



# A Closer Look at Marijuana and Synthetic Drugs

Indiana Historical Society  
Frank and Katrina Basile Theater

## *What They Said...*

### **John S. Pistole, President, Anderson University**

"I was honored to be a part of the Indiana Association of Prosecuting Attorneys, Inc., Drug Summit this year as its keynote speaker. The issues addressed during the Summit will help lawmakers, prosecutors and law enforcement better understand and address the drug crisis that is affecting our communities."

### **John Hill, Deputy Chief of Staff, Office of Gov. Mike Pence**

"The safety and security of all Hoosiers is the highest priority for Governor Pence. He recognizes the increasing negative role that drug abuse presents to our society. The recent Indiana Association of Prosecuting Attorneys, Inc., Drug Summit provided many of us in state government and law enforcement valuable information as we address the challenges of solving the drug problem in Indiana communities."

### **Terri Austin, State Representative, Indiana HD 36**

"As a member of the Indiana General Assembly's Public Policy Committee, I often seek opportunities to learn more about important issues facing Hoosiers. The Indiana Association of Prosecuting Attorneys, Inc., recent Drug Summit opened my eyes to issues related to marijuana use and the synthetic drug epidemic that has affected so much of our state, including constituents in my own district. This was a worthwhile opportunity for me to better understand the issues. I would encourage my colleagues to take advantage of the many resources on this topic as we discuss future legislation."

# A Closer Look at Marijuana and Synthetic Drugs



**The Association of Indiana Prosecuting Attorneys, Inc., invited a diverse group of policymakers to hear factual information concerning illegal, potentially dangerous “recreational” drugs (marijuana, synthetics) and potentially profitable agricultural products (hemp) being studied scientifically by Purdue University. The result was a one-day session called “A Closer Look at Marijuana and Synthetic Drugs”. In this publication are a collection of fact sheets presented at this drug symposium that take a close look at marijuana, hemp and synthetic drugs.**

## AGENDA

### Welcoming Remarks

Dave Powell, IPAC Executive Director

### The Impact of Legalizing Marijuana in Colorado

Kevin Wong, Data Analyst for the Rocky Mountain High Intensity Drug Trafficking Area Program

### Industrial Hemp Research and the Difference Between Hemp and Marijuana

Ronald F. Turco, Professor of Agronomy at Purdue University

### The Impact of Synthetic Drugs on the Body

Dr. Brent Furbee, Former Medical Director for the Poison Control Center and Professor Emeritus of Medical Toxicology

### Synthetic Drugs in Our Communities – A Firsthand Look

Moderator: Barbara Lewis, Business of Health Reporter, Inside Indiana Business

Detective Joshua Harpe, IMPD

Detective Mike Gray, Evansville PD

James Proud, DEA

Taylor Shafter, Indiana State Police

Elizabeth Griffin, Indiana State Police

### Spotlight: How Fishers Has Addressed Drugs in the Community

Mayor Scott Fadness

Fishers Chief of Police Mitch Thompson

Fishers Fire Chief Steven Orusa

### The Story of an Overdose

William Spicer, Parent

Sherman Carter, EMT, Anderson Fire Department

### Keynote Speaker: National Security Threats and the Effect of Drugs

John Pistole, Anderson University President, Former TSA Chief, and Former FBI Deputy Director

# A Closer Look at Marijuana and Synthetic Drugs



**Kevin Wong**

Strategic Intelligence Analyst

Rocky Mountain High Intensity Drug Trafficking Area

## The Impact of Legalizing Marijuana (MJ) in Colorado

Indiana can learn from Colorado's experiment with legalization of medical & recreational marijuana.

