

AN INTRODUCTION AND HISTORY OF Hemp, An Old Crop for a New Time

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SPECIAL THANKS TO SUMMER INTERN

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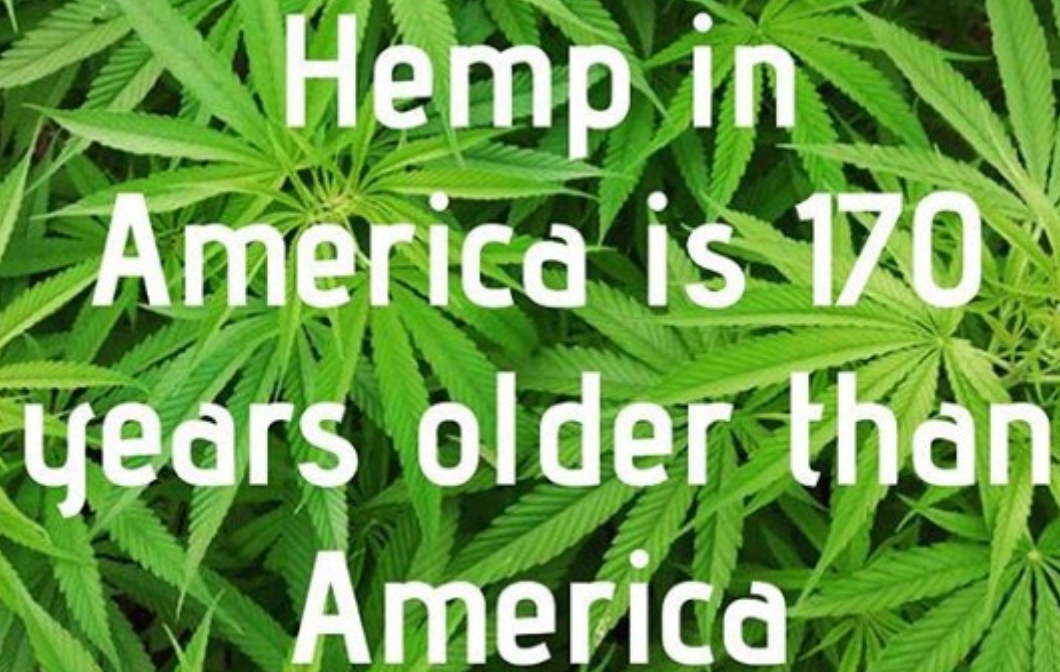
**HEMP.
THE ONLY
PLANT
THAT CAN
FEED YOU,
HOUSE YOU,
CLOTHE YOU,
AND HEAL
YOU.**



tisiastemp@gmail.com

IT IS NOT JUST ABOUT PUFF THE MAGIC DRAGON AND HIS FRIENDS



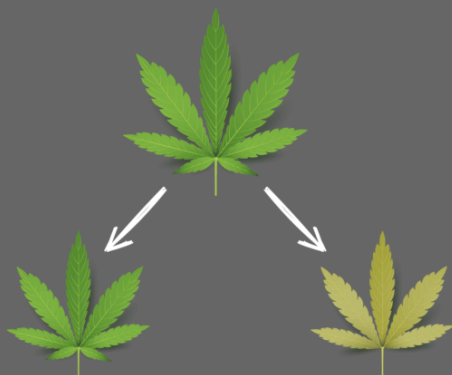
A close-up, top-down view of a dense field of green hemp leaves. The leaves are serrated and have a distinct palmate shape. They are packed closely together, creating a vibrant green texture. Overlaid on this image is white text.

**Hemp in
America is 170
years older than
America**

CANNABIS VS HEMP VS MARIJUANA

Cannabis

is a plant family that includes many species, including both hemp and marijuana.



Hemp

is a variety of cannabis grow for its tall, sturdy stalks and **low levels of THC**.

Marijuana

is a variety of cannabis grown for its **high levels of THC**.

Even though Hemp contains low levels of THC it also contains higher levels of other beneficial cannabinoids (like CBD) which may promote relaxation and calming effects in the body.

Healthy Hemp Oil.com

SATIVA

- + Tall in stature
- + Narrow leaves
- + Longer flowering cycles
- + Better suited for warm climates with a long season



Sativa	Sativa	Sativa
Aca	Pam	Dp
Acapulco Gold	Panama Red	Durban Poison

INDICA

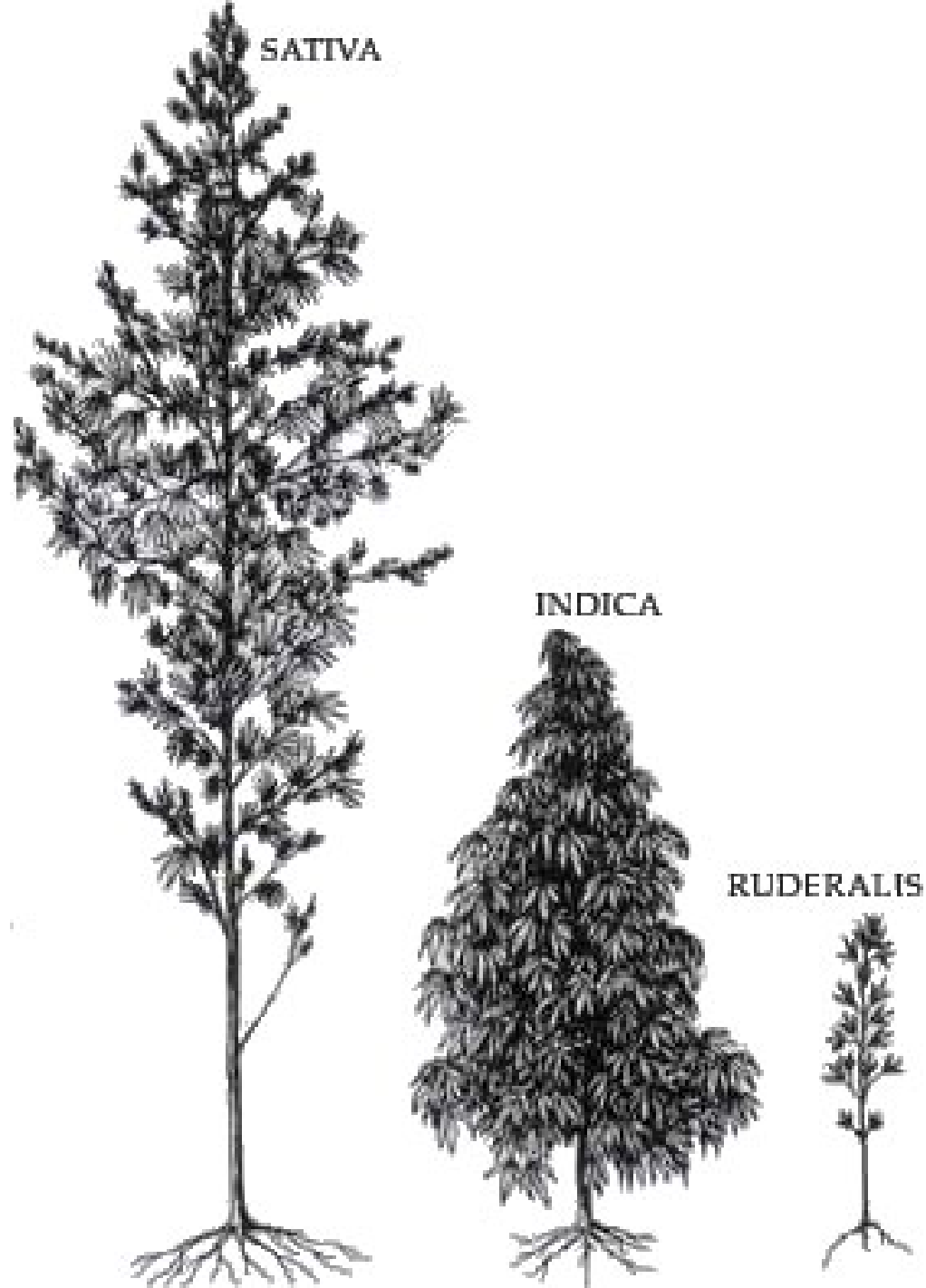
- + Short in stature
- + Broad leaves
- + Shorter flowering cycles
- + Suitable for colder climates with shorter seasons

