

# Breakout Session Three

## The Future of Biofuels



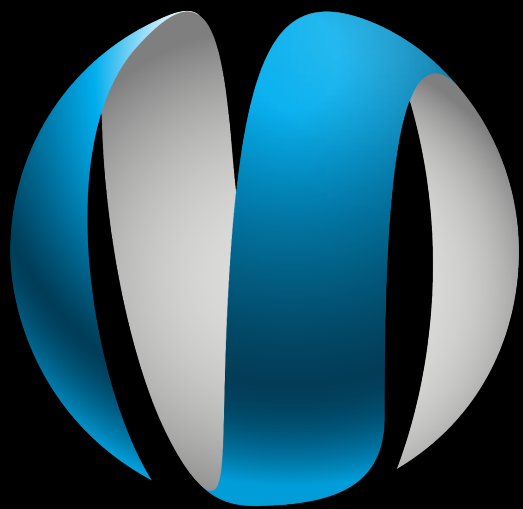
**Jennifer Aurandt-Pilgrim**

Vice President of R&D and Innovation  
Marquis



**Jim Hedges**

CEO  
CoverCress



MARQUIS



# History of Marquis Companies



MARQUIS



Investing in innovation and rural economies for *50 years!*

Looking Ahead: Now, Near, and Next.



MARQUIS

## WHAT'S AHEAD FOR US: PROJECT TIMELINE INVESTMENTS MADE IN AMERICAN BIOENERGY



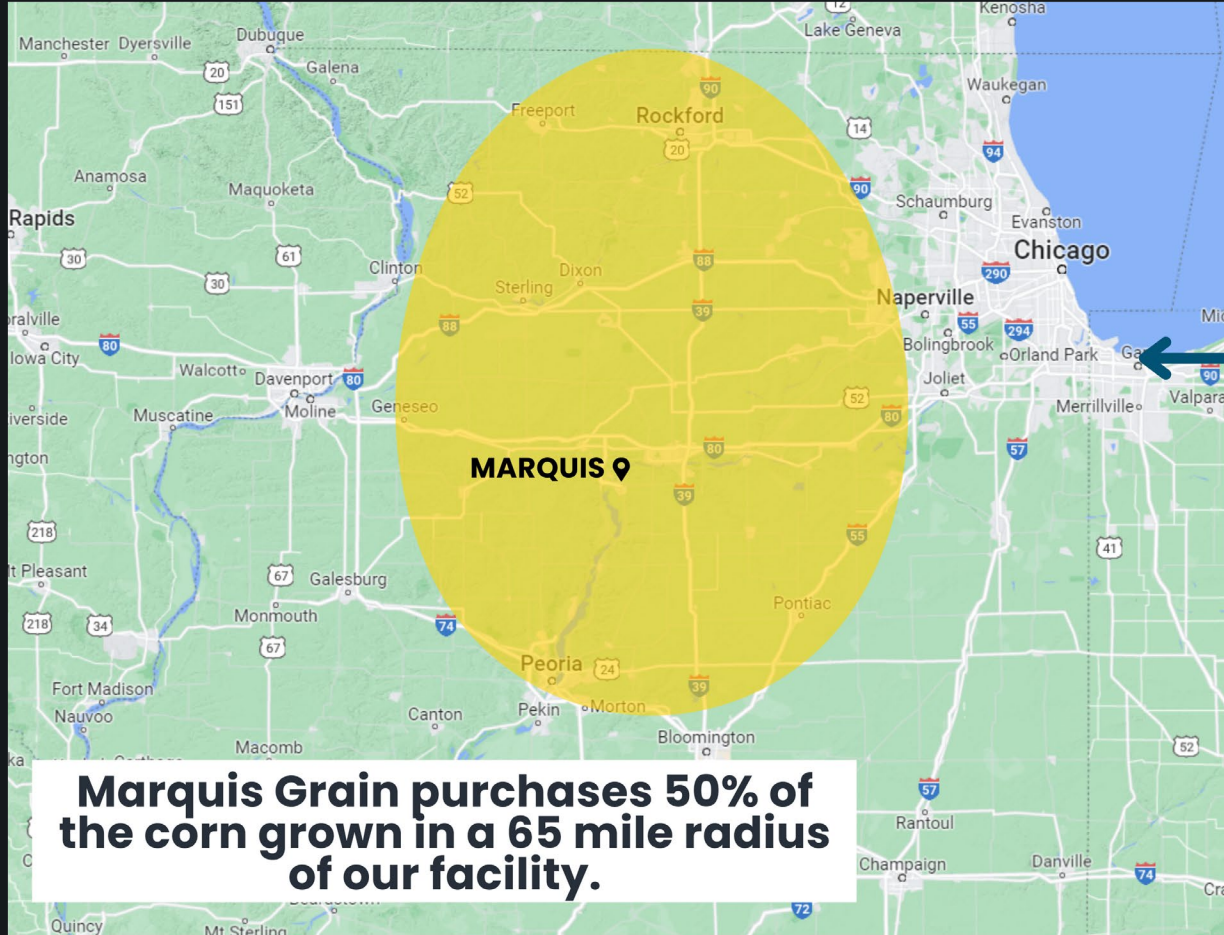
**WE'RE INVESTING IN TOMORROW, TODAY.**

\*pending permitting

# Regional Influence of Marquis Production



MARQUIS



AT MARQUIS, WE PURCHASE AND PROCESS  
**650,000 ACRES**  
OF CORN ANNUALLY  
THAT'S 400 CORN TRUCKS EVERY SINGLE DAY.

We have partnered with over 35  
local grain elevators



In providing a marketplace for nearly  
**3,500 corn growers**  
in Illinois.





## ISCC Farmer Program

ISCC is a globally applicable sustainability certification system and covers all sustainable feedstocks.

The verification of compliance with the ISCC requirements as well as the issuance of ISCC certificates are performed by recognized third-party certification bodies (CBs) cooperating with ISCC.



Model real farm inputs/ and CI score from farm to plant to end user, through whole chain – no default values.



