

March 10, 2016

Dear Chairman Mark Hutton & Commerce Committee Members,

Thank you for the invitation to present this afternoon. My name is Rick Trojan, and I am an owner of Colorado Cultivars, an industrial hemp farm located in north eastern Colorado. In 2015 we cultivated nearly 300 acres of hemp, approximately 20% of Colorado's hemp acreage. To my knowledge we are largest single hemp farm in the United States.

Let us begin with an overview of hemp globally. In 2015 hemp was cultivated in over 30 countries, and is legal in every G7 nation, save the United States of America. Every other G7 nation is realizing the benefits of this crop in terms of jobs and dollars. From a demand perspective, the US is responsible for over \$600M in hemp purchasing, from food to clothing, plastics to building material. Hemp is coming from Canada as food, from China as textiles, from the European Union as building material, as well as other countries. Nearly 90% of Canadian hemp production is purchased here in the US.

This domestic demand for hemp products has been growing since 1994, and is expected to triple to nearly \$1.5B by 2020! The majority of these dollars are flooding OUT of our country, along with jobs in manufacturing, processing, retailing and, most importantly farming. It's my belief that we should keep American dollars here in America, and allow hemp cultivation and processing nationwide.

Demand for hemp is already here in the US, and it's growing rapidly. Hemp can be turned into over 30,000 different products, from clothing to plastics, biofuel to airplanes. Anything that can be made from corn can be made from hemp. Nearly everything made from petrochemicals can be manufactured from hemp, including super capacitor batteries!

However, there are other economic and agricultural benefits to hemp as a crop. Hemp can be processed into food. Not unlike wheat, hemp can provide flour, and like sunflower seeds, hemp can be used in protein bars & salad toppings. It is a super food, providing all essential amino acids, vitamins D, E and A, and more protein per ounce than salmon! The health benefits of hemp are already being realized in humans and in animals, such as chickens and cows.

Hemp is also phytoremediator, meaning it leaves the soil in better condition than it found it. It's roots can dig down in excess of 8 feet, and decomposing hemp biomaterial provides nitrogen and phosphorus for the next rotational crop. Used rotationally, hemp can increase yields of other crops, 25-30% for tobacco, and 6-8% for corn. Furthermore, it can be grown on the same soil without need for herbicides or pesticides, and requires 30% less water than corn.

With regards to machinery, we utilized the same mechanized planters and harvesters used for corn and wheat. For this season, we will be doing some retrofitting to optimize agricultural efficiencies. The translation for our American farmer – less inputs in terms of water, nutrients and pesticides, without the need for new, expensive machinery to handle hemp on an industrial scale.

In regards to job growth, last year, our first year of operations, Colorado Cultivars employed over 25 people. Furthermore, we impacted over 100 additional jobs, from transportation to marketing, retailing

to research and development. That's with only 300 acres cultivated. Imagine the job growth & economic impact of thousands of acres of hemp, not only for Colorado Cultivars, but the State of Kansas as well.

Currently there are 29 states that have legalized hemp cultivation. The most recent, Virginia, passed unanimously in both the house and senate. However, only 9 states grew hemp in 2015. That means only 9 US states got to take part in capturing some of that \$600M in domestic hemp expenditures. As this industry continues to grow rapidly, I'm here to ask that Kansas join Colorado in bringing hemp revenue to this region of our country!

Let me close by saying that hemp is not the end all be all savoir of our American farms, but it is a major step in the right direction! Its been 80 years since we've had American hemp cultivated on a nationwide scale, so we'll need to learn what cultivar works best for specific soil and regions of our country.

That being said, hemp is the best option I've seen for our American farmers. If I didn't believe that, I wouldn't have devoted the last few months to spearheading a grassroots, nationwide education campaign, called the Hemp Road Trip. The purpose of the Hemp Road Trip is to reach out and teach farmers, legislatures, students and everyday citizens about the benefits of this crop and the need to get seed in the ground nationwide. I firmly believe that American ingenuity and innovation will help take hemp to the next level and truly provide a viable alternative to our farmers, our business owners & investors, our consumers, and our environment. Please allow Kansas farmers the option to cultivate this crop like they currently cultivate wheat or corn.

