



**Drug Enforcement Administration**



# **Methamphetamine and Pseudoephedrine Update**

**15<sup>th</sup> National Conference  
On Pharmaceutical & Chemical Diversion**

**June 2006**

# Methamphetamine

- **Abuse**
- **Methamphetamine Production Trends**
- **DEA Control Strategy**
- **Corresponding Shift in Trends**
- **State Actions**
- **Misconception Regarding Combination Products, Liquids & Gel-Caps**

# FORMS OF METHAMPHETAMINE



Methamphetamine powder

**Powder** – Most common form in the U.S; bitter-tasting; water-soluble; colors ranging from dingy white to reddish brown, depending on the manufacturing process.

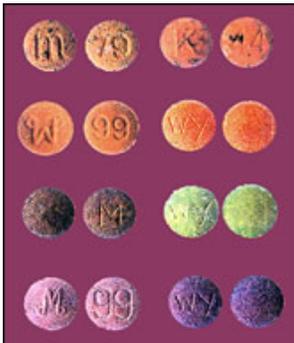
**Use:** Injected, snorted, smoked or orally ingested.



Ice methamphetamine

**Ice** – A very, pure smokable form; glasslike in appearance; differs from powder meth due to a recrystallization process in which impurities are removed from the meth; the finished product is then broken into chunks.

**Use:** Smoked or inhaled through a straw (or similar device).



Yaba tablets

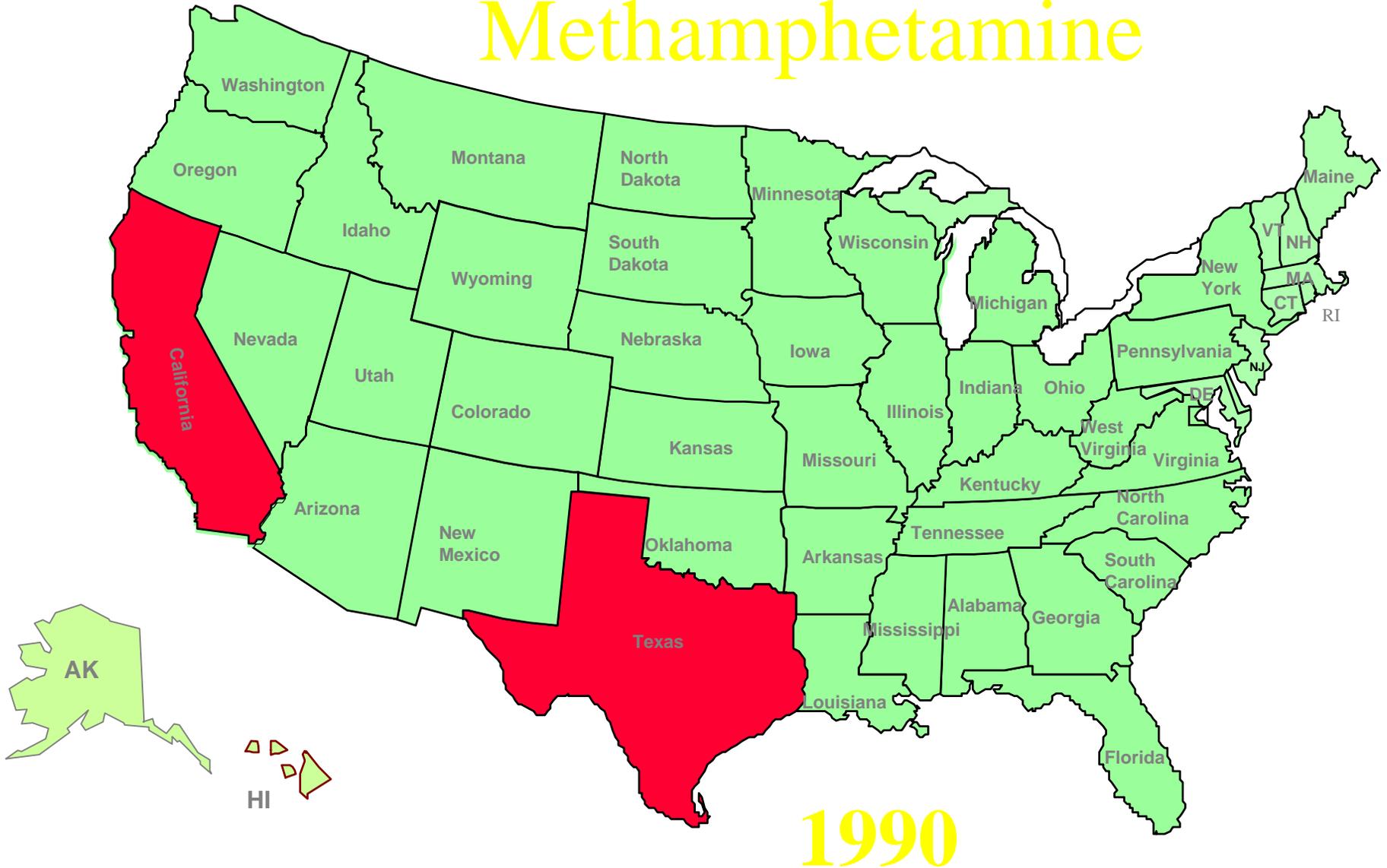
**Yaba** – Most common form in Southeast and East Asia; tablets are a composite of methamphetamine and caffeine; commonly colored reddish-orange or green with a variety of logos pressed on the tablets; primarily manufactured in Burma.

