

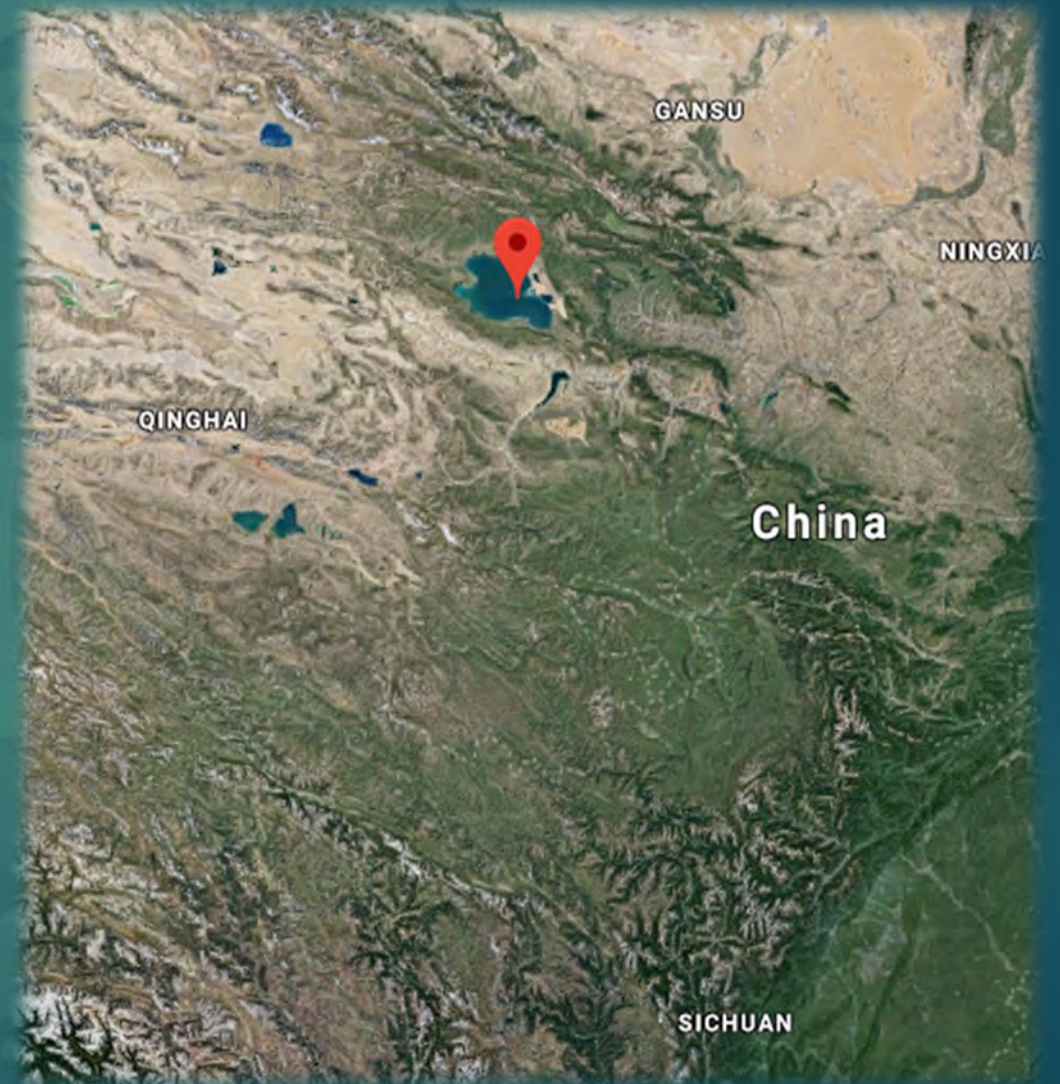


# Hemponomics 201



# What is Industrial Hemp?

The Origins of Cannabis





# 2018 US Farm Bill Passes

## Michigan Program Launches on Earth Day

### 2019

#### ► 2019 Industrial Hemp Harvest

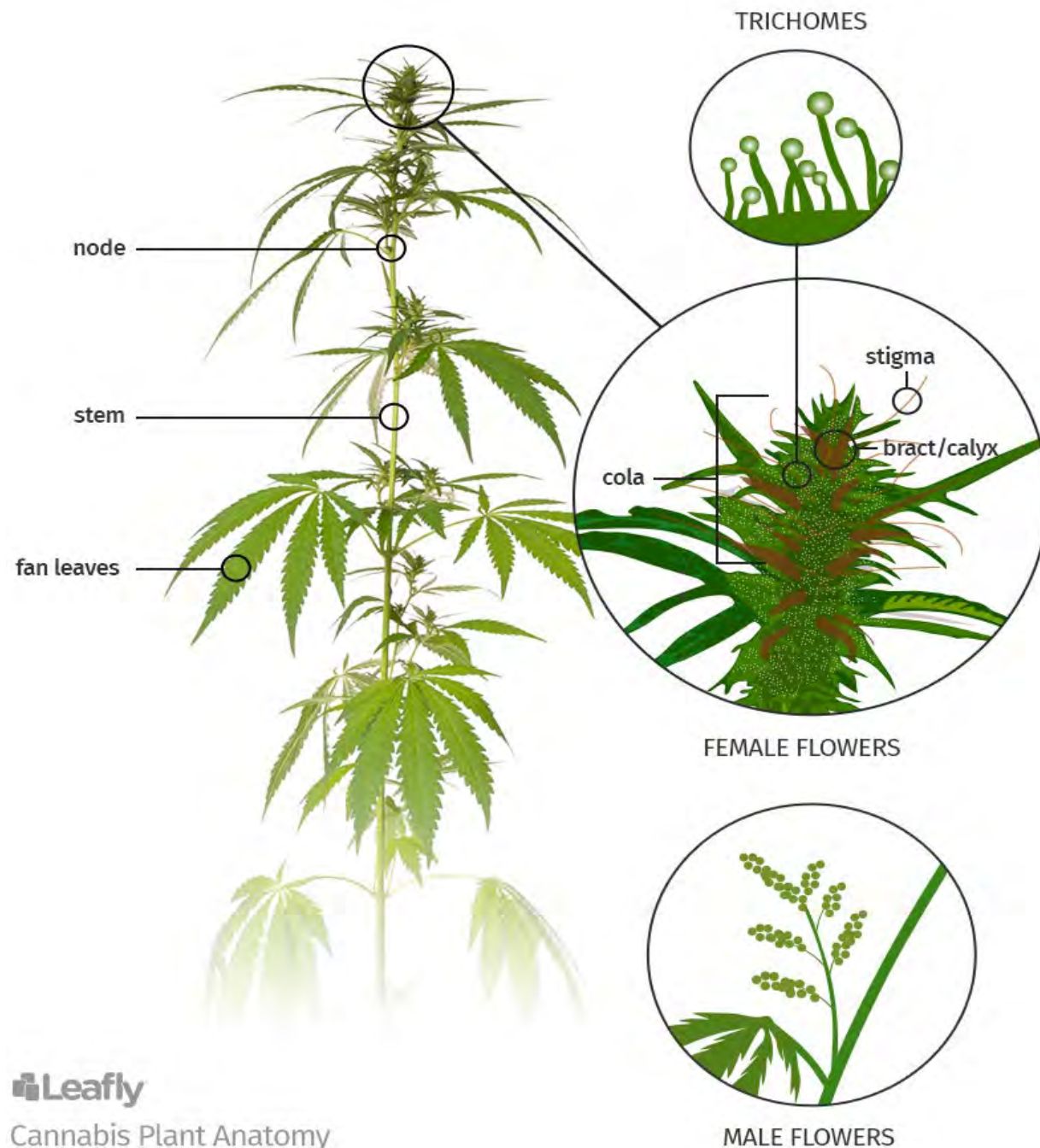
- 603 growers
- 482 processor/handlers
- 3,678 acres of hemp outdoors and
- an additional 400,977 square feet of hemp indoors

#### ► 2020 Industrial Hemp Harvest

- 631 growers
- 517 processor/handlers







# The Plant

ESTIMATED TO BE 25,000 - 50,000  
USAGES FOR INDUSTRIAL HEMP

- FLOWER
- SEED
- STALK
- ROOTS



Cannabis Plant Anatomy

# Uses of Hemp

- Medicine
- Food
- Industry





# Medicinal Values of Cannabis

**CBD, CBG, CBN & more to come**



- FDA Approved Drug
- PTSD Studies
- Anecdotal Evidence

# Cannabinoids

Endocannabinoid System

Anti-Inflammatory

Long List of Benefits

- CBD
- CBG
- CBN



More research & discoveries – over 140 different cannabinoids





# Hemp (seed) Grain

- Hemp Hearts, Hemp Seed Oil and Hemp Protein recognized as Generally Recognized As Safe (GRAS) by US Food & Drug Administration
- High in Protein & Amino Acids 3, 6 and 9 with a great ratio





