

U.S. Department of Justice
Drug Enforcement Administration
Cannabis Investigations Section

1989 Domestic Cannabis Eradication/Suppression Program



126492



U.S. Department of Justice
National Institute of Justice

This document has been reproduced exactly as received from the person or organization originating it. Points of view or opinions stated in this document are those of the authors and do not necessarily represent the official position or policies of the National Institute of Justice.

Permission to reproduce this ~~copyrighted~~ material has been granted by
Public Domain/Drug Enforcement
Admn./DOJ/Cannabis Investigations
Section
to the National Criminal Justice Reference Service (NCJRS).

Further reproduction outside of the NCJRS system requires permission of the ~~copyright~~ owner.

1989 Domestic Cannabis Eradication/ Suppression Program

Prepared By

Cannabis Investigations Section
Drug Enforcement Administration
U.S. Department of Justice

The Administrator of the Drug Enforcement Administration has determined that the publication of this periodical is necessary in the transaction of the public business required by law of this agency.

Table of Contents

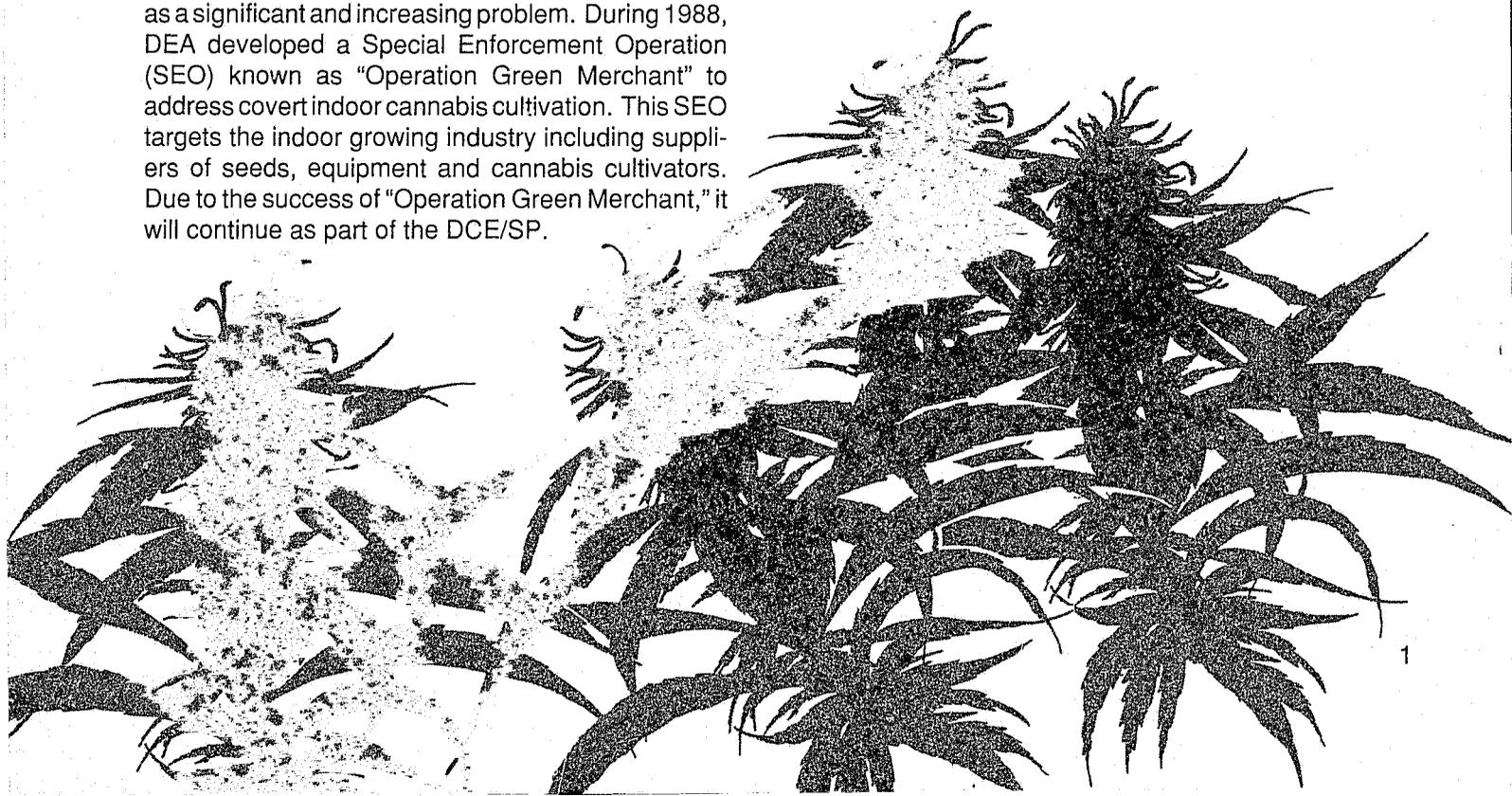
Execuctive Summary	1
Program Management and Coordination	2
Eradication Statistics	4
Statistical Charts	5
Funding	9
Allocation of Funds	9
Cooperation With Other Agencies	11
Training	13
DEA Aviation Unit Support and Aviation Activity	14
Incidents of Violence	15
Asset Seizures	16
Significant Investigations	17
Science and Research	23
Marijuana Summary and Strategy	24

Executive Summary

Prior to the late 1970's, domestic cultivated marijuana was considered inferior to Mexican or Colombian grown marijuana. Casual illicit cultivation within the United States was small scale and was primarily for personal use. U.S. growers experimented with seeds from various countries and improved horticultural techniques which resulted in the development of high grade domestic marijuana. The most significant discovery was that preventing pollen from fertilizing the female plants resulted in a significant increase in the tetrahydrocannabinol (THC) level. This process produced a stronger marijuana known as "sinsemilla." The THC content of sinsemilla marijuana has been analyzed as high as 20 percent.

The concept of the Domestic Cannabis Eradication/Suppression Program (DCE/SP) began in 1979 with combined Federal, state, and local eradication efforts in Hawaii and California. The DCE/SP has involved participants in all 50 states. To encourage participation in the DCE/SP, DEA provides financial assistance to state and local agencies that support the program. The participants shared \$3.8 million in each of the past three years.

During 1987, indoor cannabis cultivation emerged as a significant and increasing problem. During 1988, DEA developed a Special Enforcement Operation (SEO) known as "Operation Green Merchant" to address covert indoor cannabis cultivation. This SEO targets the indoor growing industry including suppliers of seeds, equipment and cannabis cultivators. Due to the success of "Operation Green Merchant," it will continue as part of the DCE/SP.



Program Management and Coordination

The DCE/SP is managed by the Cannabis Investigations Section at DEA Headquarters, staffed with a Section Chief, a Deputy Chief and four Special Agents that serve as full-time DCE/SP Staff Coordinators and a Marijuana Eradication Program Assistant.

In each participating state, a Special Agent from the appropriate DEA field office serves as a DCE/SP Coordinator. The DEA coordinator assists state and local counterparts in preparing the state eradication operation plan. The coordinator assists DEA field management in monitoring the program, compiles program statistics, develops intelligence and participates in enforcement operations.

DEA's Office of Training located at Quantico, Virginia, has assigned a Special Agent Instructor to coordinate the efforts of the DEA Divisional Training Coordinators (DTC). The DTC conduct aerial cannabis spotter and eradication schools and seminars for Federal, state, and local law enforcement officers, National Guard troops and Civil Air Patrol members.

A supervisory pilot in DEA's Aviation Unit based at Addison, Texas, serves as a Program Coordinator to monitor the utilization of DEA's aviation resources for DCE/SP training and aerial surveillance activities.

Coordinators from DEA Headquarters, U.S. Forest Service and U.S. Department of Interior agencies have formed an eradication working group. The working group reviews and coordinates domestic eradication efforts to increase efficiency.





Eradication Statistics

The 1989 Domestic Cannabis Eradication/Suppression Program statistics are recorded on pages 5 through 8 for each of the 49 states that participated in the program. These statistics were compiled from data received by DEA Headquarters and do not reflect the total number of plots or plants under cultivation in the United States. Therefore, no correlation between the two should be attempted.