Modeled real farm inputs / future paths forward, including a carbon audit program for farmers.



Programs like this allow carbon incentives to flow through biofuel processors to farmers to improve carbon efficiency in agriculture.

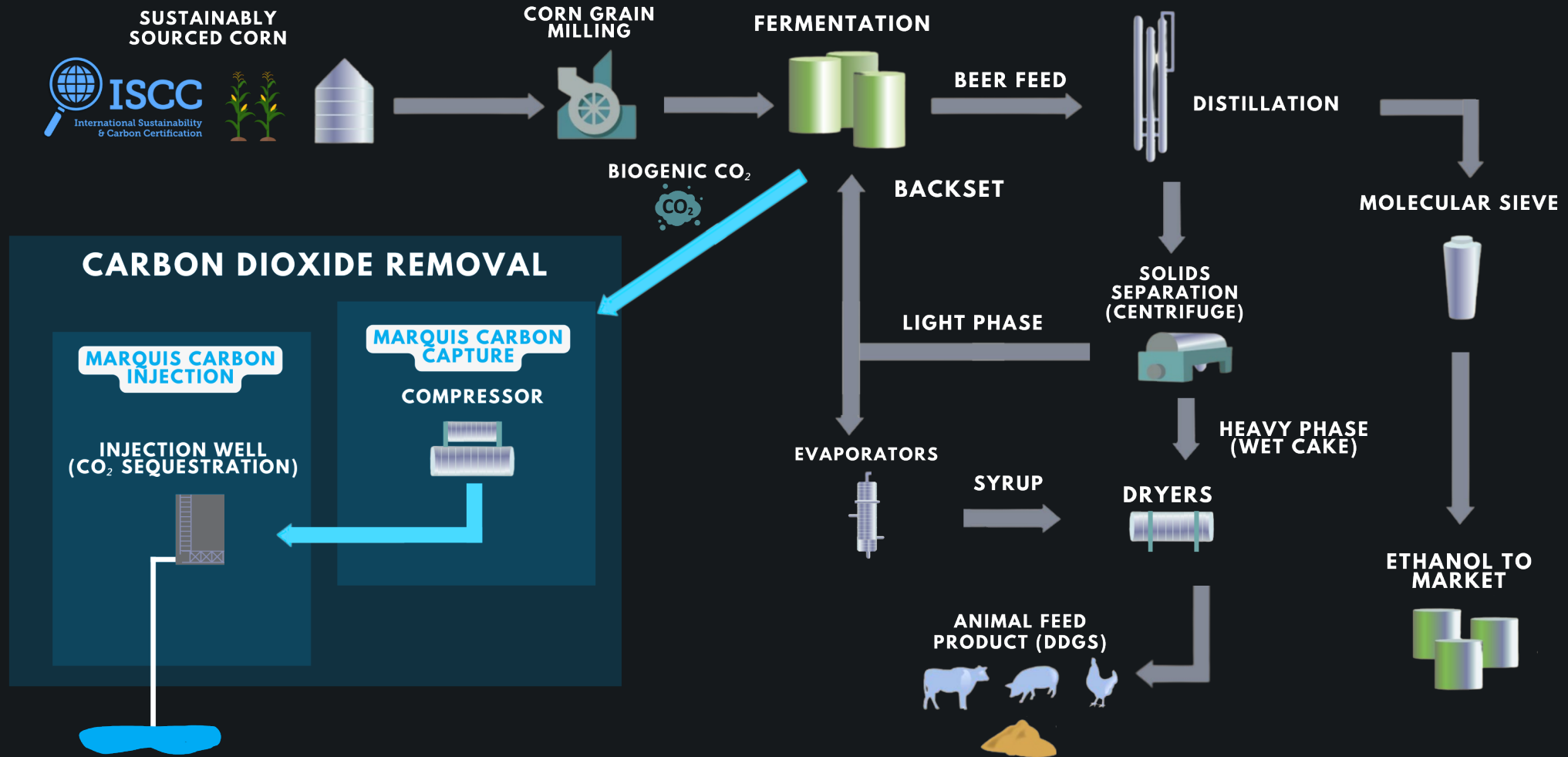
# Process flow with Carbon Capture



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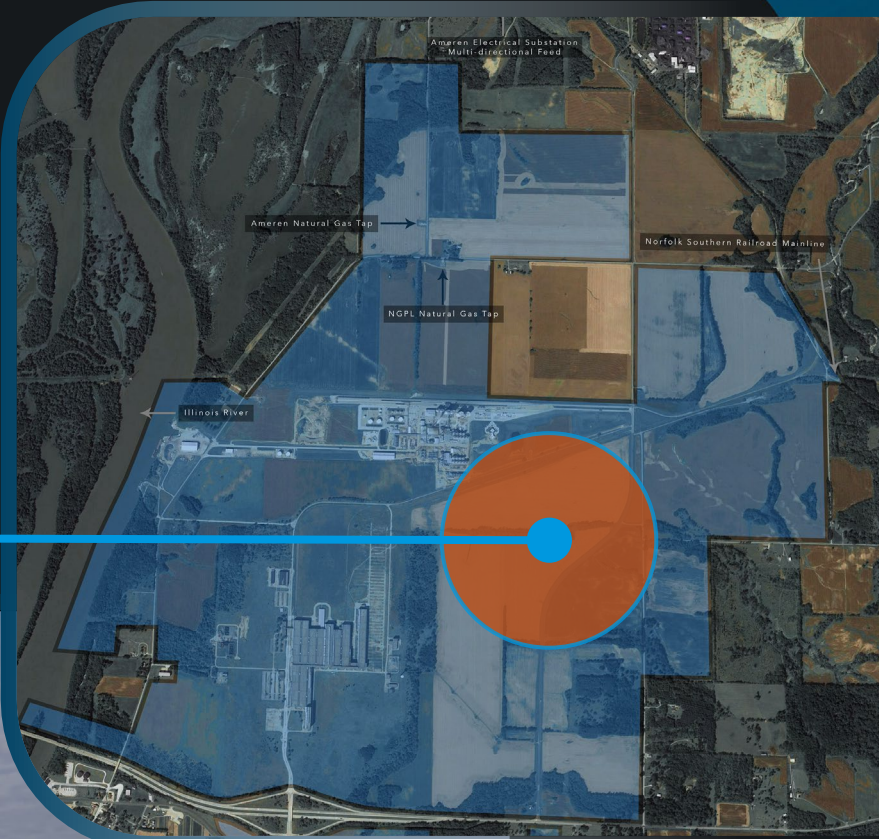
# Marquis Project Location:



