

STOCKCROPPER

Farmonious Movement

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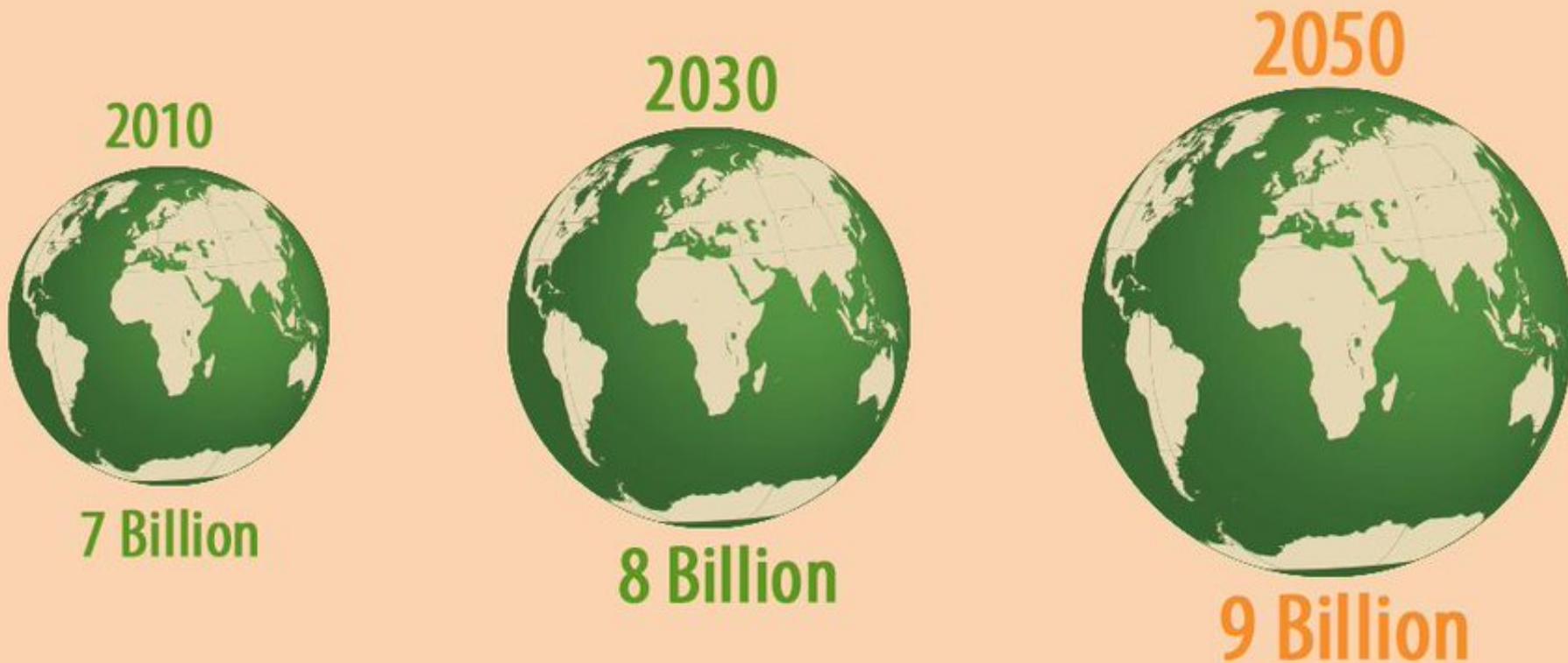


My Path to Stock Cropping in 2020

- ISU Grad with Agronomy Degree
- 2002 Leopold Center Intern
- Farm Manager
- Agronomy Chemical Sales
- Farmer
- Pioneer Seed Dealer



AGRICULTURE ALSO NEEDS TO PRODUCE
50% MORE FOOD TO NUTRITIOUSLY
FEED **9 BILLION BY 2050**







Zack Smith

- Farmer
- Owner and Operator of Smith Seed and Agronomy LLC
- BS of Agronomy from Iowa State University

Sheldon Stevermer

- Farmer
- BS in Ag Engineering from ISU
- Masters in Ag Engineering from ISU
- Engineer for B&D Metal Works

Stock Cropping

- Re-Intersection and cross leveraging of livestock and row crops
- Multitude of Biodiversity
- Self sufficiency of nutrient and carbon cycling
- Building Soil
- Walk the value off the farm in non-commodity form
- Community



Stacking the Deck

- How can we arrange nature to benefit us?
- Power of Enterprise Stacking
- Cross Leveraging
- Building a transparent story that resonates with the customer

Stock Cropper 2020 Setup

- 6 Sheep, 2 goats, 10 pigs and 185 chickens in mobile barn
- Winched movement of 11-22 feet a day
- 5-way mix of annual pasture to graze
- Intercrop managed multi-hybrid corn
- 2 Acre Plot