There was a 27 percent decrease in the number of sinsemilla plants destroyed last year as compared to 1988. This can be attributed to the fact that Hawaii only destroyed 23,518 out of 29,160 marijuana plots sighted and the destruction of immature plants before they can be identified as unpollinated female plants (sinsemilla). The lack of adequate Federal, state and local resources were also a contributing factor. Hawaii, Kentucky and California accounted for the majority of the sinsemilla plants destroyed totaling 1,292,338. Approximately 5.6 million cultivated marijuana plants were destroyed in 1989 (2 million of this total were sinsemilla).

Over 124 million low potency wild growing cannabis plants, known as "ditchweed" were destroyed. Nebraska destroyed the most with over 73 million plants.

The number of arrests declined by 295 in 1988 (5,767 vs. 6,062) but the number of weapons seized from violators increased by 286 (2,320 vs. 2,034).

The trend for the last several years is the increased seizure of indoor operations. In 1989, 1,398 seizures were made as compared to 1,240 in 1988 and 1,192 in 1987. 46 states reported seizures.

The value of seized assets increased significantly from \$9.8 million in 1988 to \$29.5 million in 1989. The total value of asset seizures for the program in the past three years exceeded 53 million dollars.

In 1989, DEA increased its domestic cannabis investigations by 177 percent overall and 138 percent for the Class I (highest violator) investigations.

The manpower required to accomplish the physical destruction of cannabis plots continues to hamper DEA's eradication efforts. The expansion of intelligence gathering and labor-intensive eradication efforts are essential for minimizing the availability of domestically grown cannabis.

In 1989, 5,605,460 marijuana plants weighing approximately 2,548 metric tons (MT), were eradicated. DEA estimates that 50 percent of the domestic marijuana is being eradicated. This would indicate that approximately 5,096 MT of marijuana was cultivated in the United States in 1989.

DEA proudly reports a 65 percent reduction in marijuana cultivation in Colombia in 1989 from approximately 6,665 MT in CY-88 to 2,810 MT. The Colombian government seized 884 MT leaving approximately 1,926 MT available for the illicit world market. Due to this decrease, the United States has emerged as the second leading producer of marijuana in the world behind Mexico. Preliminary reports indicate that Mexico had a bumper marijuana crop in 1989.



1989 Domestic Cannabis Eradication/Suppression Program

States	Plots Sighted	Plots Eradicated	Indoor Grows Seized	Cultivated Plants Eradicated	Sinsemilla** Plants Eradicated	Ditch weed Eradicated	Total Plants Eradicated	Number of Arrests	Weapons Seized	Assets Seized (Value)
Alabama	928	928	8	163,395	21,259	0	163,395	81	0	\$312,000
Alaska	69	69	69	17,981	17,981	0	17,981	82	24	\$269,000
Arizona	74	80	10	36,528	36,528	320	36,848	18	8	\$298,000
Arkansas	1,547	1,457	13	97,697	68,104	0	97,697	329	180	\$456,000
California	2,474	2,468	126	328,824	327,767	1,057	329,881	1,021	652	\$6,667,220
Colorado	12	12	31	15,639	13,000	400	16,039	69	3	\$203,000
Connecticut	8	7	7	227	133	0	227	10	0	\$625,000
Delaware	0	1	1	15	0	0	15	3	0	\$500
Florida	1,153	1,153	18	79,176	11,944	0	79,176	259	39	\$324,690
Georgia	923	923	5	99,620	44,083	0	99,620	106	0	\$166,460
Hawaii	29,160	23,518	5	1,144,835	492,004	0	1,144,835	660	111	\$1,875,712
Idaho	51	51	28	5,149	3,390	0	5,149	46	0	\$0
Illinois	194	189	17	68,223	61,611	402,858	471,081	104	21	\$576,273
Indiana	1,646	1,603	20	68,709	16,956	39,910,595	39,979,304	81	0	\$192,400
Iowa	96	64	5	3,905	820	81,828	85,733	12	0	\$37,100
Kansas	385	385	24	33,566	12,978	4,863,053	4,896,619	96	78	\$903,236
Kentucky	4,456	4,456	9	596,512	472,467	0	596,512	248	31	\$164,130
Louisiana	322	322	21	15,472	127	0	15,472	134	51	\$482,000
Maine	237	237	19	13,994	8,606	0	13,994	64	58	\$65,700
Maryland	161	161	3	2,185	582	0	2,185	16	2	\$150,000
Massachusetts	87	91	38	3,388	244	500	3,888	40	4	\$46,265
Michigan	963	632	25	127,882	7,422	215,186	343,068	93	75	\$332,101
Minnesota	1,589	1,589	24	58,998	19,705	379,864	438,862	50	25	\$700,387
Mississippi	235	235	0	17,605	0	0	17,605	66	7	\$0
Missouri	641	641	46	1,212,737	109,146	841,989	2,054,726	238	61	\$1,314,479
Montana	30	30	21	4,700	4,100	130,000	134,700	35	3	\$70,000
Nebraska	36	13	3	6,034	37	73,165,985	73,172,019	10	0	\$0
Nevada	10	9	5	627	627	0	627	14	35	\$369,342
New Hampshire	27	27	5	1,276	271	0	1,276	23	0	\$0
New Jersey	14	9	2	325	0	0	325	3	0	\$2,700
New Mexico	24	24	4	18,148	17,671	0	18,148	47	27	\$527,450
New York	43	43	3	7,362	200	0	7,362	12	0	\$0
North Carolina	2,150	2,150	37	100,649	11,480	0	100,649	224	12	\$313,300
North Dakota*										
Ohio	651	651	33	50,463	0	0	50,463	200	10	\$0
Oklahoma	399	399	14	401,797	9,736	2,173,449	2,575,246	41	21	\$5,000
Oregon	1,236	1,236	298	76,869	65,033	0	76,869	364	367	\$1,240,203
Pennsylvania	140	133	1	14,683	151	209	14,892	16	4	\$250
Rhode Island	50	50	15	880	0	0	880	0	0	\$4,200,000
South Carolina	257	257	0	30,403	0	0	30,403	34	14	\$0
South Dakota	67	58	2	7,947	1,560	90,848	98,795	2	0	\$122,155
Tennessee	1,813	1,813	34	547,353	160,971	0	547,353	160	14	\$160,000
Texas	113	107	21	33,500	0	1,278,317	1,311,817	68	53	\$91,420
Utah	44	43	19	10,583	428	200	10,783	58	8	\$11,000
Vermont	105	105	8	7,790	7,790	10,928	18,718	44	10	\$372,300
Virginia	505	495	27	20,854	312	0	20,854	93	62	\$69,766
Washington	373	373	230	41,015	38,923	0	41,015	260	220	\$4,997,934
West Virginia	83	76	0	7,692	7,542	0	7,692	28	2	\$10,000
Wisconsin	280	323	43	18,809	11,139	741,413	760,222	102	25	\$820,560
Wyoming	3	3	1	13,675	93	0	13,675	3	3	\$0

Total 55,864 49,699 1,398 5,635,696 2,084,921 124,288,999 129,924,695 5,767 2,320 \$29,545,033

Total 1988 Final Figures 48,349 38,531 1,240 5,343,980 2,853,689 101,932,328 107,276,308 6,062 2,034 \$9,854,691

Total 1987 Final Figures 71,845 62,363 1,192 7,432,834 3,105,460 105,841,990 113,274,824 6,502 1,728 \$13,669,915

