

Feasibility Study for Industrial Hemp Processing Industry

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Mission and Vision Statement

With the reemergence of hemp production following nearly 90 years of federal legislation against it, participants in this feasibility study wanted to create a mission and vision statement that would guide the redevelopment of the fiber hemp industry in West Virginia, Pennsylvania and Maryland tri-state region.

Vision: Farms collaboratively working with value-chain stakeholders to grow markets for all parts of the industrial hemp plant.

Mission: Create sustainable solutions and economic opportunities for farms and businesses through the development of industrial hemp.

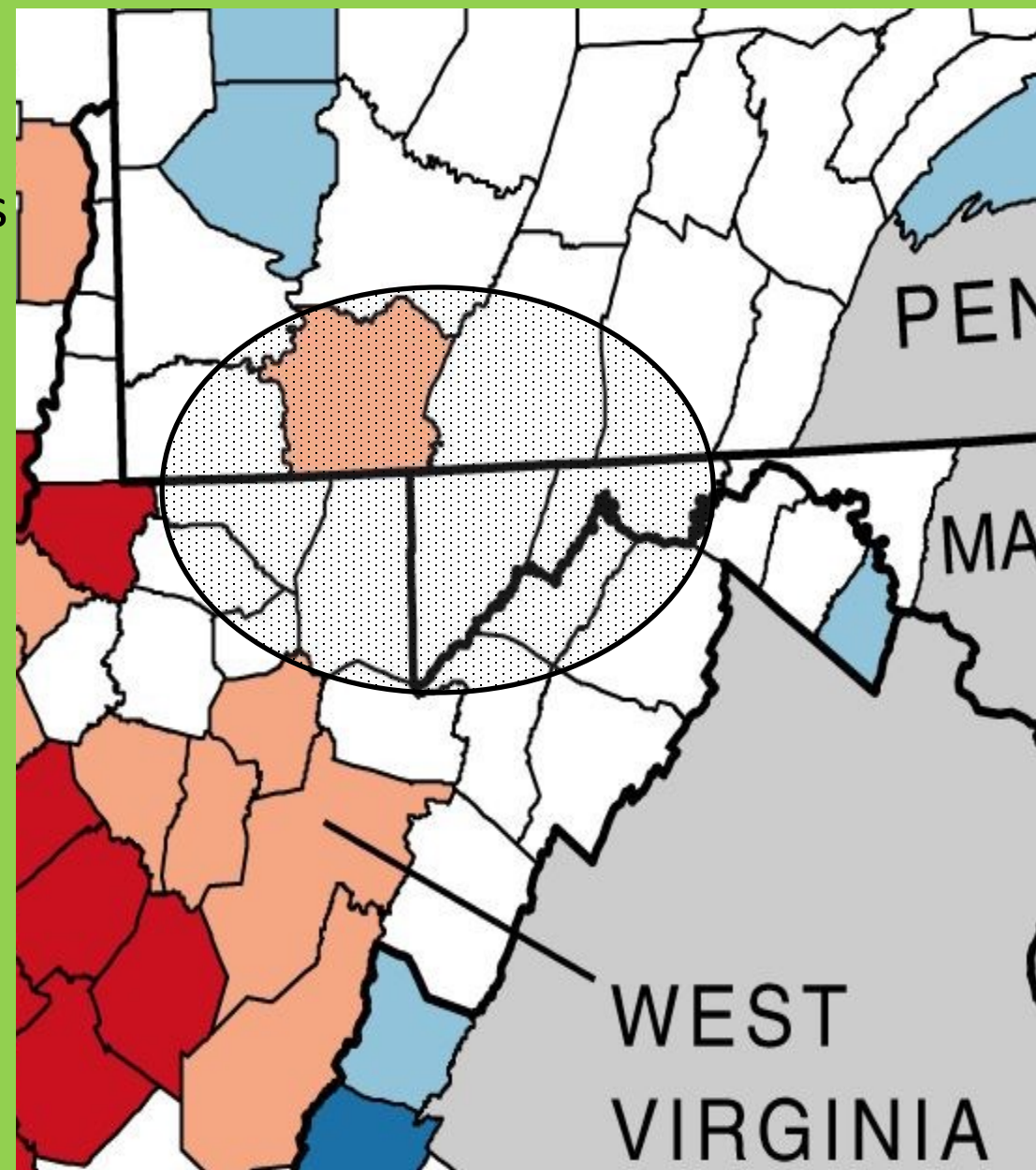
Needs Statement

A group of farmers formed the Mountain Maryland Hemp Alliance (MMHA) to promote and facilitate the production and processing of industrial hemp. MMHA members would like to grow and market industrial fiber hemp, however there are no processing facilities within a reasonable distance (100 miles). It was determined the best course of action would be to hire a consultant to conduct a study to determine the economic feasibility of creating a regional fiber hemp processing plant.



Securing Funding

- MMHA, University of Maryland Extension in Garrett County and Garrett County Economic Development led an effort to apply for an Appalachian Region Commission, POWER (Partnerships for Opportunity and Workforce and Economic Revitalization) Initiative grant (Technical Assistance).
- Grant funds and cash match from Garrett County Economic Development and West Virginia Department of Agriculture as well as many hours of in-kind salary match were used to hire ACDS, LLC and carry out the objectives of the study.
- The study area for the grant included Garrett and Allegany Counties in Maryland, Fayette and Somerset Counties in Pennsylvania, and Preston and Monongalia Counties in West Virginia.