### Colorado YOUTH (12-17 yrs): 1st in the nation for 2013/2014 marijuana use

- Colorado average for youth = 12.56 %
- National average for youth = 7.22 %
- 74% higher than the national average
- **Colorado** youth use increased 20 % (2013/2014 compared to 2011/2012)
- **Nationally** youth use declined 4 %

SOURCE: SAMHSA.gov, National Survey on Drug Use and Health 2013 & 2014

### Colorado COLLEGE-AGE (18-25 yrs): 1st in the nation for 2013/2014 marijuana use

- Colorado average = 31.24 %
- National average = 19.32 %
- 62 % higher than the national average
- Colorado college age use increased 17 % (2013/2014 compared to 2011/2012)
- Nationally there was a 2 % increase

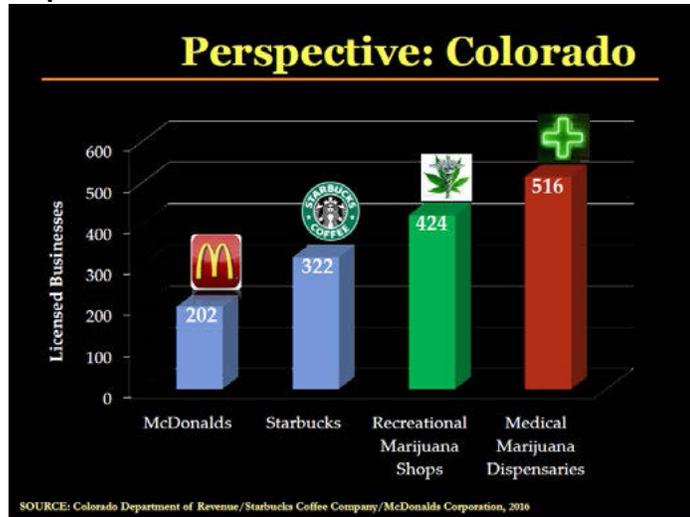
SOURCE: SAMHSA.gov, National Survey on Drug Use and Health 2013 & 2014

### Colorado ADULTS (26+ yrs): 1st in the nation for current marijuana use

- **Colorado** average = 12.45 %
- National average = 6.11 %
- 104 % higher than the national average
- Adult use increased 63 % compared to pre-legalization years 2011/2012
- Nationally an increase of 21 %

SOURCE: SAMHSA.gov, National Survey on Drug Use and Health 2013 & 2014

There are 2 1/2 times the medical Marijuana dispensaries as there are McDonalds in Colorado



Indiana is a destination state for Colorado marijuana



### Colorado's marijuana experiment has:

- Stressed traffic enforcement
- Increased school suspensions and expulsions
- Increased Marijuana-related emergency department & hospitalization rates
- Increased poison control issues among children and adolescents

### Also:

- Marijuana postal seizures have increased along with THC extraction lab explosions and injuries.
- Marijuana edibles lack regulation and often look identical to marijuana-free treats.
- Increased panhandling, homelessness, drug use & reduced public safety has impacted Denver's hospitality and tourism business.





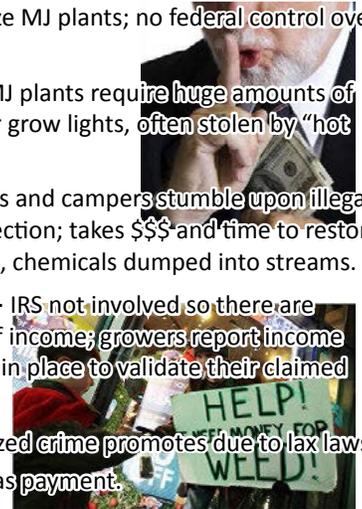
## Scenario

- **5** people from Florida move to Colorado and rent **3** houses
- All **5** individuals obtain a medical recommendation to grow **99** plants
- Now they can “legally” grow up to **495** plants
  - **At least 1 lb per plant per cycle**
- **495** lbs of marijuana every 90 days = **1,980** lbs per year
  - Colorado average value = **\$2,000** per lb or **\$3.9 million** per year
  - East Coast average value = **\$4,000** per lb or **\$7.9 million** per year

SOURCE: DEA

## Collateral Damages

- **Chemicals** - Unpronounceable chemicals used to purge THC concentrate, fertilize MJ plants; no federal control over chemical additives.
- **Electrical/Water** - MJ plants require huge amounts of water and electricity for grow lights, often stolen by “hot tapping”.
- **Federal lands** - Hikers and campers stumble upon illegal grows with armed protection; takes \$\$\$ and time to restore felled trees, soil erosion, chemicals dumped into streams.
- **Money laundering** - IRS not involved so there are no books, no tracking of income; growers report income but there is no auditing in place to validate their claimed income.
- **Prostitution** - Organized crime promotes due to lax laws; MJ or dollars accepted as payment.
- **Transients** - Come to smoke MJ, stay and overburden homeless shelters, other resources.
- **Home grows** - Homes rented, damaged by electrical added not to code, mold.