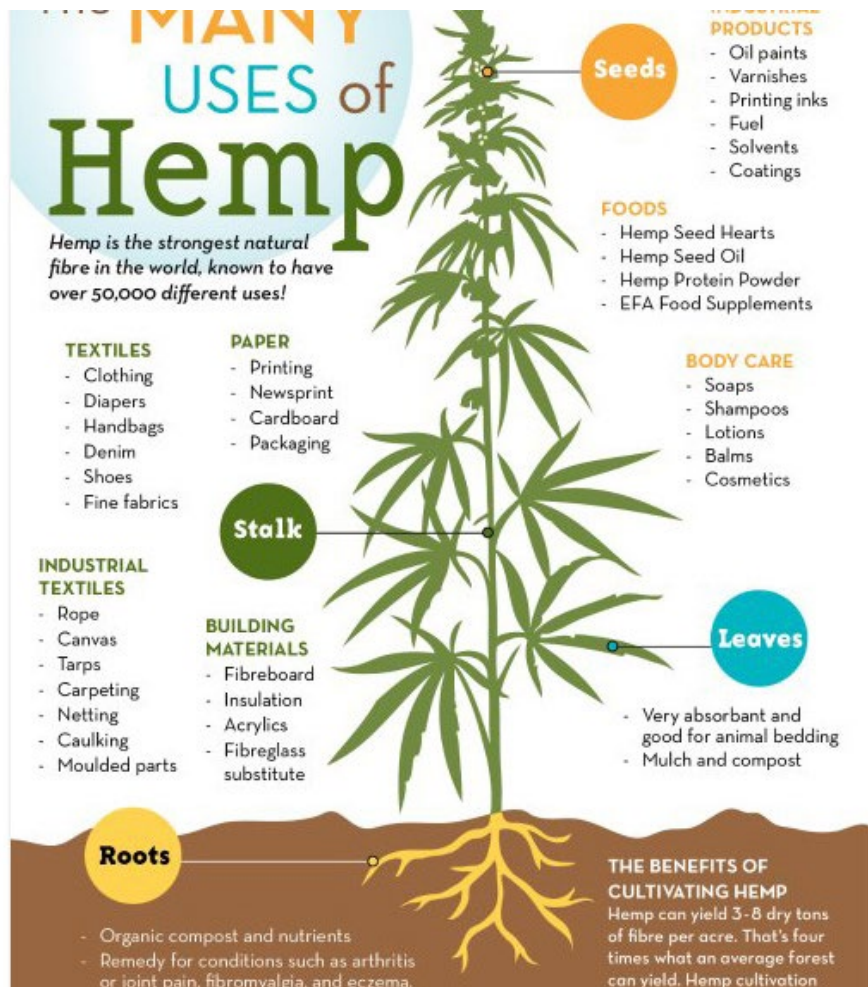


Indica	Indica	Indica
Hk	Mis	Afk
Hindu Kush	Mazar I Sharif	Afghan Kush

 Leafly

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8 FACTS about HEMP

1. Rich in protein, with omega-3 and minerals
2. The world's most nutritious seed
3. The hemp seed is the richest known source of polyunsaturated fats, containing a perfect 3:1 ratio of omega-6 linoleic acid and omega-3 linoleic acid
4. Cultivated for thousands of years throughout Asia and the Middle East before finally making its way to Europe and then the Americas
5. Many uses include food products, textiles, building materials, bio-plastics, auto parts and more
6. Easily-digested source of protein
7. Nutritionally dense
8. Hemp is loaded with all 20 amino acids (including the 9 essential).

native

New Billion-Dollar Crop appeared in the February 1938 issue of Popular Mechanics Magazine.

Popular Mechanics Magazine

WHY NOT YOU CAN UNDERSTAND IT

NEW BILLION-DOLLAR CROP

American farmers are promised a new cash crop with an annual value of several hundred million dollars, all because a machine has been invented that solves a problem more than 6,000 years old.



Sailing the seven seas with sails and rope made of hemp.

It is hemp, a crop that will not compete with other American products. Instead, it will displace imports of raw material and manufactured products produced by underpaid coolie and peasant labor and it will provide thousands of jobs for American workers throughout the land.

The machine that makes this possible is designed for removing the fiber-bearing cortex from the rest of the stalk, making hemp fiber available for use without prohibitive amounts of human labor.

Hemp is the standard fiber of the world. It has great tensile strength and durability. It is used to produce more than 5,000 textile products, ranging from rope to fine laces, and the woody "hurds" remaining after the fiber has been removed contain more than 77 percent cellulose, which can be used to produce more than 25,000 products, ranging from dynamite to Cellophane.

Machines now in service in Texas, Illinois, Minnesota, and other states are producing fiber at a manufacturing cost of half a cent per pound, and are finding a profitable market for the rest of the stalk. Machine operators are making a good profit in competition with coolie-produced foreign fiber, while paying farmers \$15 a ton for hemp as it comes from the field.

From the farmer's point of view, hemp is an easy crop to grow and will yield from three to six tons per acre on any land that will grow corn, wheat, or oats. It can be grown in any state of the Union. It has a short growing season, so that it can be planted after other crops are in. The long roots penetrate and break the soil to leave it in perfect condition for next year's crop. The dense shock of leaves, eight to twelve feet above the ground, chokes out weeds. Two successive crops are enough to reclaim land that has been abandoned because of Canadian thistles or quack grass.



Hemp fiber being delivered from machine, ready for baling. Pile of pulverized hurds beside machine is 77 percent cellulose.



FARMERS' BULLETIN No. 1935
U. S. DEPARTMENT OF AGRICULTURE

Caution

THE HEMP PLANT contains the drug marihuana. Any farmer planning to grow hemp must comply with certain regulations of the Marihuana Tax Act of 1937. This involves registration with the farmer's nearest Internal Revenue Collector and the payment of a fee of \$1. Although the fee is small, the registration is mandatory and should not be neglected, as the penalty provisions for not complying with the regulations are very severe. The registration must be renewed each year beginning July 1. This so-called "license" permits a farmer to obtain viable hemp seed from a registered firm dealing in hemp, to plant and grow the crop, and to deliver mature, retted hemp stalks to a hemp mill.

Washington, D. C.

Issued January 1943
Slightly Revised April 1952



WHO IS GROWING AND USING HEMP?



WHO IS GROWING AND USING HEMP?



ADVISORY COMMITTEE

HEMP HISTORY

- **Hemp dates back more than 10,000 years.**
- **One of the oldest relics of human industry dating back to around 8,000 BC is a fragment of hemp cloth.**
- **Hemp appears all around the world.**
 - 900 BCE Chinese and Arabs discover techniques to make hemp paper.
 - 600 BCE Hemp rope appears in Russia.
 - 500 BCE Hemp seeds and leaves of the plant are found in burial sites.
 - 100 BCE Rope shows up in England.
 - For the next 700 years, the majority of paper is made of hemp.

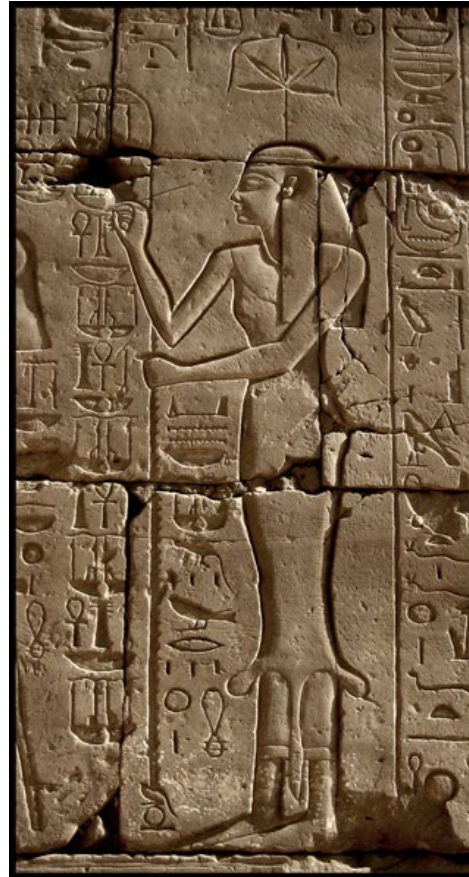
The reason why cannabinoids appear to “cure” so many illnesses is because prior to prohibition they were part of the human food chain. Dairy cows ate feral hemp, which was rich in CBD, and passed the CBD to humans through their milk. Pigs, chickens and other livestock were also fed hemp and the CBDs were in their meat and eggs. Beginning in 1937, the government eradicated all forms of feral and cultivated hemp, thus eliminating CBD from the human diet, of which it had been part since pre-historical times. The rest of the story? Eighty years of human suffering and misery, untold millions of needless deaths — all caused by Prohibitionists who supported outlawing hemp for one reason and one reason only: because they were told to. Americans were duped by their government the past 80 years.



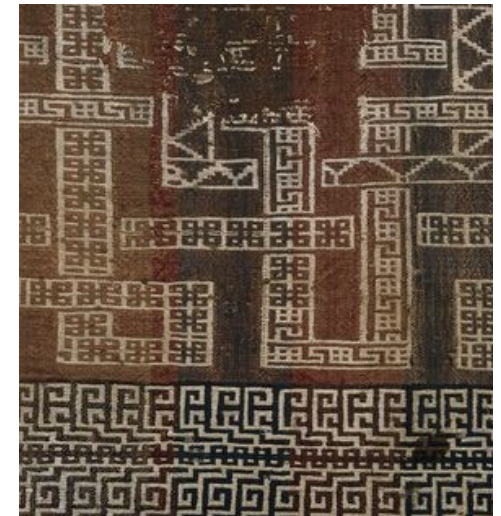
...p@gmail.com

Hemp is one of the oldest industries on earth, dating as far back as 10,000 years to the beginnings of pottery. The oldest remain of human industry is a piece of hemp fabric dating back to approximately 8,000 BC.