MARQUIS



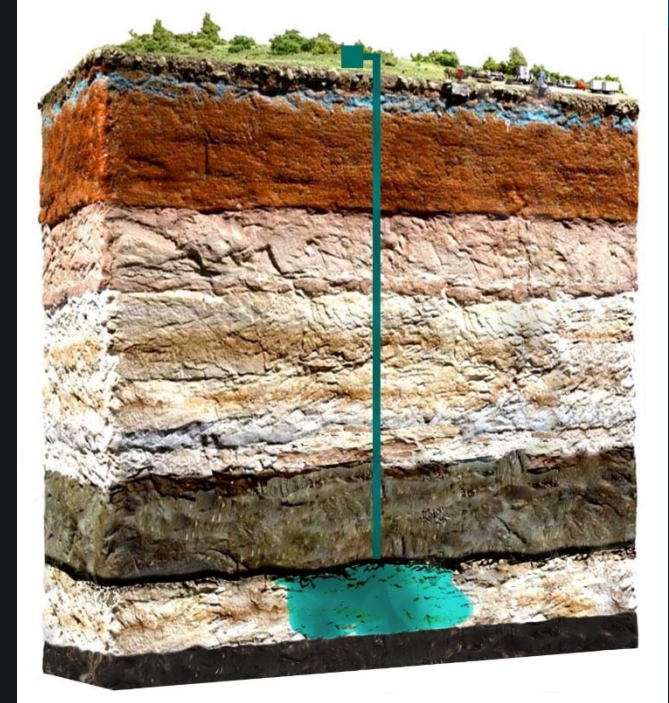
Planned  
injection well  
location



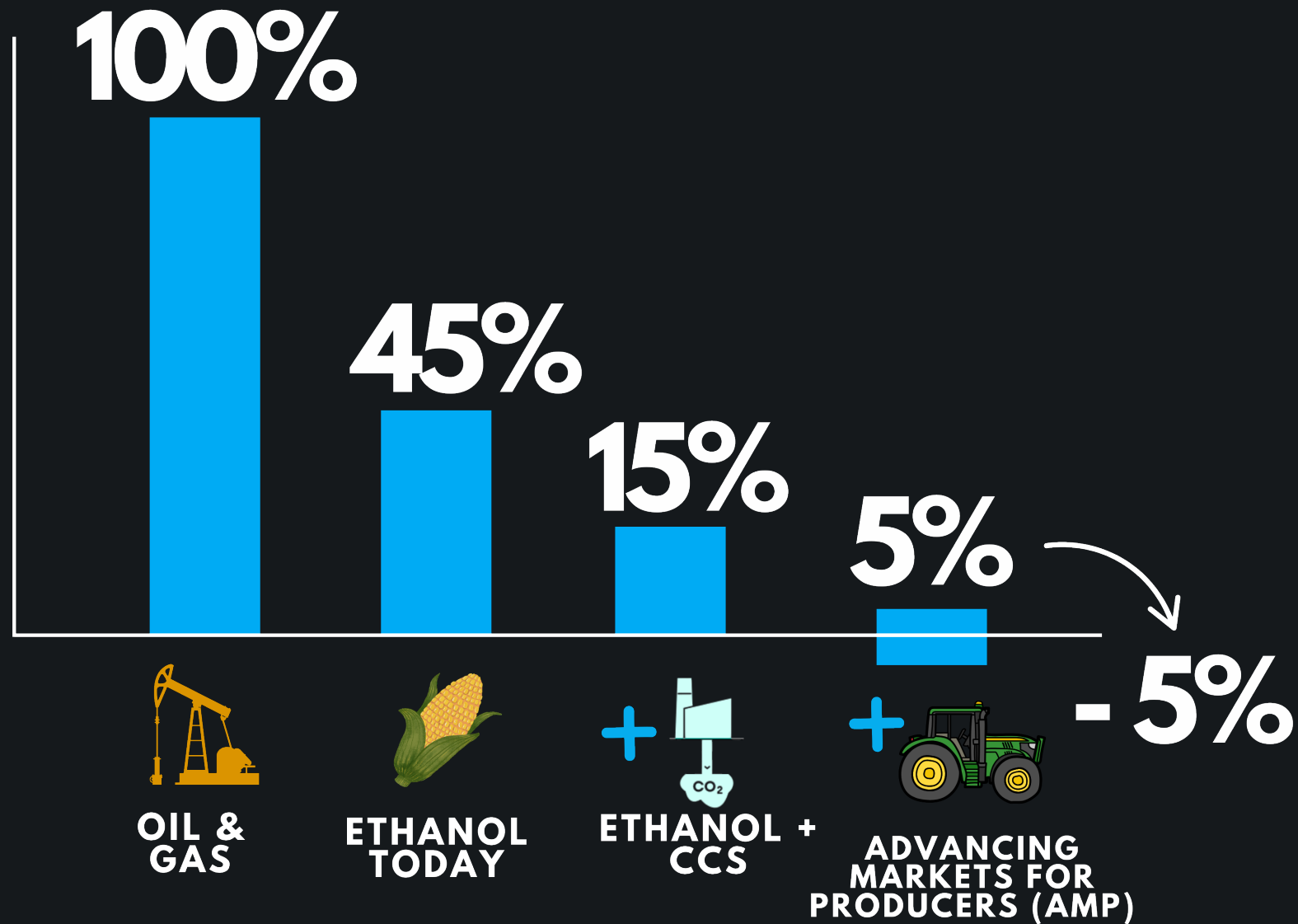
# The Marquis CCS Project



MARQUIS



The Illinois Basin features the Mt. Simon Sandstone Saline Reservoir located about 1.5 miles underground, as well as several layers of shale rock, making it ideal for CCS storage.