*State Did Not Participate in DCE/SP in 1989

**Number of Sinsemilla is Part of Cultivated Plants Eradicated

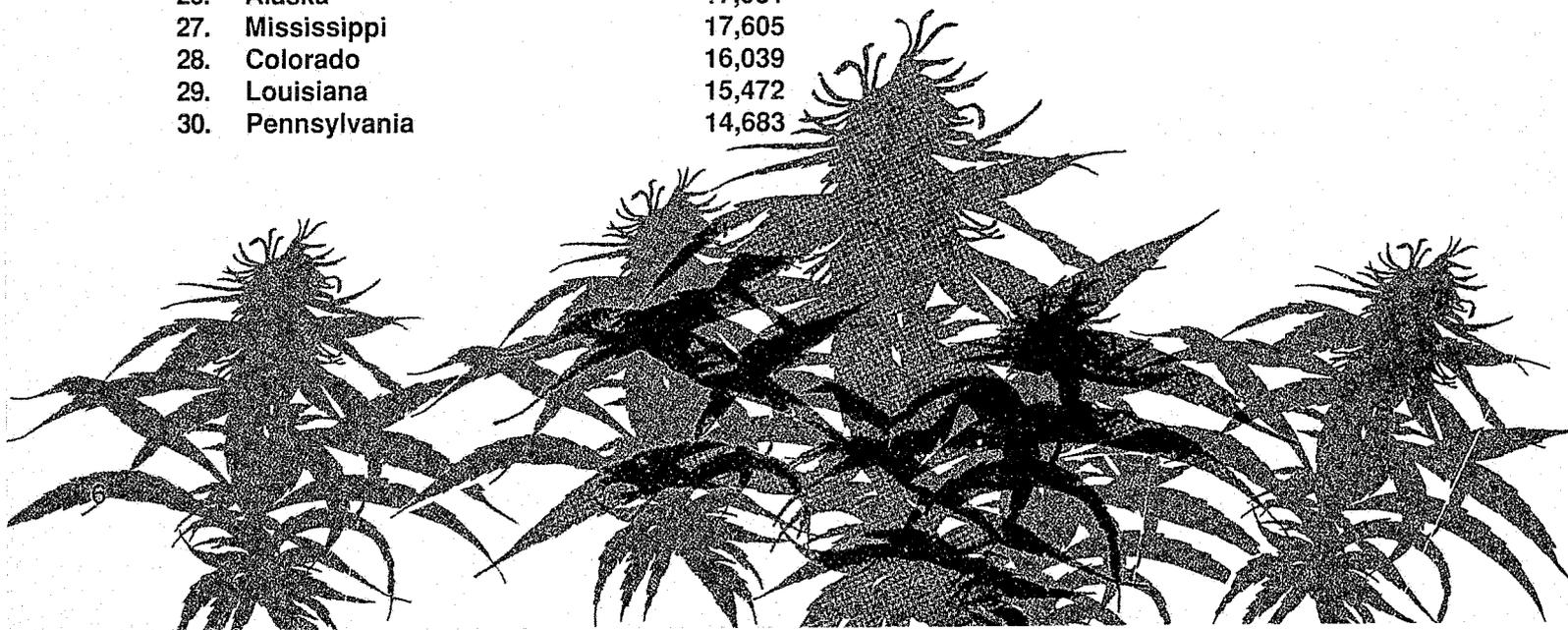
1989 Domestic Cannabis Eradication/Suppression Program

Final Statistics* Cultivated Plants

1. Missouri	1,212,737	31. Maine	13,994
2. Hawaii	1,144,835	32. Wyoming	13,675
3. Kentucky	596,512	33. Utah	10,583
4. Tennessee	547,353	34. South Dakota	7,947
5. Oklahoma	401,797	35. Vermont	7,790
6. California	328,824	36. West Virginia	7,692
7. Alabama	163,395	37. New York	7,362
8. Michigan	127,882	38. Nebraska	6,034
9. North Carolina	100,649	39. Idaho	5,149
10. Georgia	99,620	40. Montana	4,700
11. Arkansas	97,697	41. Iowa	3,905
12. Florida	79,176	42. Massachusetts	3,388
13. Oregon	76,869	43. Maryland	2,185
14. Indiana	68,709	44. New Hampshire	1,276
15. Illinois	68,223	45. Rhode Island	880
16. Minnesota	58,998	46. Nevada	627
17. Ohio	50,463	47. New Jersey	325
18. Washington	41,015	48. Connecticut	227
19. Arizona	36,528	49. Delaware	15
20. Kansas	33,566		
21. Texas	33,500		
22. South Carolina	30,403		
23. Virginia	20,854		
24. Wisconsin	18,809		
25. New Mexico	18,148		
26. Alaska	17,981		
27. Mississippi	17,605		
28. Colorado	16,039		
29. Louisiana	15,472		
30. Pennsylvania	14,683		

5,635,696

**North Dakota did not participate in 1989.*



Recapitulation — 1982-1989

	Total Plants Eradicated	Sinsemilla Plants Eradicated	Arrests	Weapons Seized
1982	2,590,388	*	2,512	785
1983	3,793,943	979,802	4,318	984
1984	12,981,210	1,043,133	4,941	1,424
1985	39,231,479	1,332,804	5,151	1,768
1986	129,686,033	1,807,021	5,537	1,646
1987	113,274,824	3,105,460	6,502	1,728
1988	107,276,308	2,853,689	6,062	2,034
1989	129,924,695	2,084,921	5,767	2,320

NOTE: States Participating: 1982-25; 1983-40; 1984-50; 1985-50; 1986-49; 1987-46; 1988-47 and 1989-49.

**Figures not Available*

DCE/SP Funding Level *

1982	\$843,340
1983	\$2.4 million
1984	\$3.3 million
1985	\$3.15 million
1986	\$3.6 million
1987	\$3.8 million
1988	\$3.8 million
1989	\$3.8 million

**Does not Include Training or Aviation Expenses*

1989 Domestic Cannabis Eradication/Suppression Program

Top Ten Arrest and Asset Seizures By State

Rank	State	Total
<i>Arrests</i>		
1	California	1,021
2	Hawaii	660
3	Oregon	364
4	Arkansas	329
5	Washington	260
6	Florida	259
7	Kentucky	248
8	Missouri	238
9	North Carolina	224
10	Ohio	200

<i>Asset Seizures</i>		
1	California	6,667,220
2	Washington	4,997,934
3	Rhode Island	4,200,000
4	Hawaii	1,875,712
5	Missouri	1,314,479
6	Oregon	1,240,203
7	Kansas	903,236
8	Wisconsin	820,560
9	Minnesota	700,387
10	Connecticut	625,000

Grand Totals for all States:

Arrests — 5,767
Assets — \$29,545,033

Funding

In FY 1989, \$3.8 million was allocated for DEA's DCE/SP and was shared among eighty-four state and local agencies in support of this program. A breakdown of funding by state is listed on page 10.

These funds helped offset state and local law enforcement expenses such as overtime, per diem, vehicle/aircraft rentals and the purchases of equipment.

In addition, the DEA Office of Training expended \$73,000 for training programs. DEA Aviation Unit