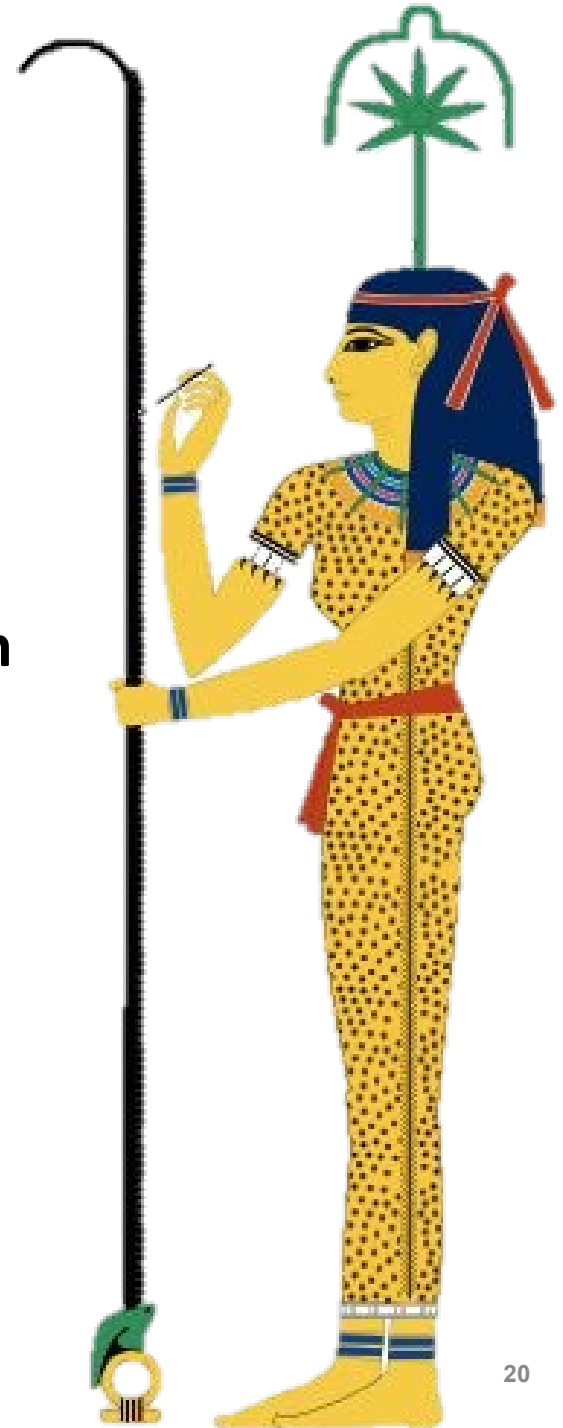


Cannabis was first on the list of Chinese medicines 5,000 years ago, treating gout, malaria, rheumatism & forgetfulness, under Emperor Shen Neng



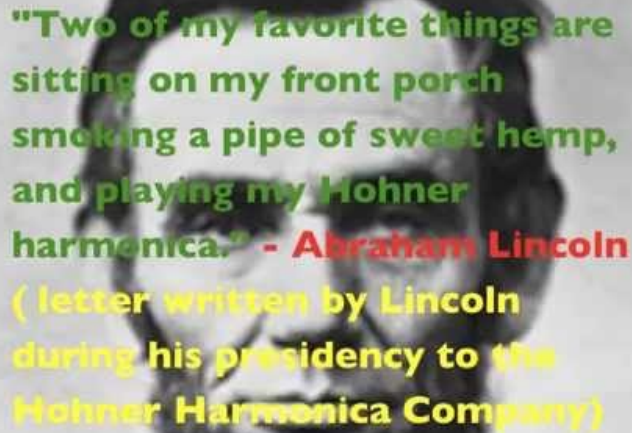
Sashat

"The ancient Egyptian goddess Seshat (above in her role as the Goddess who measures) is depicted with a hemp leaf in her headdress. Hemp was used to make measuring cords.



HEMP HISTORY

- **Hemp in America**
 - **Both Presidents Washington and Jefferson grew hemp.**
 - **Abraham Lincoln used hemp seed oil to fuel lamps in his house.**
 - **America could not have waged the revolution without hemp.**
 - **Cash crop**
 - **Declaration of Independence was drafted on paper made of hemp.**
 - **After 1906, laws prohibiting marijuana surfaced.**
 - **Harrison Act of 1914 declared the use of marijuana a crime.**
 - **From 1914-1927, many states passed anti-marijuana laws.**
 - **Unfortunately, hemp is associated with having the same psychotic effects as marijuana.**



"Two of my favorite things are sitting on my front porch smoking a pipe of sweet hemp, and playing my Hohner harmonica." - **Abraham Lincoln** (letter written by Lincoln during his presidency to the Hohner Harmonica Company)



Franklin Pierce smoked hemp with his troops... he wrote home to his family:

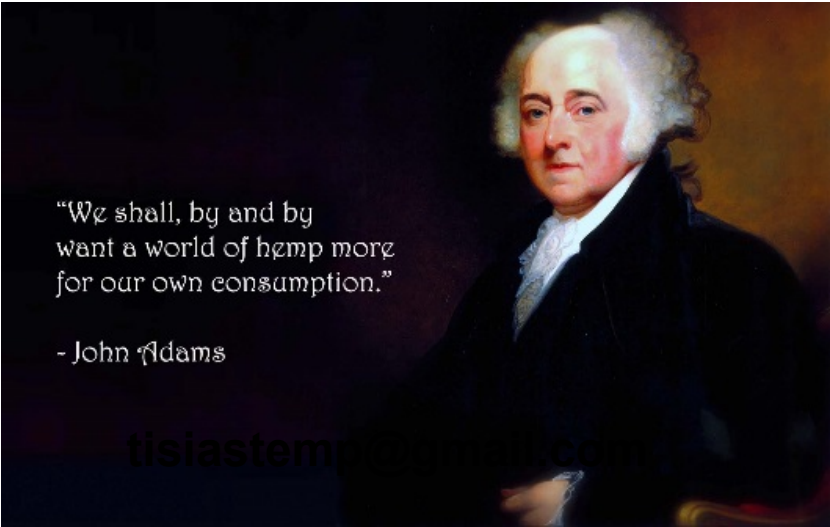
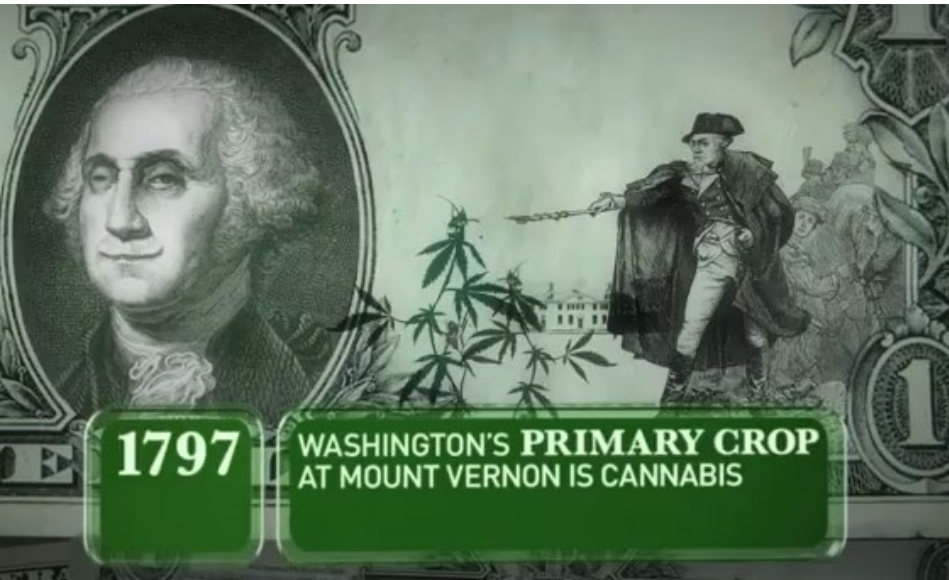
"it was the only good thing about that war."

~ Franklin Pierce

History of

HEMP

in the U.S.



"We shall, by and by want a world of hemp more for our own consumption."

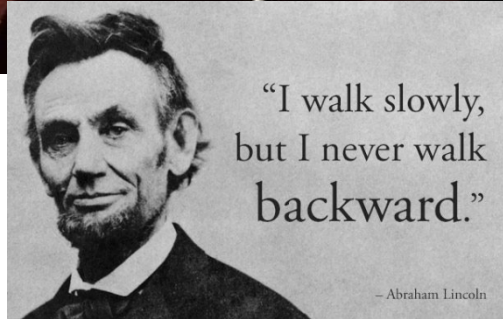
- John Adams

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Enlightened statesmen will not always be at the helm.

(James Madison)



"I walk slowly,
but I never walk
backward."

- Abraham Lincoln

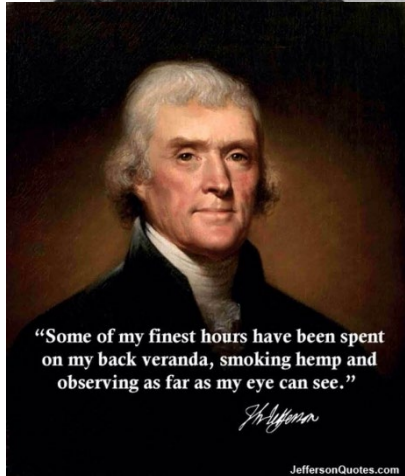
Happy Presidents Who Used Cannabis Day!



Franklin Pierce smoked hemp
with his troops... he wrote home
to his family:

"it was the only good thing
about that war."

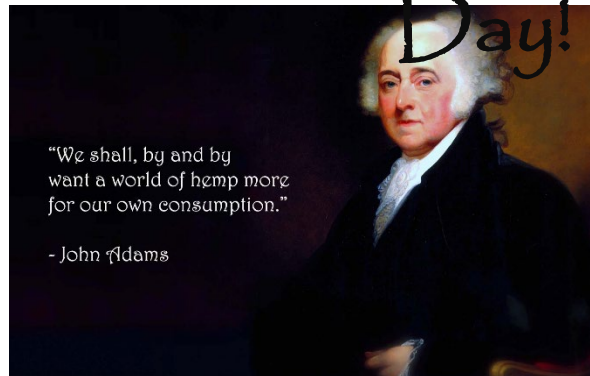
- Franklin Pierce



"Some of my finest hours have been spent
on my back veranda, smoking hemp and
observing as far as my eye can see."