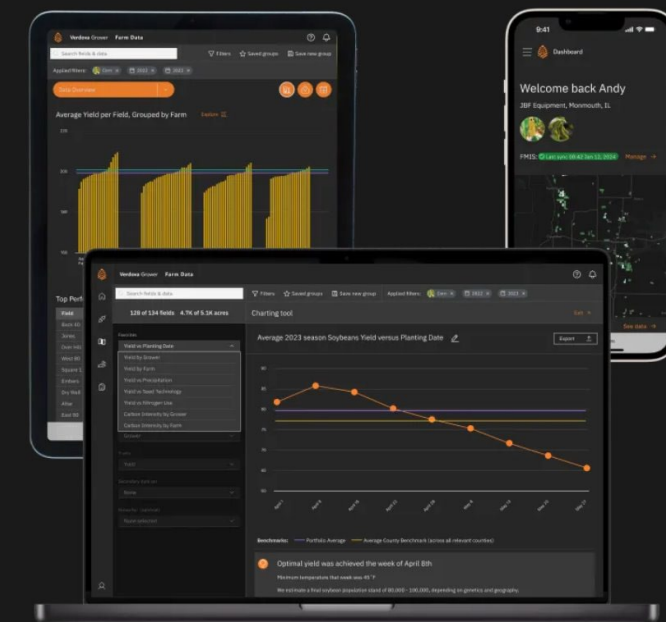


# DISCOVERY THROUGH



## Information Driving Excellence.

- Verdova improves the accessibility and usefulness of farm data, in a clean and curated manner.
- Helps growers collect, refine, and deliver farm data to stakeholders across the ag industry while keeping the farmer in control of their data.
- Verifies and delivers a Carbon Intensity score of your farm operation.
- Marquis has enrolled 160,000+ acres and 114 growers in the Verdova Program, receiving a USDA FD-CIC score.





# USDA Feedstock Carbon Intensity Calculator

## What does this mean in terms of CI?

|                                         | kg/mmBTU | Adoption |
|-----------------------------------------|----------|----------|
| (%)                                     |          |          |
| No till -                               | 8.00     | 20       |
| Reduced till -                          | 1.85     | 65       |
| Cover crops -                           | 8.67     | 6        |
| Nitrification inhibitors -              | 1.91     | 70       |
| Fertilizer timing: Split application -  | 2.62     | 15       |
| Fertilizer timing: Spring application - | 0.97     | 10       |



## Carbon Intensity Report



### 2025 Corn Crop Data

#### Farm Operation #1 Walnut, IL

Operation Avg CI Score  
**15.81**  
kg/mmBTU

TOTAL ACRES:  
1,418

| Farm Number | Acres | Yield | Bushels | CI Score | % Below National* |
|-------------|-------|-------|---------|----------|-------------------|
| 1           | 56    | 237   | 13272   | 10.78    | 62.60%            |
| 2           | 150   | 239   | 35850   | 10.78    | 62.20%            |
| 3           | 77    | 260   | 20020   | 20.83    | 27.75%            |
| 4           | 173   | 246   | 42558   | 20.83    | 27.75%            |

#### Farm Operation #2 Mendota, IL

Operation Avg CI Score  
**25.44**  
kg/mmBTU

TOTAL ACRES:  
1,455

| Farm Number | Acres | Yield | Bushels | CI Score | % Below National* |
|-------------|-------|-------|---------|----------|-------------------|
| 1           | 84    | 260   | 21840   | 20.83    | 27.75%            |
| 2           | 344   | 277   | 95288   | 26.98    | 6.41%             |
| 3           | 77    | 233   | 17941   | 26.98    | 6.41%             |
| 4           | 76    | 253   | 19228   | 26.98    | 6.41%             |

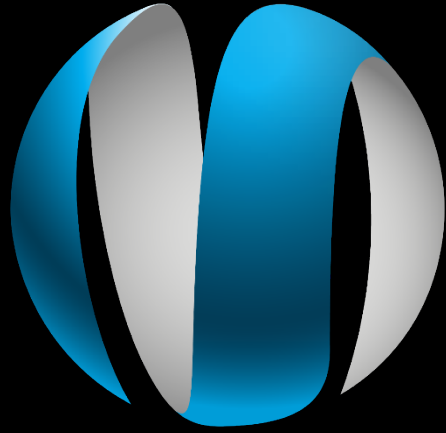
#### Farm Operation #3 Winnebago, IL

Operation Avg CI Score  
**15.91**  
kg/mmBTU

TOTAL ACRES:  
1,082

| Farm Number | Acres | Yield | Bushels | CI Score | % Below National* |
|-------------|-------|-------|---------|----------|-------------------|
| 1           | 125   | 265   | 33198   | 15.86    | 27.75%            |
| 2           | 73.5  | 263   | 19378   | 15.86    | 27.75%            |
| 3           | 155   | 226   | 35233   | 14.27    | 27.75%            |
| 4           | 99    | 99    | 25620   | 17.66    | 27.75%            |

\*This percentage represents the reduction of a field's CI score compared to the national or baseline score. The baseline score assumes no Climate Smart Agriculture (CSA) practices.



