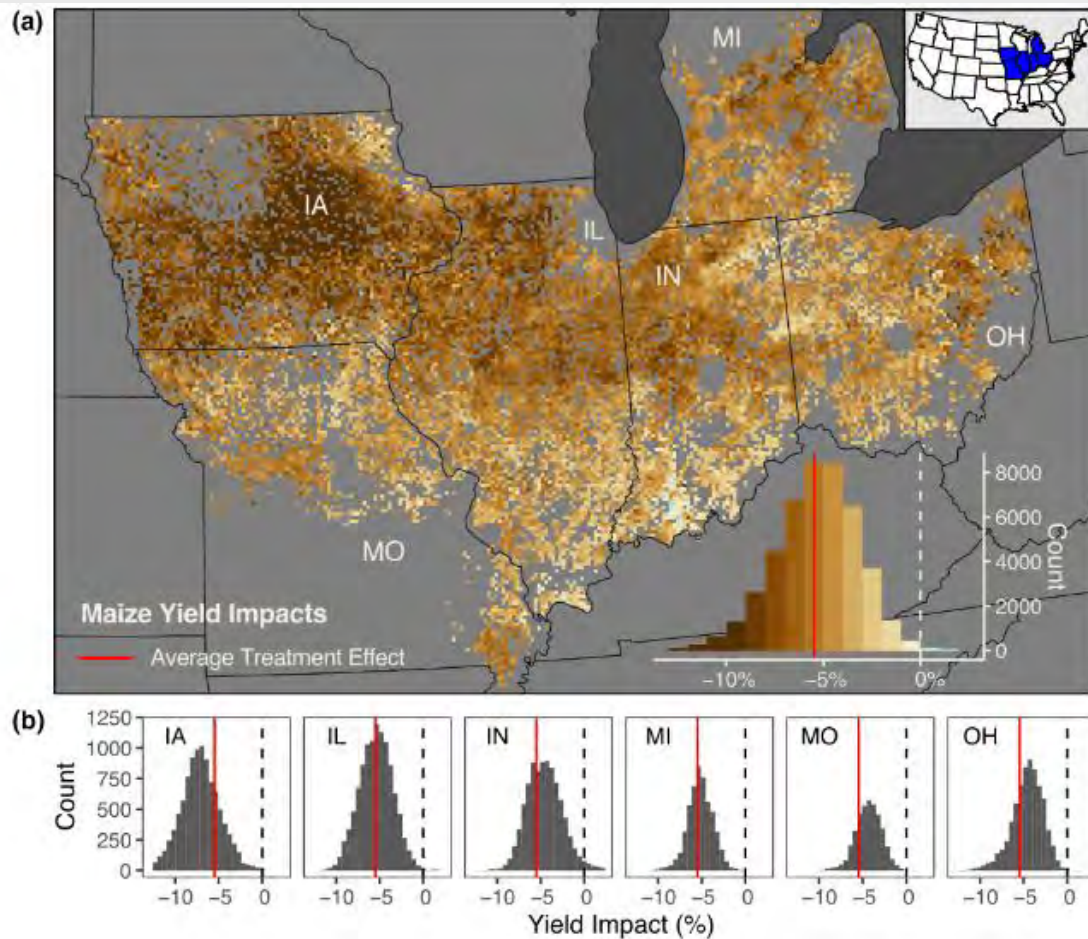
1. Ignores the long-run benefits
 - a) Soil health benefits increase over time
2. Ignore risk and potential risk effects of practices
 - a) Soil health practices may limit downside risk (Rejesus et. al, 2024)
- 3) Exact values vary from farm-to-farm, example budgets are never “right”.