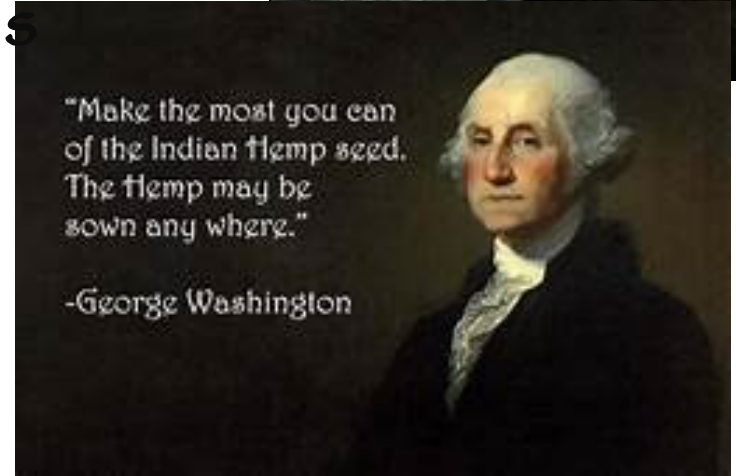
Thomas Jefferson

JeffersonQuotes.com



"We shall, by and by
want a world of hemp more
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- John Adams

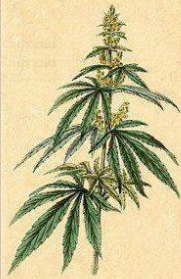


"Make the most you can
of the Indian hemp seed.
The hemp may be
sown any where."

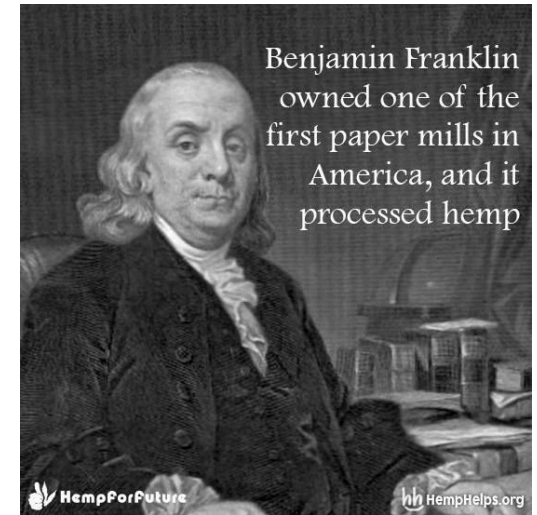
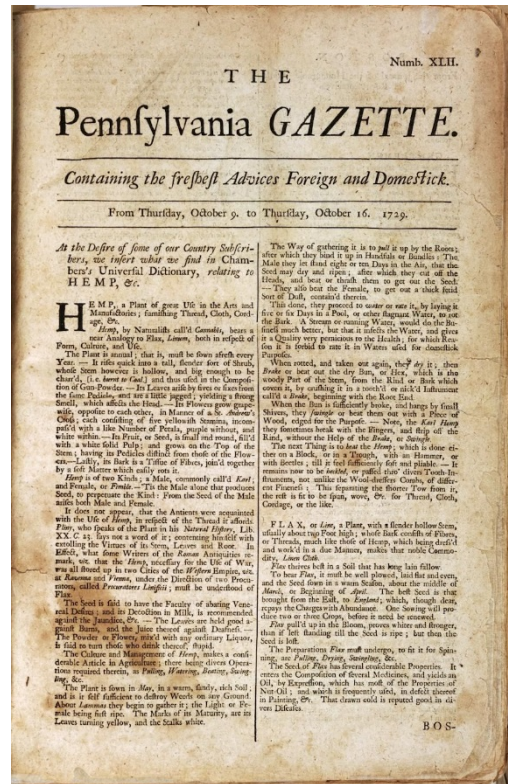
-George Washington

Colonies passed legal-tender laws by which debts and taxes could be paid by hemp. Starting in 1682 the Virginia "Act for the Advancement of Manufactures" made hemp, flax, wool, tar and lumber legal tender. Pennsylvania followed suit; in order "to encourage flax and hemp", followed by Maryland, Rhode Island, Massachusetts & New Hampshire

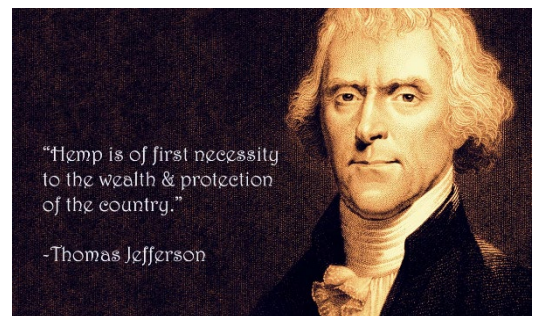
Colonial Cannabis Hemp Legal Tender Laws 1682



The first law in the American colonies regarding marijuana was a 1619 law that actually required farmers to grow the hemp plant.



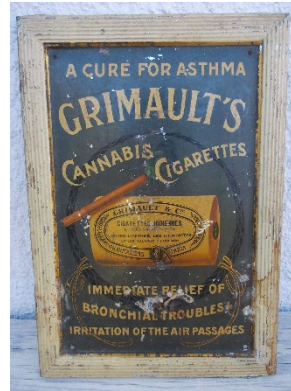
Benjamin Franklin owned one of the first paper mills in America, and it processed hemp



"Hemp is of first necessity to the wealth & protection of the country."

-Thomas Jefferson

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From 1850 to 1937, cannabis was used as the prime medicine for more than 100 separate illnesses or diseases in U.S. Pharmacopoeia.

**in 1850 under the name Extractum
Cannabis or Extract of Hemp, and
listed it until 1942. Fluid extracts
were marketed by The Smith
Brothers, Parke Davis, Squibb, Lilly,
Burroughs Wellcome, and other
leading drug manufacturers**

HEMP

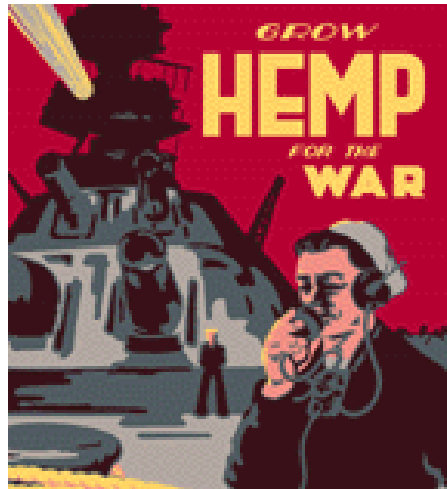
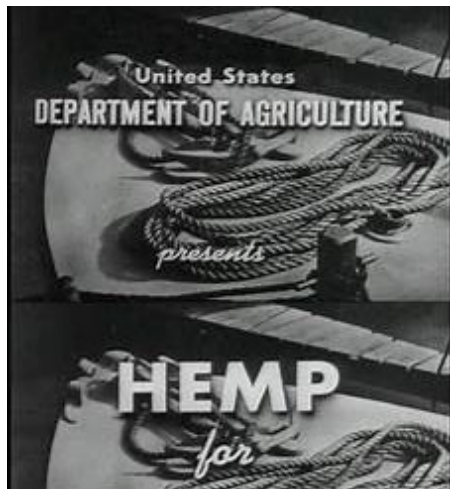
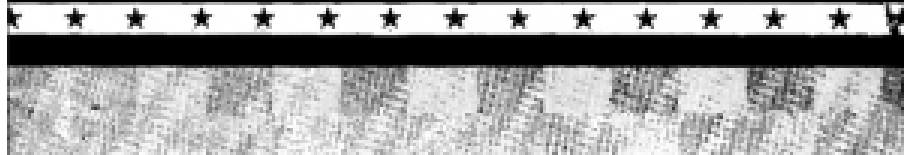
A War Crop for Iowa



