SD Industrial Hemp 2022/23

2nd year of growing hemp in SD

- 2540 acres of industrial hemp planted in SD in 2022
- #2 in the US in acres planted in just our second year (Montana 2998 acres)
- Most of SD acres were planted using dual purpose grain/fiber varieties

Top Hemp Producing States

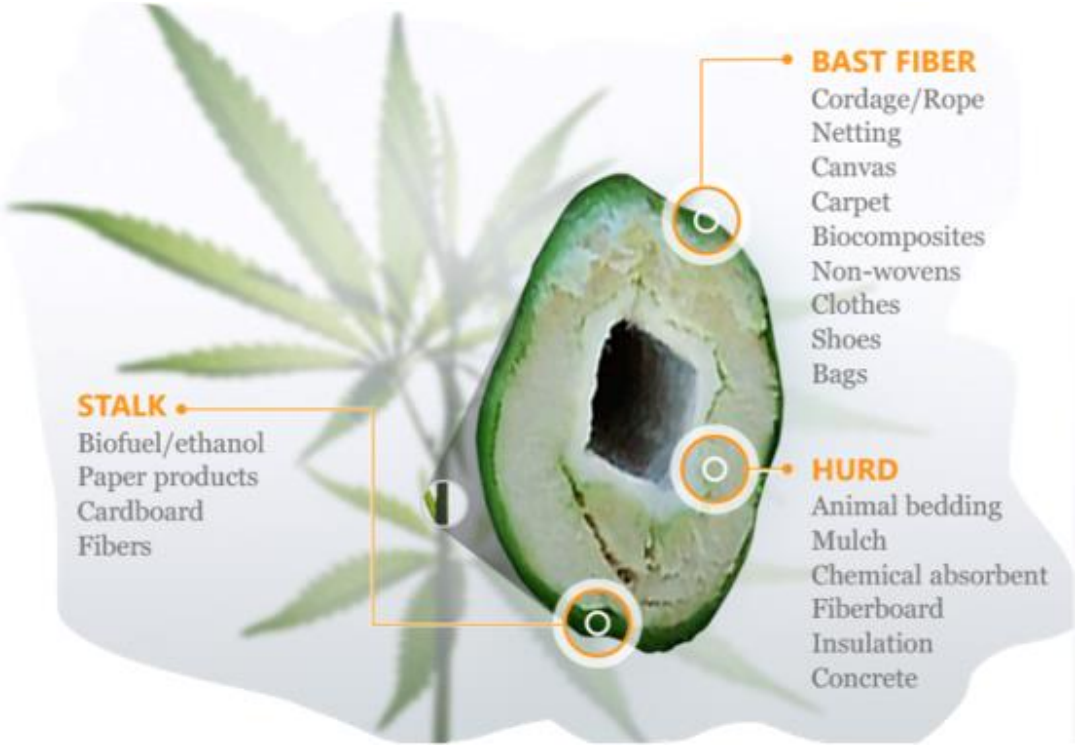
2021		2022	
State	Acres Planted	State	Acres Planted
Colorado	7,014	Montana	2,998
Montana	5,833	South Dakota	2,540
Tennessee	4,448	Texas	1,600
Minnesota	2,445	Missouri	1,494
Texas	2,145	Kentucky	1,328

Seed/Fiber hemp fits well for SD

- SD farmers have large acre fields available for grain/fiber hemp vs small CBD plots (0.5-5acre)
- Experience with haying and small grains
- Can use current, on-farm equipment
- Minimal in season maintenance (no herbicides)

Bast Fiber and Hurd are the two main components of the stalk

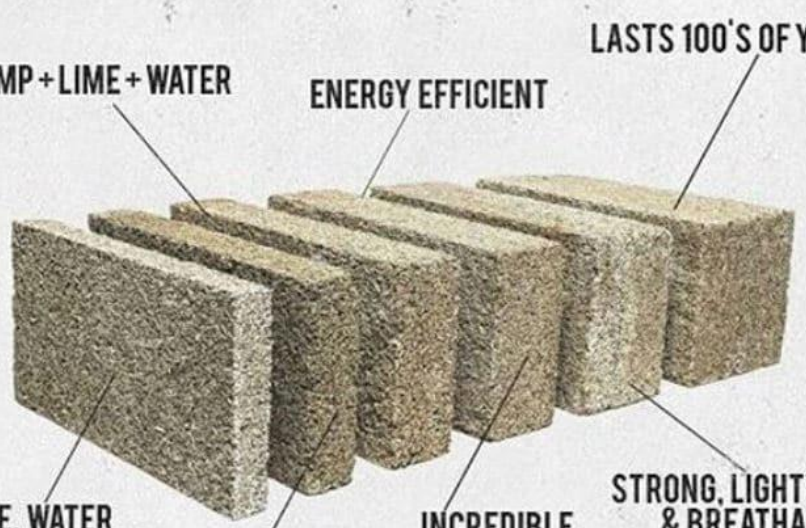
Hemp Seed is also harvested on many “dual crop” varieties