**Use:** Orally ingested.

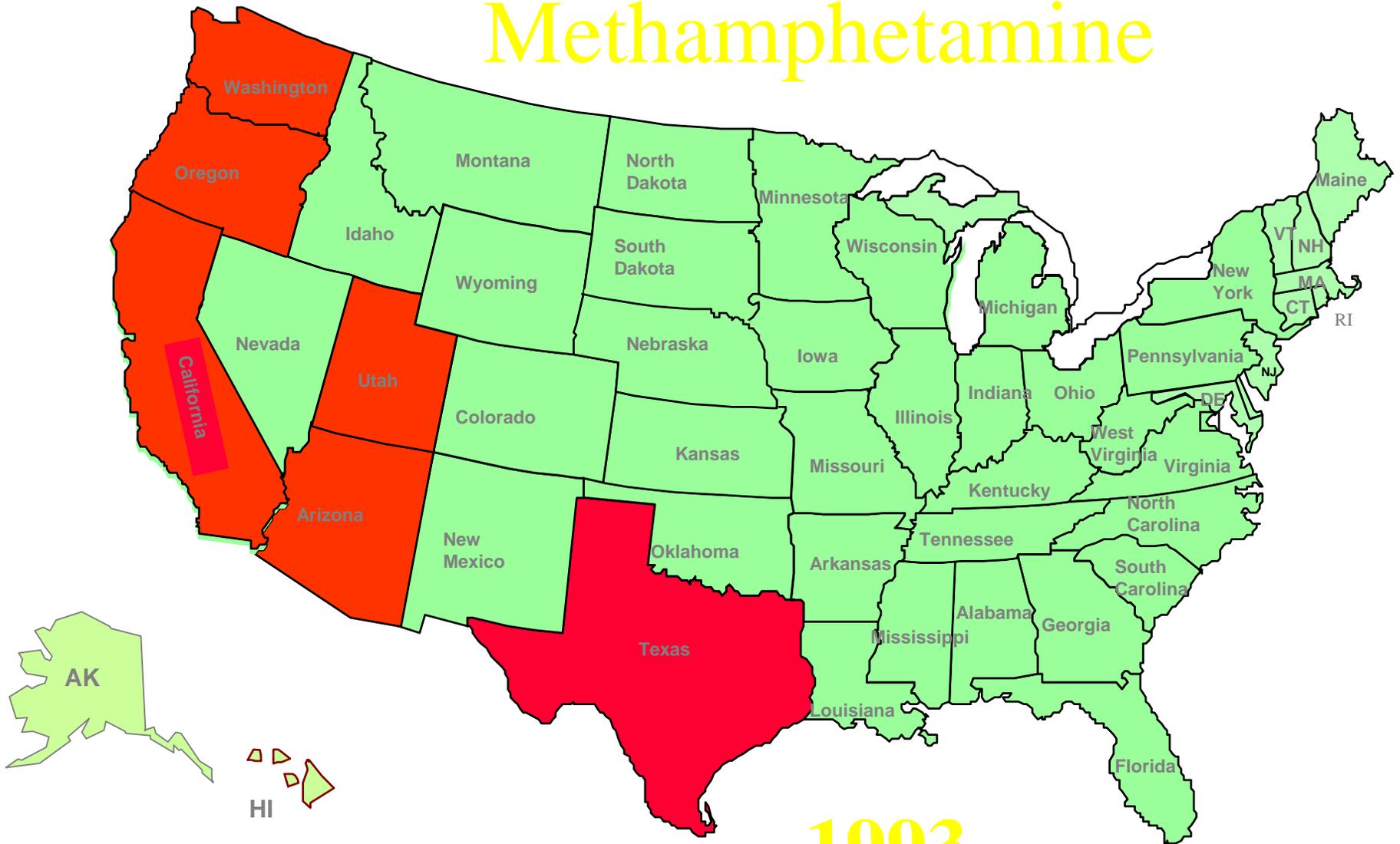
# METHAMPHETAMINE DRUG ABUSE



# National Epidemic of Methamphetamine

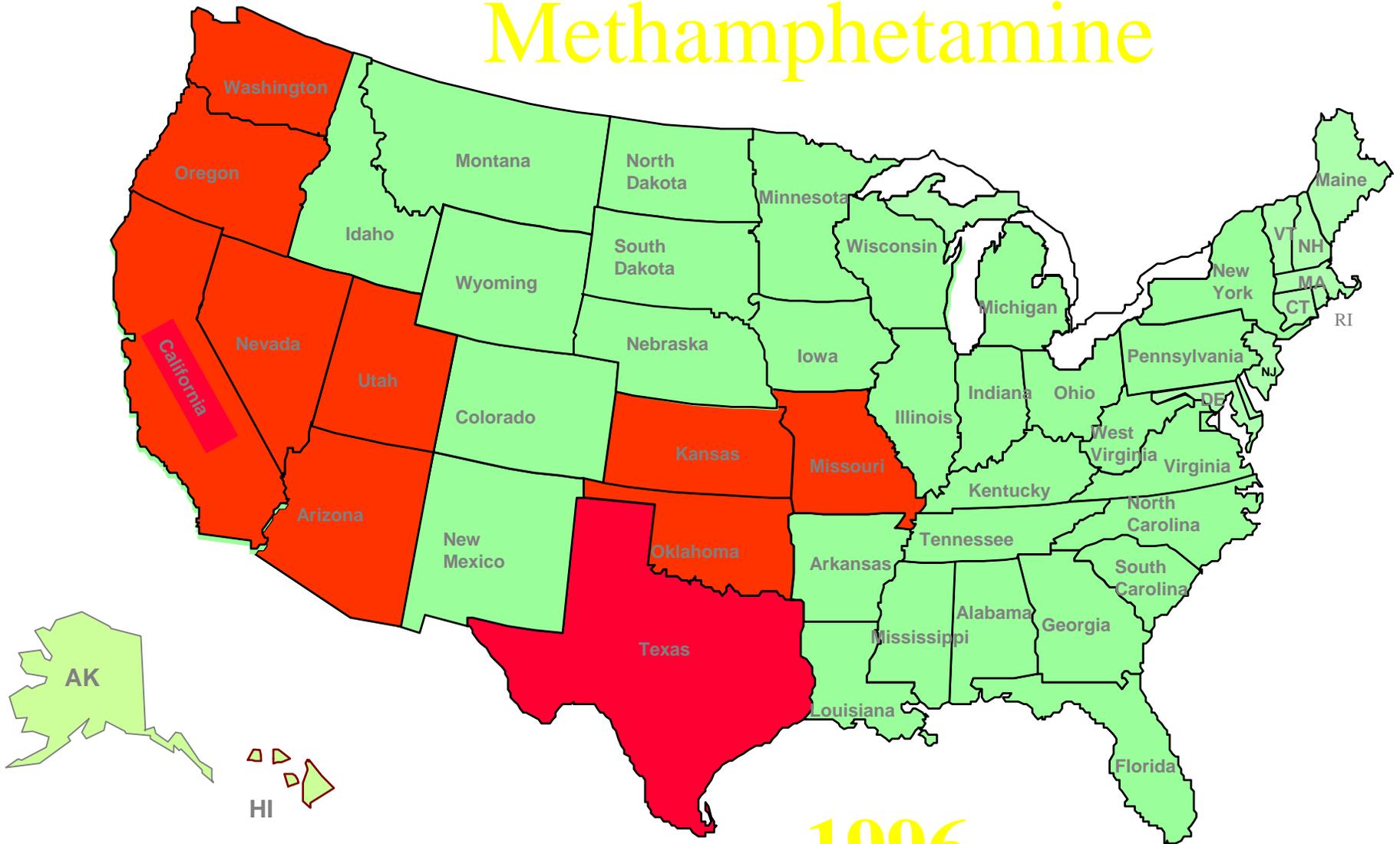


# National Epidemic of Methamphetamine



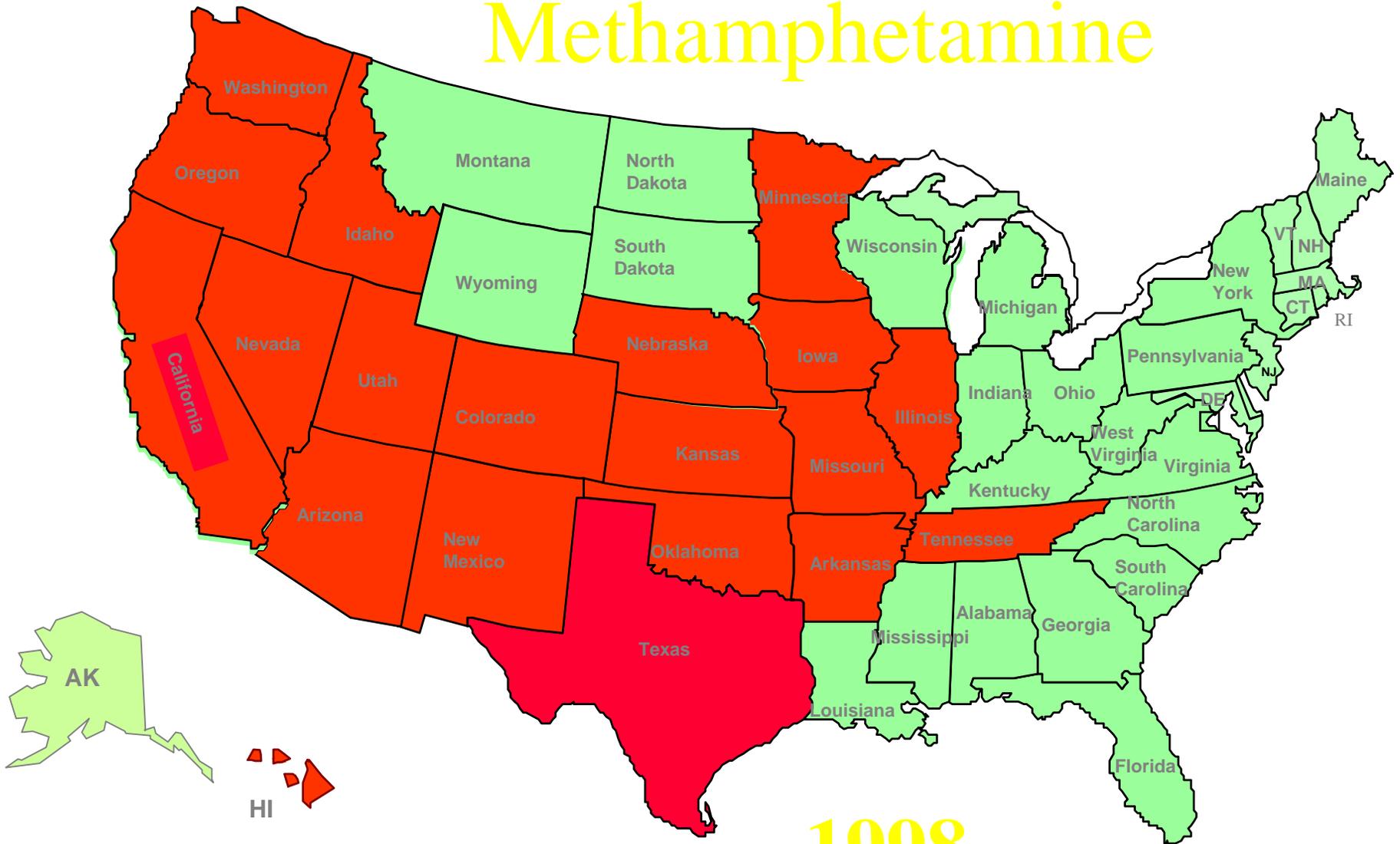
1993

# National Epidemic of Methamphetamine



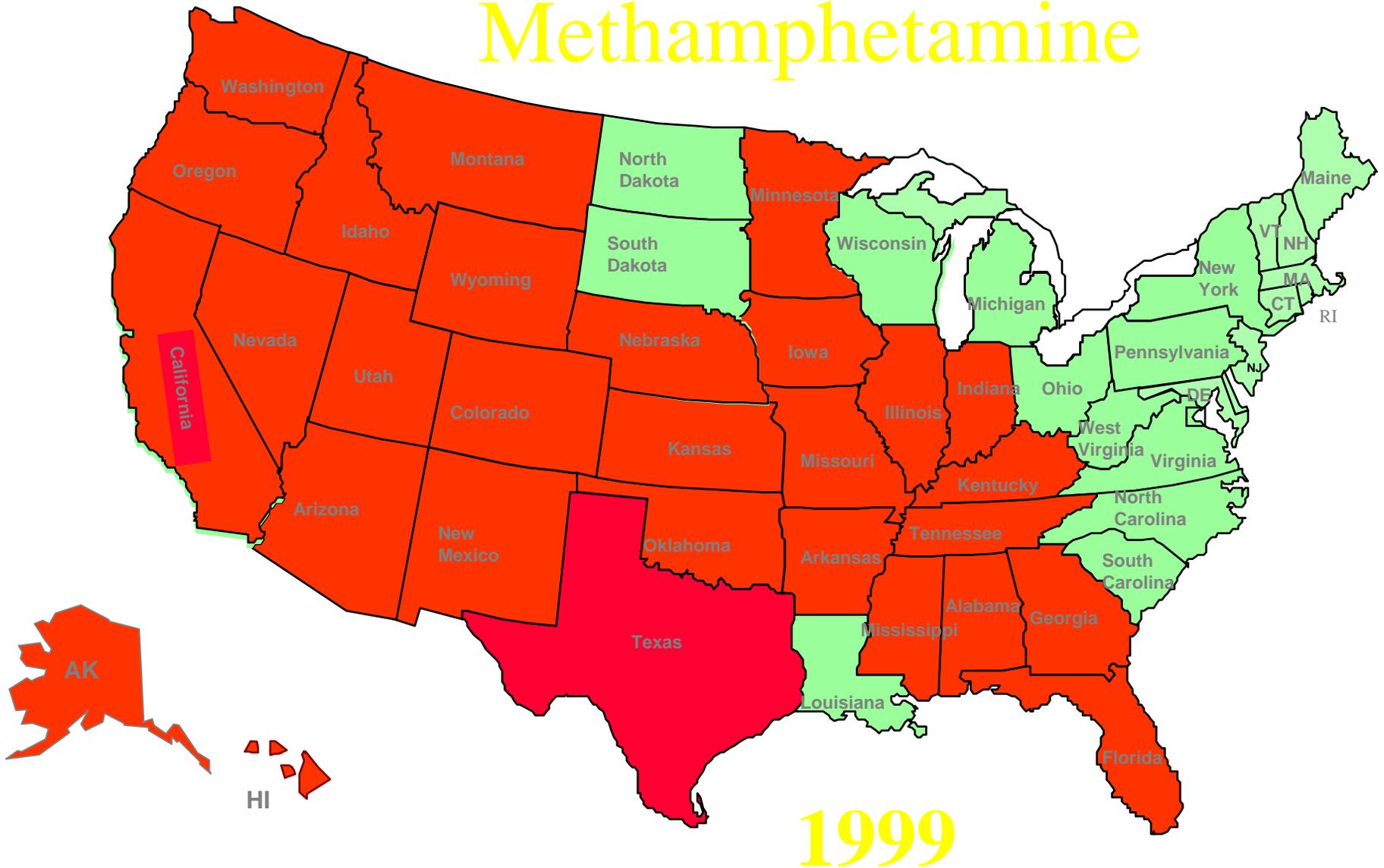
1996

# National Epidemic of Methamphetamine



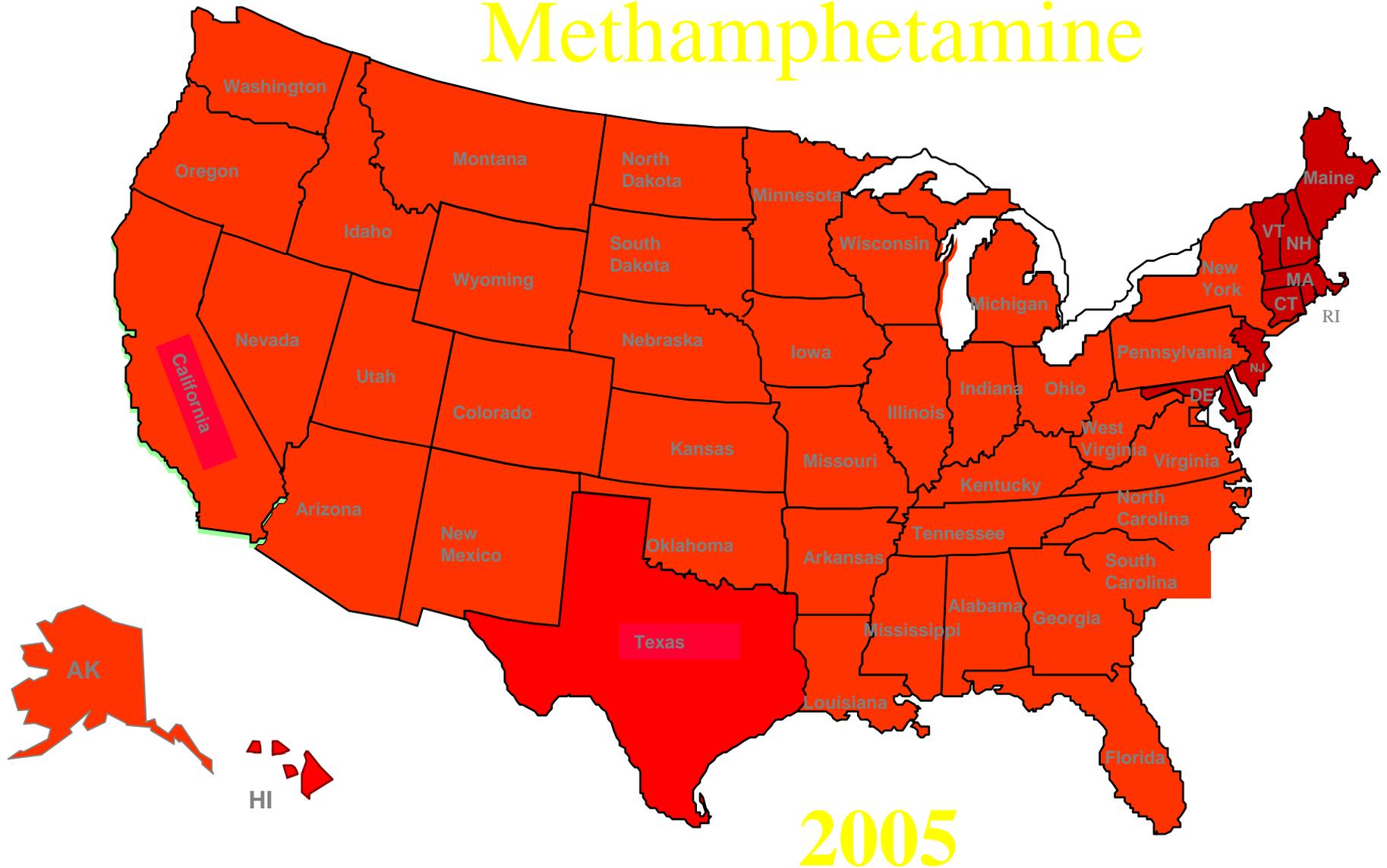