Costs can vary widely across farms:

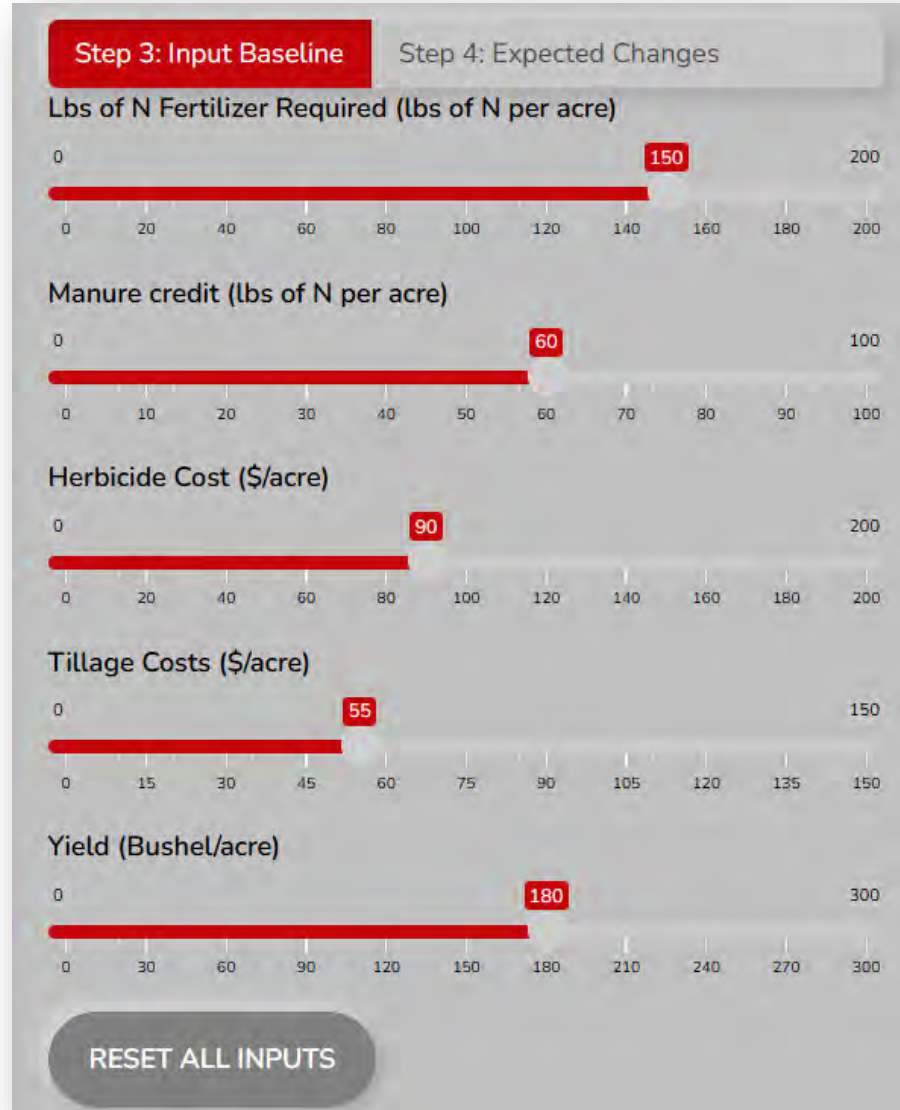
MINNESOTA FARM BUSINESS MANAGEMENT DATA						
Minnesota statewide cover crop enterprises						
	All	Rye	Rye silage	Cover crop forage	Cover crop rye mix	Cover crop mix
Number of enterprises	195	13	18	7	63	94
% of all enterprises	100%	7%	9%	4%	32%	48%
Seed						
Minimum	\$5	\$8	\$12	\$5	\$6	\$5
Maximum	\$199	\$25	\$58	\$199	\$76	\$199
Median	\$22	\$16	\$22	\$35	\$28	\$22
Average	\$28	\$18	\$26	\$74	\$26	\$28
Fertilizer						

Impacts can vary widely across farms:



A soil health decision tool:

1. Options for corn and soy cash crops
2. Adjust output prices to compare scenarios
3. Allow users to adjust baseline conditions for their context



