



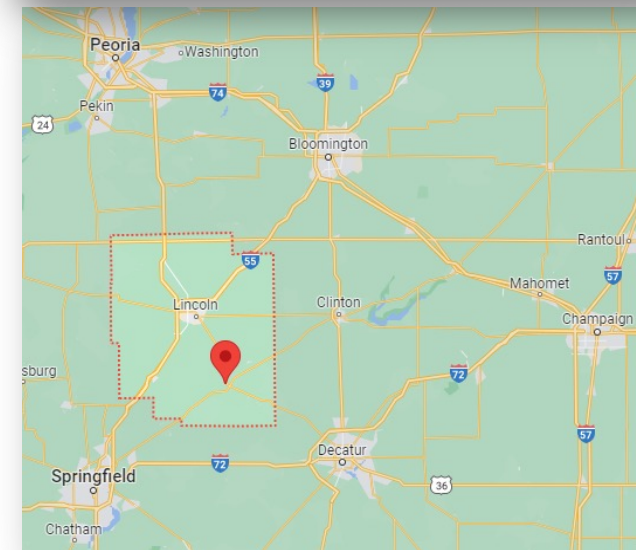
CoverCress for No-Tillers: Experiences with a Third Cash Crop

Presented by: Jeff Martin



The Martin Operation

- **Sixth-generation farmer**
 - Farming since 1976
 - Began conservation and no-till practices in the 1980s
- **Farmers and Conservationists**
 - Preserving the land and soil health is a priority
 - Started cover cropping about 10 years ago
 - Hopes to inspire others to try new practices
- **Operation Overview**
 - Mt. Pulaski, IL in Logan County
 - Corn and soybean rotation last 3 to 4 years (50/50 rotation)



CoverCress™: A New Cash Crop for Farmers

PennyCress Attributes



Oil

- ~25-30% Total Oil
- >36% of Oil = Long Chain, Unhealthy Erucic Acid

Meal

- >40% ADF Fiber in meal/25% in seed
- ~32% Crude protein

Fiber

- Thick, Dark Seed Coat (Black)
- Low germination rate (~30%-50%)/high dormancy

Agronomic

- 500-1,200 lbs/acre average yield
- Early June maturity

Proprietary Product Development



- Proprietary development technology based on 8+ years of breeding, selection, gene editing and field trials
- Agronomy & Breeding:
 - Stand, Yield, Oil Content, Early Harvest, Disease tolerance, Anti-shatter
- Gene editing:
 - Improved oil & meal quality, Improved germination, Herbicide carryover/tolerance

CoverCress™ Attributes



Oil

- ✓ ~30-33% Total Oil
- ✓ ZERO Long Chain, Unhealthy Erucic Acid

Meal

- ✓ 40% Crude protein
- ✓ Amino acid composition like canola meal
- ✓ Successful in feeding trials

Fiber

- ✓ Thin, Transparent Seed Coat (Golden Seed)
- ✓ Immediate germination rate (>95%)/no dormancy

Agronomic

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



Why I chose to plant CoverCress™



New Financial Opportunity

1

Transform
Corn-Soy
Rotation into
3 cash crops

2

Add New
Revenue
Opportunity

Projected Revenue
Based on Oil
Markets

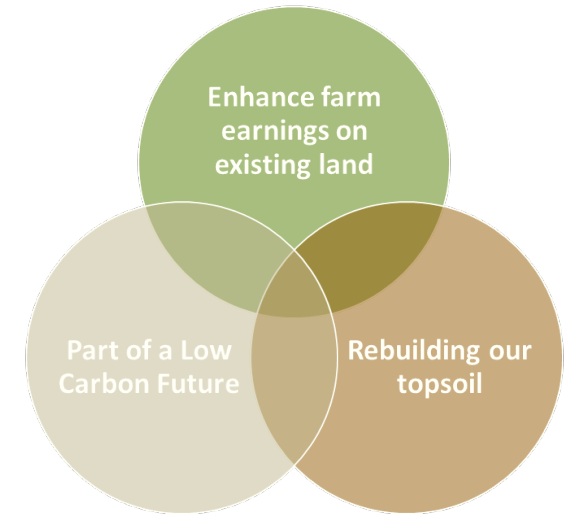
3

Limited cost - no seed
cost, limited input
requirements, farmers
can utilize existing
equipment

