

Re-Husk Fund

Thesis: Empowering Midwest farmers while decarbonizing supply chains with compostable packaging

CHALLENGES: *limited cardboard, excess corn stover*

The E-Commerce Bottleneck: The surge in same-day and global shipping has created a significant spike in demand for cardboard, but the current supply chain is reaching its capacity. In the current state, cardboard manufacturing is water- and energy-intensive, contributing to deforestation and industrial wastewater runoff. One third of all cut trees globally are used in paper product production, with an estimated 420 million tons used for paper and paperboard production including 40-45% as direct corrugated cardboard industrial packaging¹.

The Untapped Agricultural Asset: Midwest corn farmers are producing more corn than they can operationally address. After harvesting corn, residue (stover) is left behind in the form of stalks, leaves, cobs, and husks. This residue serves as a blanket over the soil and is important to protect against erosion, maintain moisture, and return nutrients². In excess however, residue can cause delayed spring planting, foster diseases and pests which reduce yields, and decompose anaerobically, releasing methane, a greenhouse gas. A study by the USDA in 2025 found that the most stable corn yields resulted from farmers removing at least 50% of stover³. Removal of stover can be costly, though. As farmers operate on razor-thin margins, they are using precious resources (time and fuel) to manage and till this excess residue.

SOLUTION: *circular and sustainable economy*

The Re-Husk Fund aims to transform a liability into a high-demand commodity by investing in companies converting corn husks into sustainable packaging and other byproducts, benefitting farmers, CPG companies, and the planet.

This fund will invest in 5-10 regional Husk-To-Fiber conversion facilities. Located within the Corn Belt in the Midwest, these facilities create a circular economy by paying farmers a premium to remove their excess corn husks and using low-energy manufacturing plants to convert the husks into fiber packaging. These facilities provide an additional revenue stream to farmers while reducing the negative impacts of excess, wasted corn husks.

DUE DILIGENCE: *investment criteria*

- Density of corn farms near planned facility
- Relationships with customers (e-Commerce / CPG)
- Technology maturity
- Market traction / annual recurring revenue (ARR)
- Management team
- Environmental impact of planned facility
- Business model scalability

Sources

1. [Economy Insights](#)
2. [University of Wisconsin-Madison](#)
3. [USDA Agricultural Research Service](#)
4. [Meyers Sustainable Packaging Statistics](#)

MARKET ASSESSMENT & SCALABILITY

The Re-Husk fund will support 50,000-ton facilities in Midwestern U.S. states, directly impacting 35-50 Midwest corn farmers within a 30-mile radius of each facility. This model could be replicated and scaled through a hub-and-spoke model throughout the Corn Belt. This would expand the impact to hundreds or thousands of farmers and be supported by the growth in demand for sustainable packaging (as the sector is projected to reach \$423B by 2029 with a CAGR of 7.67%⁴).

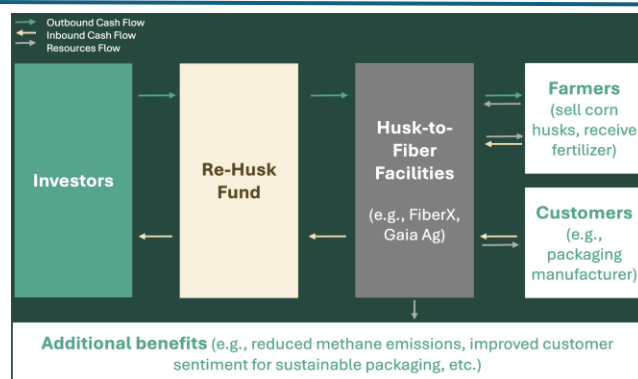
INVESTMENT OVERVIEW

- Fund Size: \$50M
- Fund Term: 10-11 years
- Asset Classes: Debt, Equity
- Interest on Loans: 10.26%
 - BB rated debt (0.2 debt beta)
 - 10% default probability
 - 50% loss in default
- Equity IRR: 14.30%
- 5-10 husk recycling companies initially supported

KEY STAKEHOLDERS

Stakeholder (Investment)	Rationale for participation	Example players
Equity investors (\$40M)	Receive guaranteed supply of sustainably sourced packaging	<ul style="list-style-type: none"> • Food & Bev (e.g., Chipotle) • Packaging (e.g., Smurfit WestRock) • E-commerce (e.g., Amazon)
Debt investor (\$10M)	Secure a steady return backed by physical machinery and offtake agreements	<ul style="list-style-type: none"> • Institutional investors (e.g., Morgan Stanley, Goldman Sachs) • Private credit • USDA / RBIC Loans
Husk-To-Fiber Facility	Receive funding to scale	<ul style="list-style-type: none"> • FiberX, Gaia Ag
Farmer	Improve financial outcomes	N/A
Community Fund	Distribute funds to community farmers in need	
Re-Husk Fund	Coordinate an untapped impact investment	