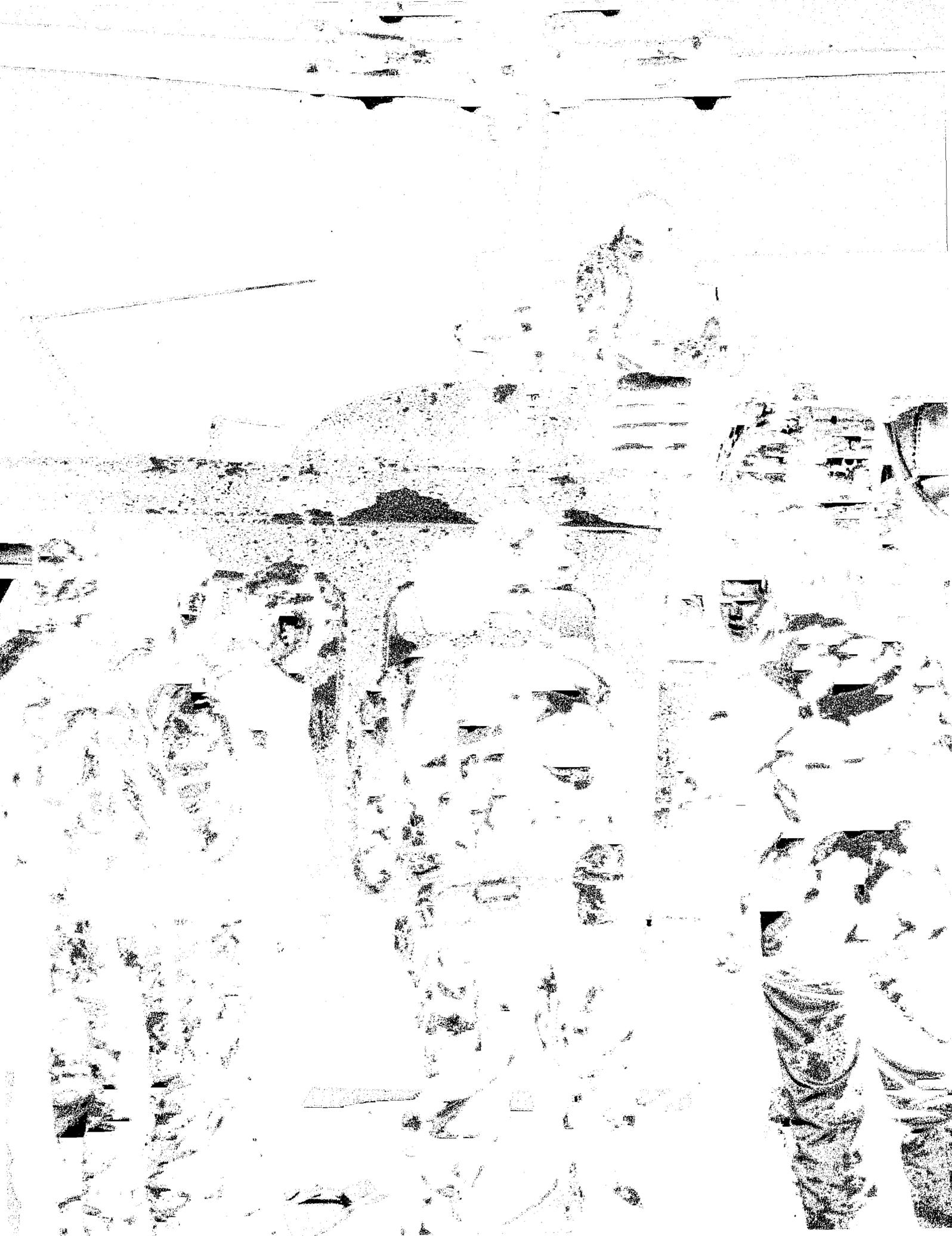
also spent \$659,090 in assisting DCE/SP aerial surveillance efforts and providing aerial support for DEA DCE/SP training schools and seminars.

DEA's contribution does not represent the total Federal funds allocated for the eradication effort. State and local enforcement agencies also receive funding from the U.S. Departments of Agriculture and Interior. Additionally, the Bureau of Justice Assistance provided grants of \$250,000 to Hawaii and Kentucky specifically for cannabis eradication.

Allocation of Program Funds FY-89

States	LOA Funds*		
Alabama	\$154,200	New Hampshire	6,500
Alaska	13,000	New Jersey	-0-
Arizona	34,800	New Mexico	26,500
Arkansas	115,000	New York	10,000
California	490,411	North Carolina	115,000
Colorado	47,000	North Dakota	-0-
Connecticut	-0-	Ohio	30,000
Delaware	3,000	Oklahoma	91,000
Florida	145,000	Oregon	112,000
Georgia	155,000	Pennsylvania	50,000
Hawaii	349,000	Rhode Island	3,000
Idaho	20,000	South Carolina	25,000
Illinois	50,000	South Dakota	-0-
Indiana	95,000	Tennessee	230,000
Iowa	19,000	Texas	130,000
Kansas	51,500	Utah	15,000
Kentucky	230,000	Vermont	25,000
Louisiana	35,000	Virginia	95,000
Maine	15,000	Washington	85,000
Maryland	8,000	West Virginia	45,000
Massachusetts	6,000	Wisconsin	21,000
Michigan	100,000	Wyoming	5,000
Minnesota	44,000		
Mississippi	75,000		
Missouri	165,000		
Montana	10,000		
Nebraska	20,000		
Nevada	3,000		
		TOTAL	\$3,572,911

*Direct Funds to Local/State Agencies



Cooperation With Other Agencies

The DEA Domestic Cannabis Eradication/Suppression Program was established to ensure coordination effort between Federal, state and local agencies involved in this effort.

U.S. Department of Agriculture

U.S. Forest Service (USFS): The USFS employs Special Agents and law enforcement officers involved in general law enforcement activities and in cannabis site detection and investigation. It also has an active target priority program to apprehend and prosecute persons involved in cannabis production on National Forest Service lands. The USFS works closely with other Federal, state and local law enforcement agencies.



U.S. Department of the Interior

Bureau of Land Management (BLM): The BLM utilizes Special Agents and Law Enforcement Rangers to eradicate marijuana grown on land under its jurisdiction. It investigates, arrests, and prosecutes marijuana cultivators. The BLM supports all appropriate Federal, state and local law enforcement and land management agencies in the eradication of marijuana, the apprehension, and prosecution of cultivators on BLM managed lands. The BLM uses cooperative law enforcement agreements with state and local law enforcement agencies to augment its program.

Fish and Wildlife Service (FWS): The FWS has Special Agents and Refuge Officers along with state and local law enforcement officers to assist in eradication.

National Park Service (NPS): NPS employs 1,500 permanent and 800 seasonal rangers who are trained for fire fighting, scuba diving, search and rescue, emergency medical service, resource management, and law enforcement. There are also 600 Park Police officers who are specialists in the law enforcement field. NPS law enforcement personnel are responsible for resource and visitor protection, including drug enforcement throughout the National Park System. Drug enforcement activities on NPS lands



include control of smuggling, manufacturing, cultivating, selling, and using of illegal drugs including cannabis. Cannabis detection, apprehension, and prosecution are emphasized in its law enforcement training programs. A close working relationship with state and local authorities maximizes NPS's impact on domestic cannabis eradication and suppression efforts.

Bureau of Indian Affairs (BIA): Over 1,200 BIA and Tribal law enforcement officers provide general law enforcement and public safety services on Indian reservations under Federal criminal jurisdiction. State law enforcement officers and in some instances local tribal police perform law enforcement duties on all other reservations. BIA and the tribes also have cross deputization agreements with several state and local jurisdictions which allow state certified law enforcement officers to enforce Federal and tribal laws on the reservations. All officers enforce laws related to drug and narcotic violations. BIA has established a highly mobile, specialized trained Marijuana Eradication and Reconnaissance Team which concentrates on the detection, investigation, and eradication of cannabis cultivated on the reservations. A Special Investigations Unit was also formed to achieve maximum prosecutions and target major drug traffickers and cultivators operating on the reservations. BIA operates a cannabis eradication training school at Klamath Falls, Oregon. During 1989 this school was open to Federal, state and local law enforcement officers, as well as members of the National Guard. The marijuana eradication school will become available in 1990.

Department of Defense (DoD)

National Guard (NG): The NG supported the Domestic Cannabis Eradication/Suppression Program since its inception. It began with OPERATION GREEN HARVEST in Hawaii during 1977 and expanded its operations into 53 states and territories during 1989. NG personnel are under the command of each state governor and are not restricted by the Posse Comitatus Act. This act prevents active duty military components from supporting civilian law enforcement operations. The Office of Military Support (NGB-MS) at the Pentagon serves as the national level point of contact for coordination of anti-drug operations in the 50 states, U.S. territories, and possessions. Proposed operations included in state anti-drug plans are reviewed for policy, legality, and funding by NGB-

MS before they are submitted to the Office of the Secretary of Defense. NGB-MS personnel pledge a "support role" rather than a law enforcement one.

The FY-89 Defense Authorization Act allows the Secretary of Defense to provide funds for governors who submit plans for anti-drug operations. The plans are coordinated through NGB-MS. Although they are not involved in the arrest, search, or seizure of suspects or contraband, the National Guard assisted in the eradication of 4,076,662 cannabis plants in 1989. This is nearly an 80% increase over the 1988 statistics.