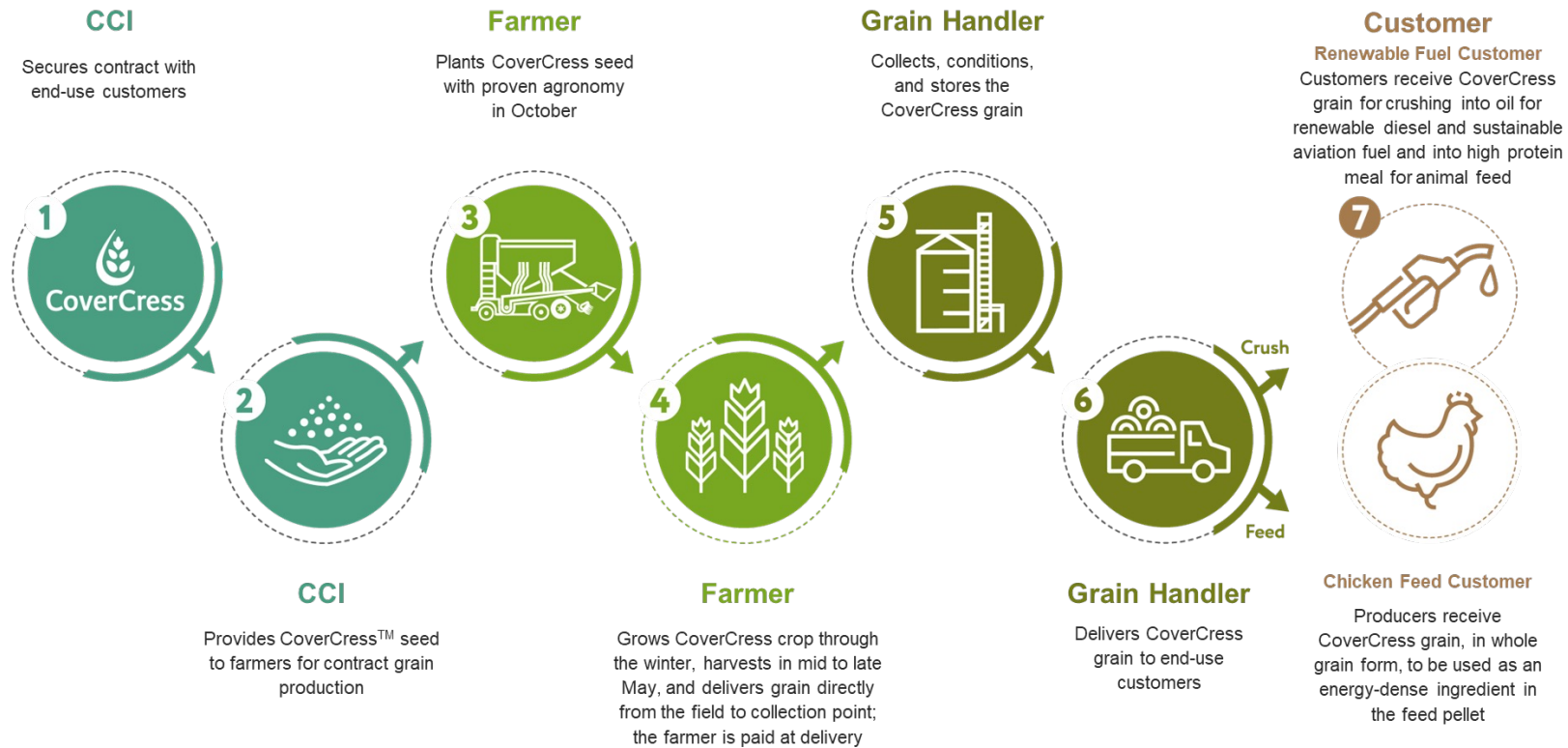


Long Term Farmer & Societal Benefits

- **Planting a CoverCress™ crop enhances farm income** on existing land and equipment by adding a low input crop grown in the offseason.
- **As a cover crop as well as a cash crop, planting a CoverCress™ crop helps to rebuild our topsoil:** The U.S. has lost over sixty percent of its organic topsoil. Farmers can now gain the benefits from cover cropping, including holding and building topsoil organic, revitalization of soil microbes and more while they earn income from planting CoverCress™.
- **CoverCress™ crop is a crucial part of a low carbon future:** Oil from CoverCress™ will be an ultra-low carbon intensity feedstock to provide new options for greener diesel and jet fuel producers. Growing a new crop in the off-season is also new source of carbon sequestration in our soils.



Established CoverCress (CCI) Path to Market



The CoverCress™ System

- Planted 200 acres of CoverCress (2% of acreage)
- CoverCress fits in my corn-soybean rotation and diversifies my risk
- Experience following CoverCress with both corn and soybeans
 - Plan to follow with soybeans going forward as it fits the rotation better



CoverCress: Agronomic Overview



CoverCress Field Selection

- Plan ahead!
- Considerations for field selection:
 - Historical Field Management
 - Tillage Practices
 - Herbicide Program
 - Crop Rotation & Harvest/Planting Date
 - Winter weed competition
 - Drainage
 - Slope



Planting CoverCress

- **Seeding Depth:** Surface to .25 of an inch
- **Seeding Population:** 5 – 7 lbs. per acre
- **Seeding Method:** Ortho Air Seeder on a Great Plains Turbo Max
- **Seeding Timing:** Planted September 10, 2022
- **Weather/Moisture:** 70° with adequate moisture
 - 1 inch of rain a week after planting



Typical Fall Observations

- Small rosette on the surface with root structure building below ground
- Most fall growth occurs below ground, providing cover crop benefits
- Target of minimum 4-6 plants per square foot



Early Spring Development

- Bolting begins in early spring as temperatures warm and day length increases
- Buds form mid-spring at the tip of the plant
- Determine if nitrogen application is required
- Natural spring protection provided by CoverCress:
 - Reduces soil erosion and runoff
 - Suppresses weed growth
 - Root structure allows the aeration of soil



Late Spring and Harvest

- Each plant produces multiple flower sub-stems late spring
- Pod setting is complete early May
- Crop turns a golden color and begins to dry down at maturity in late May
- Harvest:
 - Method: Conventional equipment that would harvest soy or wheat crop
 - Timing: Late May
- CoverCress residue provides a great seedbed for planting



Key Takeaways & Considerations

1

Consider how
CoverCress fits into
your overall operation
system

2

Agronomic knowledge
is important to
successfully raise this
new crop



Thank You

Questions & Discussion

Learn more and express interest at: www.CoverCress.com