# MARQUIS

Jennnifer Aurandt-Pilgrim, PhD  
VP of Carbon Development



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# Breakout Session Three

## The Future of Biofuels



**Jennifer Aurandt-Pilgrim**

Vice President of R&D and Innovation  
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**Jim Hedges**

CEO  
CoverCress





CoverCress

***CoverCress® - Building A New  
Market Opportunity***



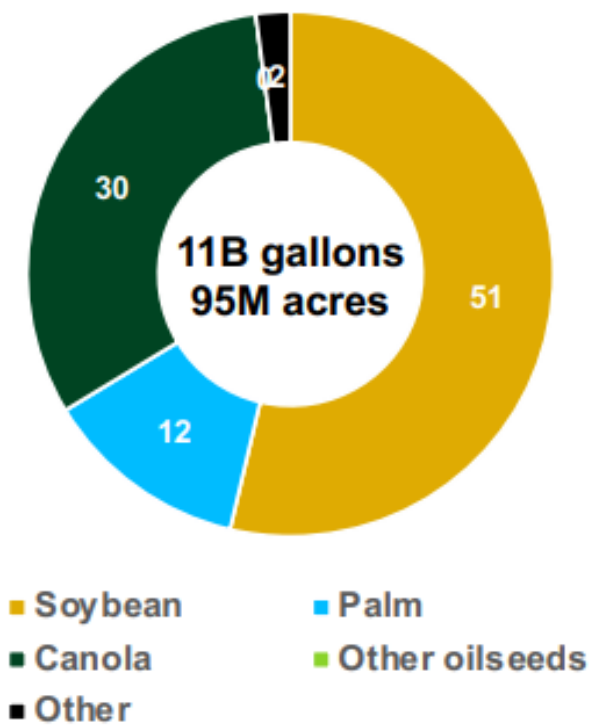
# A New Market with Longevity



# Most feedstocks used to produce biomass-based diesel come from soybean oil today, but multiple crops needed to help narrow the demand gap

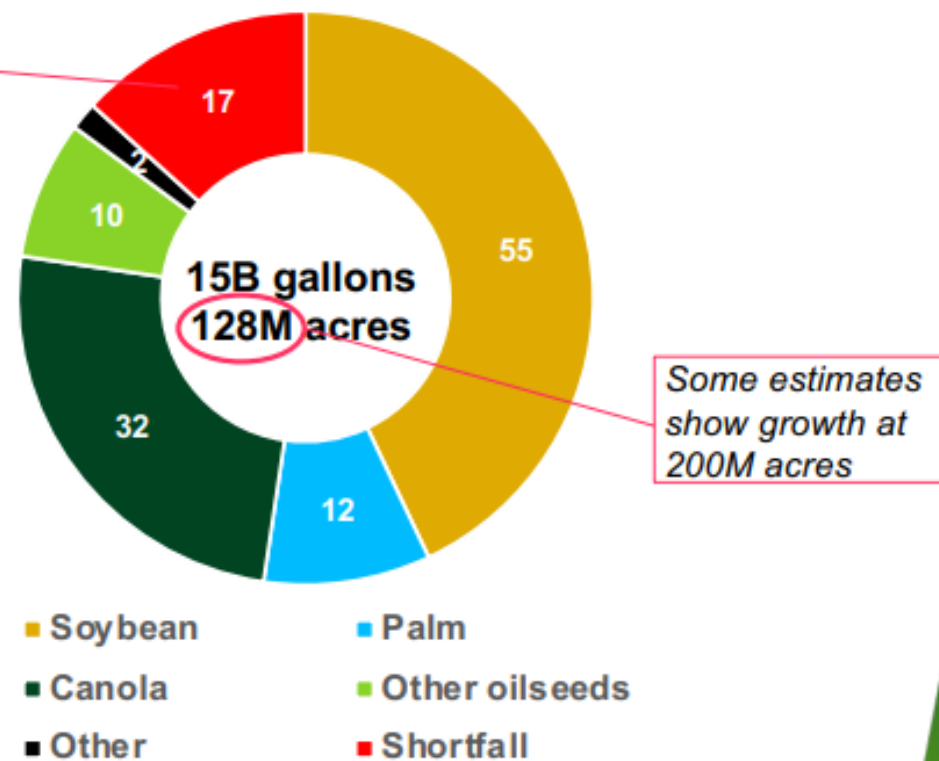
*Numbers represent conservative estimates for 2030 and exclude DDG Corn, UCO & waste\**

2024 Actual Global Oilseed  
Crop Acres for BBD



2030 Est. Global Oilseed  
Crop Acres for BBD

Which crop  
absorbs this  
shortfall?



# Our Novel Crop was Developed thru Extensive R&D Efforts

Created via combining breeding and gene editing tools along with optimization of agronomic practices

## Native Pennycress Attributes



### Oil

- ~25-30% Total Oil
- Long Chain Fatty Acid (Erucic Acid)

### Meal

- >100  $\mu\text{mol/g}$  Glucosinolates (Sinigrin)
- ~30% Crude protein

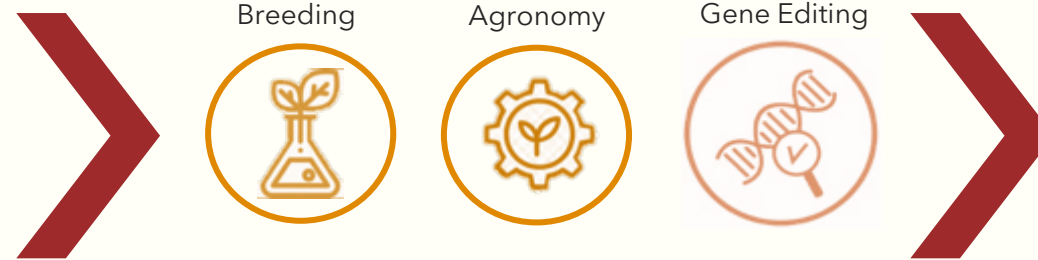
### Fiber

- Thick, Dark Seed Coat (Black)
- Low germination rate (~30%-50%)/high dormancy
- >40% ADF and >24% Crude Fiber

### Agronomic

- 500-1,200 lbs/acre average yield
- Early June maturity
- Yield opportunity missed with shatter

## Proprietary Product Development



- Proprietary development technology based on 10+ years of breeding, agronomy and gene editing.
- Robust IP strategy has helped us protect two foundational traits (Fiber and Sinigrin) in the US and several European jurisdictions bringing the total number of patents granted to nine.
- Commercial germplasm patents have been filed and we continue to build protection on our advancements.