1998

# National Epidemic of Methamphetamine

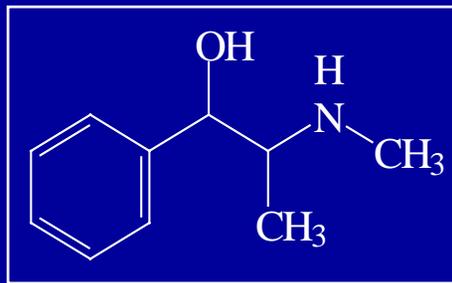




# National Epidemic of Methamphetamine



# Methamphetamine Production

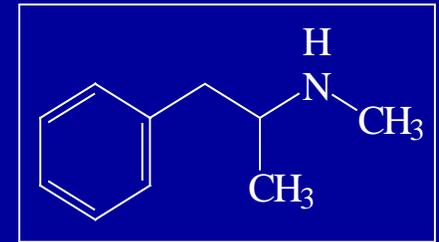


+

**HI**

+

**P**



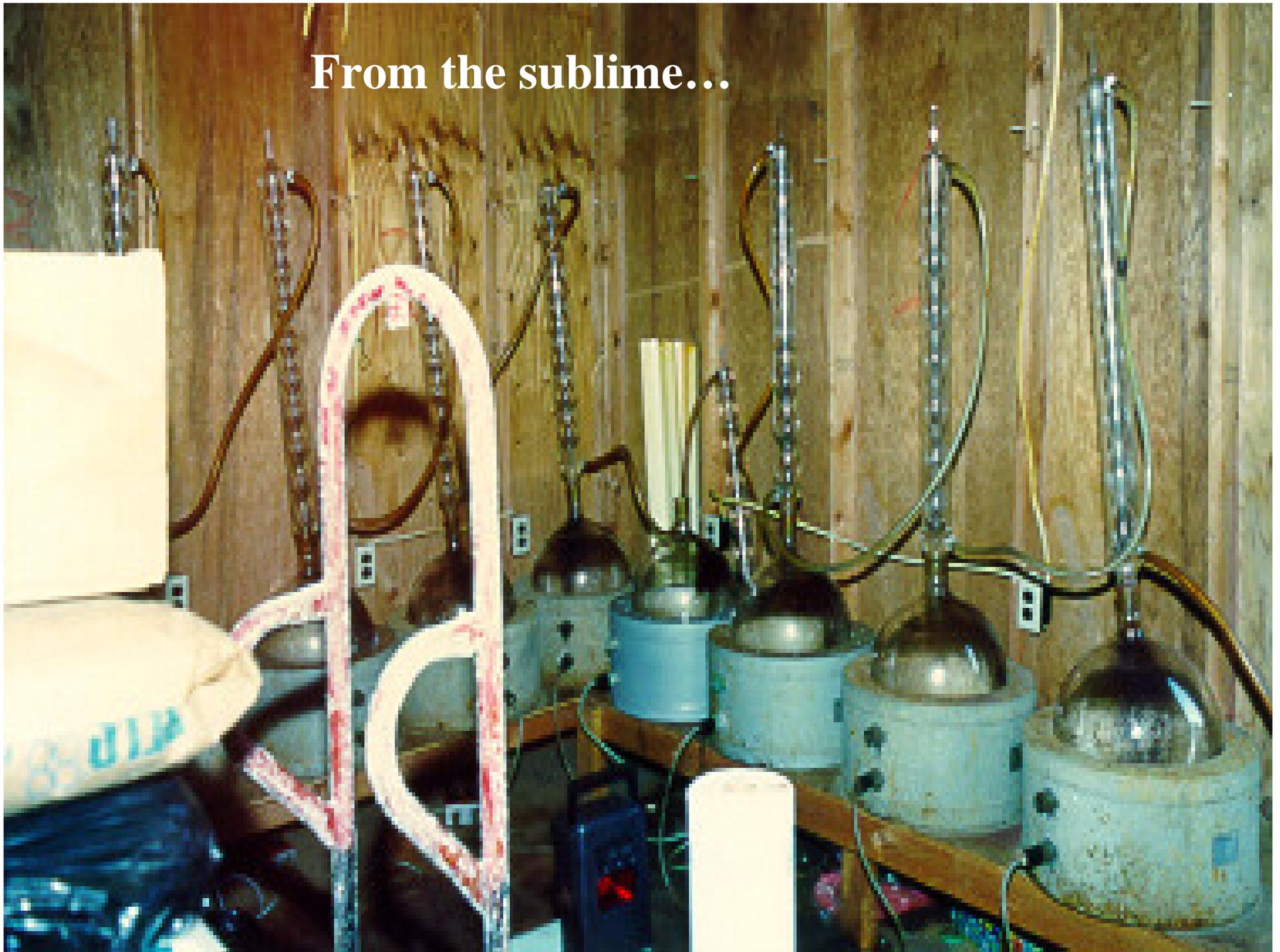
**Ephedrine  
or  
Pseudoephedrine**

**Hydriodic  
Acid**

**Red  
Phosphorus**

**d-Methamphetamine**

From the sublime...