U.S. Air force (USAF): The USAF initial participation in the DCE/SP operations was successful. It supplied aerial photo reconnaissance resources over the Hawaiian Islands. This idea was developed in early 1989 by DEA and the Air National Guard and later utilized by the USAF over Hawaii. A number of cannabis plots were located and targeted by this method and eventually eradicated by Hawaii authorities. This concept will be implemented throughout the country during the 1990 outdoor growing season.

Civil Air Patrol (CAP): CAP is a volunteer civilian auxiliary unit of the USAF with extensive search and rescue experience. CAP offered aerial platforms for cannabis search missions. On April 19, 1989 a Memorandum of Understanding was signed by DEA, USFS, CAP and the USAF which allowed the CAP to fly "non-combat" Air Force missions to assist the Domestic Cannabis Eradication Program. Forty-six (46) missions were flown in eight states.

CAP was responsible for the destruction of 1,820 "ditchweed" and 6,595 cultivated plants. During the 1990 growing season, CAP will increase its participation in this program



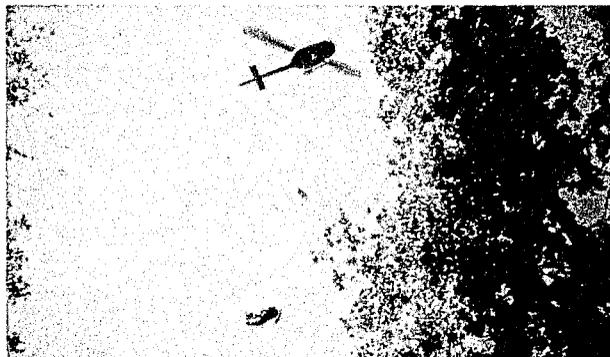
Training

Training of Federal, state, and local enforcement officers is the responsibility of DEA Office of Training. A training coordinator from the Office of Training and DEA Divisional Training Coordinators schedule and conduct schools and seminars for the DCE/SP. Headquarters and field personnel, Federal, state, and local officers offer their expertise in specialized training courses. DEA sponsored 14 programs for 500 officers during 1989 at a cost of \$73,000.

In addition, the Office of Training provided several hours of instruction on the DCE/SP to state and local law enforcement officers attending the FBI National Academy Classes.

The training curriculum focused on the objectives, functions, and problems associated with the detection and eradication of cannabis. The aerial observation block which was developed by the DEA Aviation Unit, includes actual flying time in fixed wing and rotor aircraft, on-the-job training in safety, observations, aerial photography and detection techniques. The presentations on booby-traps and first-aid were emphasized due to the frequency of encountering potentially lethal devices.

The Office of Training, in conjunction with the Cannabis Investigations Section, produced a training video tape titled "Indoor Green." This video describes the investigative techniques used to detect indoor cannabis cultivation. Presently, the Office of Training and the Cannabis Investigations Section are preparing another training video tape on aerial cannabis spotting which is expected to be completed by the fall of 1990.



DEA Aviation Unit Support and Aviation Activity

In 1989, DEA's Aviation Unit participated in 372 missions, totaling 1,065 hours, in the DCE/SP.

These figures include enforcement activities and training schools conducted throughout the country. The Aviation Unit could not respond to 75 requests due to the unavailability of an aircraft or pilot. The Aviation Unit expended \$659,090 in support of the DCE/SP.

During the past several years, requests for DEA's Aviation Unit have increased tremendously particularly for special narcotic enforcement programs.

Additionally, aviation resources from other Federal agencies, National Guard units under state activation, state and local law enforcement agencies and civilian contract sources were utilized throughout the United States in 1989.

During 1989, a Guam National Guard helicopter pilot and a Guam Police Department officer were killed while on an aerial marijuana spotting mission.

There were no reports of injuries or accidents involving any DEA aircraft.



Incidents of Violence

Although law enforcement authorities have seized more weapons from marijuana cultivation violators than in the past, violence and the use of booby traps have decreased. Intelligence indicates that most booby traps are directed against "patch pirates" and not law enforcement authorities. The additional penalties imposed in many Federal jurisdictions upon conviction and sentencing for use of booby traps has an apparent deterrent effect.

Law enforcement officers in the majority of the states continue to find booby traps and warning devices. The following is a list of the devices encountered:

- Guard dogs
- Armed guards
- Board with exposed nails
- Steel animal traps
- Electric fences
- Sound alarms
- Monofilament line strung with fish hooks
- Explosive device ranging from blasting cap to 1-1/2 pounds of dynamite
- Rat trap devices designed to fire shotgun shells or small arms ammunition

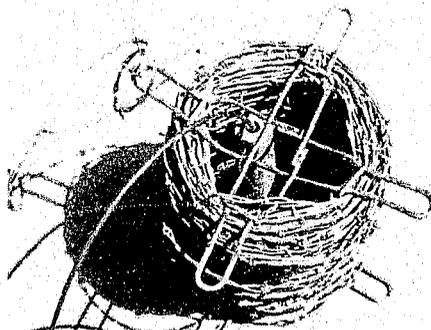
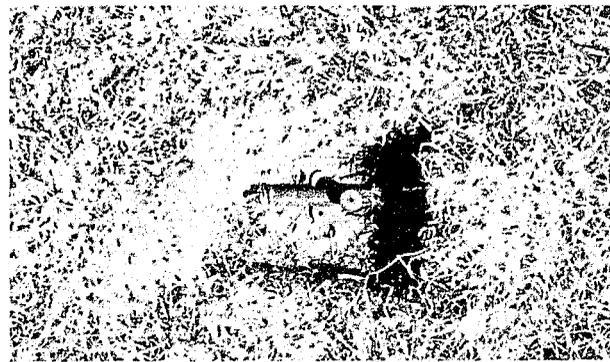
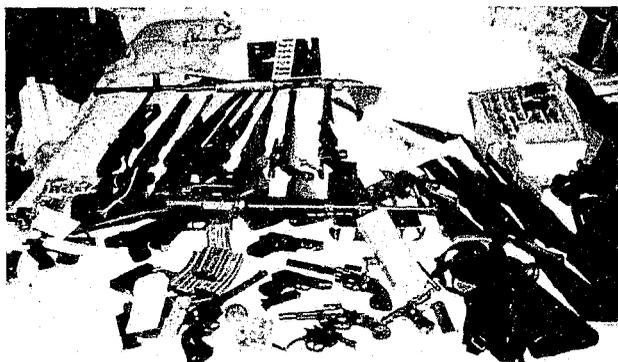
The following incidents are examples of booby traps and warning devices reported to DEA Headquarters:

In Mendocino, California officers responded to a complaint of marijuana cultivation on private property. Upon their arrival, the officers encountered 6 "rat trap" devices armed with 12 gauge shells, .308 and 30.06 caliber bullets. Additionally, there was a broadcast over a military radio frequency threatening anyone attempting to eradicate the marijuana field.

In Los Angeles, California officers raided a marijuana field and encountered 8 "rat traps" armed with 12 gauge shotgun shells. A Los Angeles County Deputy accidentally set off one of the booby traps, but was not injured.

In Kentucky, authorities discovered an unidentified body in one marijuana plot and a human skull in another.

In Atkinson County, Georgia a marijuana grower shot at two innocent citizens and killed one. The grower was charged with murder.