Potential Processing Centers (150 mile radius from cultivation)

Topeka

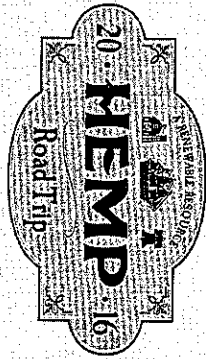
Wichita

Dodge City

Colby

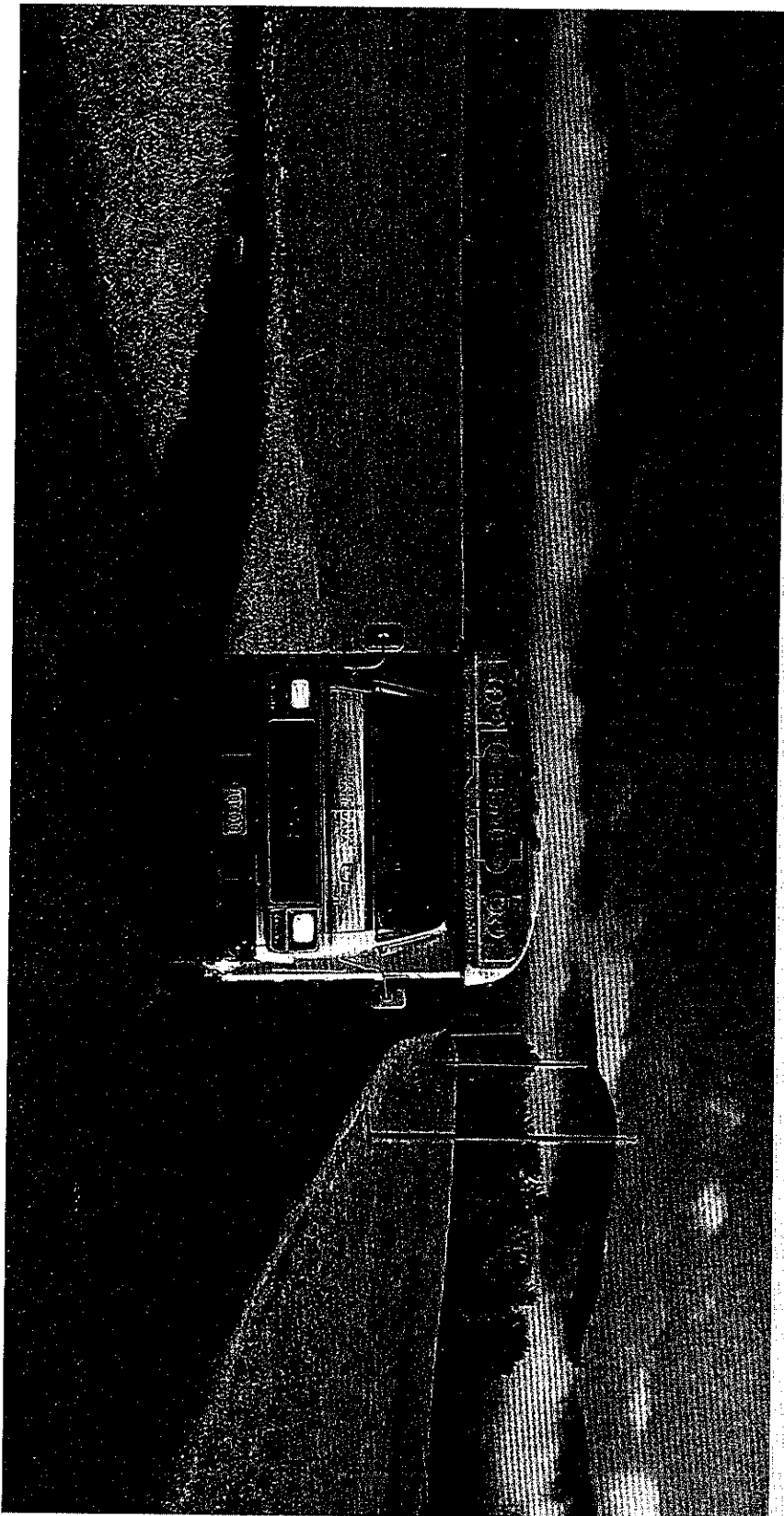
Kansas City, Kansas

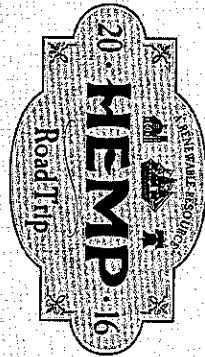
Rick Trojan  
Industrial Hemp Farmer  
Eaton, Colorado