**The Colorado MJ experiment promotes excess growth of the plant with a value of twice the amount per pound outside of Colorado**

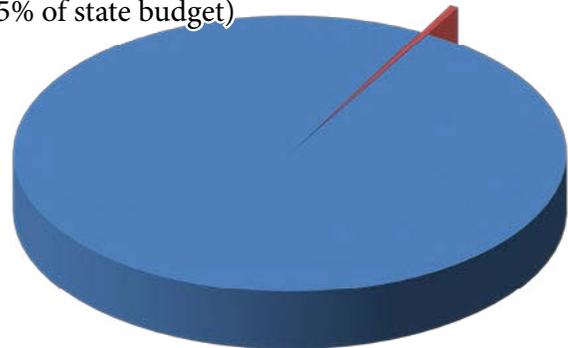
**So far, the promised tax revenue due to marijuana legalization has not materialized.**

## Colorado's Statewide Budget, FY 2016

- Marijuana Tax Revenue\* (Medical and Recreational) = Approximately \$115 Million (0.5% of state budget)

Revenue not sufficient to pay for:

- More public education
- Street paving



\*Revenue from marijuana taxes as a portion of CO's total statewide budget

SOURCE: Colorado Office of State Planning and Budgeting

**To examine facts about the Colorado marijuana experiment, see [www.rmhidta.org](http://www.rmhidta.org) and select the “Reports” tab.**



**Dr. Ronald F. Turco**  
 Professor of Agronomy  
 Purdue University

## Industrial Hemp Research and the Difference Between Hemp and Marijuana

Purdue College of Agriculture is growing *Cannabis sativa* with the goal of creating novel Indiana-based products.

Industrial hemp is cannabis bred for low THC (the cannabis ingredient that produces a high).

**Website:**  
[purduehemp.org](http://purduehemp.org)

The researchers comprise a Purdue University team of:

- 6 Extension Staff.
- 10 Faculty from Botany Plant Pathology and Weed Science, Agronomy, Agricultural Economics, Entomology and now Food Science.

Work on the *cannabis sativa* project studies:

- Agronomic and Harvest issues.
- Oil / Fiber Production / Quality.

**Industrial Hemp**

Less than 0.3% THC  
( $<0.2\%$ )

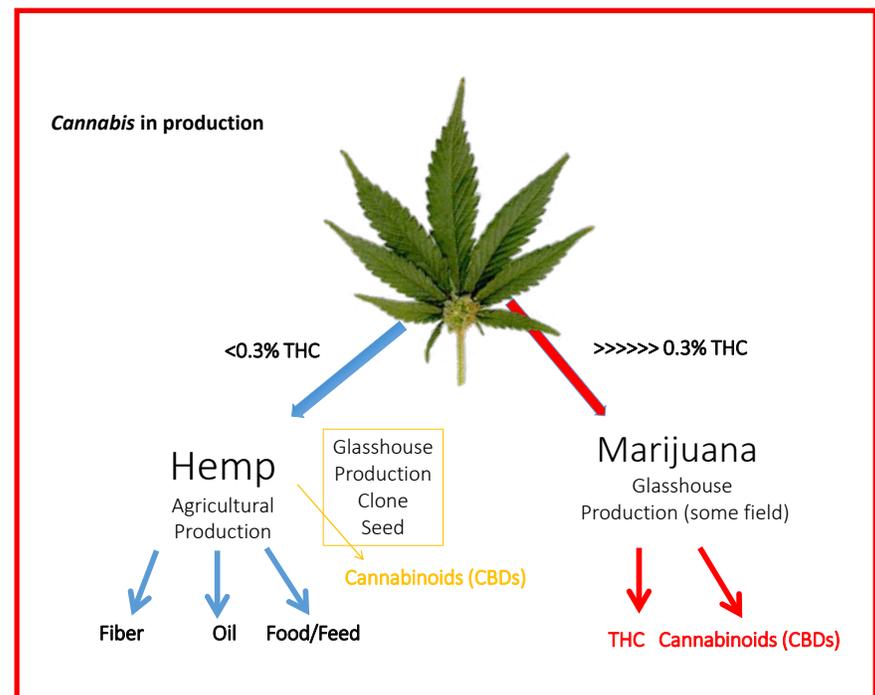
**Marijuana**

More than 0.3% THC  
( $+20\%$ )