THE MANY USES OF HEMP
ANIMAL BEDDING
FUEL
FOOD
MATTRESSES
PLASTICS
BODY CARE PRODUCTS
ANIMAL FOOD
TEXTILES & CLOTHING
PAPER PRODUCTS
ESSENTIAL OILS
CONSTRUCTION
MEDICINE

HEMPCRETE

DESIGNED TO BUILD, NOT TO SMOKE.



TheFreeThoughtProject.Com | #EndTheDrugWar

BEST PART

ONLY TAKES 90 DAYS TO GROW!

Prior to planting

- Obtain SD DANR Industrial Hemp growers license
  - Google “SD Hemp Rules”
  - Background check on key operators, land owners
- Obtain seed
- Fertilizer plan
- Harvest plan

Fertilizer recommendations – Per NDSU

150/30/20 blend N/P/K

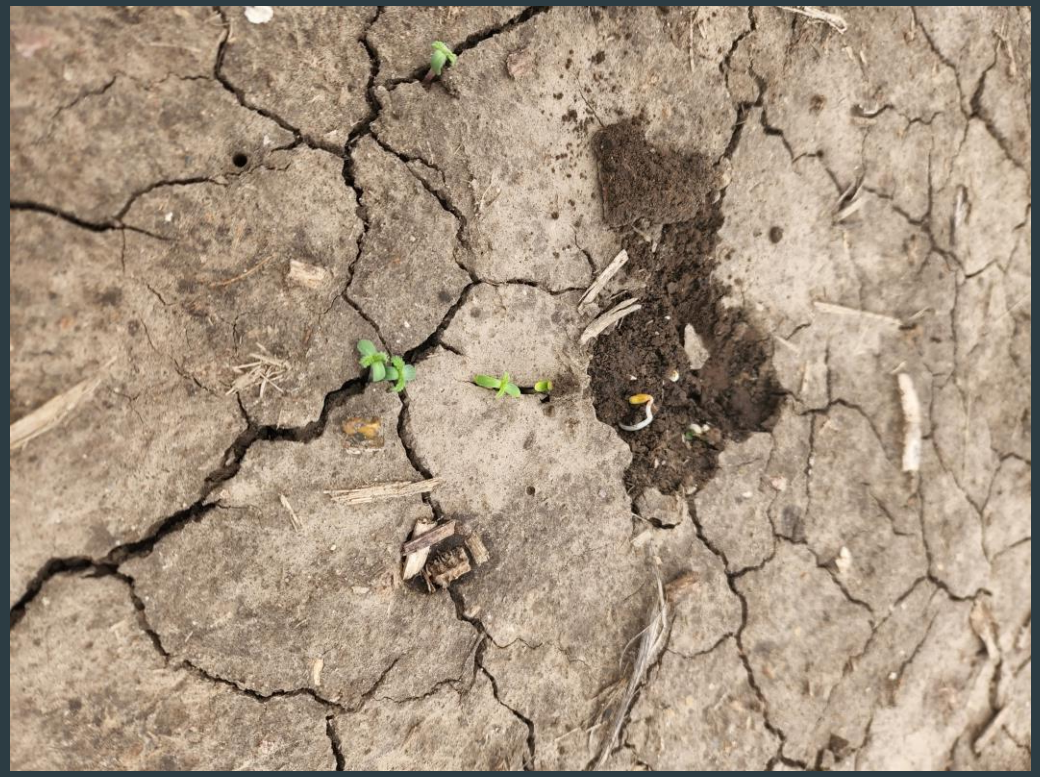
Field Preparation

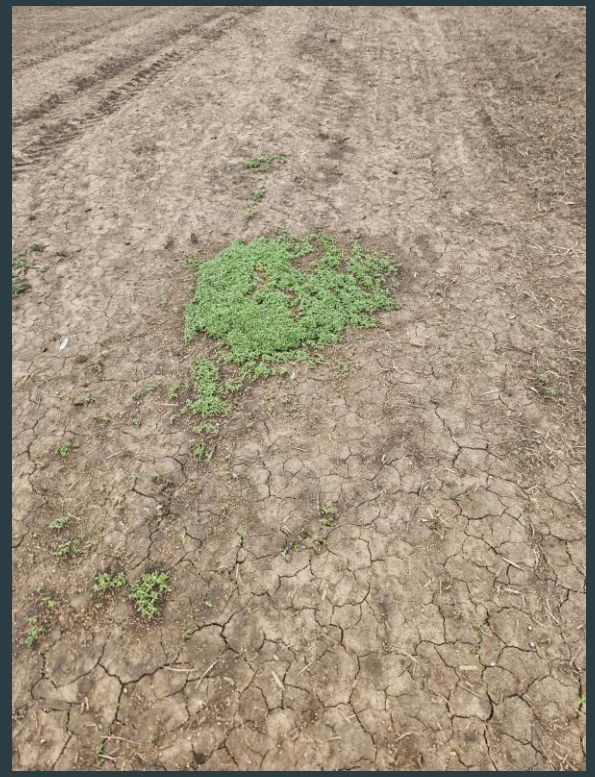
- Start with a clean field for optimum results
- Tillage/burndown works well
- Good results from land rolling prior to planting
- Firm seed bed and good soil contact

Population/fertilizer/moisture affect stalk size

Planting depth

- Shallow planting depth, 1/2 inch recommended
- Do not go chasing moisture by planting deeper
  - Can result in slower emergence and uneven stand
- Shallow depth allows emergence after a rain even if the ground crusts





