



MADE IN USA

HEM MILLS
HEMP ECO MANUFACTURING

The 2020 US Textile Industry



US textile manufacturers only cater to 3 main fiber markets:

Cotton, Synthetics, & Animal-Based Fibers

-The 3 most toxic & unhealthy fibers-

Cotton

Responsible for 1/4 of
global pesticide usage

Synthetics

Synthetic textiles
account for 35% of the
ocean's microplastics

Animal-based Fibers

Overly Expensive
& cruel

Bast Fibers



The trend is growing to utilize more sustainable plant-based fibers

Current US infrastructure is not capable of processing bast fibers at-scale

Flax (Linen)

- Low environmental impact
- High Market Value; Luxurious
- Naturally Insect Repelling
- The same plant for flax seed can be used in fiber

Hemp

- 4X more yield/acre than cotton
- Retains color better than any other fiber
- Naturally resists bacterial growth
- Negative carbon footprint

Kenaf/Jute

- Insulating & Antistatic
- Huge potential in the carpet industry
- Low thermal conductivity

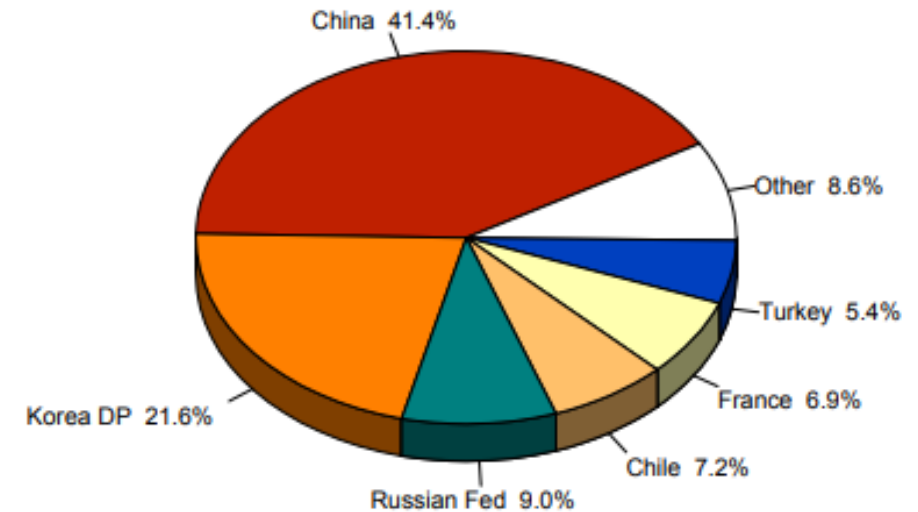
Global Production of Bast Fibers



China is currently the largest global exporter of hemp yarns and textiles

- High Price Points due to increasing tariffs & volatile freight market
- Lack of variety & opportunities for innovation
- Lack of Distributor & Consumer Recourse
- Large carbon footprint from Importing Freight
- Poor quality control
- High Minimums = High Barriers of entry for purchasers

World Market Share: Hemp Fibre and Tow Production (1996)