AGRICULTURAL EXPERIMENT STATION—AGRICULTURAL EXTENSION SERVICE, CHASSIS
IOWA STATE COLLEGE, AMES, IOWA

HEMP

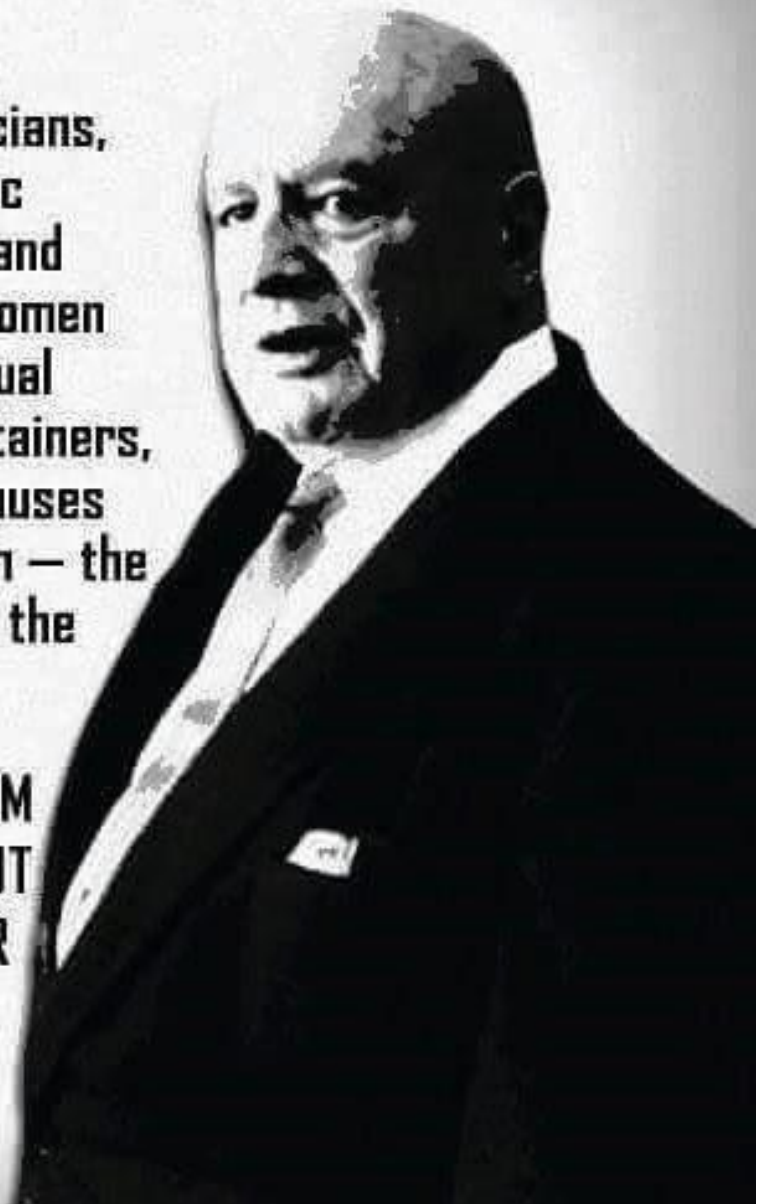
A War Crop for Iowa



THE REAL REASON CANNABIS IS ILLEGAL: MEET HARRY ANSLINGER, HEAD OF THE DEA FROM 1930-1962

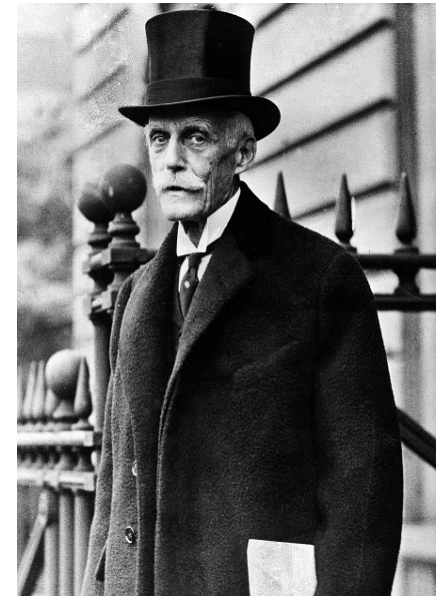
"Most marijuana smokers are Negroes, Hispanics, jazz musicians, and entertainers. Their satanic music is driven by marijuana, and marijuana smoking by white women makes them want to seek sexual relations with Negroes, entertainers, and others. It is a drug that causes insanity, criminality, and death — the most violence-causing drug in the history of mankind."

**MANY PEOPLE SAY THE SYSTEM
IS RACIST, BUT DON'T CALL OUT
THE NUMBER ONE REASON FOR
INSTITUTIONALIZED RACISM...
THE DRUG WAR**





*"There are 100,000 total marijuana smokers in the US,
and most are Negroes, Hispanics, Filipinos and entertainers.
Their Satanic music, jazz and swing,
result from marijuana usage.
This marijuana causes white women to seek sexual relations
with Negroes, entertainers and any others."
Harry Anslinger, U.S. Commissioner of Narcotics,
testifying to Congress
on why marijuana should be made illegal, 1937.
(Marijuana Tax Act, signed Aug. 2, 1937; effective Oct. 1, 1937.)*



WAR ON DOPE GETS RESULTS

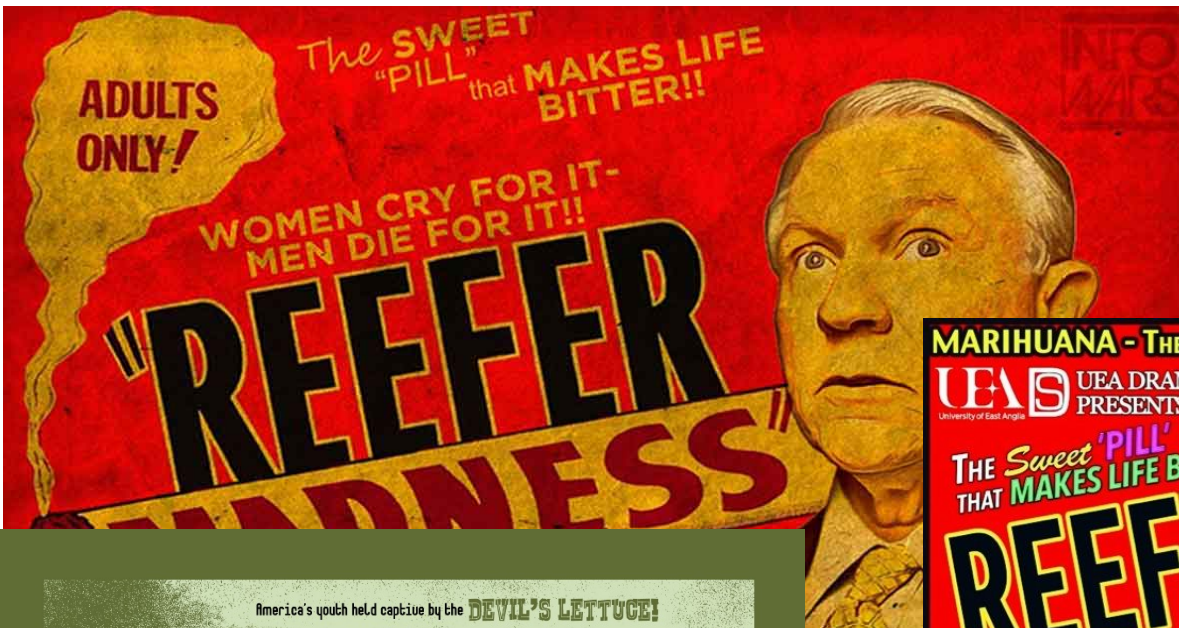
Harry Anslinger Directs Nation's War On Drug Smuggling

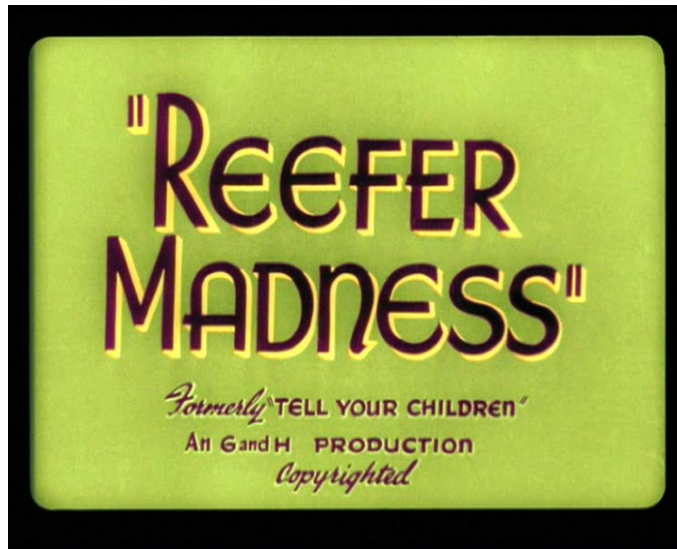
A national drive was described as "the largest round up of big sellers and sources of supply of narcotics that has ever been undertaken in this country."



Harry J. Anslinger, U.S. Commissioner of Narcotics, inspects part of \$7,000,000 seizure by Federal agents. The shoe, held by the commissioner, had secret compartment for narcotics.

HEMP DOES NOT EQUATE WITH GETTING HIGH






REAL REASON CANNABIS IS ILLEGAL:
HARRY ANSLINGER, HEAD OF THE DEA FROM 1930-1962

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WE SAY THE SYSTEM
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UTIONALIZED RACISM...
UG WAR



ADULTS
ONLY!

THE PILL
that MAKES LIFE
BITTER!

WOMEN CRY FOR IT —
MEN DIE FOR IT!

"REEFER
MADNESS"

SEE

DRUG-

NARCOTIC
MENACE

HER ON
HER WAY

"REEFER
MADNESS"

THIS PICTURE WILL
BE SHOWN TO
ADULTS ONLY

THE DEADLY SCOURGE THAT
DRAGS OUR CHILDREN INTO THE
QUAGMIRES OF DEGRADATION

A Brief History of...

Marijuana Law



1619



1st N. American marijuana law forces farmers to grow hemp

Jamestown Colony, Virginia

1850

Cannabis extract widely recommended & sold over-the-counter in Western pharmacies



1915-1927



Influx of Mexican immigrants into the US...

9 states pass laws outlawing the 'marihuana' they smoked

"All Mexicans are crazy and this stuff [marihuana] is what makes them crazy"

-Texas senator on the floor of the Senate

1929-1936

Recreational marijuana use spreads among minorities...