# Hemp Grain Uses

## Seed Oil

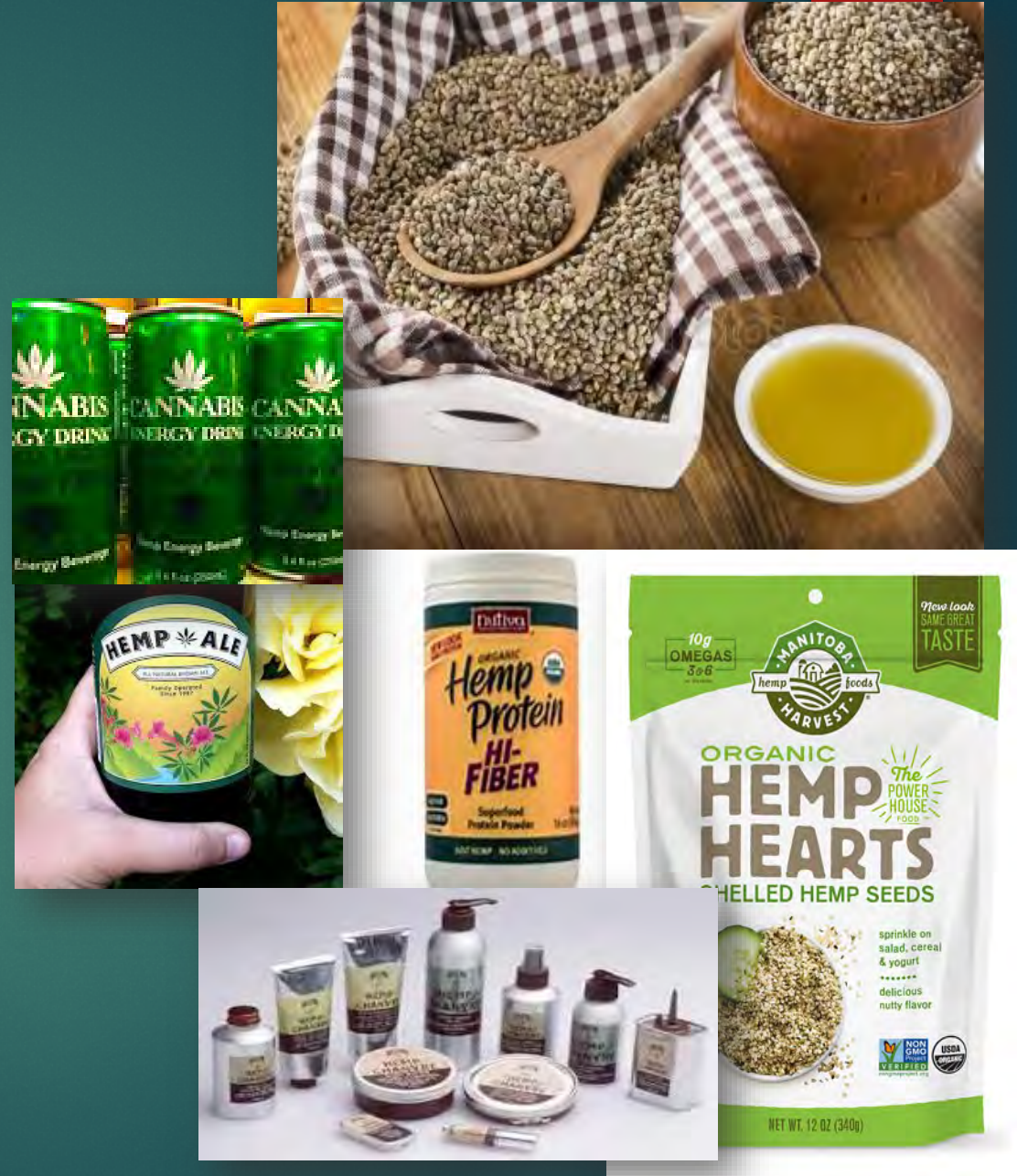
- Body Care (Cosmetics)
- Dietary Supplements
- Industrial Oil
- Biodiesels

## Meal

- Baked Goods (flour)
- Animal Feed (not approved yet)