# HEMP ROAD TRIP 2016

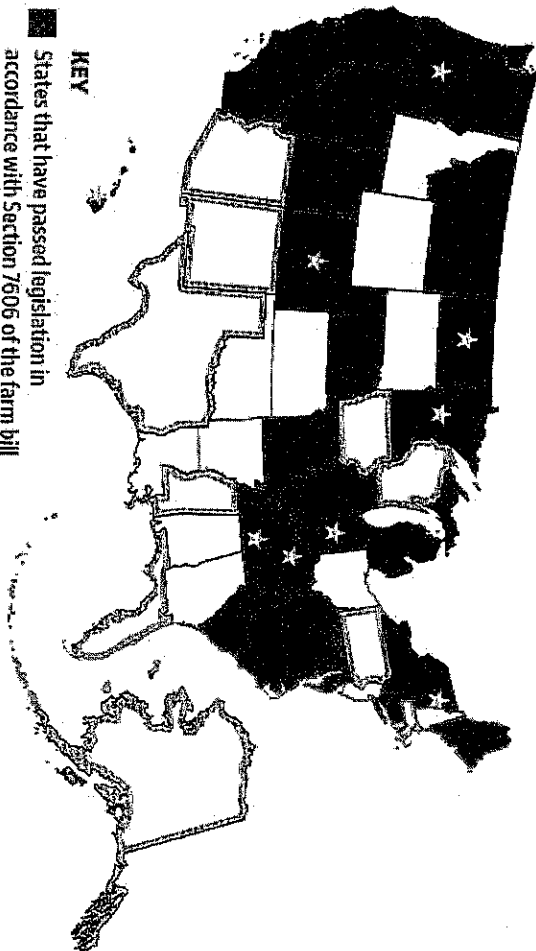
HEMP IS NOT  
MARIJUANA





# U.S. STATISTICS NOW

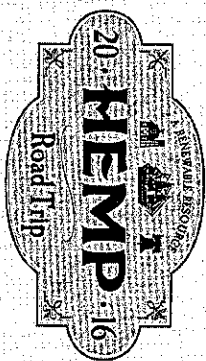
## 2015 State Hemp Legislation



### KEY

- States that have passed legislation in accordance with Section 7606 of the farm bill
- States that have currently introduced or have momentum to have hemp legislation introduced and passed.
- States that planted in 2015

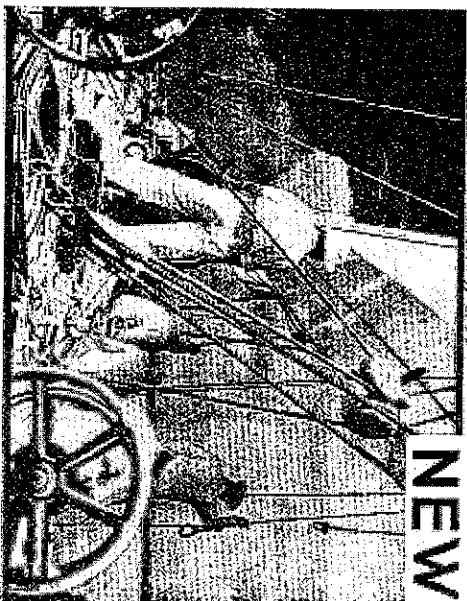
**VH**  
Vote Hemp  
www.votehemp.com



# 1938 POPULAR MECHANICS AD

POPULAR MECHANICS  
February, 1938

Equates to a  
\$17 Billion  
crop today  
(adjusted for  
inflation)



NEW

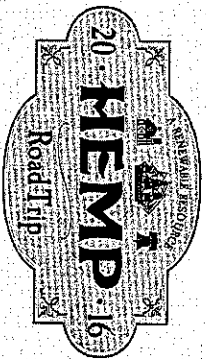
A MEMPHIS farmer has produced a new crop with an annual value of several hundred million dollars. It is a new machine that has been invented which does a job that no other machine can do. It is a new machine that has been invented which does a job that no other machine can do. It is a new machine that has been invented which does a job that no other machine can do.

After the floor has been removed from the new crop, it is a new machine that has been invented which does a job that no other machine can do. It is a new machine that has been invented which does a job that no other machine can do. It is a new machine that has been invented which does a job that no other machine can do.