Problem

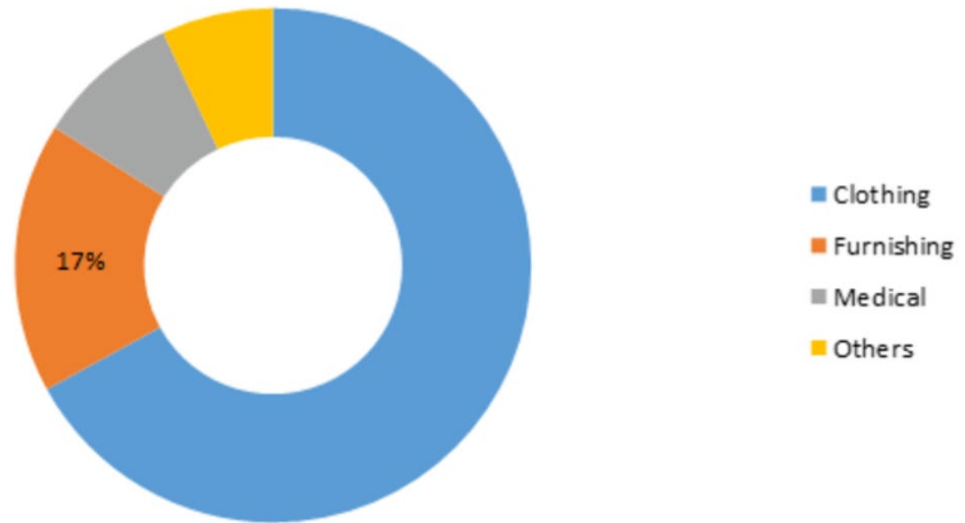


The US needs to adopt more sustainable fibers to meet growing market demand

The Global Sustainable Fabrics Market was valued at \$58.3 billion in 2018

Expected to grow at a CAGR of 11.4% to 2023

Global Sustainable Fabric Market Share, by Application (2018)



Source: MRFR Analysis



Implement Bast Fiber Yarn Spinning in the US

The best fabrics for the environment: Recycled, man-made cellulose and bast fibres

<https://www.independent.co.uk/life-style/fashion/fabrics-environment-fast-fashion-eco-friendly-pollution-waste-polyester-cotton-fur-recycle-a8963921.html>



“Extinction Rebellion claims that hemp is one of the best alternatives to cotton because it “uses a lot less water, can be grown in lots of different environments all over the world, thrives without the need for pesticides and contributes about half the carbon footprint”.

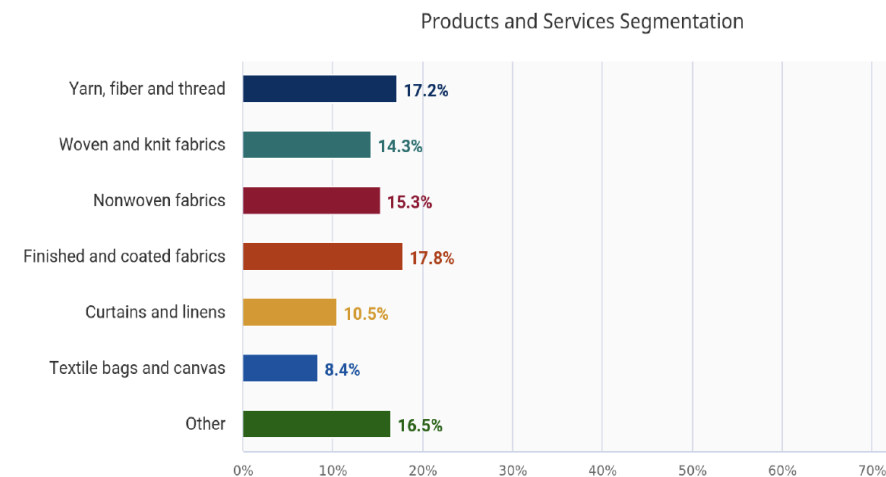
Advantages at First-Glance



- Capitalizes on the growing demand for sustainable fabrics
- Reduces the price of domestic bast-fiber textiles & allows for fiber innovation
- Hem Mills will be the sole domestic manufacturer in the expanding US hemp textile market valued at \$74 million/year
- Enables fast fashion apparel with in-demand, high-performing, natural yarns.
- Positions the US to be a global exporter of textiles once again

Textile Mills in the US 31310

Products and Services



2020 INDUSTRY REVENUE

\$42.8bn

The Plan



To Vertically Integrate by Establishing the US' First and Only Bast Fiber Spinning Mill

Capable of processing and producing yarns & fabrics from domestically grown:

- **Hemp**
- **Flax (linen)**
- **Kenaf**
- **Nettle**

Products:

Coarse Yarns



Woven Fabrics

Fine Blended Yarns



Knitted Fabrics

Marketable Byproducts:

Hurd Waste

Paper Fibers

The US Hemp Textile Market



Consumer textiles

Hemp is one of the world's most renewable and strongest, woody fibrous plants.