Objectives of the Study

Objectives for the Consultant:

- Assess fiber hemp processing in the US and World
- Assess potential fiber hemp markets and products
- Investigate potential companies and organizations to partner in processing fiber
- Determine equipment and infrastructure necessary for a fiber hemp processing facility
- Create a business plan for a fiber processing facility

Objectives of the Extension Education Committee:

- Educate local farmers on growing fiber hemp
- Determine the potential interest in growing fiber hemp
- Conduct an on-farm fiber hemp demonstration



Activities

Advisory Committee

- The advisory committee was made up of 12 people representing educational institutions, farmers and industry.
- The advisory committee met with the consultant every other week to review documents and provide direction.
- The consultant held a “Hemp Industry Round Table” where three hemp industry companies discussed their businesses and needs for processing and production of hemp.
- A public meeting was held via Zoom to present the findings of the study.

Extension Education Committee

- Made up of Extension Educators from University of Maryland, Penn State Extension and West Virginia University Extension.
- The committee created a PowerPoint presentation for farmers on growing fiber hemp. Presentations were held via Zoom due to the Covid-19 Pandemic.
- After the presentation, farmers were surveyed to determine interest in growing fiber hemp.
- Two on-farm demonstration plots were coordinated with farmers and a field day was held at one plot.



Conclusions

Key Bottlenecks:

- Lack of Processing Capacity—Decortication, De-Gumming & Grain Processing
- Transportation—Unprofitable to ship raw material beyond 100 miles to a processor
- No product standardization for raw products

Lessons Learned from Research:

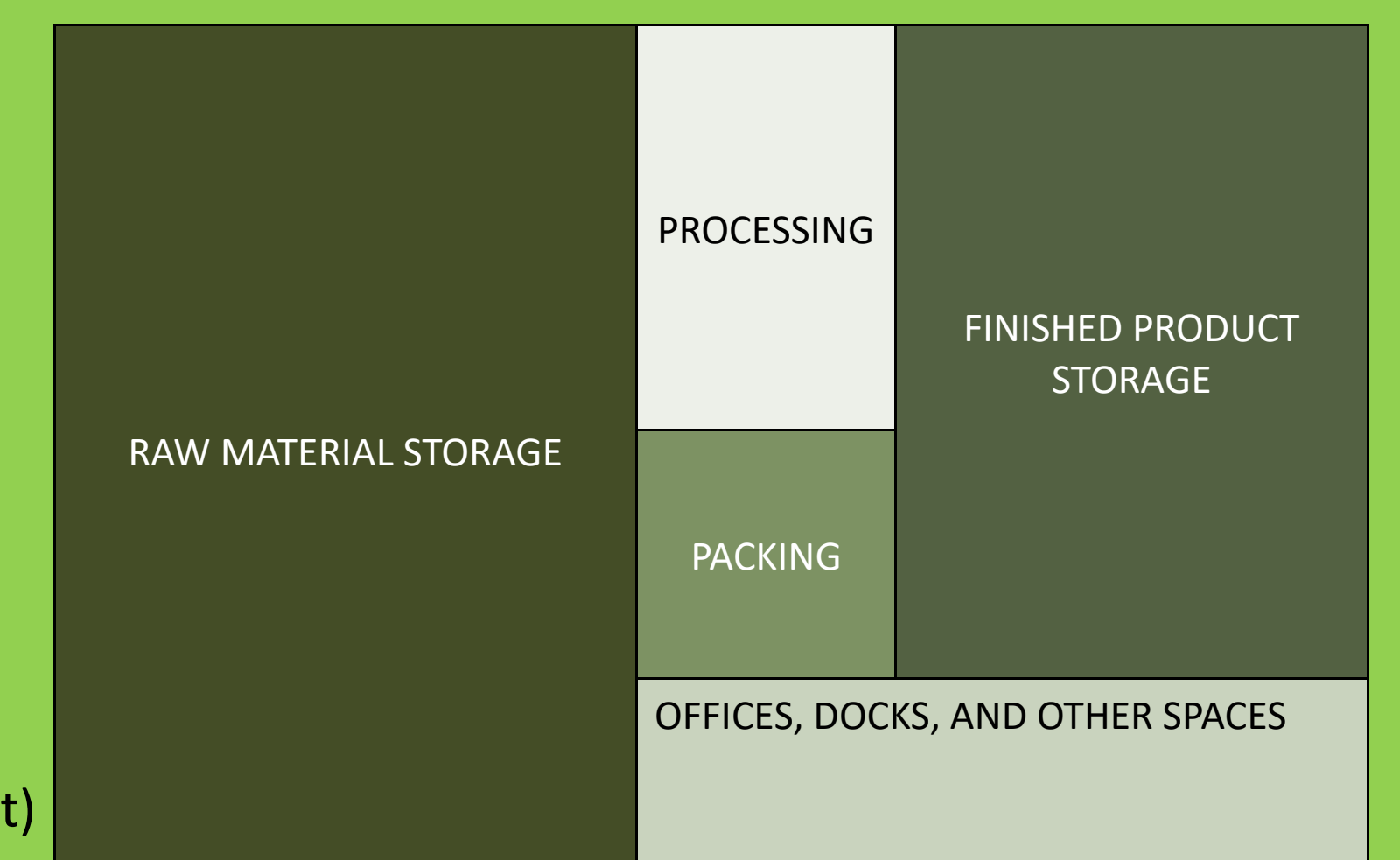
- Manufacturers ready and willing to work with hemp
- Maximize the use of the hemp plant by deriving 2-3 streams of income from the plant
- Maintain solid contractual relationships
- Have good quality control programs
- Create outlets for low-grade and cull plant material

Hemp Processing Facility:

- Multiple streams of income
- Flexible and modular manufacturing
- Needs to include—drying and testing facilities
- Will require—20,000 square foot facility
- Will take \$4.3 million for start up (\$3.8 million equipment)
- Profitable in year 4 with \$2.6 million in sales
- Will need external funding from grants and industry partners
- MMHA will need to foster an incorporated business structure

Hemp Production:

- Extension survey was completed by 35 participants 57% said would be very or somewhat likely to grow fiber hemp
- The top two barriers selected by farmers who were unlikely to grow hemp were—Access to Processing and Access to Equipment
- MMHA and Extension will need to provide grower support
- Development of local growing best management practices necessary for high quality fiber plants



Example of Facility Layout