**To the ridiculous.**





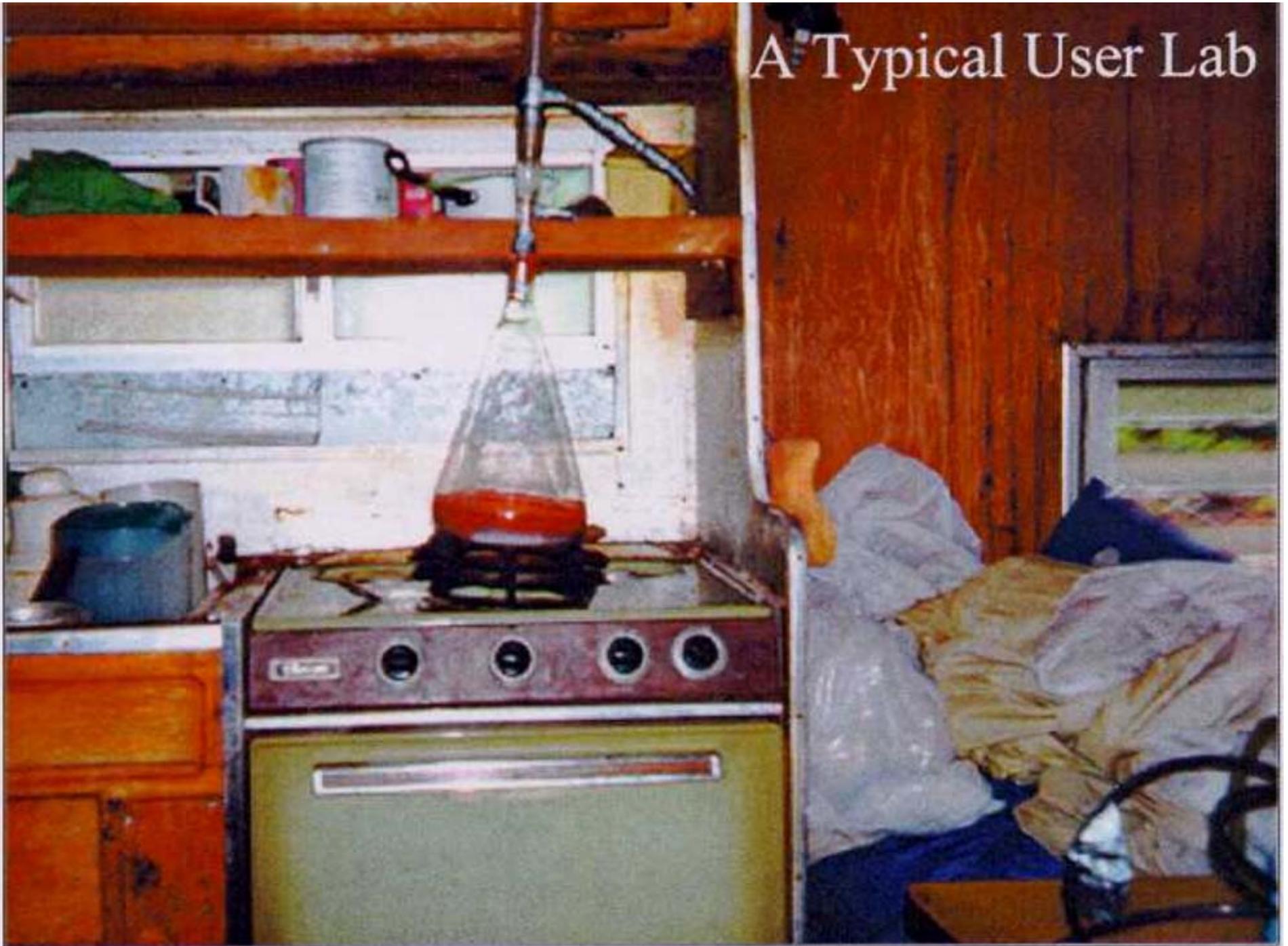
**Super labs produce  
> 10 lb per cycle and  
account for the majority  
of methamphetamine  
produced.**





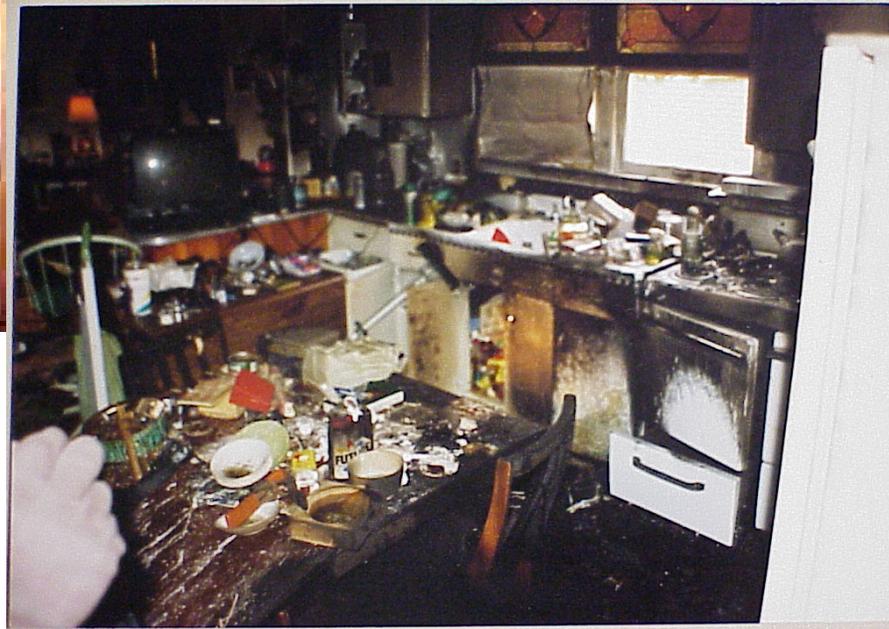
**Small toxic labs  
(STLs) account  
for the majority  
of all labs seized.**

A Typical User Lab





**Methamphetamine  
labs can be  
found anywhere.**



**Cars  
Hotels  
Homes**



**They can lead to disaster!**





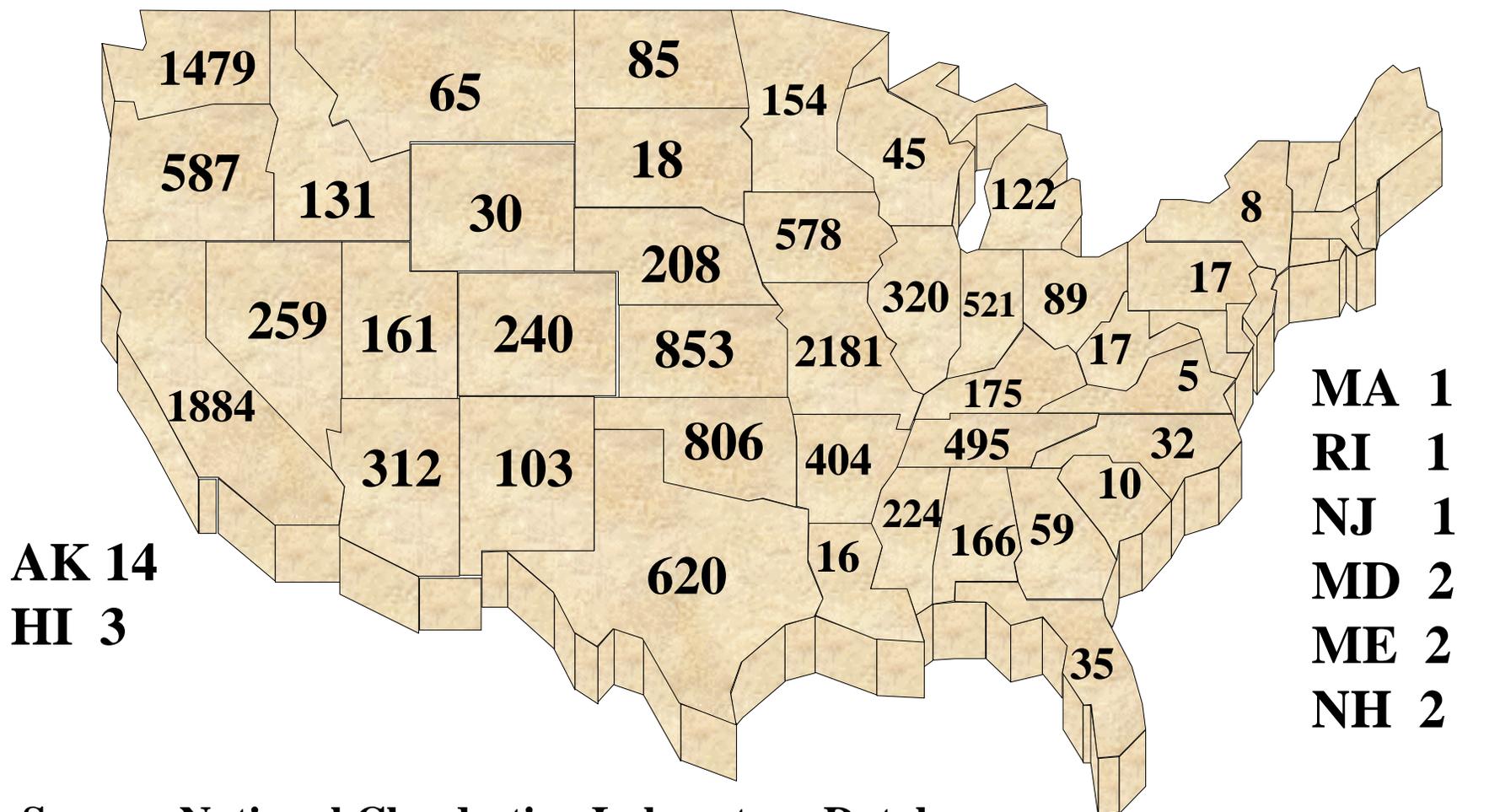
and Long Term Environmental Damage

- **Tampa, FL**
- **Lab Cook broke into Anhydrous Ammonia Pipeline**
- **Released cloud of AA gas**
- **500 Acres Scorched – Killed Wildlife in Area.**
- **2 schools (2,000 students) closed for 2 days**
- **Housing subdivision sealed off**