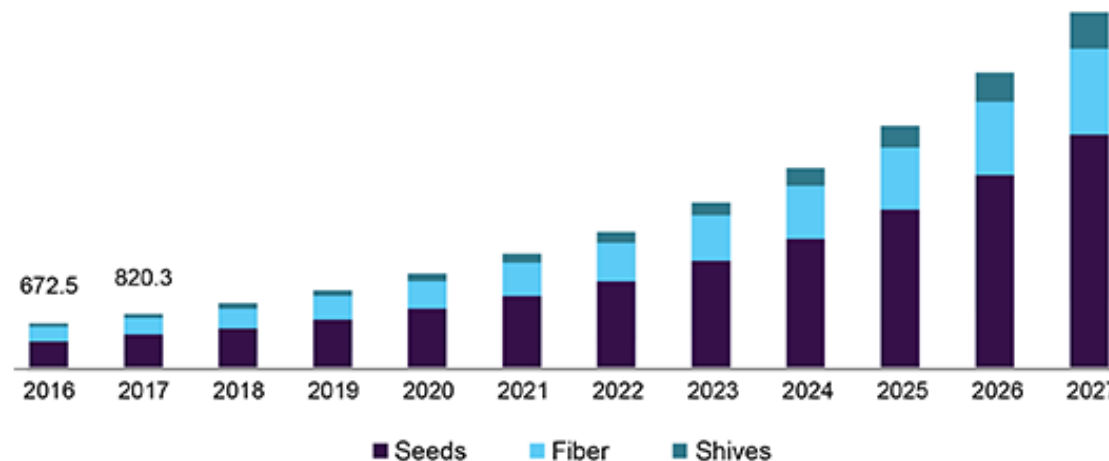
Consumer textiles include hemp fabric, which can be used to make clothes as well as canvas, rope, shoes and even furniture. This product segment is estimated to account for 13.0% of industry revenue in 2020 and is expected to continue growing over the next five years.

2020 INDUSTRY REVENUE

\$568.3m

Industrial Hemp Production
Source: IBISWorld

U.S. industrial hemp market size, by product, 2016 - 2027 (USD Million)



Source: www.grandviewresearch.com

Hemp Textile Market Players



Market	Company	Location	Sales volume 2020
Hemp Yarn	Greenland Technologies	Shanxi, China	\$52,000,000.00
Cotton & Synthetic Yarn	Frontier Spinning Mills	North Carolina, USA	\$474,000,000.00
Cotton & Synthetic Yarn	Parkdale Mills	North Carolina, USA	\$38,618,000.00
Hemp Fabric Importer	Envirotextiles	Colorado, USA	\$4,500,000.00
Hemp Fabric Importer	Hemp Traders	California, USA	\$3,180,000.00
Hemp Knitting Mill	Latina Fabric	California, USA	\$2,800,000.00

Competitive Advantages



1st to Market

**America's first
bast fiber
spinning mill**

Brain Trust

**Team of World-Class
Knitters/Weavers &
Spinners in the only US
bast spinning mill**

Vertical Integration

**Highly competitive
pricing on end
products**

Carbon Negative

**Sustainable &
Eco-Friendly**

Accessibility

**Hem Mills can be
purchased from
directly. No trading
companies or sole
distributors**

IP

**Patent opportunities
for exclusive blends
and styles of
hemp/bast fiber
yarns.**

Automation

**Investing in highly automated
manufacturing lines and high skilled
labor allows for competition with
cheaper Chinese labor**

Domestic Pricing Advantage



Blended 50/50
Hemp/Cotton Yarns:

MOQ Price/lb: \$5.40
+ 25% Tariffs: \$1.35
FOB Price/lb: \$6.75



100% Hemp Yarns:

FOB Price/lb: \$10.43



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Blended 50/50 Hemp/Cotton
Yarns:

FOB Price/lb.: \$7.00

100% Hemp Yarns:

FOB Price/lb.: \$10.00



Semi-Wet Spinning: State of the art bast fiber processing line suitable for spinning long staple fibers into coarse yarns useful for the upholstery, medical & automotive markets

- Validity proven through successful spinning trial of 100% hemp yarn

Dry-Spinning: Specialty short staple fiber equipment suitable for blending and spinning fine yarns for the knitted apparel markets

- Processing line to utilize short staple fiber yield produced from long staple Semi-Wet Spinning line
- Bale retting before processing will assist in properly cleaning the fibers for efficient spinning

Risk Mitigation



The Berry Amendment would require all potential DoD contractors to attempt to source bast fiber textiles from Hem Mills, as there would be no other domestic competitors

The domestic textile sector receives **\$1.5 to \$2 billion** in annual Defense Department sales that boost U.S. investment and employment.