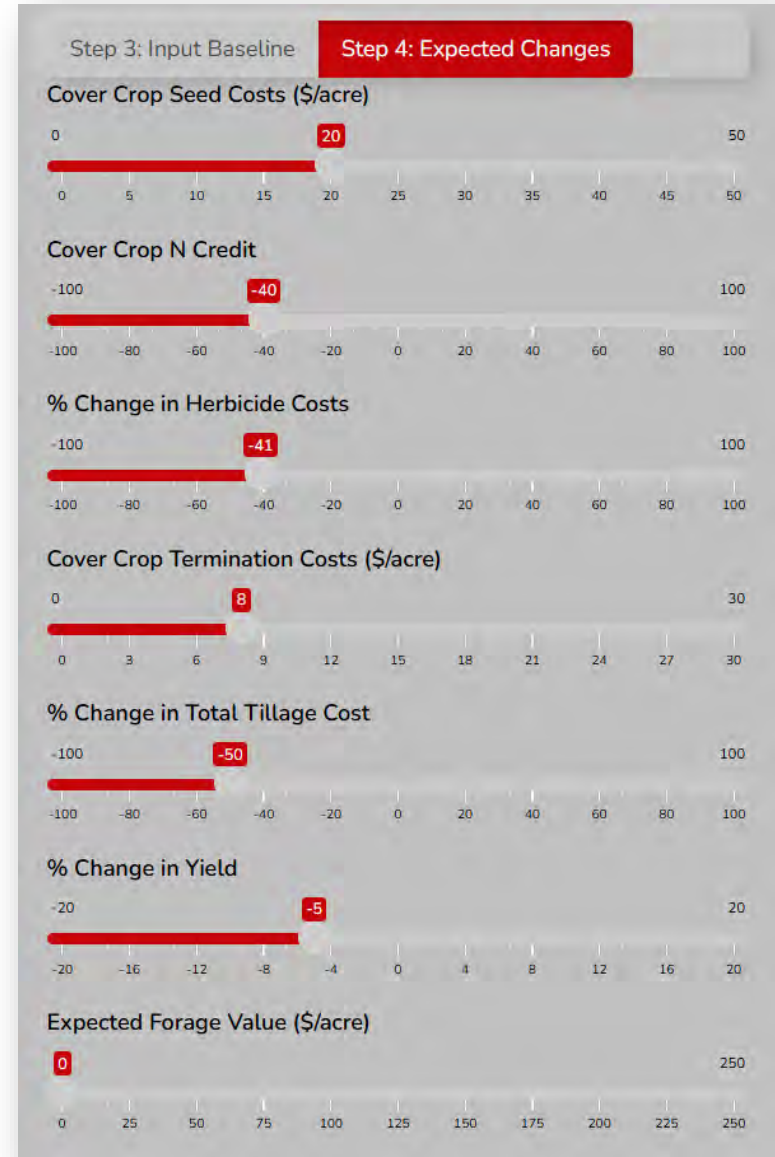
The screenshot displays the 'Step 3: Input Baseline' section of a decision tool. It features five horizontal sliders for adjusting baseline conditions. Each slider has a red bar indicating the current value and a red box showing the numerical value. The sliders are for: Lbs of N Fertilizer Required (lbs of N per acre) at 150, Manure credit (lbs of N per acre) at 60, Herbicide Cost (\$/acre) at 90, Tillage Costs (\$/acre) at 55, and Yield (Bushel/acre) at 180. A 'RESET ALL INPUTS' button is located at the bottom.

Parameter	Value
Lbs of N Fertilizer Required (lbs of N per acre)	150
Manure credit (lbs of N per acre)	60
Herbicide Cost (\$/acre)	90
Tillage Costs (\$/acre)	55
Yield (Bushel/acre)	180