BILLION-DOLLAR CROP

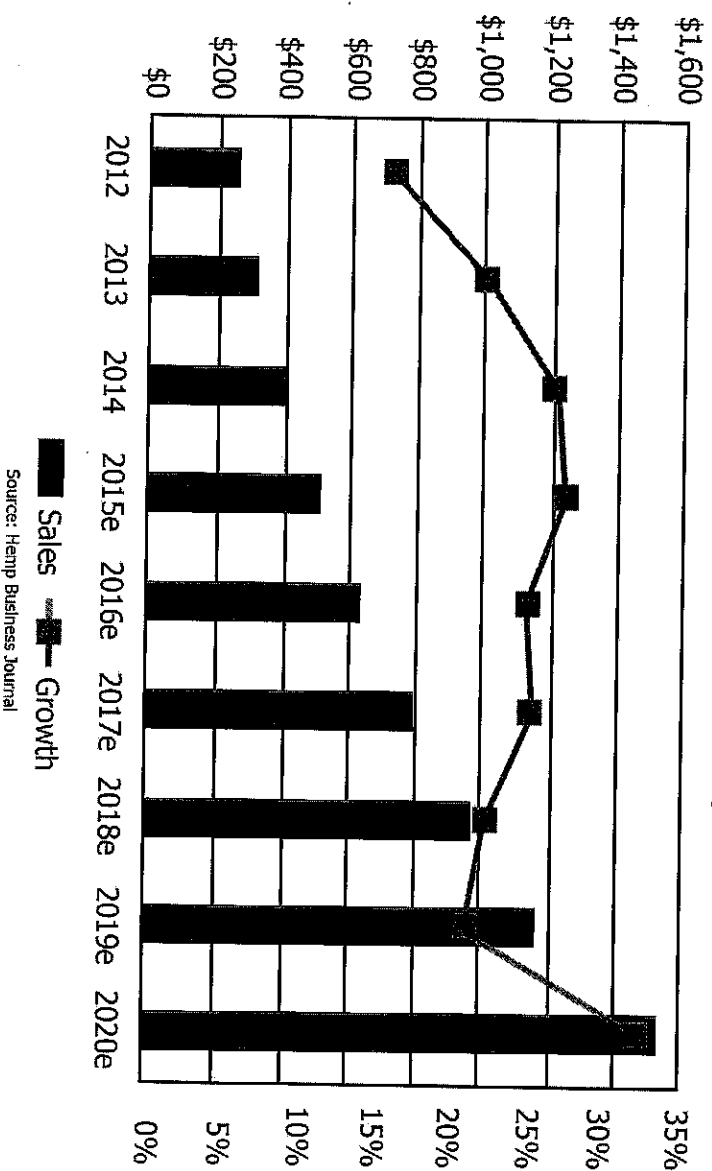


Billions with small-printed letters. They will give you a new crop with an annual value of several hundred million dollars. It is a new machine that has been invented which does a job that no other machine can do. It is a new machine that has been invented which does a job that no other machine can do. It is a new machine that has been invented which does a job that no other machine can do.