*Represent: a long-term underground plant breeding program that is now in the open in Colorado and other places.*

**Clonal propagation (live plants)**

**Hemp is developed on seed; recreational marijuana is developed on clones**



# A Closer Look at Marijuana and Synthetic Drugs



**Hemp was the main textile fiber in the world until the mid-19th century (cotton, synthetics replaced)**

- 1857 - Hemp was grown in 27 Indiana counties – about 413 tons produced (Logan Esarey History of Indiana, p. 836)
- Between the Civil War and WWI, most U.S. hemp was grown in Kentucky.
- After the federal Marijuana Tax Act of 1937, hemp production ceased (except for a brief revival during WW II).

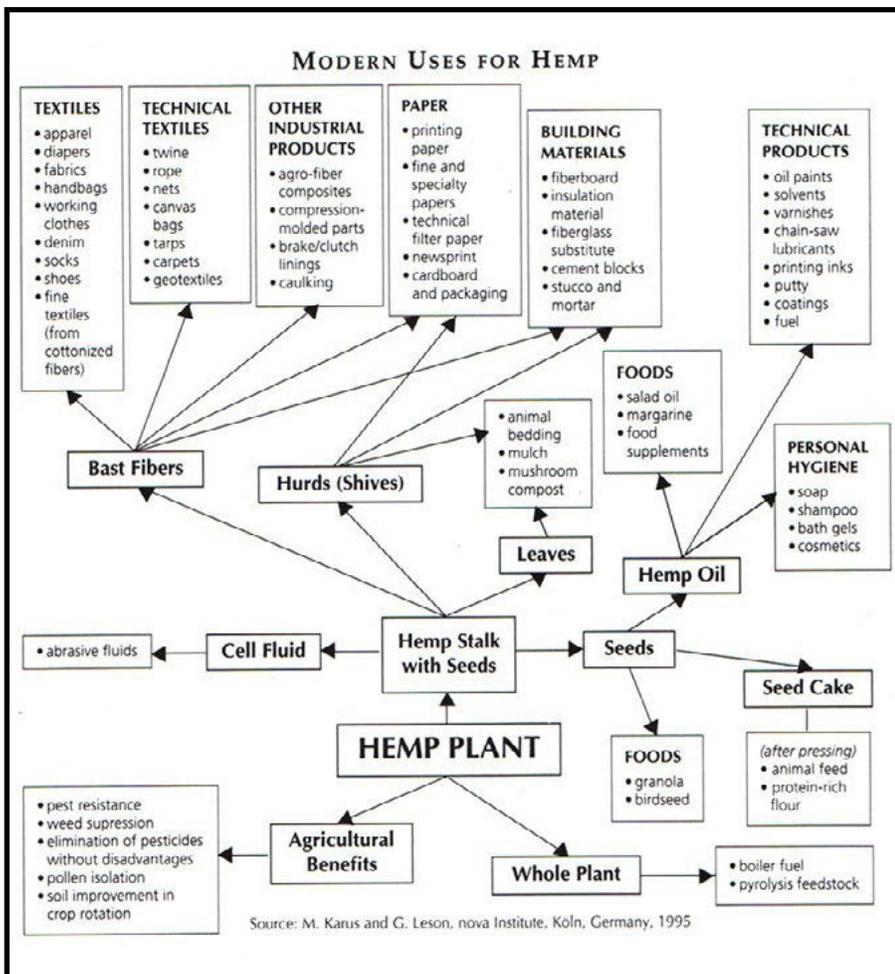
## BILLION-DOLLAR CROP

petition with cooler-produced foreign fiber while paying farmers fifteen dollars a ton for hemp as it comes from the field. From the farmers' 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 has a short growing season, so that it can be planted after other crops are in. It can be grown in any state of the union. The long roots penetrate and break the soil to leave it in perfect condition for the 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. Under old methods, hemp

(Continued to page 146A)



Top, modern version of linen duster made from hemp. Bottom, harvesting hemp with a grain binder. Hemp grows luxuriously in Texas



**Purdue research points:**

- 1 A solid, timely supply of seed is critical.
- 2 Federal legislation that effectively defines hemp as separate from marijuana thereby encouraging commercial production.
- 3 What is the yield per acre, and what markets will buy the crop?