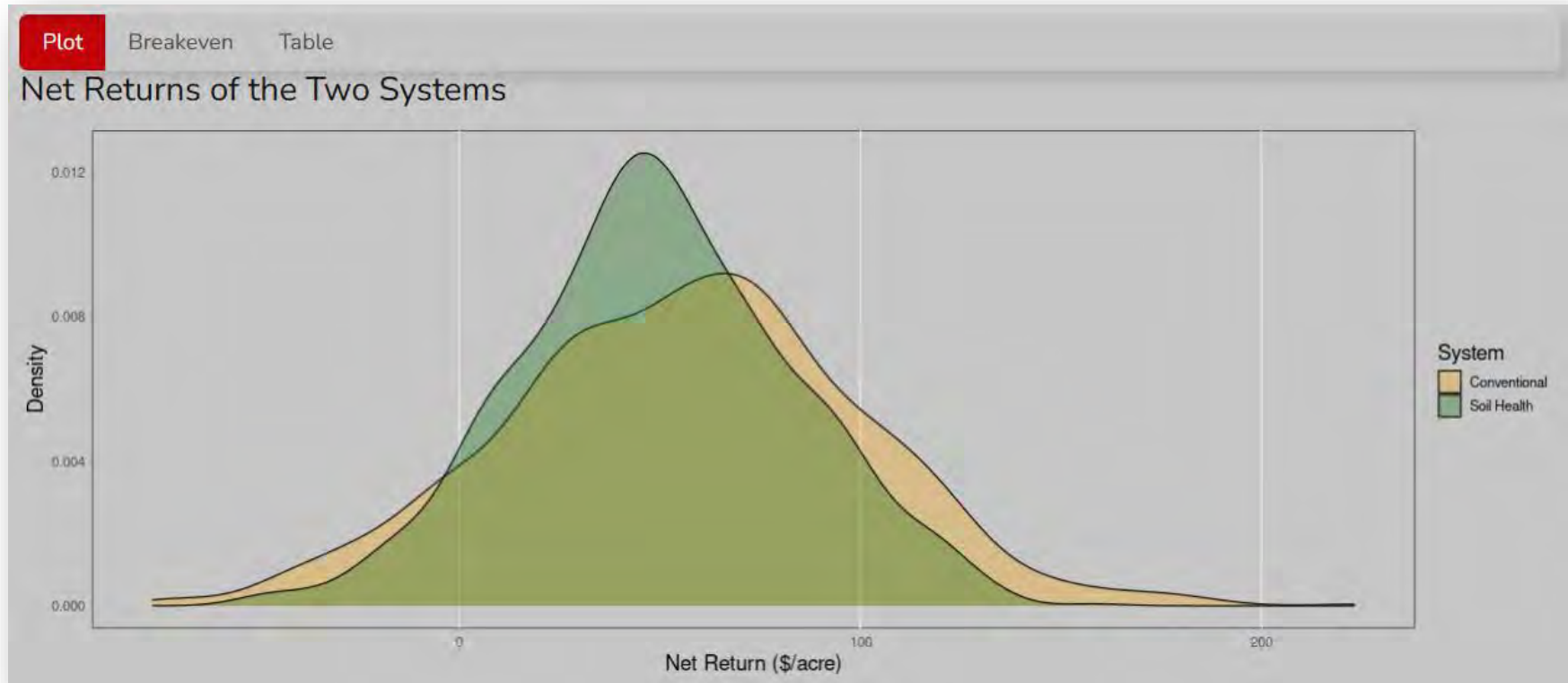
RESET ALL INPUTS

A soil health decision tool:

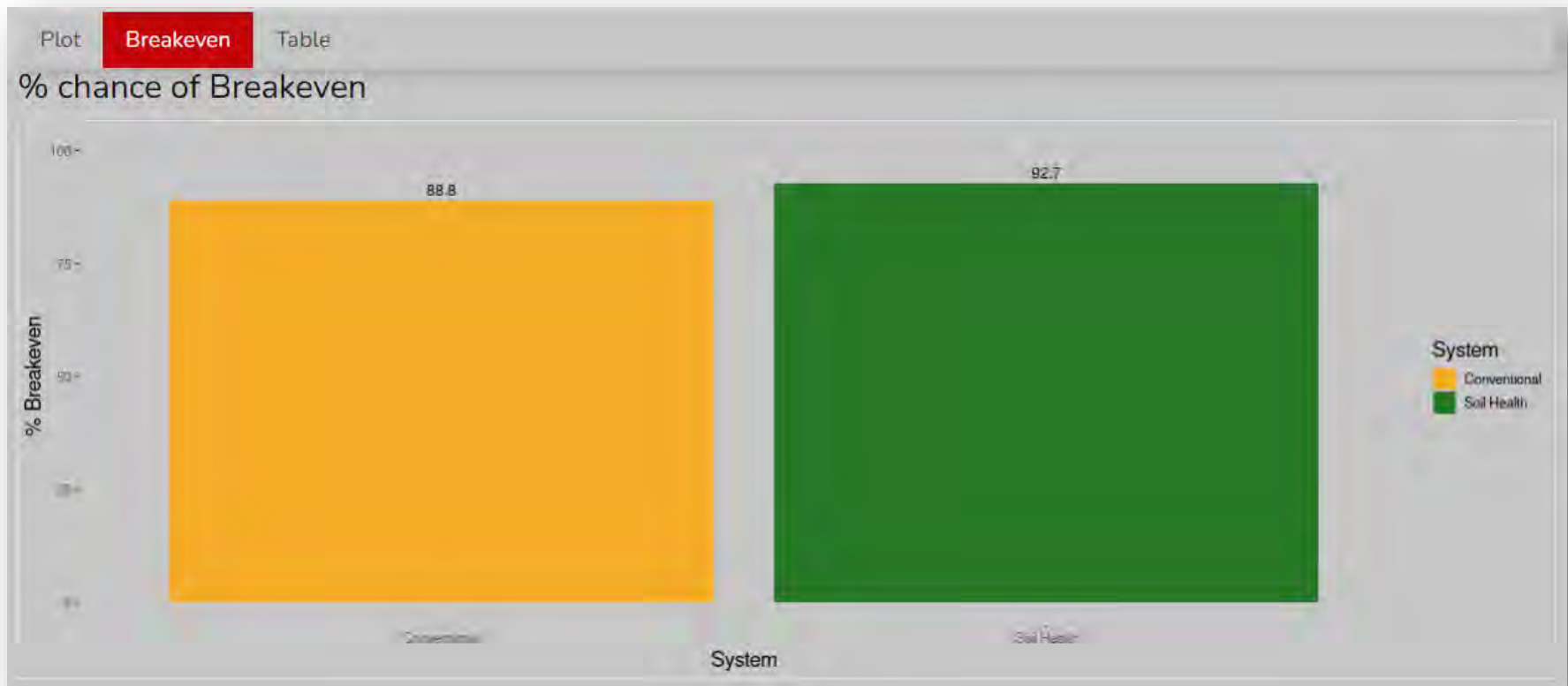
1. Options for corn and soy cash crops
2. Adjust output prices to compare scenarios
3. Allow users to adjust baseline conditions for their context
4. May also adjust changes from soil health system
5. Calibrated based on Wisconsin trial data



Simulation Based Approach:



Risk assessment:



A more “holistic” approach:

1. Allows users to adjust for their context and test assumptions
 2. Incorporates real information about agronomic probabilities
 3. Can touch on risk and the conservation on riskiness.
 - a) Never presumes that any single value is “right”
 - b) May be increasingly relevant as we adapt to increasingly variable weather
 4. (In the future) Have long-run return-on-investment capabilities.
-
- All in progress and appreciate feedback!
 - <https://go.wisc.edu/SHdecisiontool>



Political uncertainty in 2025

Trump 2.0: How does the market see it?





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Tariffs

Trump says he'll act day one to raise tariffs on Mexico, Canada, China

11/25/24 8:00 PM By Oliver Ward



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WORLD NEWS

Mexico suggests it would impose its own tariffs to retaliate against any Trump tariffs



We've been here before

- 2018 Tariffs against Chinese products, resulted in 25% retaliatory tariffs
- Projected that U.S. soybean prices dropped \$0.74/bu as a result (Adjemian et. al, 2020)
- As a result, the Market Facilitation Program distributed \$23.5 billion to U.S. farmers for damages.



Farm Bill

- Funding in current extension expires Dec. 31st
- Likely to see another 1-year extension (i.e. no “lame-duck” farm bill)
- A 2025 farm bill would be Republican controlled
- Would not be surprised to see:
 - More ex-ante disaster relief funding, offset ad-hoc payments
 - Increases in reference prices for ARC-PLC



2025 Wisconsin Agricultural Outlook Forum



January 21, 2025
9:30 a.m. – 3:30 p.m.
Union South, UW-Madison campus

"Wisconsin Agriculture Under a Second Trump Presidency"



Market, agronomic, and political uncertainty

- Low-margins and higher costs at the forefront of minds heading into 2025
- ARC may provide relief for some, but payments don't arrive until Oct. 2025
- Extremes provide reason to consider building resilient cropping systems.
 - New tool to help weigh costs and benefits
- Many things remain uncertain with new administration and congress
 - But proposed policies likely carry major implications for agriculture



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