## CoverCress® Attributes



### Oil

- ✓ ~30-33% Total Oil
- ✓ ZERO Long Chain Fatty Acid (Erucic Acid)

### Meal

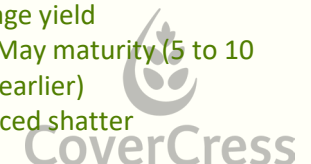
- ✓ Reduced sinigrin  $\leq 35 \mu\text{mol/g}$
- ✓ 40% Crude protein
- ✓ Amino acid composition like canola meal

### Fiber

- ✓ Thin, Transparent Seed Coat (Golden Seed)
- ✓ Immediate germination rate (>95%)/no dormancy
- ✓ <20% ADF and <20% Crude Fiber

### Agronomic

- ✓ 1,350 - 2,000 lbs/acre average yield
- ✓ Mid-May maturity (5 to 10 days earlier)
- ✓ Reduced shatter



# CoverCress Creates a Dedicated Farm-to-Fuel Supply Chain



Develops Technology,  
products, and agronomy  
BMP's



**Authorized  
Agents**

Manages the customer  
experience throughout  
grain production

**Farmer**

Seeds CoverCress  
with proven agronomy  
in September



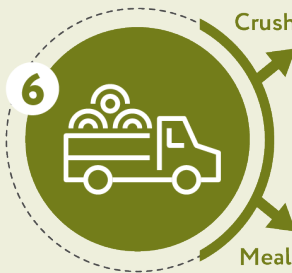
**Farmer**

Harvests  
and ships to designated  
grain facility



**Grain Handler**

Collects, conditions,  
and stores the  
CoverCress grain



**Grain Handler**

Delivers CoverCress  
grain to end-use  
customers



**Renewable Fuel Customer**

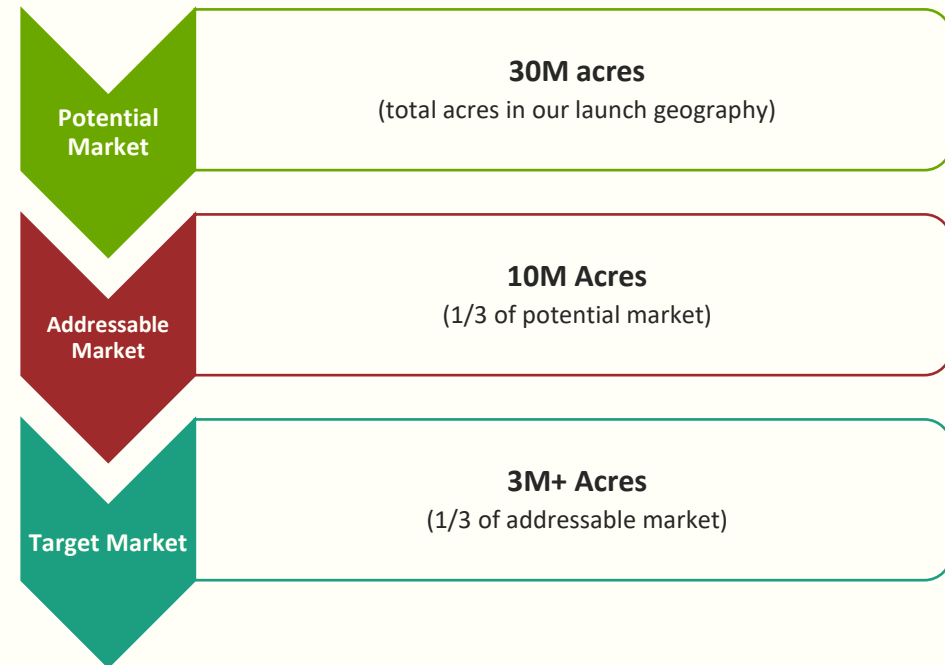
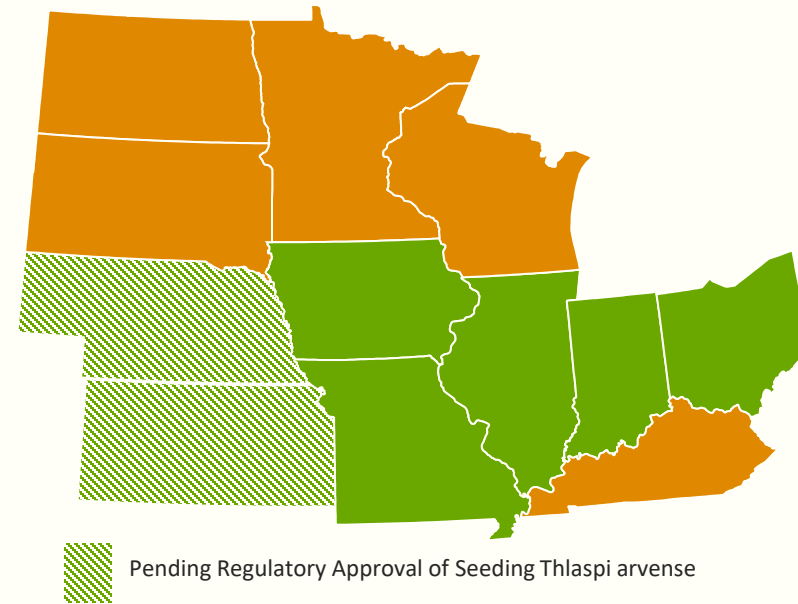
Customers receive CoverCress grain for  
crushing into oil for renewable diesel  
and sustainable aviation fuel and into  
high protein meal for animal feed