"Reefer makes Darkies think they're as good as white men"



Harry J. Anslinger

"I wish I could show you what a small marihuana cigarette can do to one of our degenerate Spanish-speaking residents. That's why our problem is so great"

Harry J. Anslinger is appointed as head of the Federal Bureau of Narcotics

1937

Anslinger proposes Marihuana Tax Act to Congress and testifies:

"Marijuana is the most violent drug in the history of mankind"

Act passes...

Marijuana is Prohibited







GROWN FROM THE SOIL
HEMP CAR

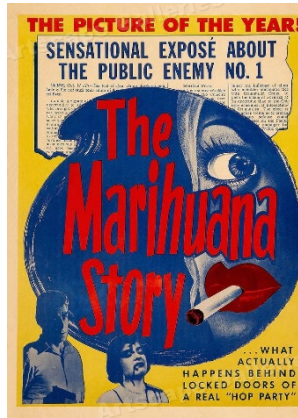
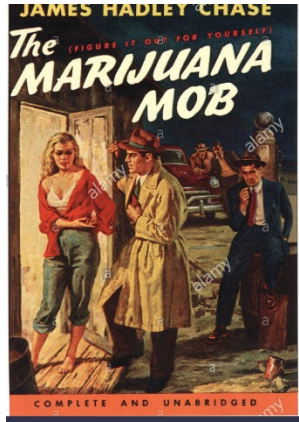
One of Henry Ford's first cars ran entirely on Hemp ethanol. The body was also constructed from Hemp plastic, which was 10X stronger than steel.

Unfortunately, Hemp was outlawed due to the damaging effect it would have on many powerful industries at that time; including the oil, plastics & paper industries.

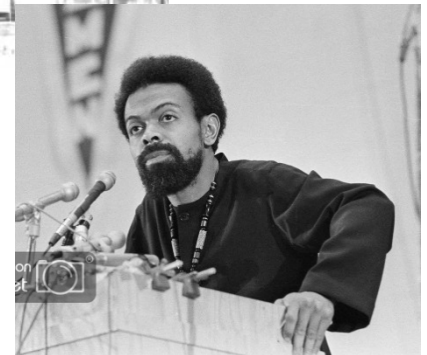
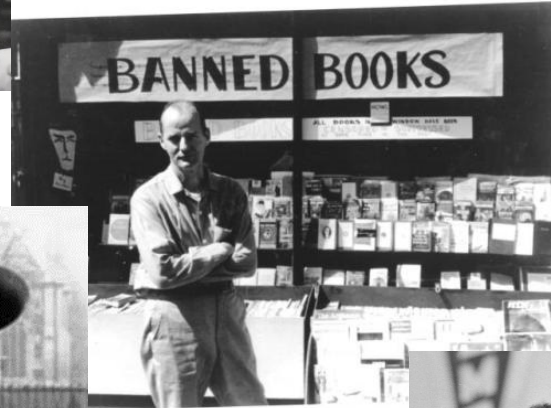
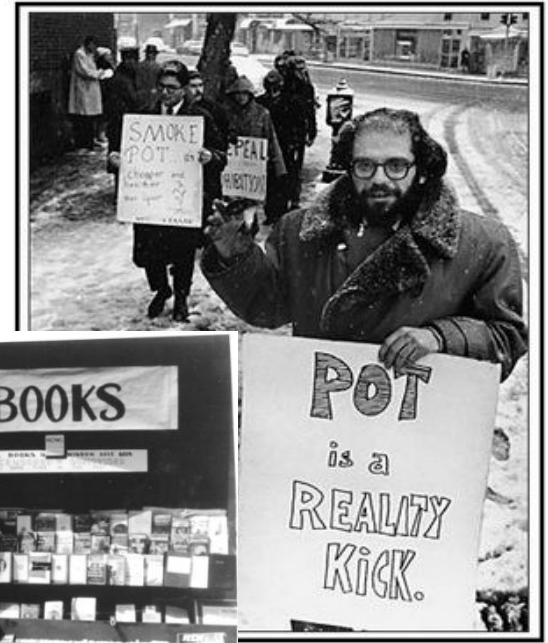
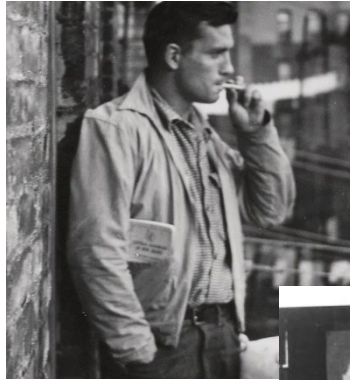


"Why use up the forest which were centuries in the making and the mines which required ages to lay down, if we can get the equivalent of forest and mineral products in the annual growth of the fields?"

— Henry Ford —

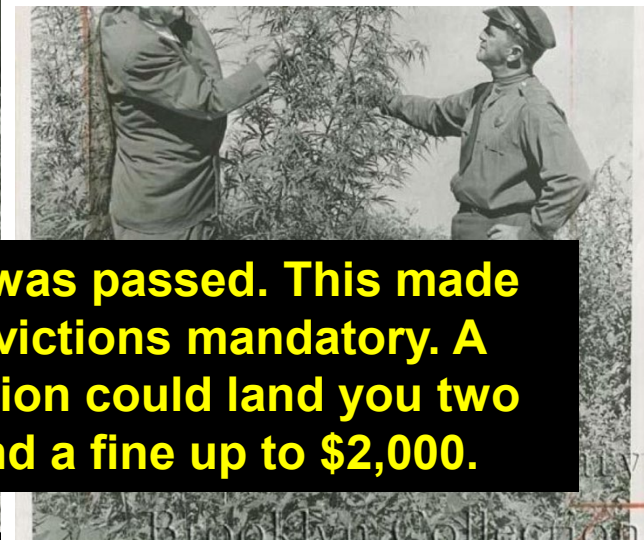


1950's





By 1952, the Boggs Act was passed. This made sentencing for drug convictions mandatory. A first offense for possession could land you two to five years in prison and a fine up to \$2,000.



1970's



40 YEARS OF WAR

On June 17, 1971, Richard Nixon declared war on drugs. Forty years and a trillion dollars later, more people are spending more money on more drugs than ever.

The Controlled Substances Act of 1970 passed under President Nixon. America's public enemy number one repealed the Marihuana Tax Act and instead made cannabis a schedule I drug considered to have a high potential for abuse and addiction with no medical use.

**PENALTIES AGAINST DRUG USE
SHOULD NOT BE MORE DAMAGING
TO THE INDIVIDUAL THAN THE USE
OF THE DRUG ITSELF. NOWHERE IS
THIS MORE CLEAR THAN IN THE
LAWS AGAINST POSSESSION
OF MARIJUANA**

**- PRESIDENT JIMMY CARTER
08/02/77**

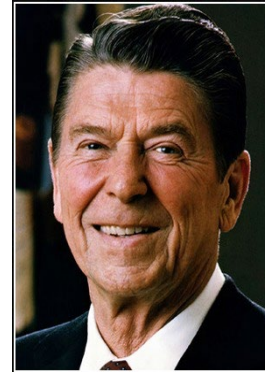
20.com

DID YOU KNOW?



#EndTheDrugWar

**JFK SMOKED CANNABIS IN THE WHITE HOUSE,
WHILE PRESIDENT, BECAUSE HE SUFFERED FROM
SEVERE BACK PAIN & ADDISON'S DISEASE**



Marijuana is probably the most
dangerous drug in America today.