STOCK CROPPER 2020 SITE





Early May

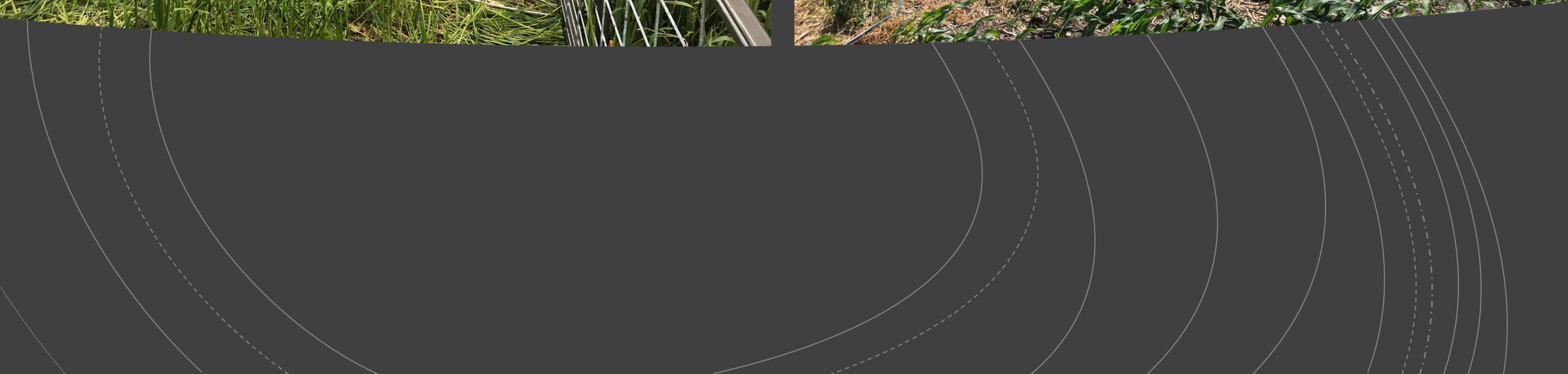


Memorial Day Construction



First Day in the Field







Pigs and Chicks



Barn Setup



Rainwater System

Grazing Strategy

- Cool/Warm Season Grass/Broadleaf Mix
 - Grazed by Sheep/goats, pigs and chickens
 - Hope for regrowth to hold nutrients
 - Potential 2nd pass of grazing
 - Annual ryegrass, Sudangrass, Oats, Forage Rape, Field Peas- Planted 4/7/2020