**Meal for Feed or  
Industrial Use**

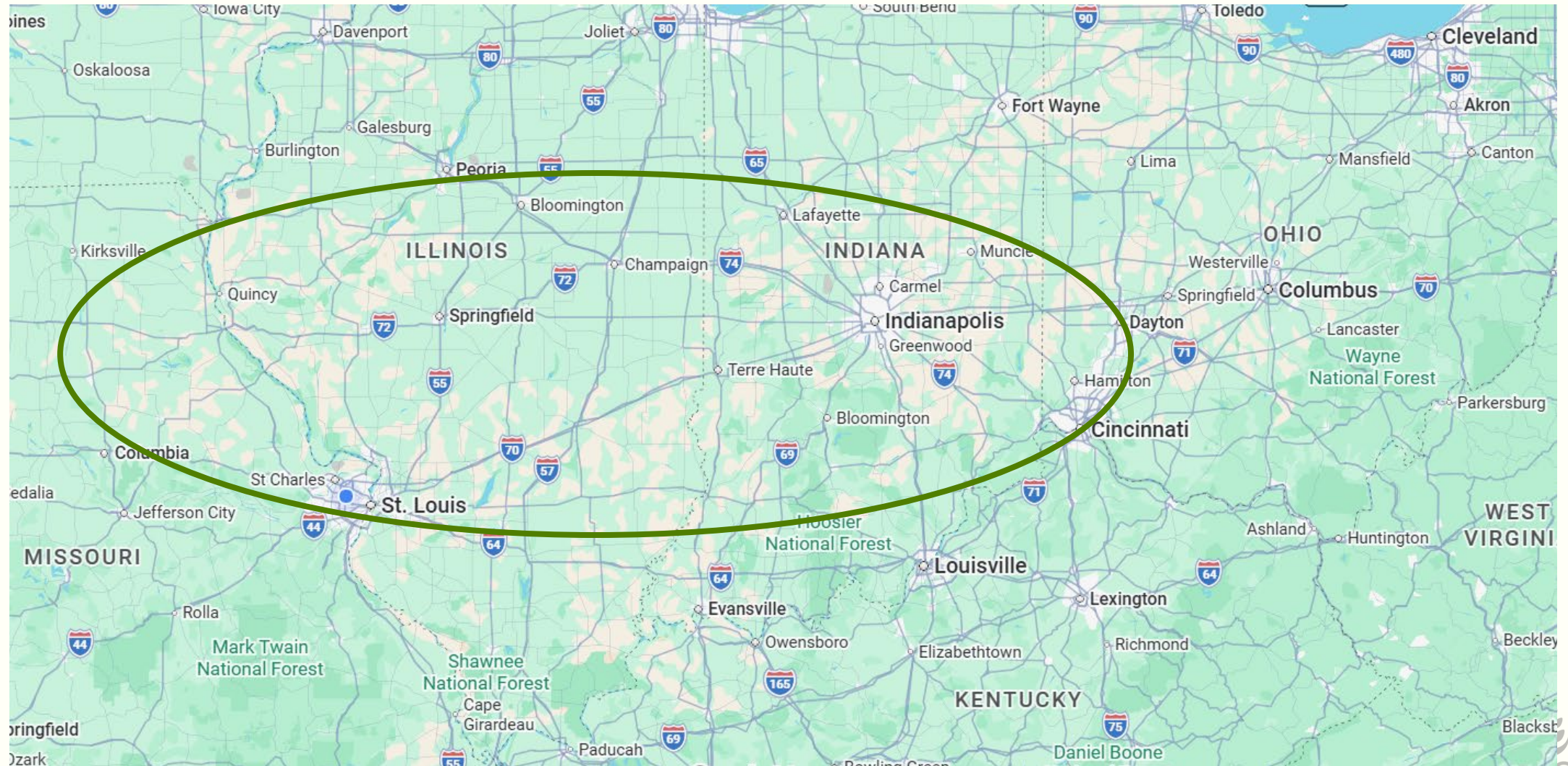


The target geography  
for CoverCress<sup>®</sup>  
encompasses millions of  
acres currently without  
cover crops or  
alternative winter  
rotational crops