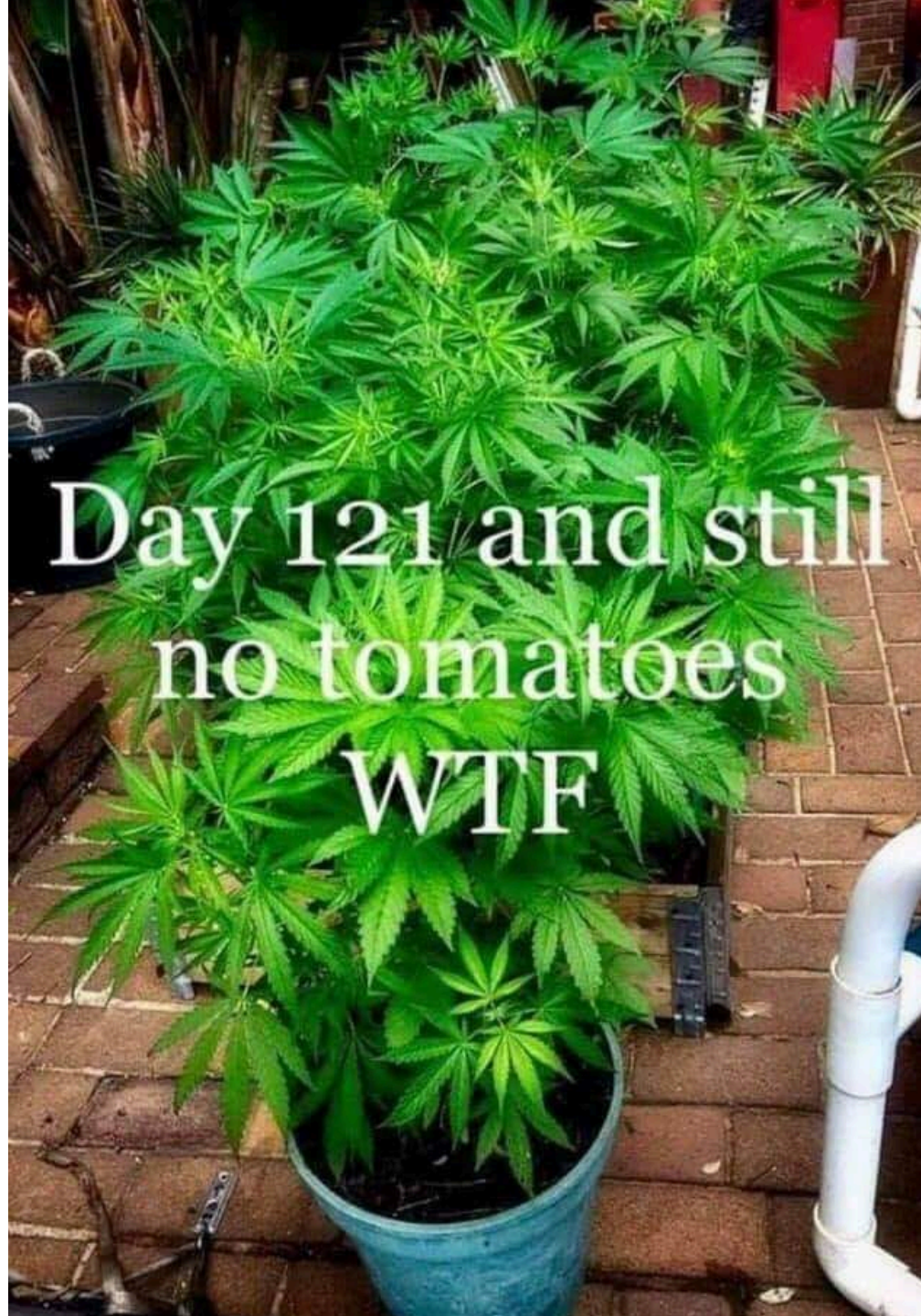
— Ronald Reagan —

**JUST
SAY
NO**



Through the 1960s and 70s, cannabis use took on a new perception through the counterculture movement. Young people resisted mainstream culture and powerful institutions. The era of hippies, beatniks, and flower power would soon be thrust into the 70's and 80's, and despite all the peace and love, laws continued to emphasize the severity of the drug.





Day 121 and still
no tomatoes
WTF



WHAT IS THE FUTURE OF HEMP



“

The biggest challenge in our industry isn't the DEA, the FDA, or the USDA. It's the companies that are selling CBD improperly and making medical claims.

JONATHAN MILLER



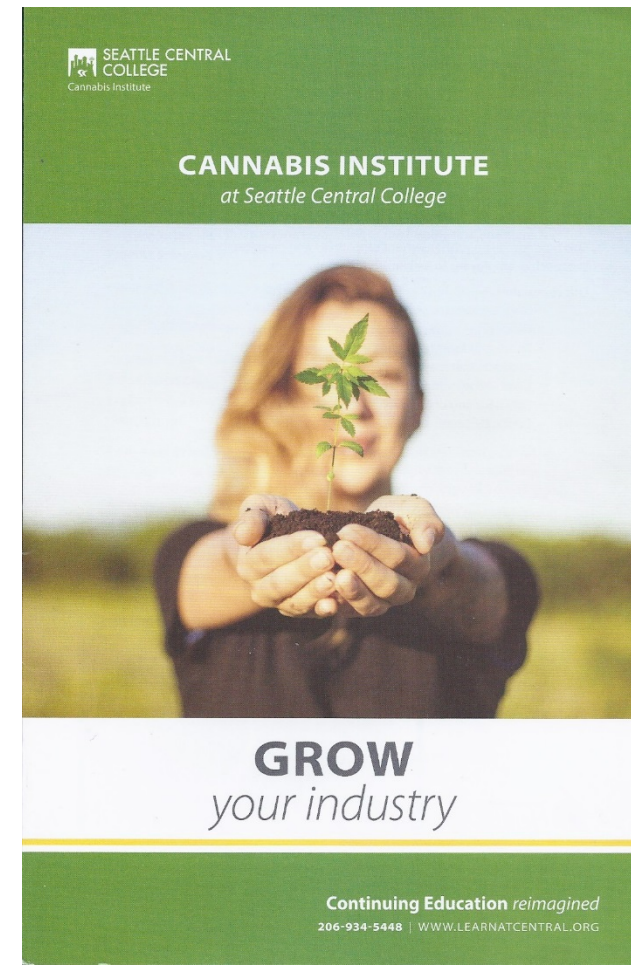
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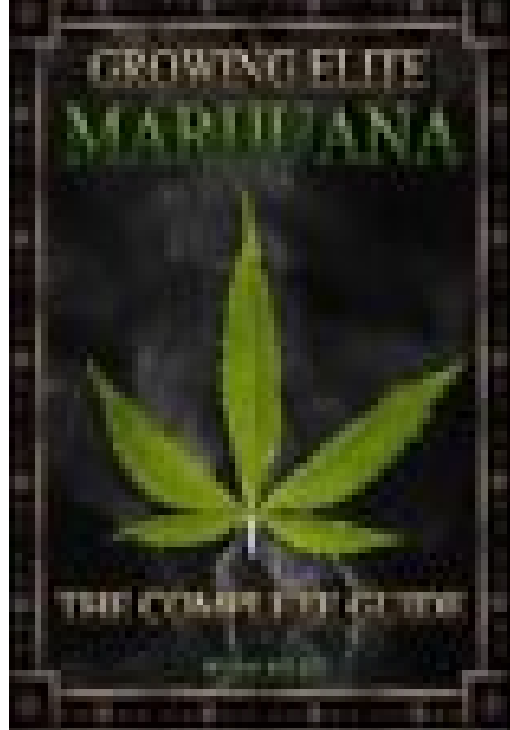


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EDUCATIONAL OPPORTUNITIES

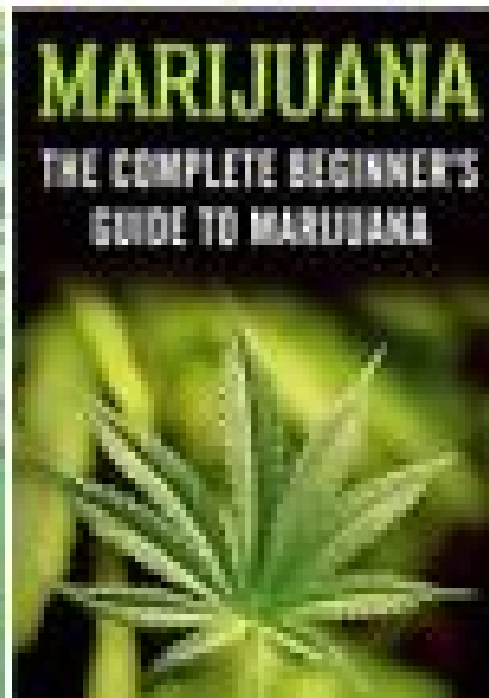
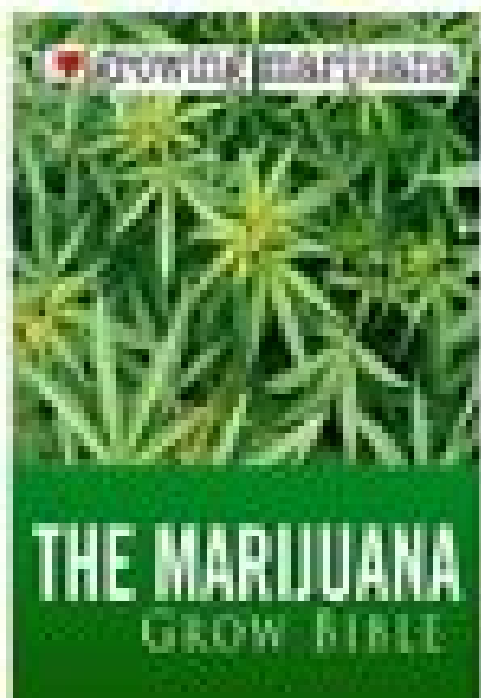
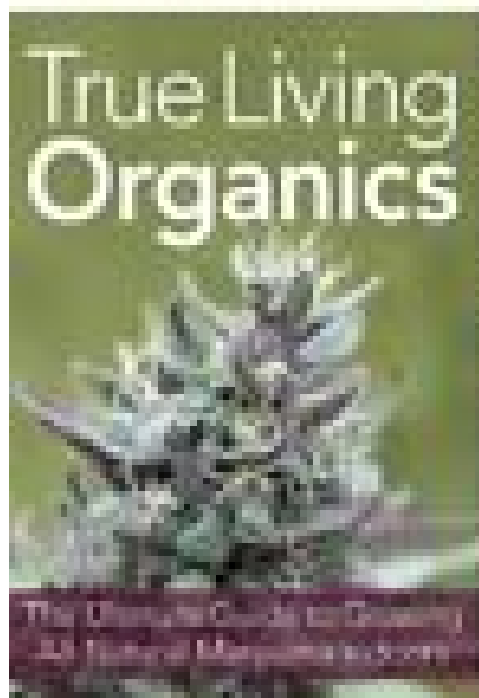
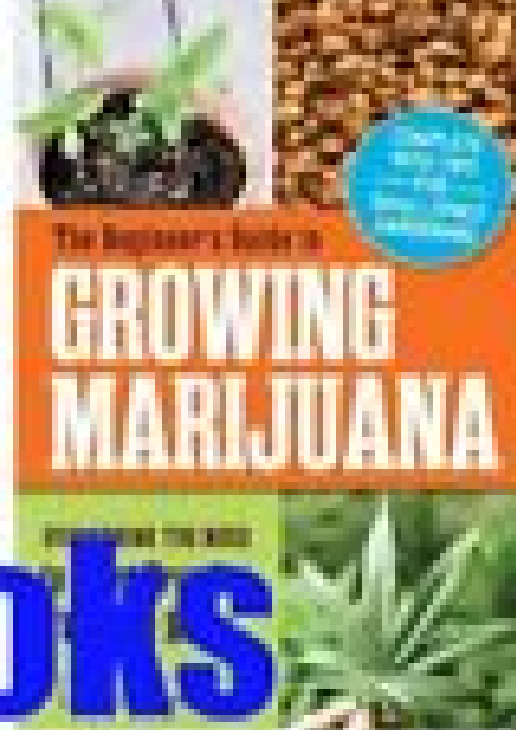
- COOP EXTENSION ADVISORY AND OTHER TRAININGS
- ON LINE TRAINING
- PUBLICATIONS





5

ebooks



Online Courses

*Due to the continuously evolving market, many courses have been developed for the retail/handling side of the market. Some states require certain certifications and many schools developed around this. Ensure the information you want to learn is being covered before enrolling in courses.