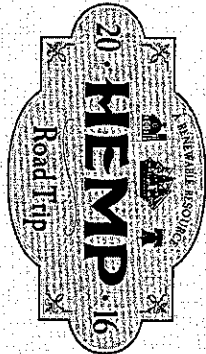


# US HEMP-BASED PRODUCTS SALES 2012-2020e

U.S. Hemp-Based Products Sales, 2012-2020e



Source: Hemp  
Biz Journal, 2016

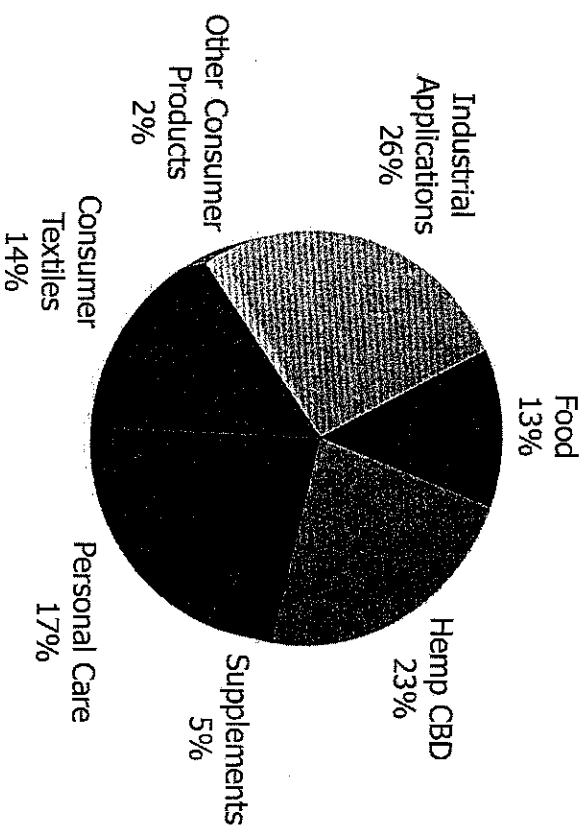


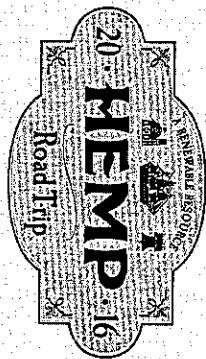
# U.S. HEMP-BASED PRODUCT SALES

**\$500 Million U.S. Hemp-based Product Sales in 2015e**

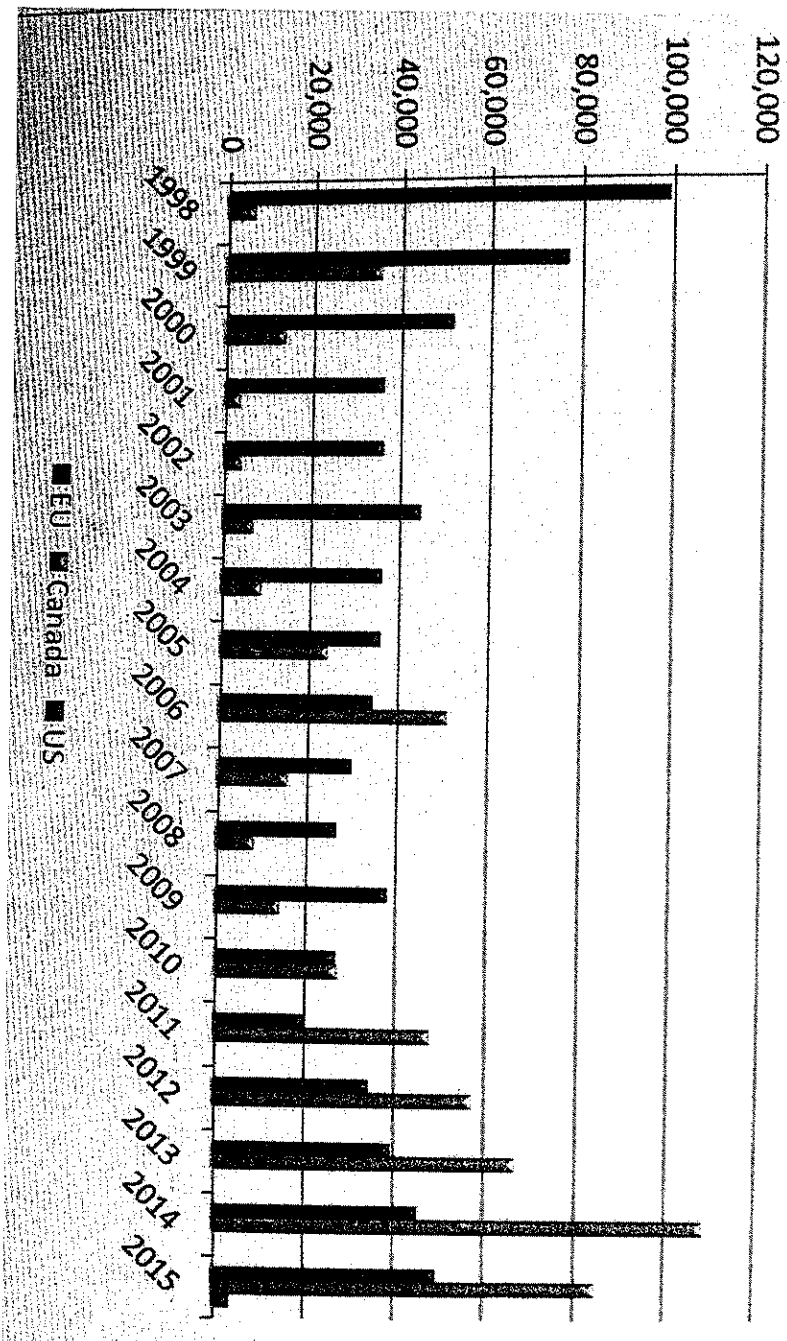
30%	Personal Care
19%	Consumer Textiles
19%	Food
17%	Hemp CBD
15%	Other