# Placing Products Where They Work

*Our area of adaptation is supported by +12 years of R&D and Data*

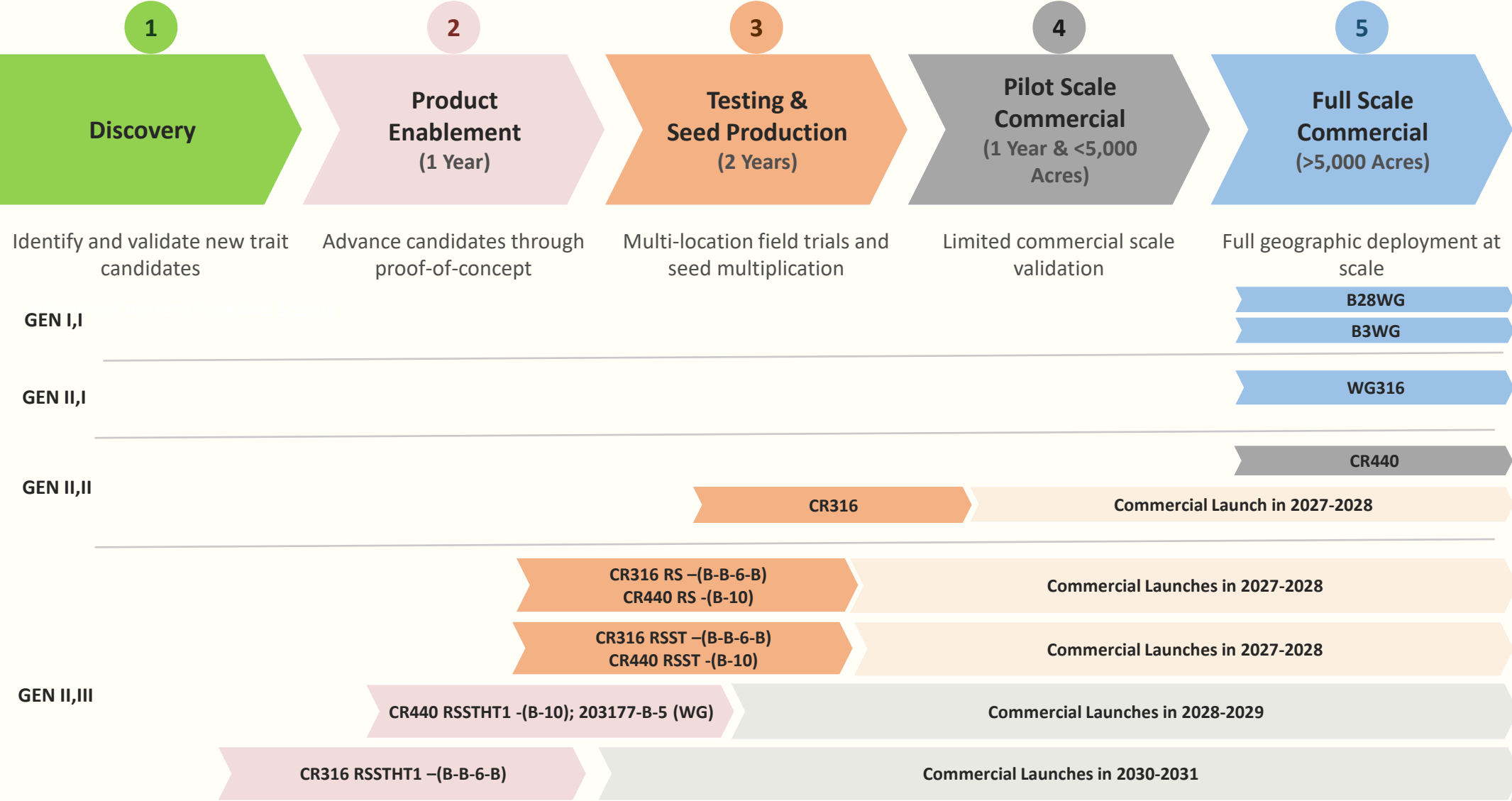


# Acceleration of the Pipeline

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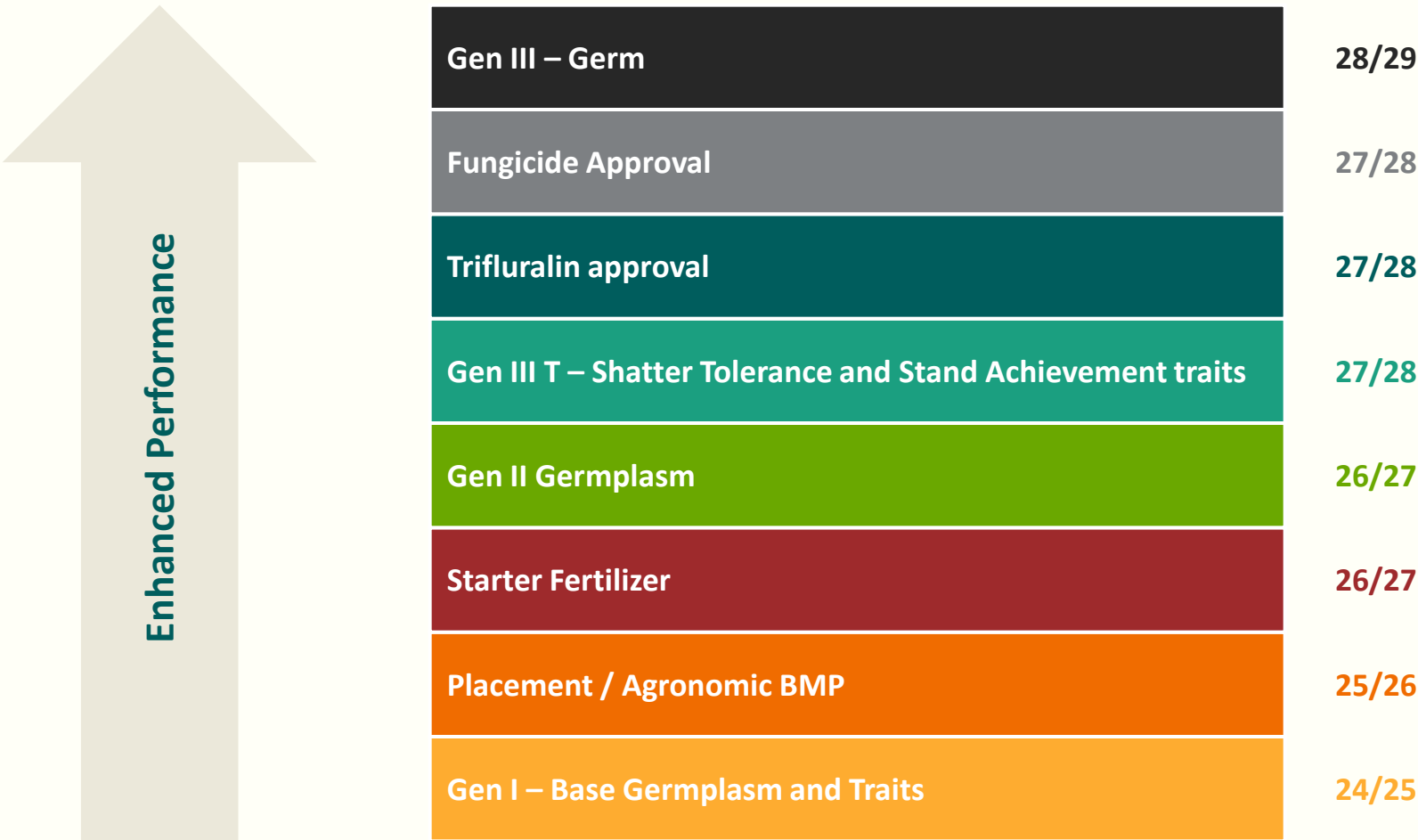
Unlocking the Value of our Innovation

# Our Pipeline Is Robust and Will Achieve Harvested Acre Success



# Stacking Gains: Compounding Levers to Harvested Acre Success

*Each year a new levers stack on the last — driving compounding value beyond Gen 1*



# Thank You!



CoverCress

# Breakout Session Three

## The Future of Biofuels

### Question and Answer



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