## Hemp Hearts

- Used Similar to Nuts in Cooking & Baking



# Hemp Fiber

- Two Types of Fiber
  - Hurd
  - Bast
- Decortication

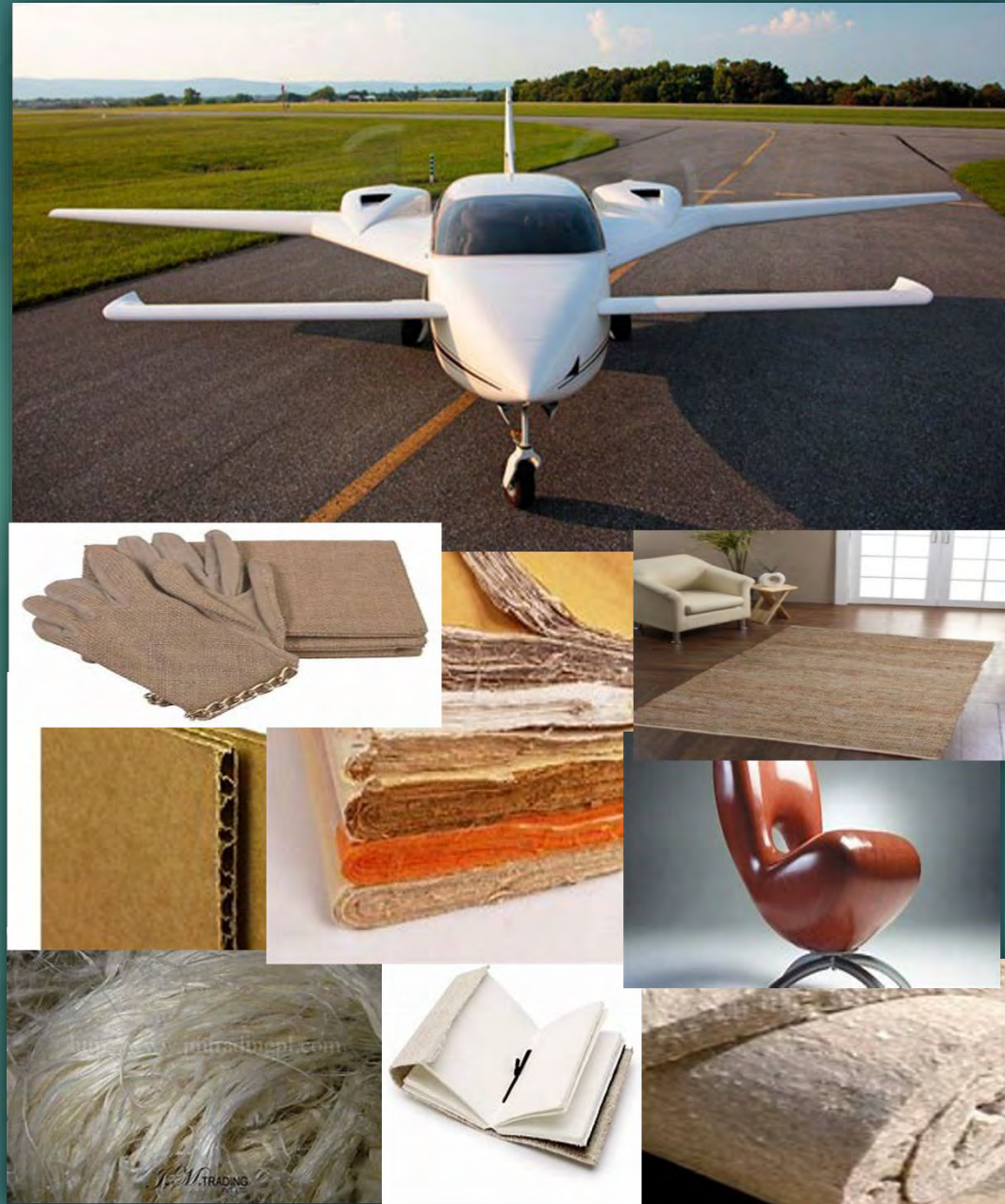




# Hemp Fiber Uses

## Long (Bark) Fiber

- Plastic – Molded Products
- Specialty Paper
- Construction Fiberboard
- Biodegradable Landscape Matting
- Plant Culture Products
- Coarse Textile (carpet, upholstery)
- Fine Textiles
- Superconductor