**\$1.5 Billion U.S. Hemp-Based Product Sales by Category in 2020e**

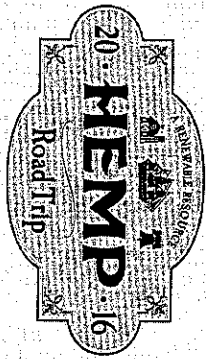




# GLOBAL HEMP ACREAGE COMPARISON

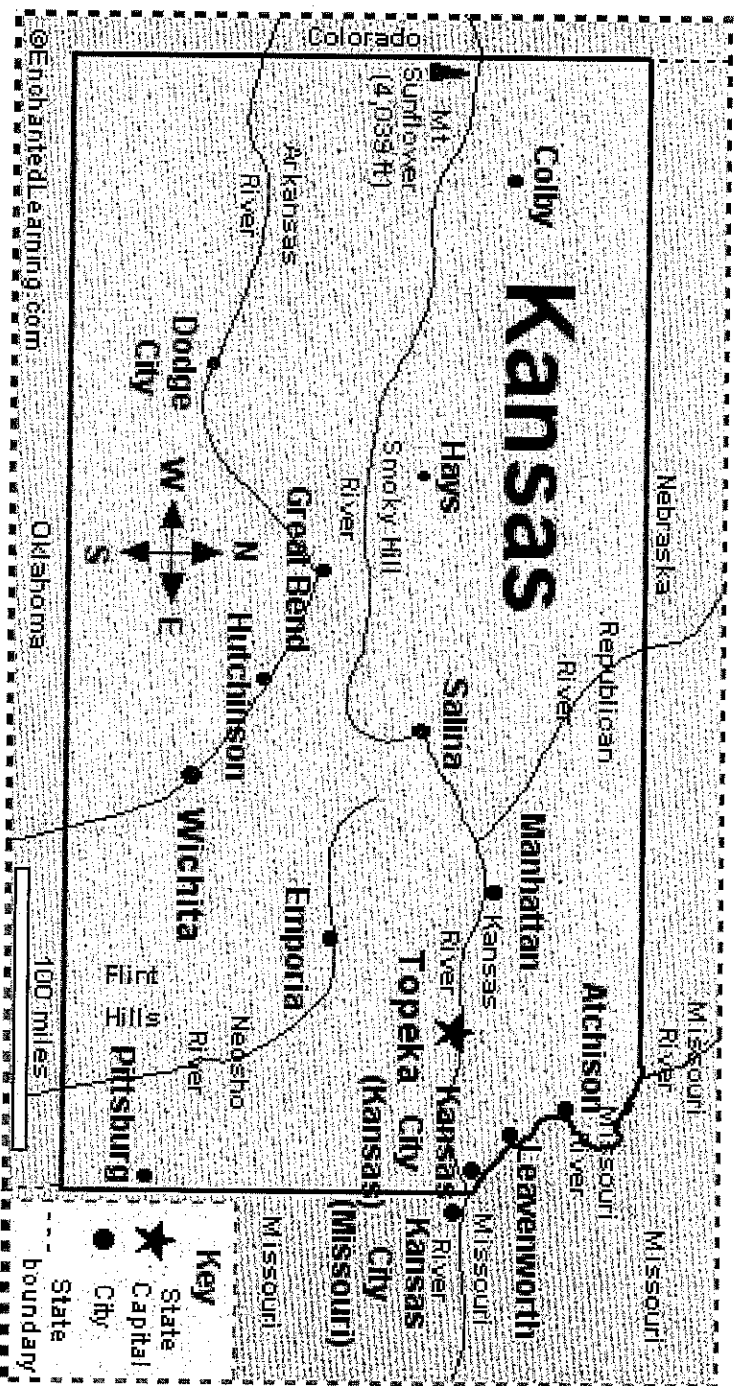


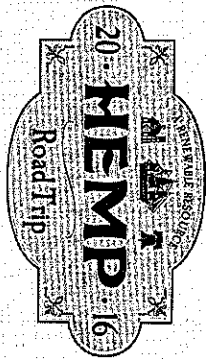
Source: Hemp Biz  
Journal, 2016



# TOP INDUSTRIES

1. Agriculture
2. Cattle
3. Energy
4. Aviation
5. Industrial Minerals

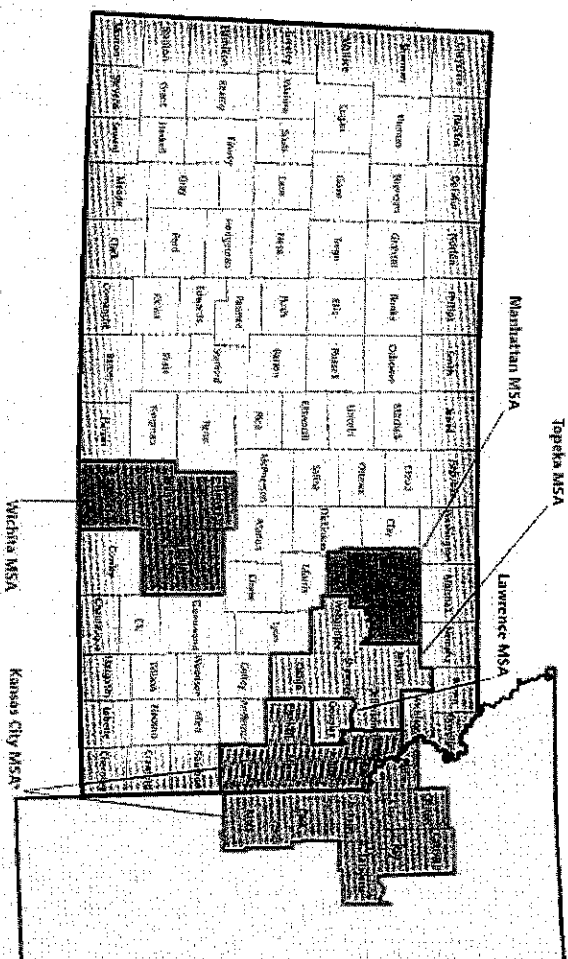




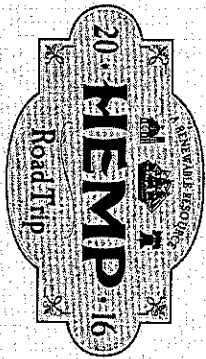
# KANSAS METROPOLITAN STATISTICAL AREAS

Kansas City	467,223