- **1 lb of Meth Produced Yields 5- 6 Pounds of Toxic Waste**
- **Waste is Often Dumped into Waterways or Sewage Systems**
- **Clean Up Costs**  
**1998 - \$5.5 Million**  
**2005 – 17.8 Million**  
**(down from a high of \$23 M in 2002)**



# All Meth Clandestine Laboratory Incidents (Labs, Dumpsites, Chem/Glass/Equipment) Calendar Year 2001



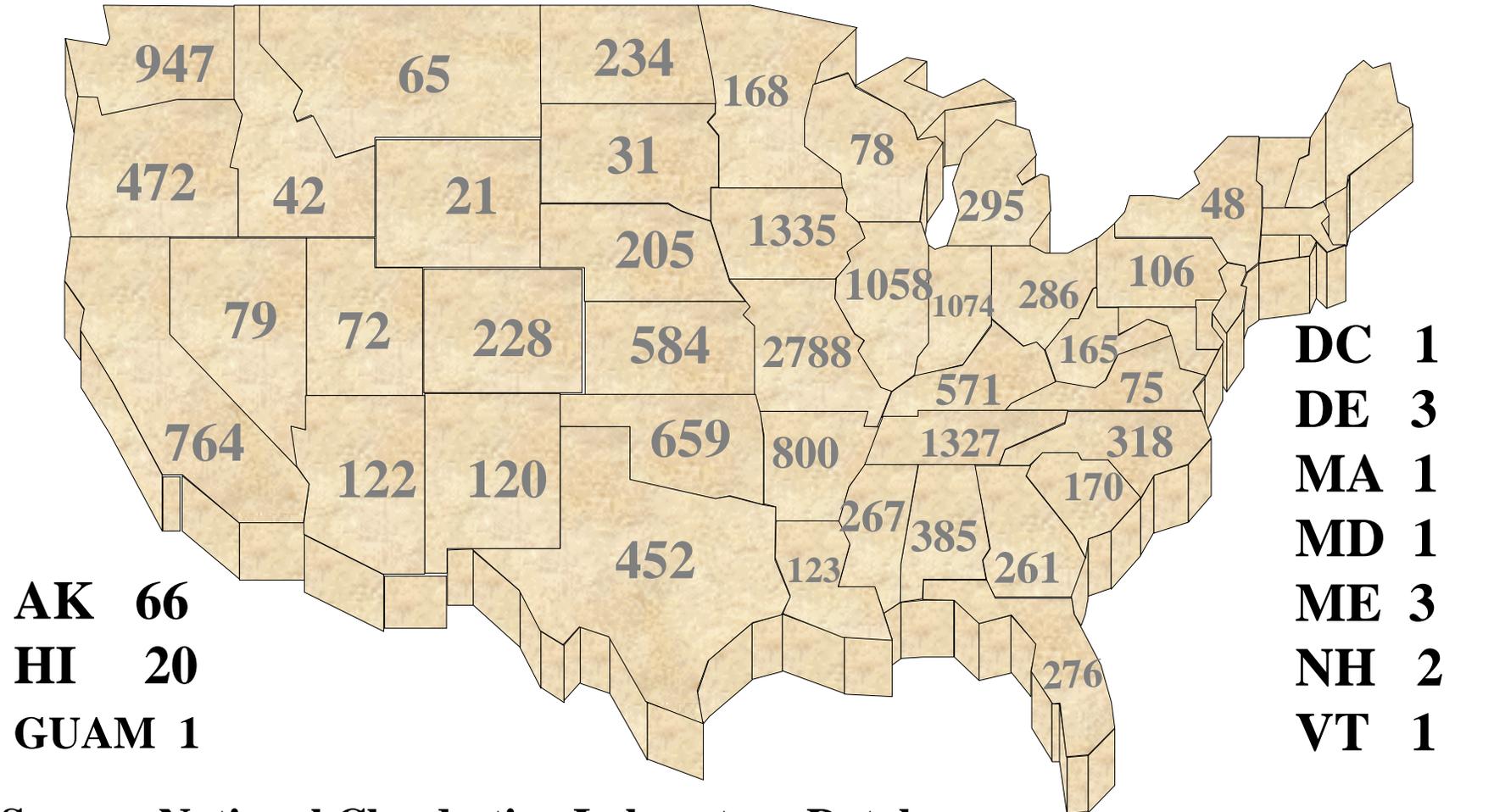
Source: National Clandestine Laboratory Database

Total: **13,540** / 47 States Reporting

Dates: 01/01/01 to 12/31/01

Totals are based on data reported to EPIC and entered into the CLSS as of 04/13/05

# Total of All Meth Clandestine Laboratory Incidents Including Labs, Dumpsites, Chem/Glass/Equipment Calendar Year 2004



Source: National Clandestine Laboratory Database

Total: **17,170** / 47 States Reporting

Dates: 01/01/04 to 12/31/04

Totals are based on data reported to EPIC and entered into the CLSS as of 08/22/05

# METHAMPHETAMINE PRODUCTION



**Legend:**

- Ephedrine/Pseudoephedrine Source Country
- Methamphetamine Source Country

# The Chemical Laws

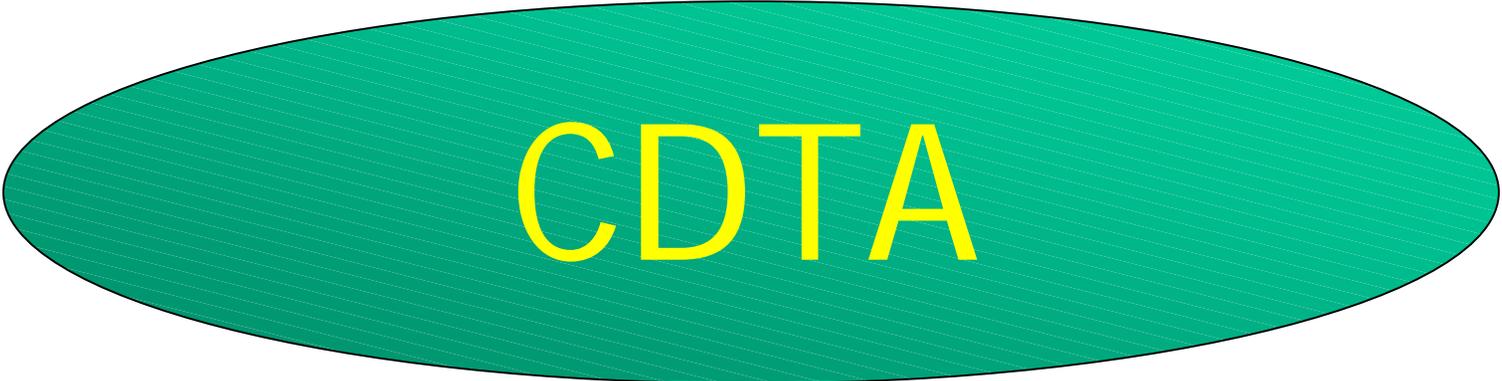
Phase 1 - 1988 - CDTA

Phase 2 - 1993 - DCDCA

Phase 3 - 1996 - MCA

Phase 4 - 2000 - MAPA

# Chemical Diversion & Trafficking Act of 1988



CDTA

Phase 1

# CDTA - Chemical Diversion and Trafficking Act of 1988

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Created to reduce illicit drug production by denying drug traffickers the chemicals they need to produce illicit drugs.

Placed under Federal control the importation, exportation and domestic distribution of Listed Chemicals and tableting /encapsulating machines.

# CDTA - Chemical Diversion and Trafficking Act of 1988

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Gave DEA the authority to stop imports or exports of Listed Chemicals not destined for legitimate use.