The following textile products have been determined to be nonavailable in accordance with FAR 25.103(b)(1)(i):

50 denier rayon yarn

Fair linen for altars

Fibers of the following types:

abaca, abace, agave, coir, flax,
jute, jute burlaps, palmyra, and
sisal

Goat & kidskins

Goat hair canvas

Hemp yarn

Leather, sheepskin (hair type)

Metallic (gold) thread

Modacrylic fur ruff

Rabbit fur felt

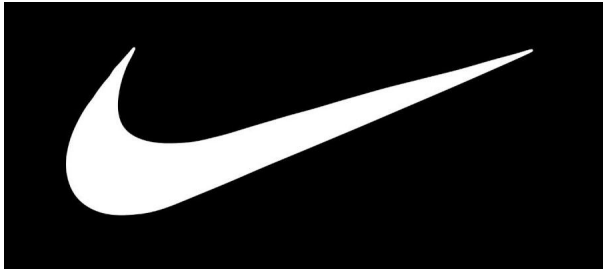
Raw & unmanufactured silk

Risk Mitigation



- Markets exist for other bast fibers (linen & jute textiles) that can be processed in-house with the same domestic advantages
 - The US linen market provides nearly \$4.5 Billion in annual revenue
- Evolving partnership with one of the largest hemp textile processors in the world, located in Romania
 - Agreement to come on board to assist setup ensuring rapid launch & preventing wasted capital

Prospective Clientele



PARKDALE.



This year, we added hemp into 68 of our product styles. Hemp currently makes up less than 0.1% of the global fiber market.

BELLA + CANVAS



Industry Endorsement



There is no question as to whether hemp will become a dominant fiber simply because it's a by-product of medical and recreational oil crops and the fiber properties are competitive with cotton though far less water and chemical demanding with higher fiber yields.

However, like cotton, the US market faces emerging competition from India, China, Bangladesh and other countries where textile and apparel production, labor and training, and government support have tilted scales.

The production of Hem Mills proves that US hemp fiber is available, conventional yarn spinning equipment and knitting machines work satisfactorily, and experimental apparel meets performance and aesthetic requirements for successful marketing. If the USDA supports hemp production as it does cotton, and if the soil restorative and reduced water requirement attributes are validated, this could be a sound investment as the leadership has the technical and management experience required.

-Scott O. Seydel Jr.

President & CEO - The Seydel Companies

Progress to Date



- America's only hemp weaving & knitting mill
- Profit Generating Stage
 - Recognized revenue of \$500K+ during 2nd year operations
- World-Class team of Knitters/Weavers/Spinners
- Profitable 9 months post \$125,000 seed round
- 15,000 sq ft R&D production textile factory
- Waiting list of brands for domestic hemp textiles

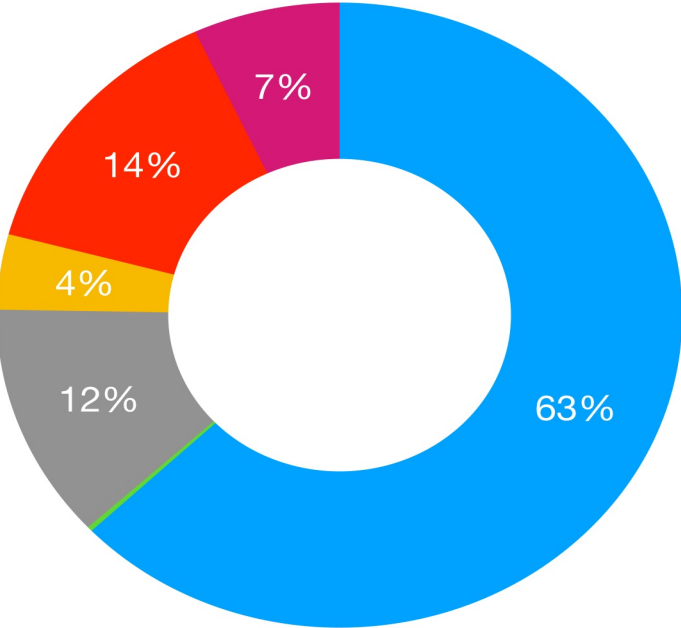


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We are asking for \$15.6 Million to supply and cater to the growing domestic and global hemp/bast fiber markets