Wichita	388,413
Topeka	127,215
Dodge City	28,117
Colby	5,388

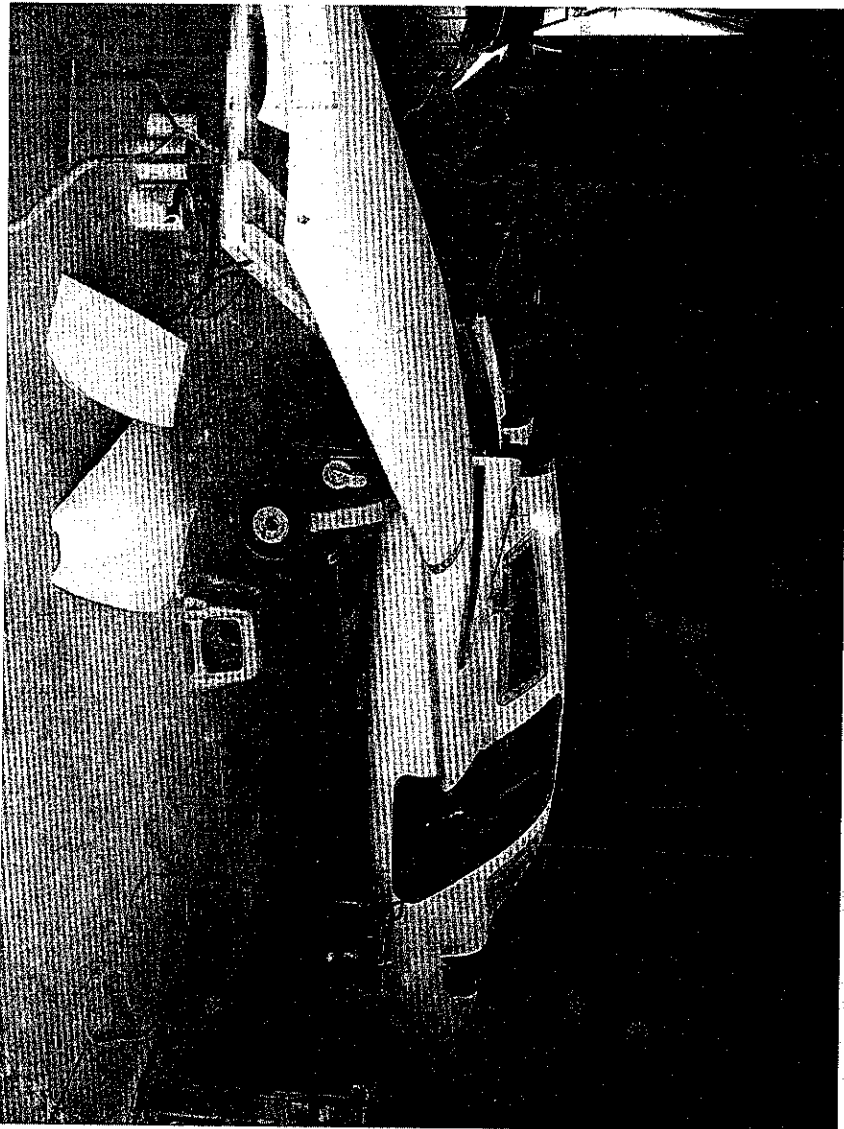
Kansas MSAs & Kansas City Area



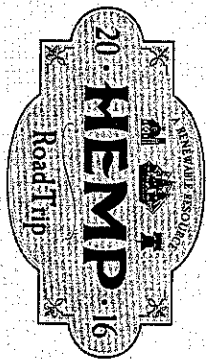
\*Kansas City MSA includes Kansas and Missouri counties; Kansas City Area includes only Kansas counties.  
Source: Kansas Department of Labor, Labor Market Information Services



# THE WORLD'S FIRST HEMP PLANE



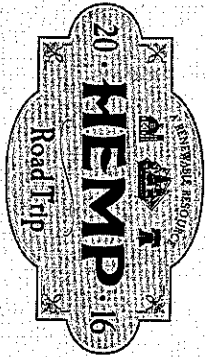
75 % hemp:  
Wings  
Seats  
Pillows  
Outer shell