Required reports of suspicious orders to DEA

# Benefits of the CDTA

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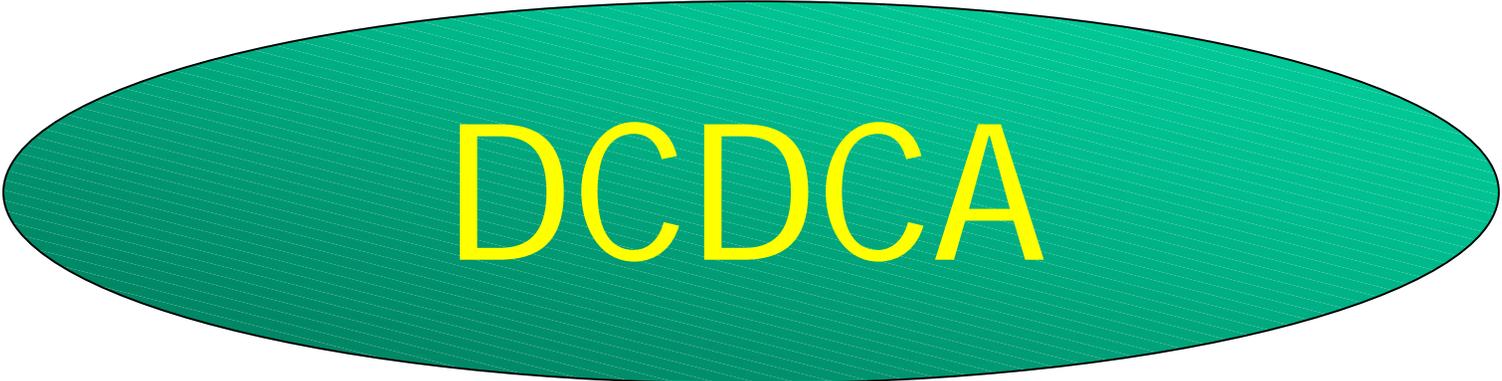
- Greatest impact in the international arena
- Reduced exports of listed chemicals to countries that are known sources of cocaine

# Shortcomings of the CDTA

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- DEA had to prove that an individual knowingly supplied chemicals to persons engaged in illicit manufacture in order to be able to take any action.
- Pertaining to methamphetamine, only **bulk** ephedrine powder was controlled

# The Domestic Chemical Diversion Control Act of 1993



DCDCA

Phase 2

# Benefits of the DCDCA

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- Provided for registration of List I chemical handlers
- Eliminated ephedrine tablet (single-entity) loophole

## Shortcomings of the DCDCA

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- Required brokers and traders based in the U.S. to be subject to the reporting and record keeping requirements
- No “broker” registration category
- No controls on combination ephedrine, pseudo-ephedrine, and phenylpropanolamine

# Pseudoephedrine Extraction Laboratory in California





# The Comprehensive Methamphetamine Control Act of 1996



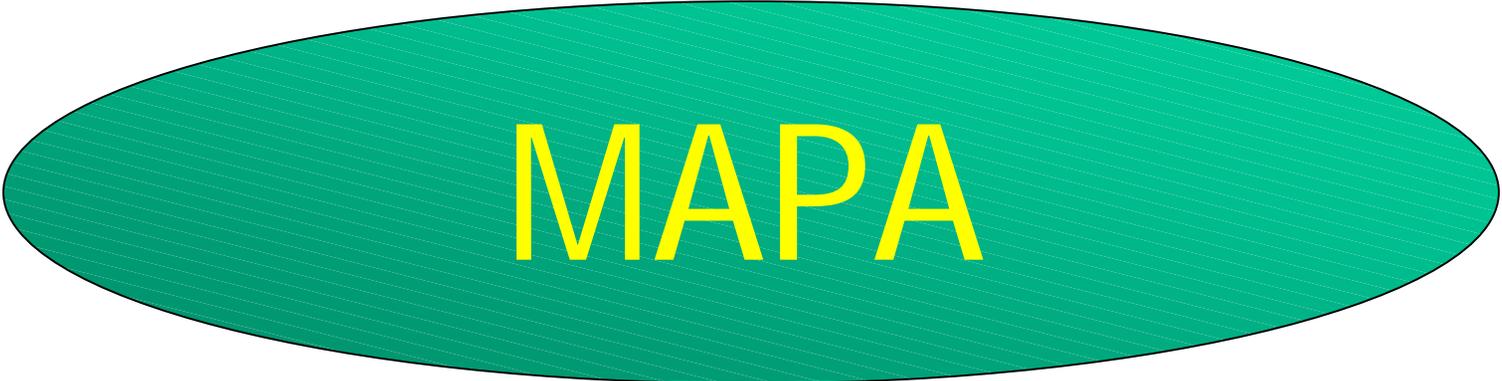
MCA

Phase 3

# Summary of the MCA

- Eliminated the exemption for drug products that contain ephedrine, pseudoephedrine or phenylpropanolamine (now controlled).
- Established “blister pack” exemption

Methamphetamine  
Anti-Proliferation Act  
of 2000



MAPA

Phase 4

# Benefits of MAPA

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- Reduced threshold for retail sales of PSE and PPA from 24 gms to 9 gms in single transaction
- Package size of no more than 3 gms of PSE or PPA base per package
- Reduced threshold applies to mail order and Internet sales

# Shortcomings of MAPA

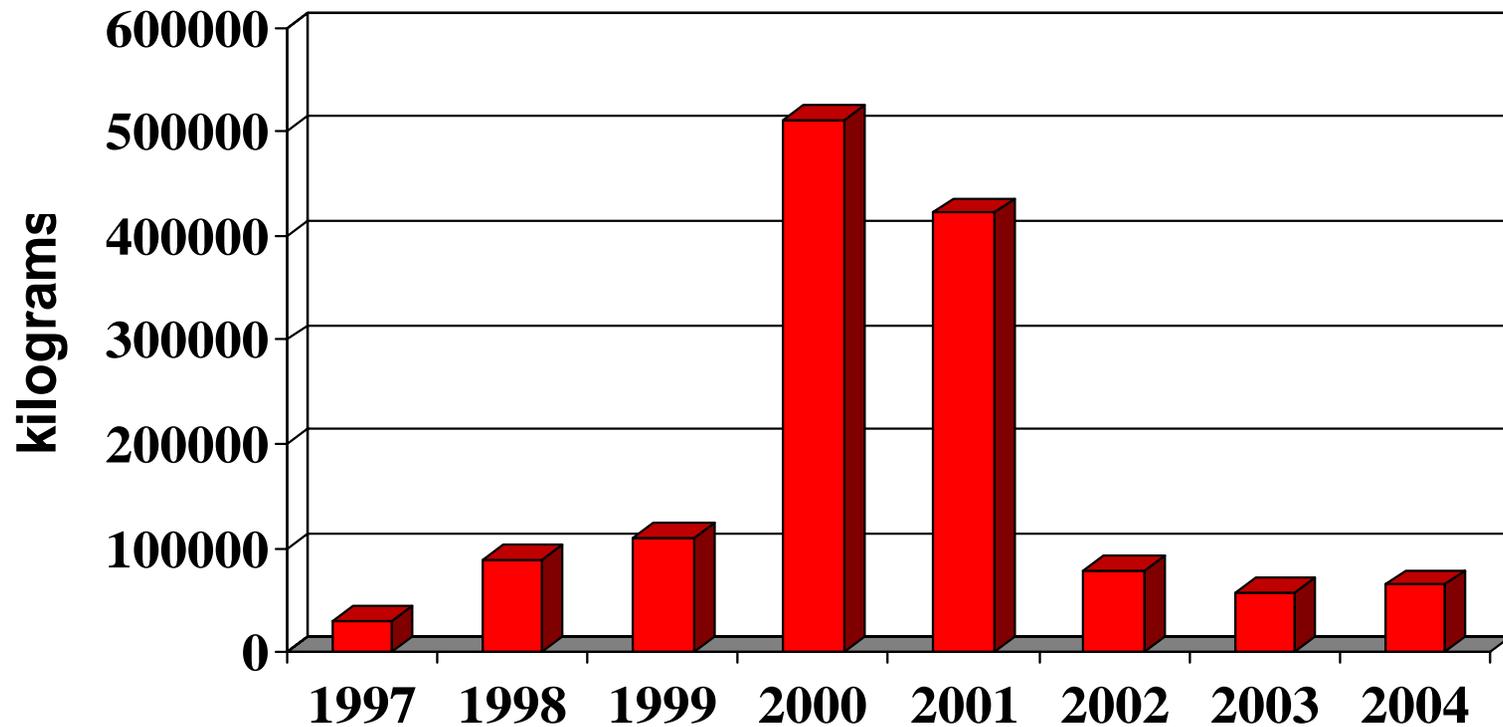
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- 9 gram retail thresholds did not apply to combination ephedrine products
- Safe harbor packaging (Blister packs) continue to be exempt

# Shifting Trends in Trafficking

- **Primarily domestic sources of precursor for domestic methamphetamine production 1980 - 1999**
- **To Canada as source of pseudoephedrine tablets 1999 -2001**
- **To Mexico as source for pseudoephedrine and methamphetamine production 2002 - present**