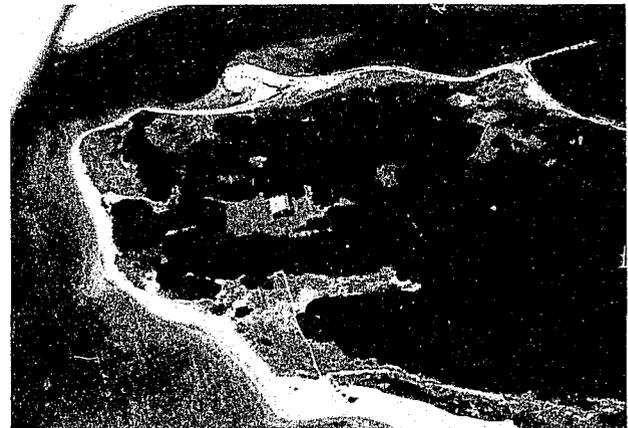
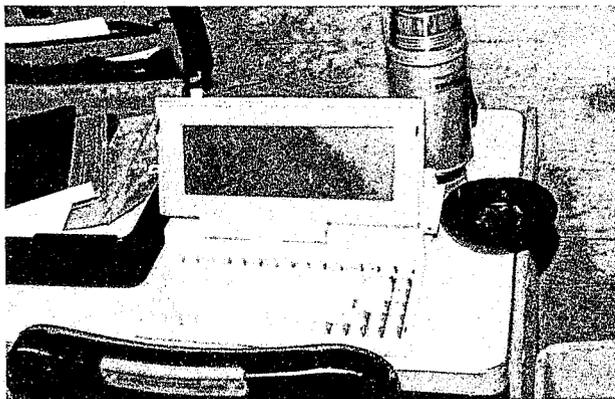
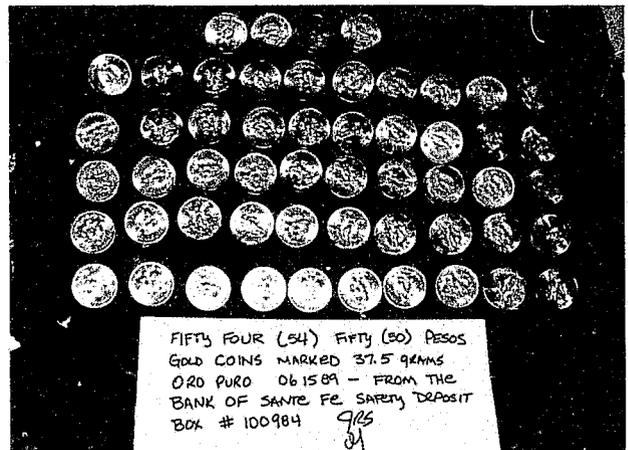
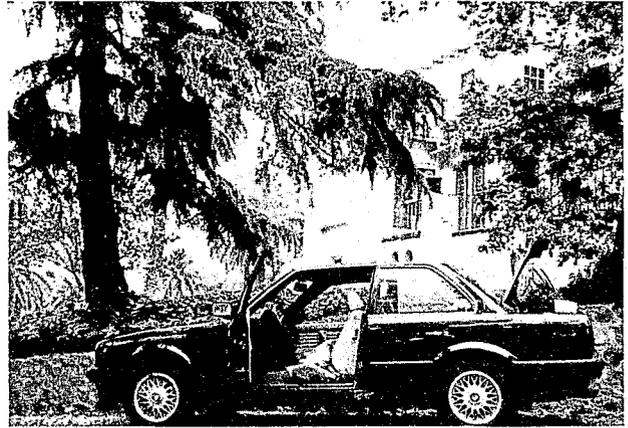


Asset Seizures

There was a significant increase of assets seized in 1989 as compared 1988, \$29.5 million as compared to \$9.8 million the previous year. California led all states in asset seizures with more than six million dollars followed by Washington (\$4.9 million) and Rhode Island (\$4.2 million). During the last three years, a total of \$53,069,639 has been seized as a result of the DCE/SP.

The asset forfeiture provision of the Federal law is a powerful and useful tool in the overall DCE/SP efforts and it allows the government to attack the profits of the illicit drug trade. The forfeiture act allows participating law enforcement agencies to share a percentage of the assets forfeited to the government.

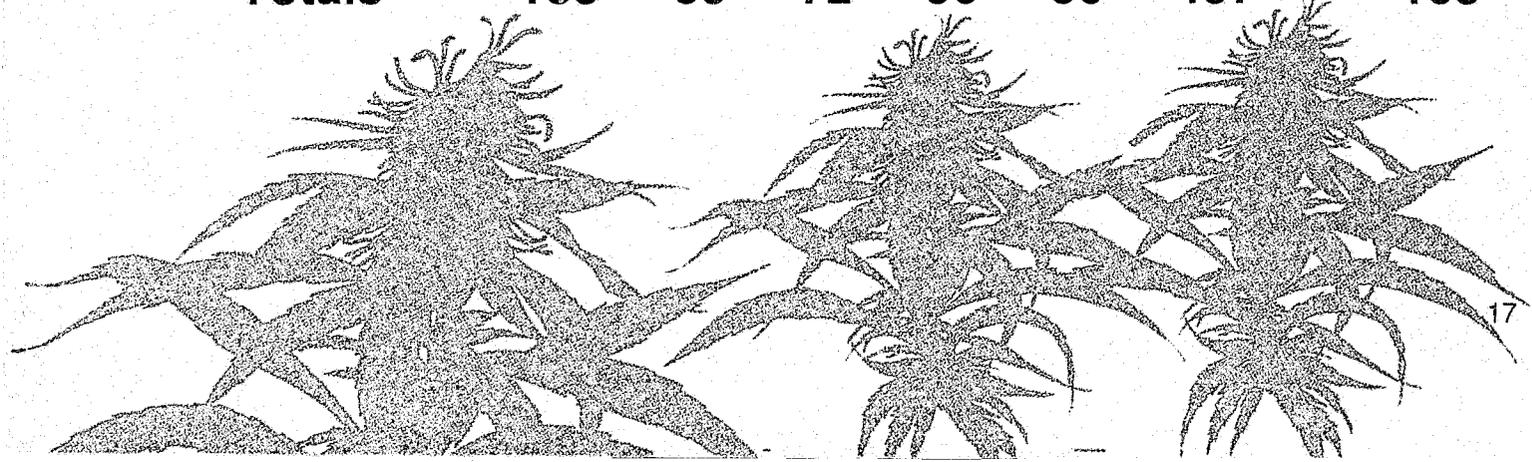
The program in 1990 will again emphasize the importance of seizing assets of those involved in illicit marijuana cultivation.



Significant Investigations

According to DEA's Case Status Subsystem, a total of 3,432 marijuana investigations were opened by the Domestic Field Divisions from January 1 to December 31, 1989. 457 were listed with the "R" (Marijuana of Domestic Origin) identifier. This compares to the 2,595 total cases and 165 domestic origin cases in 1988. This is an increase of 177% in the domestic case category and 138% for Class I (highest violator) investigations. Efforts will be made in 1990 to increase domestic cannabis investigations and enhance our intelligence data base. The following is a list, by Division, of "R" category cases:

<u>Level</u>	0	1	2	3	4	1989 Totals	1988 Totals
Atlanta	3	1	2	5	2	13	3
Boston	13	2	1	5	1	22	16
Chicago	4	7	4	1	0	17	4
Dallas	3	0	0	1	2	6	1
Denver	7	7	10	4	5	33	3
Detroit	1	3	1	6	2	13	17
Houston	3	2	1	0	1	7	0
Los Angeles	25	6	8	5	15	59	25
Miami	1	7	0	2	1	10	0
Newark	0	0	0	1	0	1	0
New Orleans	13	1	4	6	5	29	4
New York	9	0	0	2	8	19	3
Philadelphia	1	1	1	0	0	3	0
Phoenix	5	1	1	1	0	8	0
San Diego	10	1	0	2	10	23	24
San Francisco	5	17	4	2	0	28	10
Seattle	66	30	27	5	1	129	36
St. Louis	13	3	8	7	2	33	17
Washington (D.C.)	3	0	0	0	1	4	2
Totals	185	88	72	56	56	457	165



Albuquerque District Office

In cooperation with other Federal, state and local officers, DEA raided three related indoor cannabis growing facilities (2 in New Mexico and 1 in Colorado), which represent the largest marijuana production operation ever detected in the U.S. A total of 9,526 sinsemilla plants and 550 pounds of processed sinsemilla marijuana were seized. The farms were financed and operated as franchises by a group of Albuquerque and Santa Fe, New Mexico residents called "The Company". Continued investigation resulted in the indictment of 30 defendants with 4 defendants charged with operating a Continuing Criminal Enterprise (CCE). Seized assets include 4 real estate properties, 20 vehicles and \$25,000 in gold. This was the first CCE indictment returned in the District of New Mexico and the first one involving an indoor marijuana cultivation operation in the United States.