Crusting after 1.5” Memorial Day rainfall

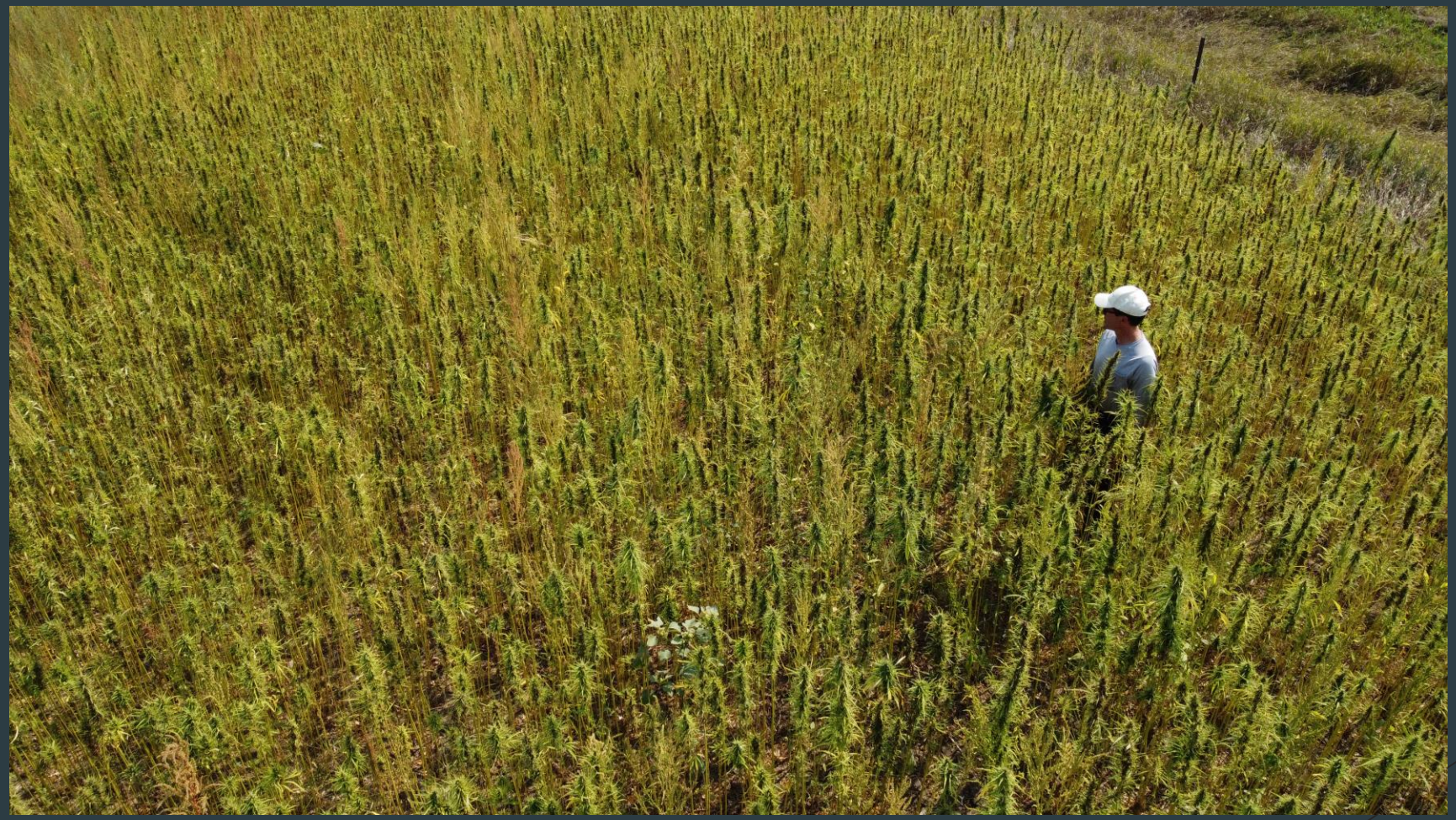
Row spacing

- 6” rows are ideal for weed control
- No herbicides allowed by label

Planting Dates

- Plant early to mid May once soil temp reaches 50F
- We saw significant decrease in stalk size and grain production potential in June planted hemp
- Hemp plants are photo determinate

2022 SD summer hemp field tours



Crop Insurance

- Multi peril not available in SD yet
- Can still get NAP insurance through USDA
- Hail insurance available