# Canadian Imports of Pseudoephedrine



# Canadian Pseudoephedrine Trafficking



**August 2000**

**100 tablets per bottle**



**January 2001**

**1,000 tablets  
per bottle**

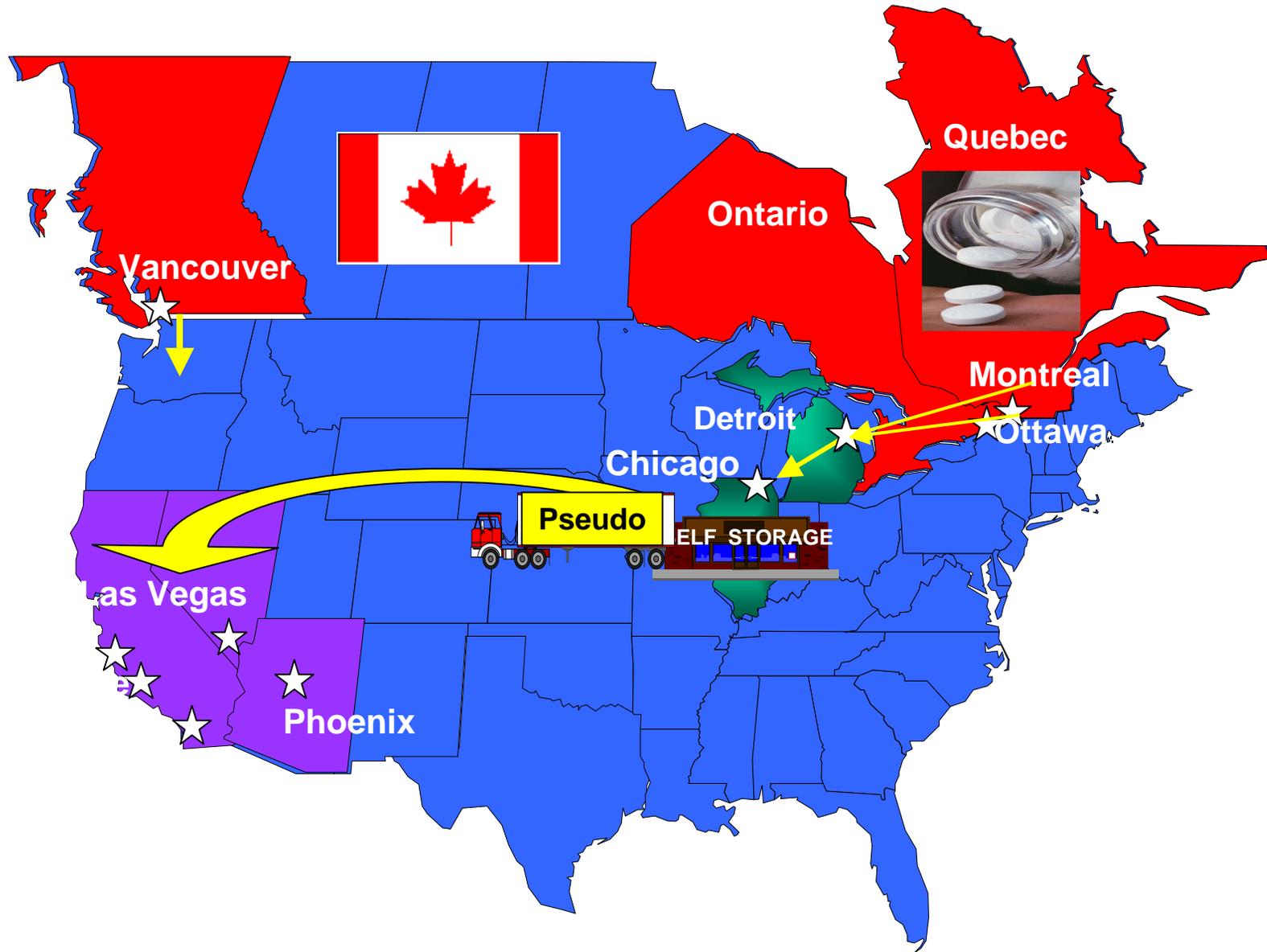


**April 2001**  
**23,000 tablets  
per bottle**



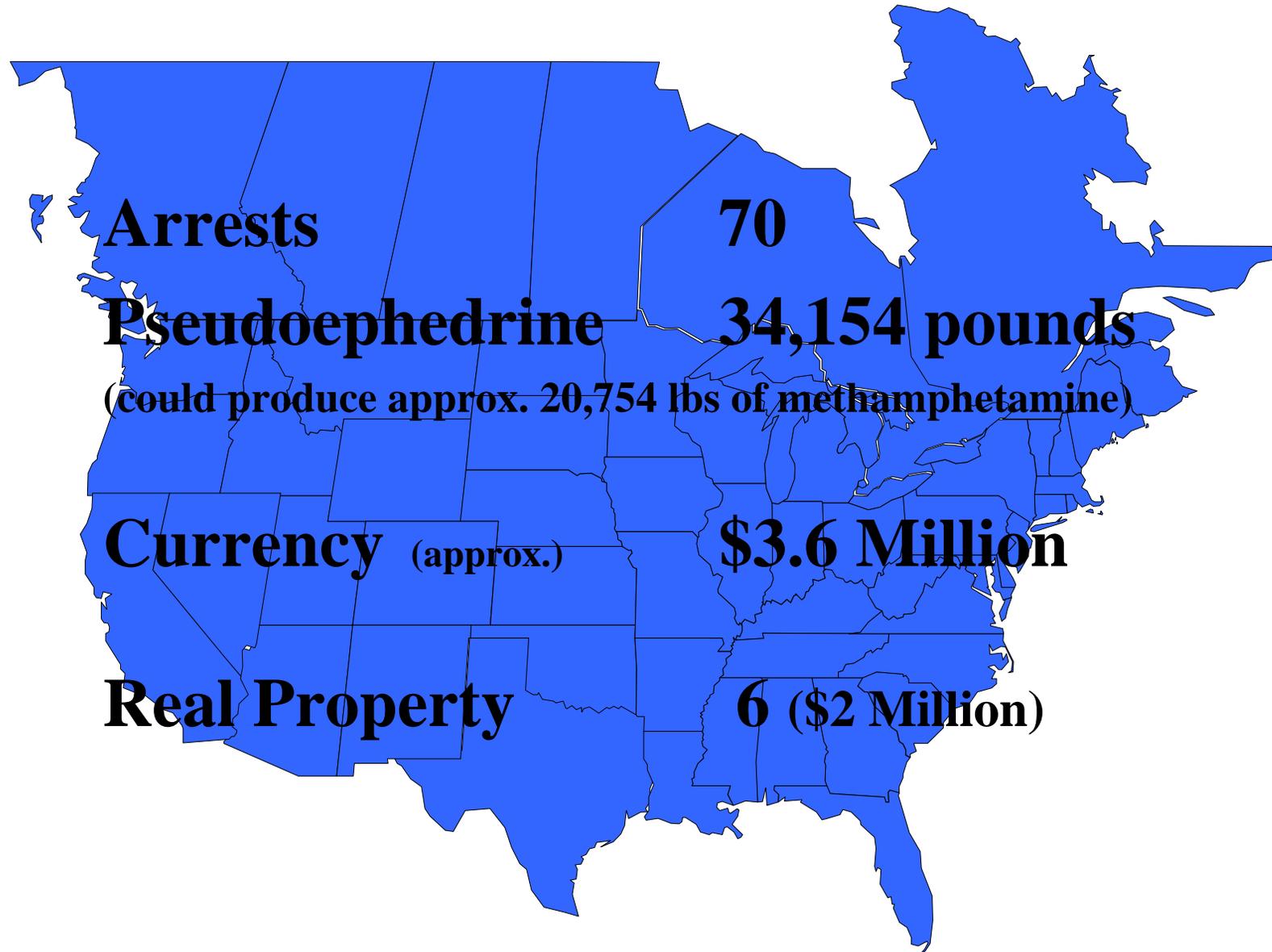
**December 2001**  
**80,000 tablets per container**

# Shift to Canadian Pseudoephedrine



# *OPERATION NORTHERN STAR*

## **ARRESTS & SEIZURES**



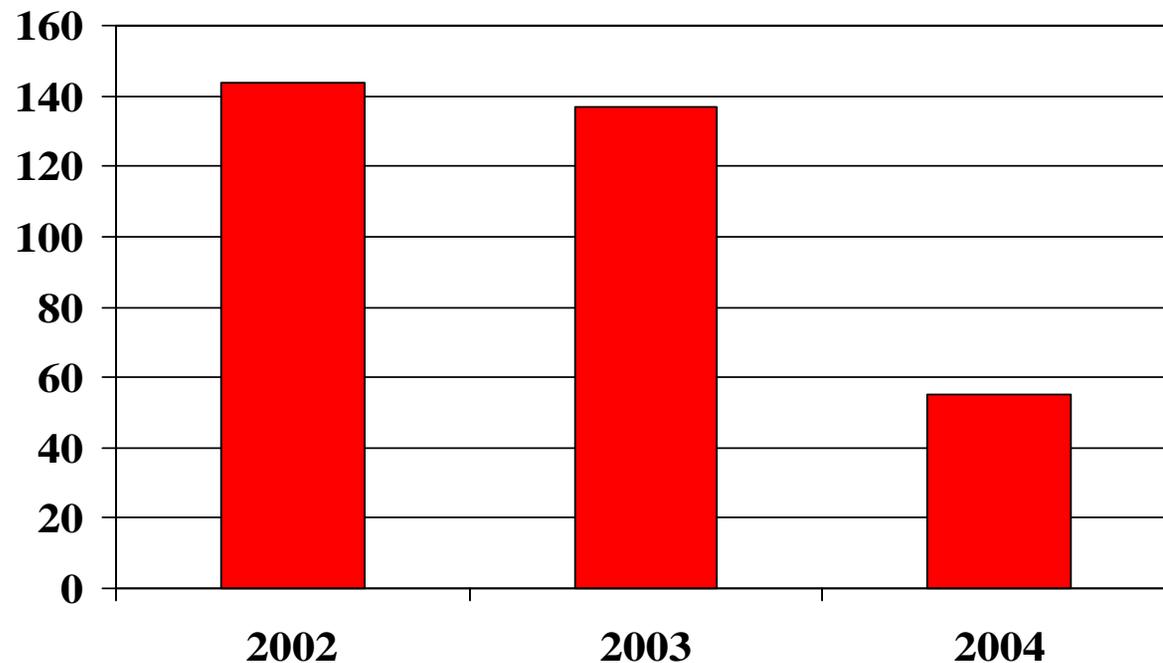
# Pseudoephedrine Trends

- **Decline in Super Lab Seizures.**
- **Since Operation Northern Star, Canadian border seizure events involving ephedrine and pseudoephedrine declined 85%, from 419 in 2001 to 61 in 2003.**
- **Seizures of methamphetamine along the southwest border of the U.S. and Mexico have increased 96%, from 1,170 kg in 2001 to 2,299 kg in 2004.**
- **In March and April 2003, the U.S. and Panama made four seizures, totaling 19 million tablets of pseudoephedrine tablets destined to fictitious companies in Mexico.**

# Super Lab Seizures

- **2002**      **144 US (130 CA)**
- **2003**      **137 US (132 CA)**
- **2004**      **55 US (30 CA)**
- **2005**      **34 US**