Usage of Funds



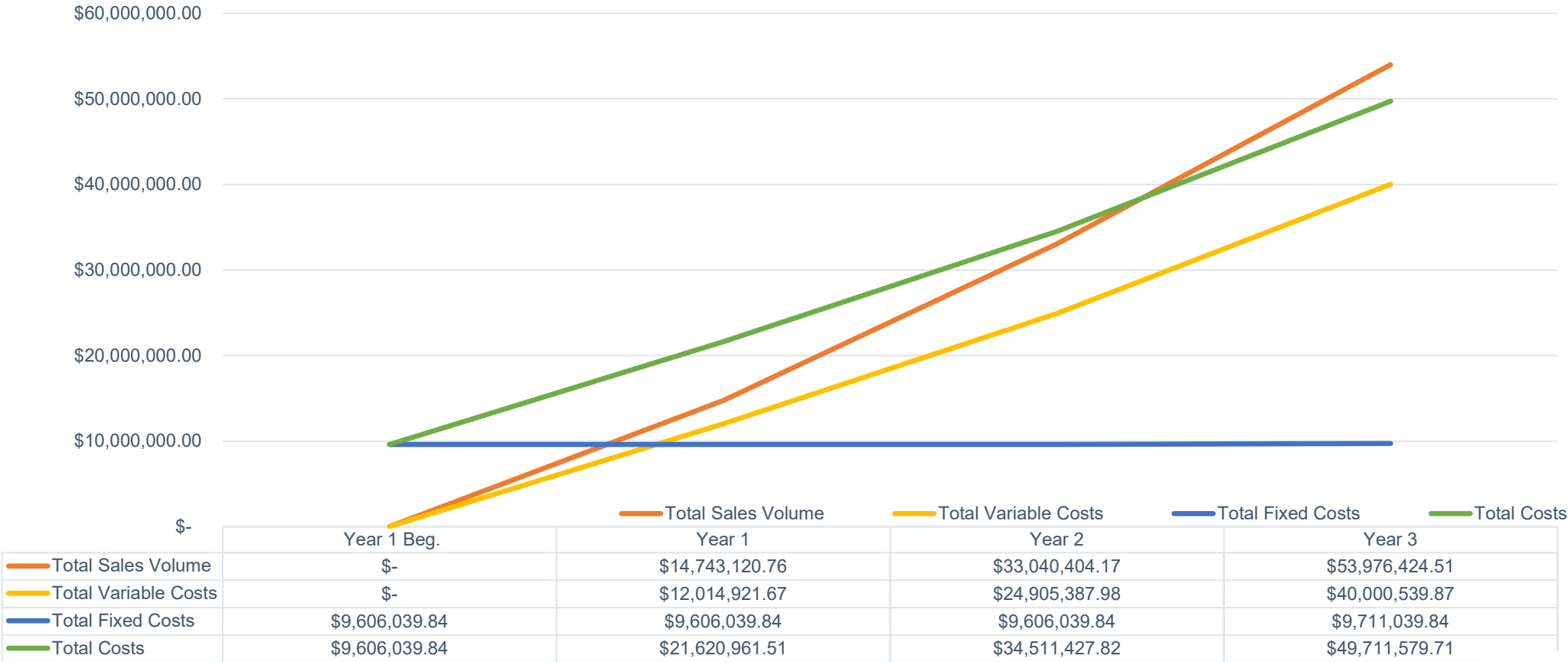
- Equipment
- Overhead
- Contingency
- Current Liabilities
- Consulting Fees
- Working Capital

Strategic Asset Purchases	\$ 9,046,039.84
Initial Overhead	\$ 1,749,123.00
Initial Materials	\$ 613,220.33
Partnership & Consulting Fees	\$ 560,000.00
Working Capital Buffer	\$ 1,031,616.84
Required Project Funds	\$13,000,000.00
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Contingency	\$ 2,600,000.00
Total Project Investment	\$15,600,000.00

Projected Breakeven



We project production capabilities of breaking even during year 3 of operations



Hem Mills Inc.

Phone: 980-781-9617

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Thank You

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