

HempTrain™ Advanced Hemp Processing Platform

Stephen Christensen, Ph.D., P.Chem.



Who are we?

- ▶ Canadian Greenfield Technologies Corp. is a Calgary-based hemp materials and engineering company; Incorporated in 2002.
- ▶ Developer and manufacturer of the HempTrain™ Advanced Decortication Facility - the only decortication technology capable of separating hemp stalk into:
 - ▶ 1) clean structural fibre;
 - ▶ 2) clean size-specified hurd;
 - ▶ 3) bionutrient-laden green microfibre.
- ▶ Manufacturer of high-value engineered hemp products for construction, garden, pet care, beauty, and food-preservation applications.

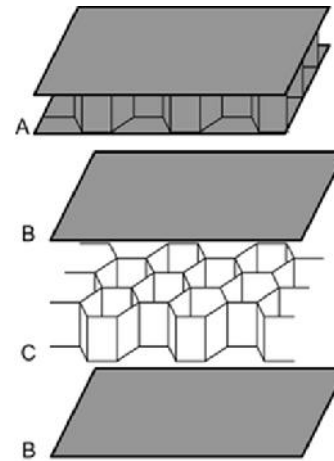


Our Story

- ▶ “Grew up” in the concrete industry
- ▶ Current fibre-reinforcement technologies are ineffective
- ▶ Hemp is the best candidate for effective concrete fibre
- ▶ Developed NForce-Fiber™
- ▶ Developed HempTrain™ technology
- ▶ Developed high-value engineered hemp products
- ▶ Sell above

Hemp Structure

- ▶ Nature is a great Engineer
- ▶ Bast/hurd/hollow/hurd/bast
- ▶ Tension and compression



HempTrain™ - Infrastructure for a high-value hemp Industry!



Bast Fibre

- ▶ Clean, long, strong
- ▶ Concrete, composites, etc.

Hurd

- ▶ Clean, size specified
- ▶ Pet, garden, food preservation products

Green Microfibre

- ▶ Laden with bio-nutrients
- ▶ Pet, beauty, health, garden products

HempTrain™

▶ Specifications for a HempTrain™ commercial module:

- ▶ Includes:
 - ▶ Bale Opener
 - ▶ Processing Units
 - ▶ Dust Collection
 - ▶ Electrical and Control
- ▶ **Throughput:** 2000 lbs/hr (approximately 10-12 million lbs /year)
- ▶ **Area Required:** 20' (6m) X 50' (15m)
- ▶ **Machine Height:** 16' (5m)
- ▶ **Machine Weight:** ~15000 lbs (6800 kg)
- ▶ **Feedstock Bale Size:** Up to 8'x5'x6' (2.4m x 1.6m x 1.8m)
- ▶ **Hurd Cleanliness (bast fiber content):** 15% (separate cleaner attachment is available for cleanliness of 8%)
- ▶ **Hurd Fiber Particle Length:** From 1/8" (3mm) to 2" (50mm)
- ▶ **Bast Fiber Cleanliness (Hurd content):** 15% (separate cleaner attachment is available for cleanliness of 8%)
- ▶ **Power Requirement:** ~60 HP (50KW)

Consumer Products



Construction Products



china.org.cn (2018)



Photo by Jack Landau - UrbanToronto.ca (2018)

Extracted/Infused Products



PUBLICITY



Thank you!

Stephen Christensen

stephen.christensen@canadiangreenfield.com