Questions

130 acres near Wakonda

Dry land hemp following soybeans

Fast growing!
Planted 6/3/22

Week 2

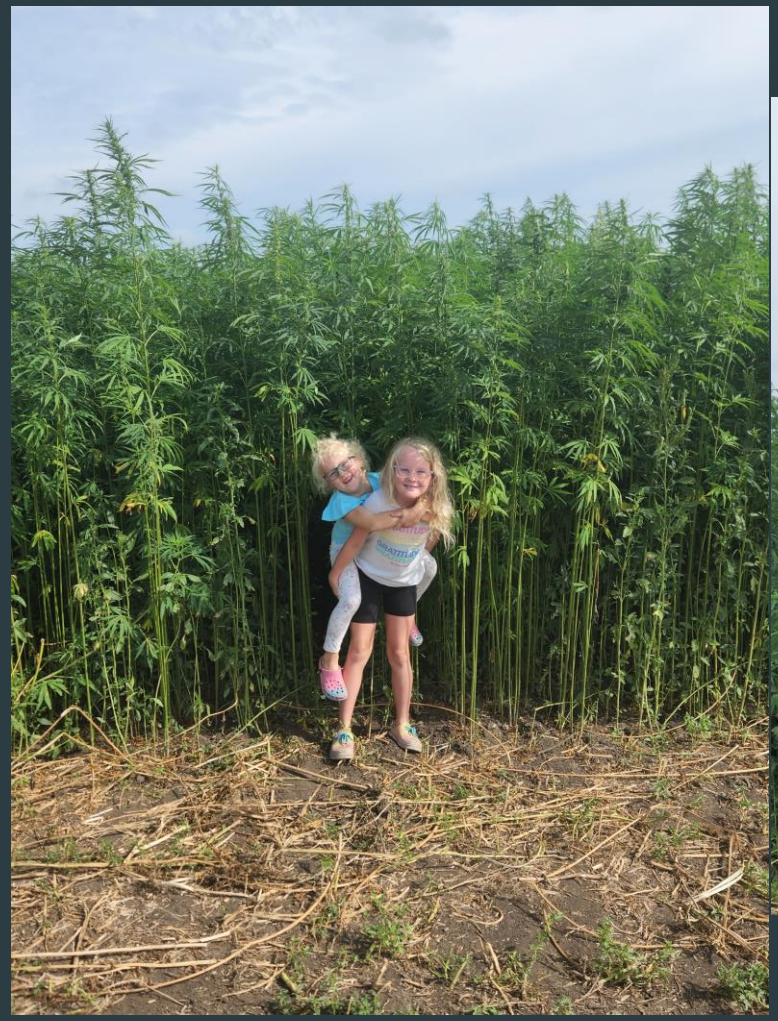
Chokes out weeds

Week 5
7/10/22

Quick to Canopy
Week 6 7/17/22

Week 7
7/24/22

Week 8
8/22/22



Weeks 9/10
8/7 and 8/14

7/27/22
5-6'
Some seeds
B-LAB

7/27/22
6-7'
No Seeds
FUTURA 83

HENOLA
Futura 83

Harvest Checklist

- Request harvest sample from DANR
- DANR will sample within a few days of request
- Once taken, 30 day harvest window starts
- Can harvest immediately, but do not mix varieties until tests comes back
- THC lab results in around 5 days

Bin Selection

- Have a plan in place how/where you will dry your grain
- Harvest grain at 20-25% moisture, air dry 10-12%
- Have enough grain on the floor to start fans the first night
- Cone bottom bin with air, or flat air floor bin

Bin Selection

- Wet, light grain may not flow through gravity bin spreaders
- Check flooring!
- Grain will check it for you, smaller than soybeans

Bin Selection

No heat

Temps over 140F air/110F grain could cause “toasting” of oils

Grain will have to be re-elevated for complete drying

Harvest

- Around 100 days after planting
- Plant Defoliates
- Heads begin to dry, and seed pods open

Ready when 75% of seed head is mature
Seeds will be dropping
Watch for doves

Harvest started 9/19/22

107 days after planting

Harvest

Bean head

Draper heads feed increased material well

Don’t chase low seeds

Bish Built 12 row 30 in.
Bish Built 12 row 30 in.

JOHN DEERE
BISH
ENTERPRISES

Harvest

- Take top 2’ only if possible
- Plant is still green, seed will be wet
- Large round bar concaves installed

Harvest

- Long fibers can wrap
- Need to stop every few rounds and inspect
- Remove any buildup