# CORN VS. HEMP COMPARISON

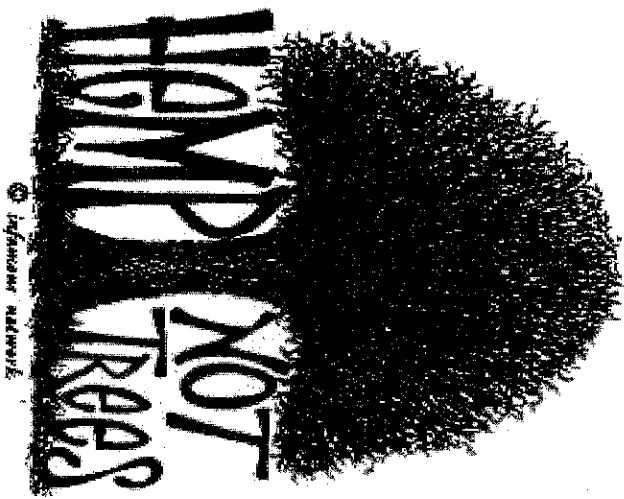
## Corn to Hemp Comparison

	Corn	Conventional Hemp	Organic Hemp
Bushels	190		
Seed		300lbs.	300lbs.
Plant Material		115.22lbs.	115.22lbs.
GBD		340.01grams	340.01grams
Corn Price	\$4.60/Bushel		
Seed Price		\$3.00/lbs.	\$5.00/lbs.
		\$5.00/lbs.	\$7.00/lbs.
Total Expense	\$1,018.00	\$1,154.50	\$1,854.50
Net Profit	-\$144.00	\$1,445.57	\$2,025.60

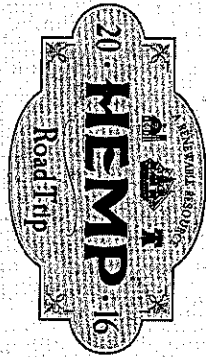


# HEMP VS. TREE COMPARISON

	TREES	HEMP
Usable Fiber per Acre	2 tons	11.55 Tons
Cellulose Content	60%	77%
Time to Harvest	30 yrs	4 mos
Fiber Market Value/Ton	\$8	\$200
Production Cost	\$80	\$103
Total Market Value	\$26.50	\$30,000



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# HEMP VS. CORN AS A BIOFUEL

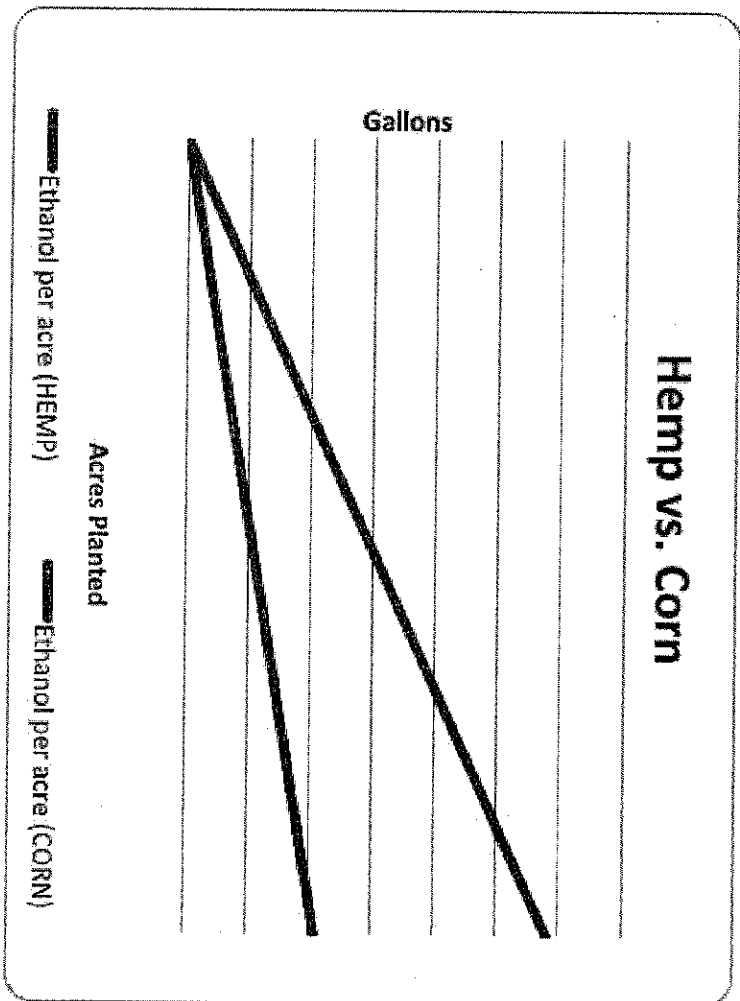
## CORN ETHANOL

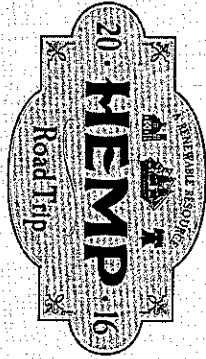
### AVERAGES:

- 2.8 gals/56 lb bushel
- 150 bushels/acre
- 420 gals of biofuel

### HEMP CROP YIELDS:

- 270 gals of biofuel/acre
- Grows 2-3 times a year, (corn 1x)
- Equals 540-810 gals





# QUESTIONS ~ COMMENTS