**76% reduction since 2002.**



## Southwest Border\* Methamphetamine Seizures: 1998-2005

<b>1998</b>	<b>807 Kilograms</b>
<b>1999</b>	<b>1,099 Kilograms</b>
<b>2000</b>	<b>1,251 Kilograms</b>
<b>2001</b>	<b>1,170 Kilograms</b>
<b>2002</b>	<b>1,129 Kilograms</b>
<b>2003</b>	<b>1,783 Kilograms</b>
<b>2004</b>	<b>2,299 Kilograms</b>
<b>2005</b>	<b>1,132 Kilograms YTD</b>

**\*Source: EPIC, Southwest Border Seizure Statistics, as of 8/29/05; the southwest border methamphetamine statistics are for the states of Texas, New Mexico, Arizona and California.**

# DEA Methamphetamine Strategy

- **Focus on Mexican Meth Organizations (Priority Targeted Organizations)**
- **Target the Diversion of Pseudoephedrine and Ephedrine to Mexican PTO's**
- **Support Pseudoephedrine Legislation; both State and Federal**
- **Target Repeat Offenders of STL Manufacturers for Federal Prosecution**

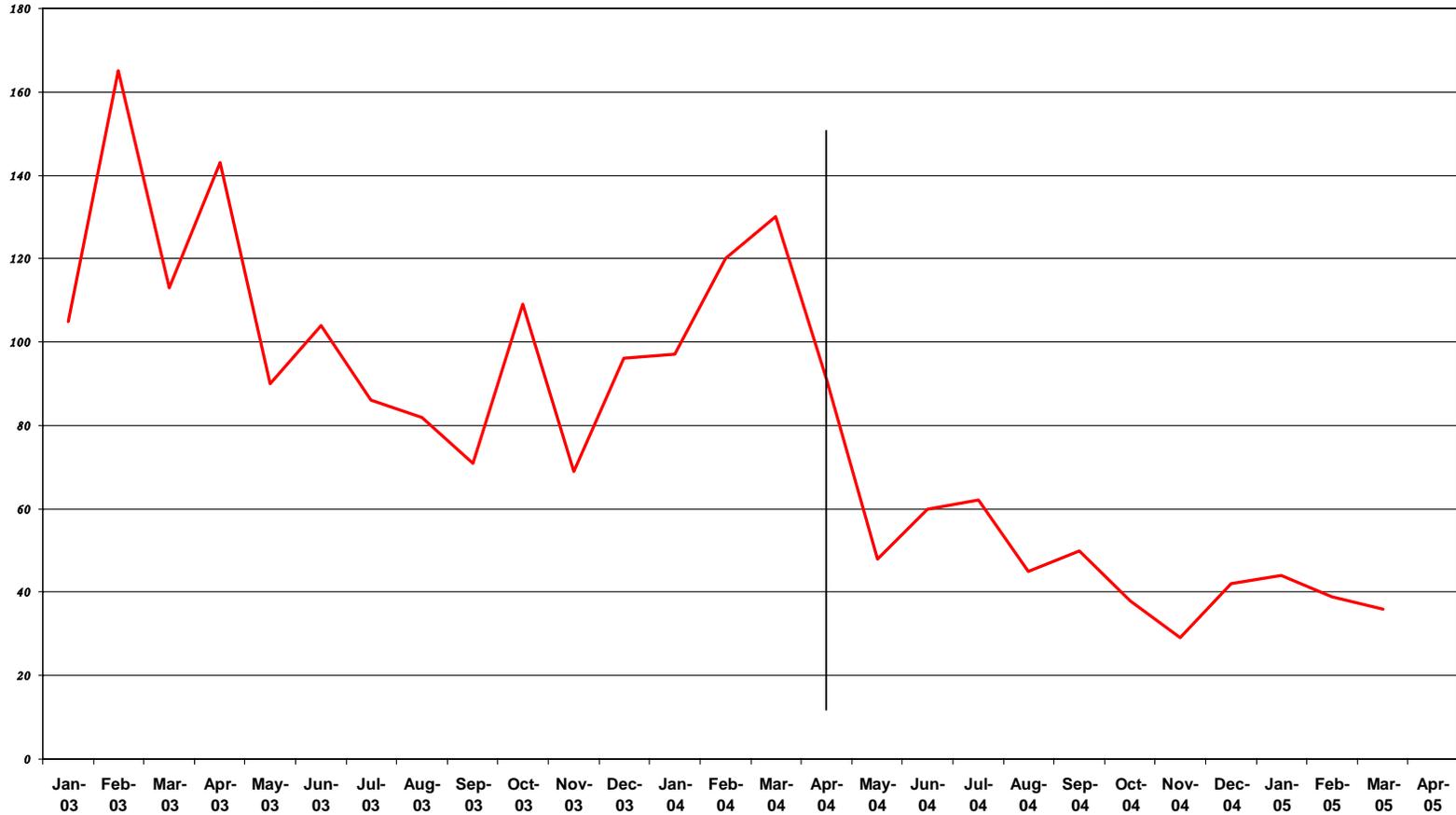
# OKLAHOMA BILL (OKH2176)

Passed March 22, 2004

- **1<sup>st</sup> State to place pseudoephedrine tablets into Schedule V.**
- **Requires pseudoephedrine to be dispensed by a pharmacist or technician. (kept behind counter)**
- **Purchaser must produce photo ID and sign a log.**
- **Allows a person to buy 9 grams in a 30 day period. (excluding liquid or gel form)**
- **OK media : Lab arrests has fallen by 37% (April 2004)**

# Oklahoma Lab Seizures (Jan 03-March 05)

(Source: OK Bureau of Narcotics as reported to the Interagency Working Group on Synthetic Drugs for OSBI.OCPD and Tulsa PD Combined)



OK Labs	105	165	113	143	90	104	86	82	71	109	69	96	97	feb 2004	120	130	apr 2004	91	48	60	62	45	50	38	29	42	44	39	36	
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# Pseudoephedrine Legislation

- **Currently 43 states have enacted or proposed legislation which imposes some type of restrictions on the sale of pseudoephedrine.**
- **Of those state bills, 16 are similar to the Oklahoma law which makes pseudoephedrine a Schedule V Controlled Substance.**

# Pseudoephedrine Legislation

**Other state pseudoephedrine bills have different provisions that include:**

- **Photographic identification ( 38 states)**
- **Signing a log book (35 states)**
- **Sale by a licensed pharmacist or tech (31 states)**
- **Limiting the amount sold per transaction (28 states)**
- **Monthly Limit (29 states)**
- **Prescription/Liquid Gel Cap Exclusion (35 states)**

# Chemical Control Methamphetamine Activity

- **State Legislation**
- **Voluntary Programs by Industry and Retailers**
- **Combination Products**
- **Liquids & Gel-Caps**

# Voluntary Actions At Retail Level

- **Some directed at all dosage forms**
- **Some directed at only single entity solid dosage form products**
- **NACDS, Kmart, CVS, Rite-Aid, Walgreen, Target, Albertsons, Longs, and others...announced various voluntary programs**

# DEA Administrative Actions

1999 – 2005

As of August 30, 2005

- **152 Registrations Surrendered for Cause**
- **155 OTSC Issued**
- **1,403 Out of business**
- **Avg. 400 new applications per year**
- **Registrants in decline**
  - **3,344 in 2002**
  - **2,891 in 2005**

# Administrative Decisions

Published in Federal Register

- **Xtreme Enterprises** FR 67, No. 238; 2/11/2002
- **Branex, Inc.** FR 69, No. 37; 2/25/2004
- **Express Wholesale** FR 69, No. 204; 10/22/2004
  - **Attacking crypto-generic market**
  - **Convenience Store Sales**
    - \$27-32 per month
  - **Grocers and Pharmacies**
    - Over \$600 per month
  - **Department Stores**
    - Over \$1,000 per month

# PSEUDOEPHEDRINE Blister Packs - Smurfing



- Acceleration in blister pack use.

- BLISTER PACKS**

- 1998 - 31 labs

- 2001 – 1,159 labs

- 2004 – 2,556 labs

Increase of **120%** over 2001.

Per EPIC January 2005

## DEA Extraction Studies Liquids, Gel Caps

- All serve as ready source of pseudoephedrine
- Easy extraction using common solvents such as ethyl ether and reagents such as sodium hydroxide and hydrochloric acid
- 40-75% yields easily obtained

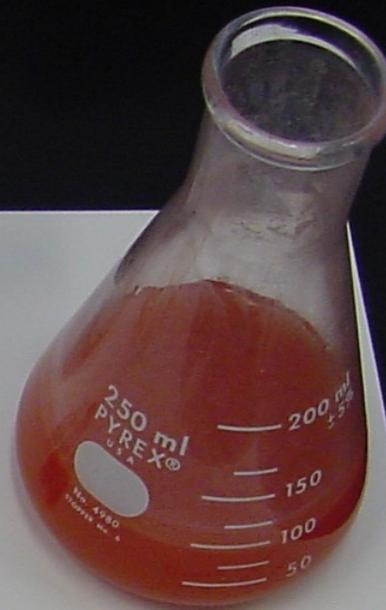




Solvent wash



Starting gel caps



Basic water solution AFTER pseudoephedrine Removed

< 1 hour To Recover

68 %  
Recovery  
From gel caps

Extracted pseudoephedrine Base



# Actual Gel-Cap Lab



Seized February 2005  
St. Helens, Oregon

Each gel-cap contains  
Pseudoephedrine - 30mg  
Guaifenesin - 200mg  
soft gelatin - 1270 mg.



## DEA Sharing Studies with Industry

- **Liquids, gel caps and combination products all readily useable**
- **Combination Products Common**
- **Gel-Caps & Liquids not seen frequently to date**
  - **Information not readily available**
  - **Cooks creatures of habit**
  - **Mistakenly believe extraction more complicated**
  - **Word not yet out on Internet**
  - **Tablet products so readily available**

Latest Trend?

**Ma Huang**

[www.deadiversion.usdoj.gov](http://www.deadiversion.usdoj.gov)