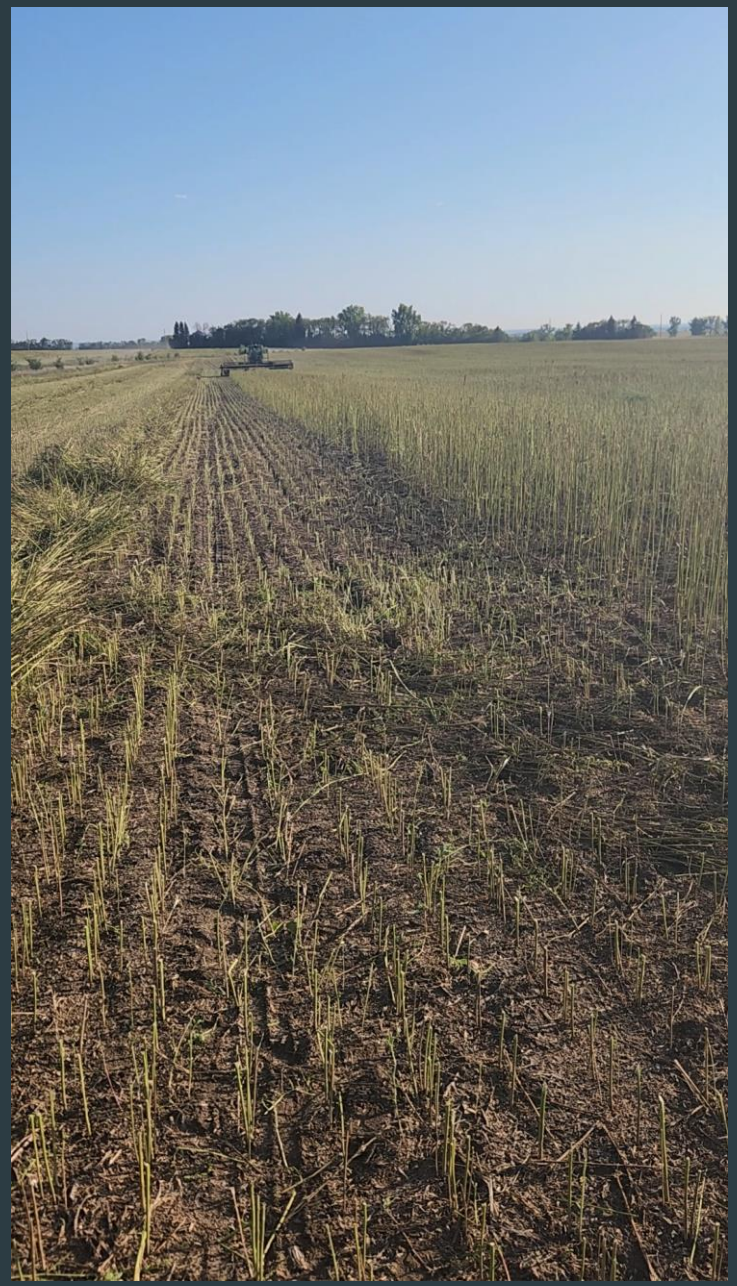
Filled bin with auger

Re-elevate at 1-2 weeks

Dried 21-14% in 10 days (Mid-late Sept)

Cutting

- Sickle bar or Swather
- Cut 6-8” above ground
- Leaves a nice air bed under the windrow
- Your tires will thank you



Cutting

- Crimpers spread apart
- Sickle cut preferred

FiberCut

Leave in windrow or flat from bar cut

Retting

- Proper retting is REQUIRED to sell your bales!
- Natural process 1-3 weeks
- Lay in field, wetting and drying of dew will speed process
- Breaks down pectin (natures glue)
- Makes fiber/hurd separation possible

Retting

- Moisture is good during retting
- 2-3 weeks down in soaked, saturated fields may cause greying of hurd
- Undesirable in bedding and hempcrete markets

Retting

Baling

- Round or Large Square
- Rounds need double net wrapping

Baling

1-4+ T/acre

Bales weigh 800-1200lbs

Separate/mark end row bales (FM)

Bale Storage

- Large Squares need to be tarped
- Rounds can be butted end to end, or stacked
- Please do not store bales on gravel

Bale Delivery

- Rounds to A.H. Meyer (Winfred)
- Rounds or LS to Dakota Hemp (Wakonda)
- Call after harvest with bale count and to schedule delivery

2022 Contract Pricing - Seed

- $0.55/lb = $24.20/bu
