GENERA®

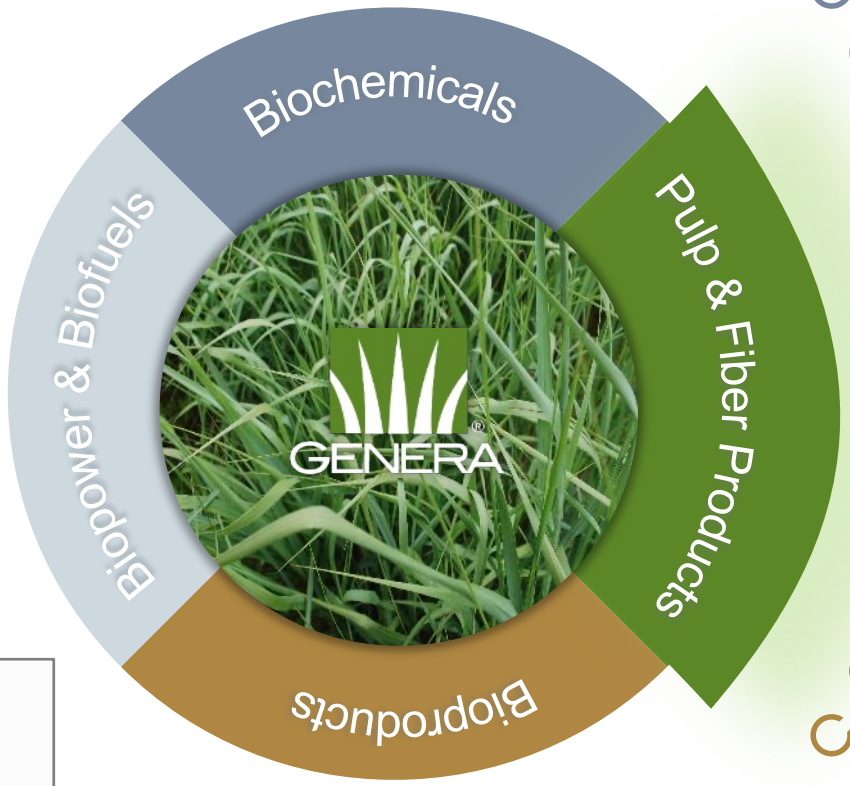
# Purpose Grown Crops: Regenerative Benefits

**Sustainable**
**Innovative**
**American**

Earthable®

# Understanding the Potential of Ag Fibers

*Virtually every product made from oil can be made from Genera agricultural fibers*




- Binders & Agglomerates
- Dispersants
- Towel & Tissue
- Foodservice Disposables
- Food Packaging
- Paperboard
- CPG Packaging
- Specialty Papers
- Medical Disposables
- Pharmaceutical Packaging
- Textiles & Fabrics
- Absorbents & Adsorbents
- Animal Feed

***Legend***

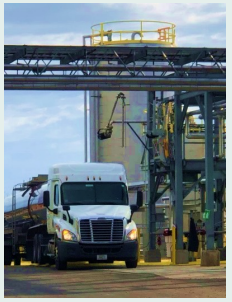
- Current markets
- R&D in process
- Early stage R&D

# Genera's Vonore, TN Manufacturing Facility

## Wet lap Market Pulp

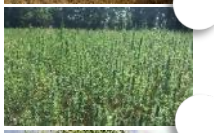
## Molded Fiber Products

## Lignin-Rich Coproduct Syrup



# Purpose-Grown Agricultural Fibers

## Diverse Biomass Feedstocks

| | | |
|---|---|---|
| ***Switchgrass*** |  | ✓ |
| ***Miscanthus*** |  | ✓ |
| ***Wheat Straw*** |  | ✓ |
| ***Biomass Sorghum*** |  | ✓ |
| ***Triticale*** |  | ○ |
| ***Hemp*** |  | ○ |
| ***Energy Cane*** |  | ○ |

- ***High Yielding***
- ***Drought Resistant***
- ***Year- Round Supply***
- ***No one-crop dependency***
- ***Regenerative***
- ***Minimal management intensity***

✓ ***Vonore, TN Fiber Source*** ○ ***Potential Fiber Source***

## Genera's Agricultural Fiber Advantage

### *Supports Rural Economy*

- Does not compete with food crops
- New, additive revenue source for farmers
- Stable farm income from long-term contracts
- Creates rural jobs

### *Produces High Quality Pulp*

- Virgin short or long fibers, depending on feedstock
- Consistent specifications and use
- Flexible in application
- Transparent and traceable production process

### *Yields Superior Product Performance*

- Exceeds industry standards for tensile, tear, and burst
- High bulk allows higher strength using less fiber
- Good coarseness and freeness allow a wide range of product manufacturing

### *Achieves Sustainability Goals*

- Crops sequester carbon and improve soil quality
- Preserves green space and wildlife habitat
- Fibers enable resource efficient pulping process

# Why Purpose-Grown Ag Fibers?

- **Efficiency of Production**
  - High yields per acre allows for smaller footprint on agricultural lands
  - Reduced operational costs due to concentration of production
- **Adaptablility**
  - Many purpose-grown crops have higher tolerances to drought, insect, disease and other factors
- **Consistency**
  - Continuous and homogenous feedstock quality is important for manufacturing processes
- **Sustainability**
  - Reduced inputs (fertilizer, chemicals, etc)
  - Carbon sequestration (particularly in perennial crop production)
  - Significant benefits to soil quality and structure
  - Reduced life cycle impact of feedstocks on finished products

# Challenges in Purpose-Grown Ag Fibers

- **Establishment**
  - Perennial crops typically have higher establishment costs and a prolonged period prior to full yield
    - Can present a challenge to producers for cash flow
  - Perennial crops (grasses) are challenging to establish
- **Commitment**
  - Many purpose-grown crops require 5-10 years of commitment from landowners/farmers to obtain the best economics
  - General fear of commitment from landowners/farmers
- **Risk**
  - Lack of risk management tools for farmers
  - History of overpromising and underdelivering

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