Cannabis Training Institute


<https://cannabistraininginstitute.com/>

Online Cannabis Education

<https://onlinecannabiseducation.com/>

Medical Marijuana Learning

<https://www.medicalmarijuanalearning.com/cannabis-education/>



**WASHINGTON MEDICAL MARIJUANA
CONSULTANT CERTIFICATION**

Washington state law now requires all retail marijuana stores with a medical marijuana endorsement to have a certified Medical Marijuana Consultant on staff. Our program provides the certification needed to become a Medical Marijuana Consultant in WA.

Single Student: \$350
Group Pricing: \$333 per student

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Green CultureEd

<https://www.greencultured.co/cannabiscollege/152/>

The Medical Cannabis Institutes (TMCI) Global

<https://themedicalcannabisinstitute.org/>

THC University

<https://www.thcuniversity.org/>

Oaksterdam University

<https://oaksterdamuniversity.com/>

UF/IFAS Industrial Hemp Pilot Project Research Plan

What is industrial hemp?

"INDUSTRIAL HEMP" is a *Cannabis sativa* plant, or parts thereof, which contains THC < 0.3% per dry weight. THC is the psychoactive chemical that at higher levels defines marijuana. Industrial hemp is NOT marijuana.

Industrial hemp has been cultivated for 10,000 years as a fiber and grain crop. More than 30 states presently have industrial hemp projects; however Florida has a comparative advantage in growing season and markets. Industrial hemp has been identified as a potentially valuable and impactful alternative crop for Florida, which could be used for fiber, building materials, forages and pain relief (CBD oil). To support the future viability and sustainability of an industrial hemp industry, preliminary assessment of the crop and cropping systems must be established prior to commercialization.

What are our research plans?

A research proposal (\$1.3 million) was distributed to prospective industry partners to fund a collaborative research program conducted at four UF/IFAS research locations. The proposal outlines the following goals:

Identify hemp varieties suitable for planting in Florida's various environments

- Identify productive hemp varieties robust to environmental, ecological, and economic threats

Develop hemp management practices and cropping systems economically viable for Florida

- Design hemp cropping systems that will use available farming technology and infrastructure in Florida
- Assess the economic break-even point for farmers and commercialization opportunities for industry

Assess hemp invasion risk in Florida's natural and built environments

- Improve best available information for UF/IFAS Assessment Invasion Risk, which is currently "high"
- Development a management plan to mitigate the risk of hemp invasion

With the enthusiastic response from multiple potential industry partners, we plan to expand the scope of our work with additional industry support to include additional objectives to improve the economic assessment related to the processing and commercialization of industrial hemp.

What authorization do we have to conduct research?

FEDERAL LEGISLATION: Agricultural Act of 2014, 7 U.S.C. s. 5940, Legitimacy of industrial hemp research

DEA: Schedule 1 Permit, Forms 225 & 1301.18, Seed import and hemp cultivation

STATE LEGISLATION: Florida Statutes, 1004.4473, Industrial hemp pilot projects

FDACS: Proposed Rule, 5B-57.013, Industrial hemp planting permits

Who are our project partners and what is level of support?

The UF Industrial Hemp Pilot Project team is committed to developing a research and extension program that is supported by a diverse group of industry groups and stakeholders. We have distributed the pilot project proposal draft to 12 potential sponsors. We have received a verbal offer to fund the proposal by 3 sponsors. Green Roads participated in the first industry partner workshop and committed to fund 100% of the proposal days after receiving the initial distribution of proposal. The proposal was approved by the UF Division of Sponsored Programs, which is developing a contract to formalize sponsorship by Green Roads. Several other groups continue to demonstrate interest in sponsoring UF Industrial Hemp. The opportunity is truly transdisciplinary: agriculture, engineering, medicine.

Who is UF contact person and UF researchers?

DR. ROBERT GILBERT, Agronomy Department Chair, UF Main Campus, 352.392.1811, ragilber@ufl.edu

DR. ZACHARY BRYM, Project Coordinator, Tropical Research & Education Center, 786.217.9238, brymz@ufl.edu

DR. JOHN ERICKSON, Central Florida location

DR. MICHAEL MULVANEY, North Florida location

DR. LUKE FLORY, Invasion risk analysis

DR. EDWARD EVANS, Economic analysis

JERRY FANKHAUSER, UF/IFAS Research

HARVEST NEW YORK | MAY 2017

INDUSTRIAL
HEMP
from seed to market



Cornell University

<https://youtu.be/Sf4gZ5sL-E8>

- BULK HEMP WAREHOUSE

<https://bulkhempwarehouse.zendesk.com/hc/en-us>

- HEMPAWARE [HTTPS:HEMPAWARE.COM](https://hemaware.com)

- Recent + Talks on future of hemp farming in NC

<http://www.fayobserver.com/news/20180714/is-hemp-future-of-nc-agriculture>

- Transitioning Tobacco to Hemp in Kentucky

<https://www.theatlantic.com/business/archive/2016/10/hemp-farmer/505604/>

- a (9 minute) video of the same:

<https://www.youtube.com/watch?v=nJvVwXCu2g4>

- Montgomery county Virginia Industrial Hemp power point
- [https://www.safeaccessnow.org/tennessee medical marijuana laws and regulations](https://www.safeaccessnow.org/tennessee_medical_marijuana_laws_and_regulations)

SPOT SAYS GOODBYE





THE END

THE BEGINNING

- PROFESSOR M. L. Robinson has had a 30+-year career in Environmental Horticulture and related fields as an Associate Professor/ Specialist for the University of Nevada and the University of Florida. Areas of expertise include water conservation, natural resources, palms, desert plants (cactus, succulents and Mojave natives) and integrated pest management. He has served on the board of directors of many national committees and has been part of the formation and development of several national professional organizations. Presently, his research endeavors for small-scale agriculture/horticulture include hops, drought tolerant root stocks for wine grapes and industrial hemp.
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INTERESTING HEMP INFORMATION

- **Will hemp make me high if I smoke it?**
- Hemp cannot produce a high if smoked. It has very low levels of THC, below 0.3 percent. Hemp also produces great amounts of CBD which blocks any effects of THC.
- **What is a hemp strain?**
- There are a variety of hemp strains that are derived from the Cannabis Sativa strain. Today most hemp strains are developed to have high levels of CBD, containing at least 4%.
- Some examples of hemp strains are Cherrywine, Berry Blossom, Charlotte's Web, ACDC, and more.
- <http://community.today.com/parentingteam/post/ten-of-the-best-cbd-hemp-strains>

INTERESTING HEMP INFORMATION

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- <https://suzyseeds.com/cannabis-seeds/types-of-cannabis-seeds>
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-

- <https://www.lowes.com/projects/gardening-and-outdoor/cultivator-and-tiller-buying-guide/project>

INTERESTING HEMP INFORMATION

How many countries are growing hemp?

In total there are 24 countries that grow hemp-one country in Africa, two in the Americas, six in Asia and the Pacific, and fifteen in Europe.

<https://ministryofhemp.com/hemp/countries/>

What are the differences between hemp and marijuana?

The main difference is the amount of THC produced. Hemp produces less than 0.3 percent of THC and marijuana produces 2-6 percent.

Another difference is the amount of CBD produced, which blocks the psychoactive effects of THC. Hemp produces high amounts of CBD, and marijuana lacks CBD.

INTERESTING HEMP INFORMATION

What kind of nutrients does hemp have?

Hemp seeds are one of the most nutritionally dense foods. They contain the daily requirement for protein. are high in calories and provide essential amino acids. Hemp seeds are even more nutritious than flax or chia seeds.

What is the seeding rate per acre?

Suggested rate is 20-25 lbs per acre depending on variety and other growing factors.

www.hemptrade.ca/eguide/production/seeding

INTERESTING HEMP INFORMATION

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What are the soil temperature requirements to grow hemp seeds?

Ideal temperature is 35 Celsius (95 F) and max temperature is 45 Celsius (113 F). Young hemp plants can survive -5 Celsius (23 F) but will stop growing if temperature changes suddenly.

How many hours of sun are needed for the hemp plant?

Hemp plants need 18-24 hours of light a day. The exact number depends on the strain, but 18 is needed for most.

INTERESTING HEMP INFORMATION

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How to determine male/female hemp plants

Growers can examine the node of a hemp plant to determine its sex. A node is the place where leaves and branches grow from the stem. A female hemp plant will have hair-like stigma extending out of the node. A male hemp will have small round balls in the junction of the nodes.

<https://www.leafly.com/news/growing/sexing-marijuana-plants>

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