**Purdue's hemp operation focuses on improved crop stability for farmers**

- hemp does not thrive in wet soil
- hemp is not disease resistant
- there are currently *no* legal pesticides for use on hemp in the U.S.



**Dr. Brent Furbee**  
Professor Emeritus of Medical Toxicology  
IU Health

## The Impact of Synthetic Drugs of Abuse on the Body

“Designer” drugs are synthetic versions of a controlled substance that are produced with a slightly altered molecular structure to avoid classification as an illicit drug.

The first synthetic drug, created in the late 1800s, was heroin, a chemical alteration of morphine that was more powerful than morphine or any other natural extract of the opium poppy. A more recent phenomenon is the proliferation of “designer” drugs by altering the molecular configuration of an existing drug to avoid detection by traditional means. The possibilities of alteration are endless. Illicit drug manufacturers have the ability to produce new drugs faster than they can be scheduled by authorities and bring them to “market” in large quantities without knowing what the effects on the end user will be.

The first synthetic drug public health emergency occurred in the '60s when meperidine (demerol) addicts used a synthetic analog that caused parkinsonism resulting in paralysis (frozen addicts).

**Synthetic, or “designer” drugs, are those that act like other drugs of abuse but avoid detection by traditional testing.**

### Synthetic drugs come in 4 major categories:

- Synthetic cannabinoids
- NBOMe
- Synthetic cathinones
- Synthetic opioids

### Synthetic cannabinoids (designed to mimic marijuana):

Synthetic cannabinoids may vary structurally from cannabinoids found naturally in the marijuana plant. Both types of cannabinoids also interact with the human body’s cannabinoid receptors. Beyond that there are few similarities in effects and side-effects. Known as K-2, Spice and a variety of other names, synthetic cannibinoids can cause:

- Tachycardia (abnormally rapid heartbeat)
- Agitation
- Hypertension
- Hallucinations
- Confusion
- Seizures
- Renal (kidney) failure

These side-effects are more severe than those from marijuana consumption. **Despite serious adverse reactions, no deaths have been reported after treatment.**

Indiana had 47 synthetic cannabinoid calls to the Indiana poison center in the first 4 months of 2015. Synthetic cannabinoids are classified as synthetic drugs in the Indiana code.



**The greatest concern with “designer drugs” is the lack of quality control - their potency varies unpredictably.**

## Synthetic cathinones (designed to mimic amphetamines and LSD):

Commonly called bath salts, they contain one or more stimulant compounds. They are taken by ingestion, snorting and other methods. **Deaths from synthetic cathinones have been reported.** Side effects include:

- Agitation
- Anxiety
- Chest pain
- Convulsions
- Peripheral vasoconstriction (constriction of the peripheral blood vessels)
- Mydriasis (dilated pupil)
- Tachycardia
- Confusion
- Nausea
- Decreased level of consciousness

Most synthetic cathinones are classified as synthetic drugs in the Indiana code, although some, such as MDMA and PMA, are Schedule 1 controlled substances under hallucinogenic substances.

## NBOMe (designed to mimic LSD):

These drugs stimulate the nervous system and are hallucinogenic (affecting neurotransmitters in the brain). These drugs are in the synthetic drug definition in Indiana. **There have been reports of cardiac arrest.** Sub-milligram doses produce toxicity; inhalation increases drug toxicity. Symptoms:

- Tachycardia
- Hallucinations
- Acidosis
- Hypertension
- Seizures
- Acute kidney injury

## Synthetic opioids (designed to mimic heroin):

Fentanyl, carfentanyl or U-47700 are several times more powerful than morphine (carfentanyl is 10,000 times more powerful). Persons overdosing may not respond as readily to Narcan, sometimes requiring much higher doses. **Overdose deaths are common.**

## Medical costs:

Emergency department	\$1,650 per visit
Critical care	\$4,400 per day
Add ventilator	\$2,500
<b>Average cost per poisoning admission</b>	<b>\$25,600</b>