- Dried to 10%
- Tested for quality prior to delivery

2022 Contract Pricing - Fiber

- A.H. Meyer and Sons (Winfred)-Rounds only
- Dakota Hemp (Wakonda)-Rounds or Large Square
- $210/T
- Bales properly retted
- Rounds double net wrapped

Expense	Vega	Futura, YuMa	Income	Vega Hartford	Vega Wakonda	Futura	YuMa (Fiber)
Rent Fert	200 150	200 150	Yield (SEED) @ $24.20/bu	45 bu/ac $1125/ac	21 bu/ac $508/ac	38 bu/ac $920/ac	0
Seed Labor*	75 85	225 85	Fiber tonnage @ $210/T	1.5T/ac $ 315	1T/ac $ 210	2.5T/ac $525	5T/ac $1050
Total	510	660	Total income Expense	1440/ac 510/ac	718/ac 510/ac	1445/ac 660/ac	1050/ac 660/ac
*Combine,Drill, Cut,Bale			NET	$930/ac	$208/ac	$785/ac	$390/ac

Income	Vega Hartford	Vega Wakonda	Futura	YuMa (Fiber)	VS Corn @ $6.50/bu	VS Soybeans @ $14.00/bu
Yield (SEED) @ $24.20/bu	45 bu/ac $1125/ac	21 bu/ac $508/ac	38 bu/ac $920/ac	0		
Fiber tonnage @ $210/T	1.5T/ac $ 315	1T/ac $ 210	2.5T/ac $525	5T/ac $1050		
Total income Expense	1440/ac 510/ac	718/ac 510/ac	1445/ac 660/ac	1050/ac 660/ac	221/110/222/162 bu/ac	103/51/103/75 bu/ac
NET	$930/ac	$208/ac	$785/ac	$390/ac		

- Dakota Hemp
- Fiber Processing
- Wakonda, SD

HempTrain™
Advanced Processing Plant
CANADIAN GREENFIELD
CANADIAN GREENFIELD

Questions

Thank you!