FUND DYNAMICS



FINANCIAL ANALYSIS

Note: costs and cashflows are illustrative based on investment in a single facility; Re-Husk plans to invest in multiple facilities with the total fund size of \$50M (or ~\$5-10M across 5-10 facilities)

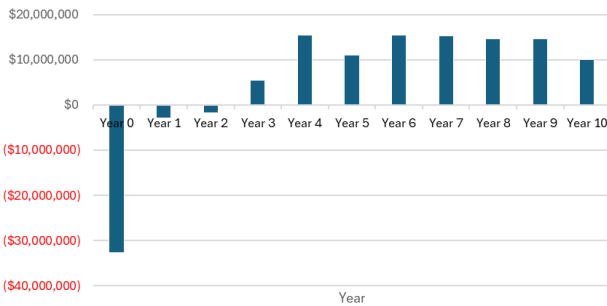
10% Investment in Typical Plant

Category	Amount (\$M)	Description
Facility & CapEx	2.64	Upfront fixed costs
Year 1 Working Capital	0.63	Cash required to buy inventory
Launch reserves	0.93	Hiring a skeleton crew; legal & permitting; cash reserves
Contingency buffer	0.21	5% buffer for supply chain risks
Management Fee	0.09	2% fee on total committed capital
Additional Future Cashflow Value	0.50	Difference b/t costs and discounted future cash flows
Total	5.0	

Revenue Sources

The Husk-to-Fiber facility generates revenue from a mix of 1) fiber packaging, 2) industrial lignin, and 3) bio-fertilizer. The fiber packaging will sell at a premium over standard recycled pulp due to Amazon-grade moisture resistance and strength. The industrial lignin will sell at market price in the chemicals/adhesives market, and the bio-fertilizer will be sold back to the farmers who supply the stover at a discount of 15-20% compared to market price to ensure that they benefit beyond just the sale of the stover.

Free Cash Flow (for an example facility, total)



Fees and Incentives




- 2% base management fee
- 15% carry beyond 12% IRR

Payout structure / Exit





The debt has top priority, and will be paid out first. Following the debt, the equity holders will be paid out their returns fully until an IRR of 10% is achieved. Beyond the 10% IRR target for the equity holders, 15% of the additional returns will be distributed to a community impact fund to invest in the communities where the recycling facilities are located. Once a 12% IRR is achieved for equity holders, an additional 15% carry will kick in as incentive for the fund managers. Example payouts from a representative investment with a 6 year holding period and 14.48% equity holder IRR at exit are given below.

- Equity Initial Investment: 80% = \$4 million
- IRR (from financial model): 14.30%
- Equity Value at Exit (year 6): \$8.9 million
- Community Impact Fund Value at Exit: \$402,000
- Management Total Fee at Exit: \$398,000
- Additional Farmer Profit Generated: \$1.3 million

RISK MITIGATION

Risk	Mitigation
 Farmer: Soil Nutrient Depletion Fear that removing husks will damage soil-health and crop yields	Remove no more than 50% of stover; utilize retrofitted combines
 Farmer: Distrust and Risk Aversion Reluctance to join a new program due to thin margins	Launch multi-year pilots with transparent data on yield, soil health, and financial gains
 Commercial: Demand Uncertainty Risk that packagers / end-customers don't commit volume needed for plant profitability	Secure binding offtake agreements with companies
 Operational: Seasonality and Storage Corn is a single-year harvest crop	Pass husks through rotary dryers to reduce moisture and prevent decay
 Operational: Transportation Costs Raw husks are incredibly light / not cost effective for transport	Convert raw husks into pellets near the field to increase density
 Operational: Feedstock Quality Stover can vary by farmer and be contaminated	Implement a grading system at the factory; pay a premium for high-quality bales
 Financial: Liquidity Significant upfront inventory in Year 1	Investment sized to cover upfront costs

IMPACT ASSESSMENT

SGD	Impact	Metric
 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	Retrofits traditional agriculture supply chains with advanced technology to promote economic development in rural areas	<ul style="list-style-type: none"> • Total capital (\$) invested in rural industrial infrastructure • # of green manufacturing jobs created
 12 RESPONSIBLE CONSUMPTION AND PRODUCTION	Promotes circularity by using an organic material (corn stover) to replace single-use plastics and virgin wood pulp	<ul style="list-style-type: none"> • # tons of agricultural waste diverted • # tons of plastic/virgin paper displaced
 13 CLIMATE ACTION	Mitigates climate change by preventing methane emissions in the field from decomposing husks; creates a more sustainable alternative to wood-derived packaging products	<ul style="list-style-type: none"> • # metric tons of CO2e avoided or sequestered • Carbon intensity (kgCO2e) per unit of husk-derived packaging
 15 LIFE ON LAND	Supports soil biodiversity with sustainable residue management; reduces pressure on natural forests and prevents land-use conversion by replacing wood-pulp for packaging	<ul style="list-style-type: none"> • # acres of corn-land managed with sustainable corn stover harvesting • # acres of forest equivalents saved (not harvested for pulp)