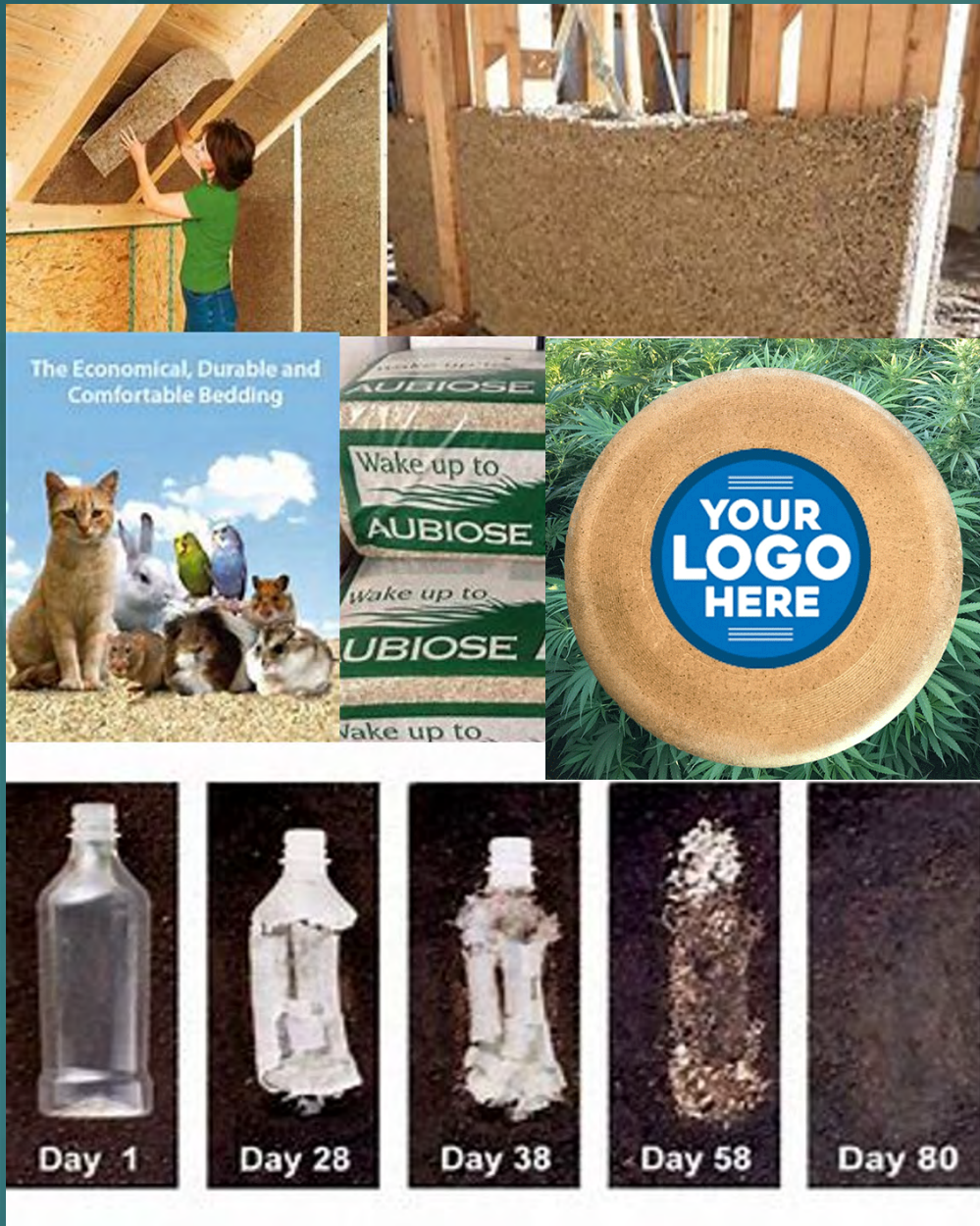




# Hurd Usage

## Woody Core (Hurd)

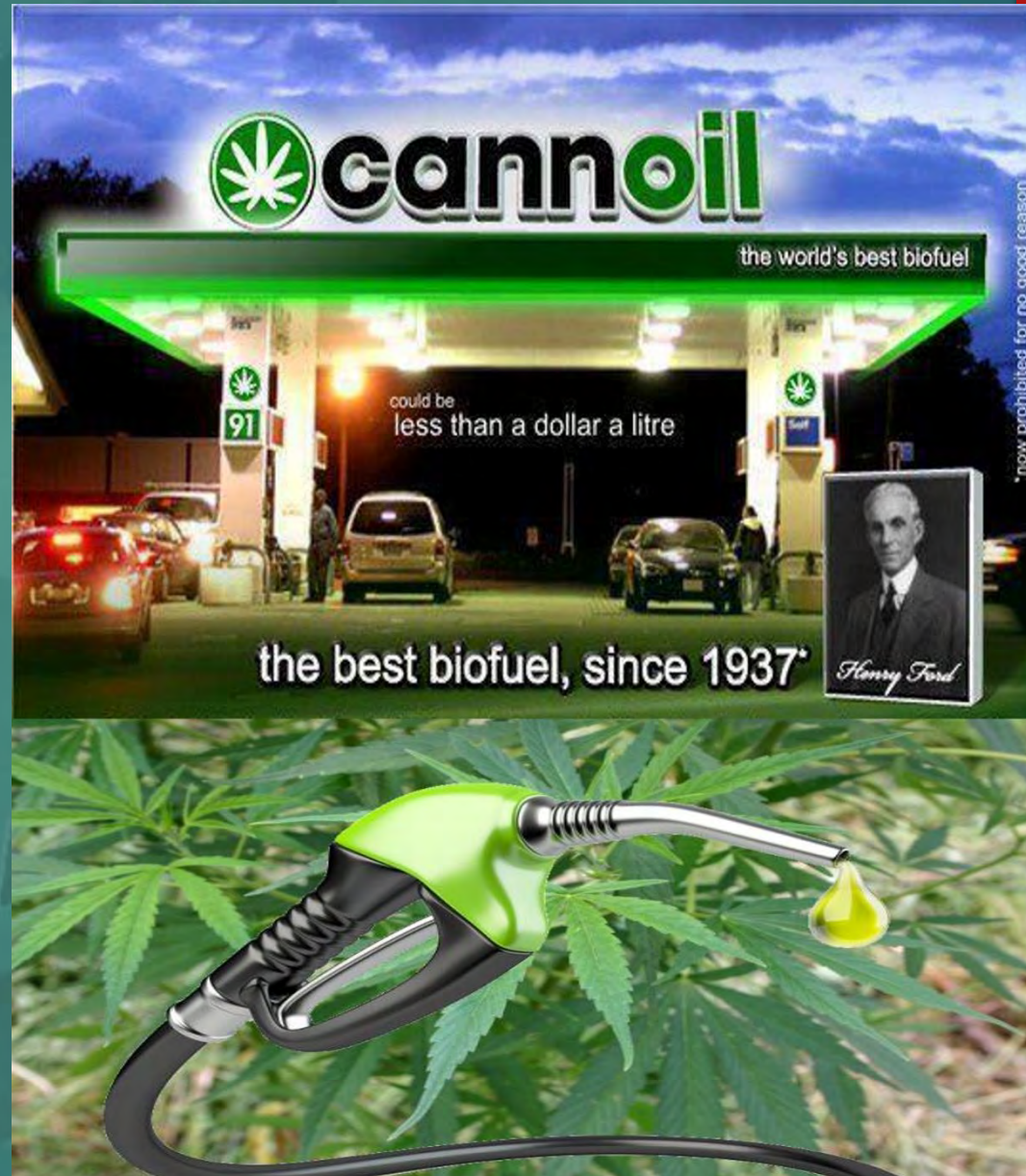
- Animal Bedding
- Thermal Insulation
- Fiberboard
- Plasterboard
- Biodegradable Plastic
- Hempcrete





# Whole Plant

- Alcohol – Ethanol
- Fuel
- Silage
  - Do not feed directly to cattle
  - Safe to use after the fermentation process



# CBD Market



- Smokable Flower
- Salve
- Oil
- Food Additive - *coming*



# Expectations

- Good Regulation
- Best Practices
- Certification
- Industrial Applications





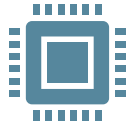
# Market Needs



Finance



Testing



Processing



Marketing



Education



Innovation



# Legal Climate



USDA RULES



BANKING



FDA



STATE  
RESOURCES

# Next Steps



*Educate*



*Partner With Industry*



*Implement*



*Thank You!*



[www.iHempMichigan.com](http://www.iHempMichigan.com)