Anchorage Resident Office

Police and DEA agents executed a state search warrant at a residence in North Pole, Alaska. An indoor marijuana growing site consisting of 459 plants was seized along with indoor growing equipment and a computer used to maintain drug related records. This operation provided starter plants for indoor marijuana cultivation throughout Alaska. Indictments are expected to be returned in the near future.

Federal, state, and local officers dismantled a sophisticated indoor sinsemilla growing operation in Willow, Alaska and seized 2,006 sinsemilla plants, 2 guns, five generators and growing equipment valued at about \$65,000. One defendant was arrested. The investigation continues.

Atlanta Field Division

DEA agents, state and local officers executed a search warrant in Whiteburg, Georgia and seized 1,200 sinsemilla plants, several vehicles, two weapons, 80 acres of land and one residence valued at \$450,000. Seized records indicate that this organization made a profit between \$150,000 and \$175,000 per month. Two subjects were arrested.

Cheyenne Resident Office

DEA agents, state and local officers executed 3 state

search warrants on three properties which resulted in the seizure of 12,813 marijuana plants and the arrest of one defendant. The investigation continues.

Chicago Field Division

Federal, state and local officers eradicated 58,012 cultivated marijuana plants which were intercropped with corn in White County, Illinois. The seizure was the largest in the State of Illinois. Four defendants were arrested. Intelligence information indicates that the defendants are associated with the Marion County Marijuana Cooperative, which operates in fourteen states.

Denver Field Division

DEA agents and local officers seized approximated 1,260 marijuana plants with a gross weight of 5,500 pounds from an indoor growing operation in Elbert County, Colorado. Investigation continues and three suspects have been identified. This seizure is the largest indoor operation recorded in Colorado history.

Eugene Resident Office

DEA agents, state and local officers executed 4 Federal search warrants which resulted in the seizure of 2,100 sinsemilla plants and the arrest of 5 defendants. A dismantled hashish laboratory was also seized.

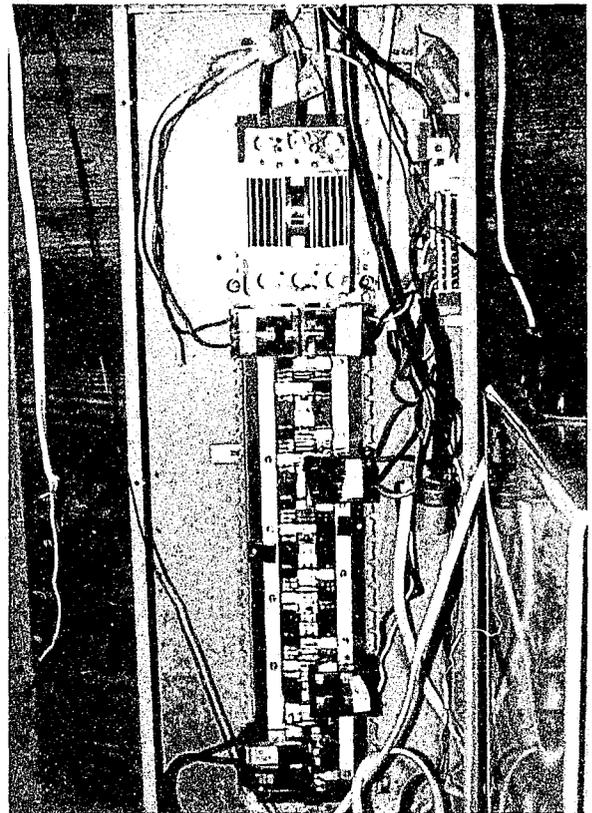
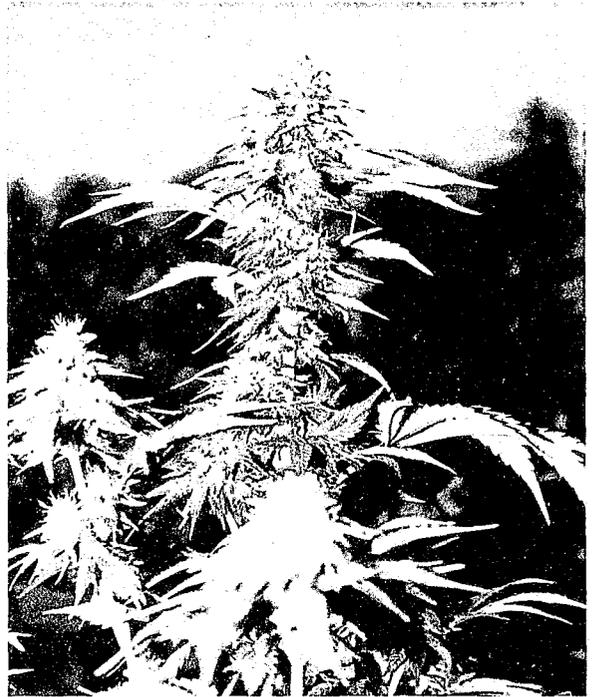
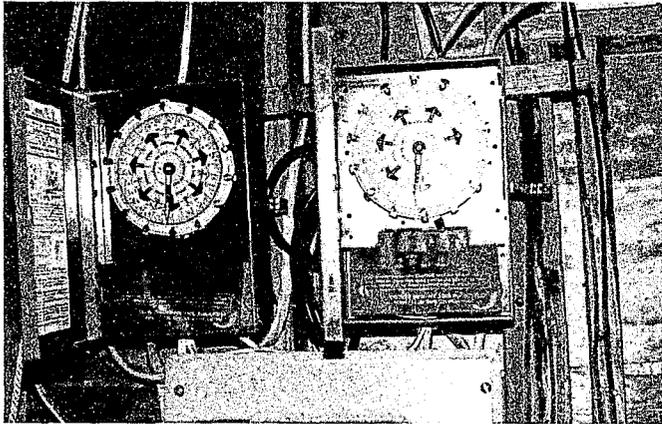
Hilo Post of Duty

DEA agents and local officers executed a Federal search warrant on an operational hashish laboratory. The two defendants that were arrested were purchasing sinsemilla from the Island growers in order to produce hashish. Small quantities of hashish and hash oil were seized. The investigation was initiated based on leads developed by the Honolulu Resident Office precursor chemical control program.

Honolulu Resident Office

DEA agents, other Federal, state & local officers eradicated 369,000 cultivated plants from state lands on the Island of Hawaii.

A multi-agency asset forfeiture team recently formed



in Hawaii reviewed adjudicated drug cases primarily involved with the DCE/SP. Follow up investigation resulted in the issuance of 15 seizure warrants for real estate located on the Islands of Maui and Hawaii with an approximate net value of \$1,140,000.

Los Angeles Field Division

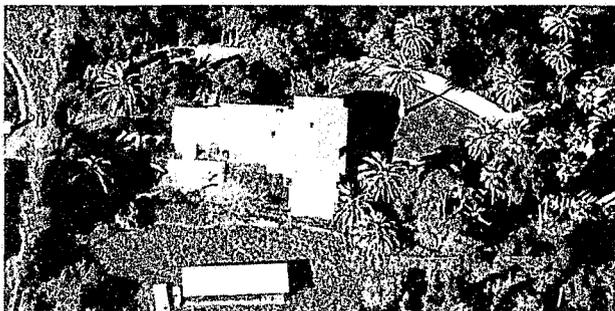
Working with state and local officers, DEA executed a state search warrant on a sophisticated sinsemilla indoor growing operation in San Dimas, California and seized 631 sinsemilla plants, 5 pounds of processed sinsemilla, 3 vehicles, 4 aircrafts, 20 weapons, \$750,000 in cash, and the residence valued at \$3,000,000. Two persons were arrested.

Minneapolis Resident Office

DEA agents, state and local officers arrested 4 defendants and seized an indoor marijuana growing operation in Mendota, Minnesota. 600 sinsemilla plants were seized from the building and a seizure warrant was obtained for the building valued at \$200,000. One of the defendants is the son of the former mayor of St. Paul, Minnesota.