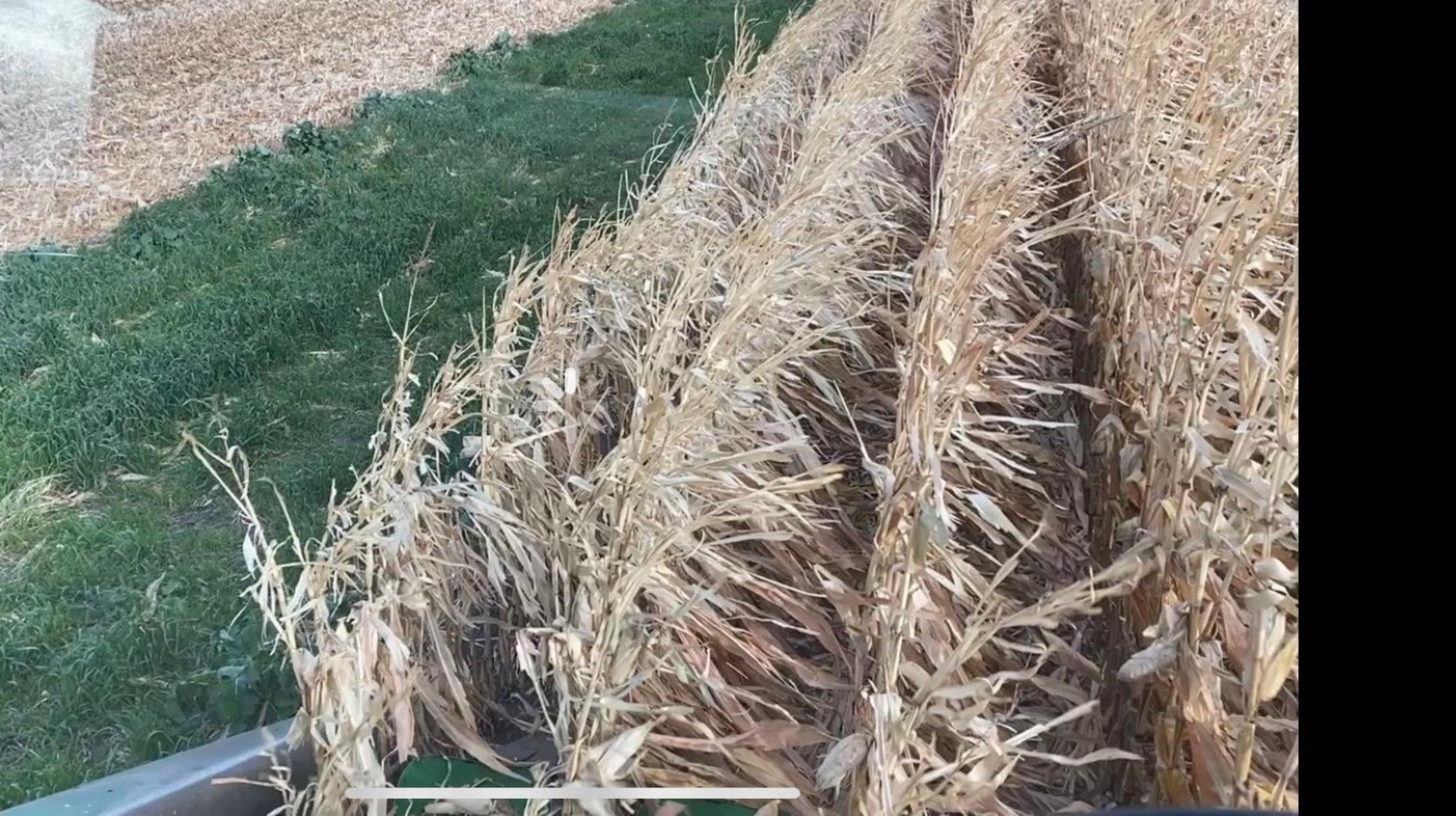












Wins for the Season

- No animal escapes
- No losses to predation
- Only one animal lost to illness
- One dose of penicillin
- Moved the barn 4 hours after a 4-inch rain

Challenges to Improve Upon

- Multiple grazing mixes over time
- Minimize pig rooting
- More vegetation for chickens
- Time requirement of moving barn
- Lighten up barn design
- Autonomous movement integration
- Backgrounding livestock





**SHOW
ME THE
MONEY!**

Mobile Barn

Barn Variables	
Cost of Barn	\$ 15,000.00
Amortized Length(yrs)	7
Interest	5.25%
End Value	0
Annual Payment	\$2,615.83

Feeder Animals and Feed Costs

Type of Livestock	\$/Feeder animal	Annual Stocking Rate/Barn	Total	# Feed to Finish	\$/# Feed	Cost
Feeder Pigs	\$ 75.00	10	\$ 750.00	700	\$ 0.13	\$ 910.00
Goat Kids	\$ 75.00	2	\$ 150.00	120	0.3	\$ 72.00
Lambs	\$ 100.00	6	\$ 600.00	120	0.3	\$ 216.00
Chickens	\$ 2.00	185	\$ 370.00	28	0.13	\$ 673.40
Livestock\$/Barn			\$ 1,870.00			\$ 1,871.40



**Total Annual
Expenses**

<u>Annual Expenses</u>	<u>Per Acre</u>
Land Rent	\$250
Cost of Mobile Barn	\$2,616
Repairs	\$300
Livestock Cost	\$1,870
Pature Establishment	\$80
Livestock Feed	\$1,871
Labor	\$1,188
Machinery	\$50
Total Expenses/A	\$8,225

Total Livestock Revenue

Annual Revenue Estimate	\$/lb	Hang Weight	\$/animal	StockRate Total
Pigs	\$3.25	180	\$585.00	\$5,850.00
Chickens	\$3.25	5	\$16.25	\$3,006.25
Goats	\$5.75	30	\$172.50	\$345.00
Sheep	\$5.00	40	\$200.00	\$1,200.00
Total Revenue/Barn				\$10,401.25

Stock Cropper Corn Enterprise

- Total Expenses
 - \$650/A
 - Seed, rent, machinery, nitrogen, herbicide, drying, insurance, labor, etc
 - Higher seed and N cost due to outside row management
 - \$0 in fertility
- Total Revenue
 - $262 \text{ bu/A} * \$4.00/\text{bu} = \$1048/\text{A}$
- **Net Profit = \$398/A**

Regular Corn Production

- Total Expenses \$675/A
 - Added \$65/A in Fertility
 - \$40 less in seed and nitrogen
- Total Revenue
 - $210 \text{ bu/A} \times \$4.00/\text{bu} = \$840/\text{A}$
- **Net Profit = \$165/A**

Stock Cropper System \$



\$2,175/barn acre profit



\$398/corn acre profit



\$2,573/2 acres = \$1,286/A Avg Profit of
barn/row crop system



7x regular corn production profit

Key Takeaways

- Promising first year
- Substantial room for improvement
- Marketing and Processing Hurdles
- Rome wasn't built in a day



STOCK CROPPER Plans for 2021

New Stock Cropper Barns

Testing various new barn configurations, animal combinations and autonomous movement

Multiple grazing programs, species mix

Quantifying Carbon Efficiency of the System

Row crops setup for complete feedstuff

STOCKCROPPER

Farmonious Movement

-  **YouTube** The StockCropper
- **facebook** The Stock Cropper
- **Instagram** - the_stock_cropper
-  **twitter** @zebulousprime
- **Website** – www.thestockcropper.com

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