Mobile Resident Office

DEA, military, state and local officers eradicated 48,300 plants after two days of surveillance. The investigation is continuing.



Providence Resident Office

DEA agents and local officers executed a state search warrant at a 22 acre waterfront parcel of land in New Shoreham, Rhode Island which resulted in the seizure of 385 mature marijuana plants and the arrest of one defendant. The land, appraised at \$4,000,000 was seized.

Sacramento Resident Office

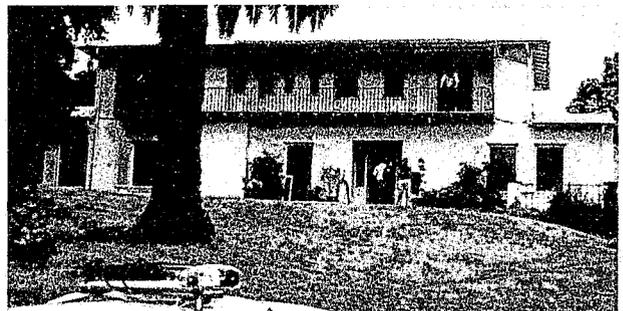
DEA agents, state and local officers raided the largest indoor growing operation in the State of California. A total of 8,049 sinsemilla plants, \$10,000 in cash and one weapon were discovered in a barn. Two defendants were arrested.

San Diego Field Office

Working with state and local officers, DEA obtained a search warrant for a barn containing a sophisticated indoor marijuana cultivation operation. The owner/operator was arrested and 120 plants were seized. 10 acres of real estate was seized and is pending forfeiture to the U.S. Government.

San Francisco Field Division

DEA agents and local officers executed a state search warrant on an indoor growing operation at the residence of Frank William Festag in Eureka, California.

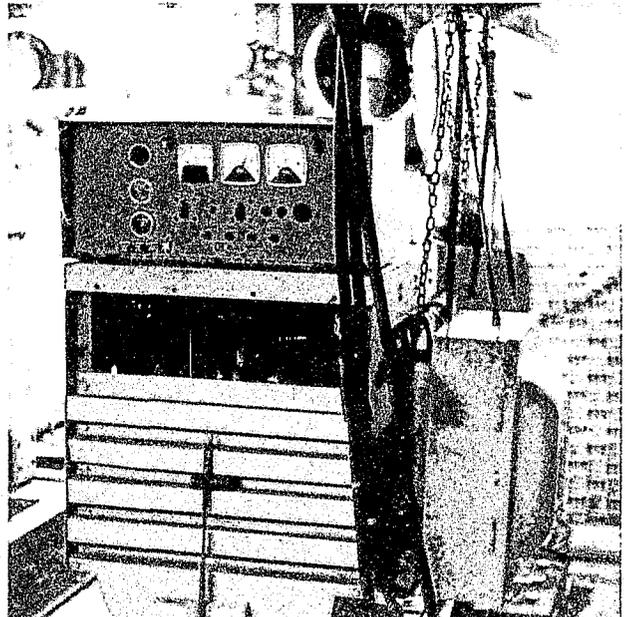
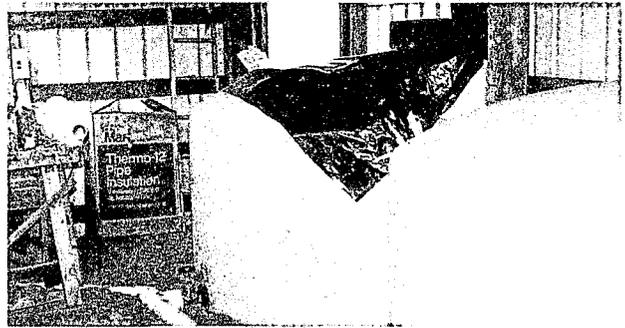
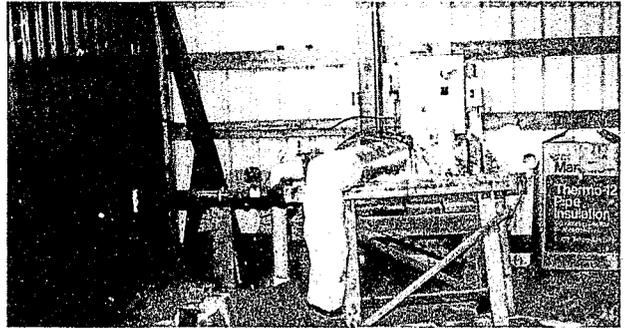


Festag was arrested for cultivation of marijuana and possession of marijuana for sale. Also confiscated from the residence were copies of "High Times" editorial contract for a magazine article, written by Festag, under the pen name of Frank William Holliday. Festag was paid 300 U.S. dollars for an article written for "High Times" entitled "I smoked pot with Bigfoot."

DEA agents, state and local officers obtained two state search warrants for an indoor marijuana growing operation in Humboldt County, CA. Three subjects were arrested and 689 sinsemilla plants and \$180,000 cash were seized. One of the defendant is a retired Humboldt County Sheriff's Lieutenant and another defendant is a former California Highway Patrol Officer. The seizure of 40 acres of real estate was referred to the U.S. Attorney for Federal forfeiture action.

Seattle Field Division

In cooperation with other Federal, state and local officers, DEA executed 6 Federal search warrants which resulted in the arrests of 5 defendants and the seizure of 3 residences valued over \$950,000, 4 vehicles, \$58,000 cash and numerous records. This organization was using 10 locations for indoor marijuana growing operations. Additional arrests and seizures are anticipated.



DEA Headquarters

— Cannabis

Investigations

Section (OM)

Domestic marijuana production is a national problem that has magnified and become sophisticated over the last several years. An estimated 25 percent of the marijuana consumed in the United States is produced domestically. Indoor growing of cannabis is escalating both in the number of operations and in the quantity and quality of plants cultivated.

The high THC content of domestically cultivated marijuana, (sinsemilla averaging over 8%) poses a major threat to the illicit market, i.e., the United States has emerged as a major high quality marijuana producer. Consequently, the proliferation of domestic marijuana cultivation could easily make the United States the top supplier of superior grade marijuana in the world, replacing Mexico and Colombia.

In the past, DEA considered the growing of domestic marijuana as a state and local law enforcement problem. DEA's role in the past was a result of limited funding, training and manpower (part-time DEA Special Agents as state coordinators) to the state eradication efforts.

A review of the domestic cannabis situation by DEA's Cannabis Investigations Section (OM) indicated that DEA had to change its domestic marijuana enforcement policy. It is imperative that DEA continue to lead a unified state, local and Federal enforcement effort directed toward the arrest and conviction of marijuana growers.

An example of DEA's leadership role is exemplified in the Special Enforcement Operation (SEO) called "Operation Green Merchant." This SEO targets indoor cannabis cultivation by including suppliers of cannabis seeds, growing equipment, cultivation information and the growers. This program has achieved National and International significance.

OM is pleased to report that during 1989, Operation Green Merchant, resulted in 441 arrests, the seizure of 48,744 sinsemilla plants and almost one ton of processed marijuana; 356 indoor marijuana cultivation operations were dismantled and trafficker assets in excess of \$9,000,000 were seized.

Additionally, OM developed over 30,000 investigative leads that were disseminated to various DEA offices for follow-up investigations.

Science and Research

During the current year, DEA's Technology Development Unit have directed resources at detecting indoor and outdoor cannabis cultivations.

Outdoor Cannabis Detection

Major emphasis was placed on the assessment of low altitude aerial photography to detect and identify outdoor cannabis cultivation. A variety of film types, imaging scales, filming techniques, and aerial platforms were evaluated. Additionally, various tactical and strategic mission were flown, and the resulting information assessed. Based upon the evaluations performed during the year, tactical — identify outdoor site locations, and strategic — estimate the extent of cannabis cultivation in a given area, can be performed. Typically such efforts required advanced planning, photo interpreter training, and in certain situations ground truth or accuracy tests. While aerial photography can cover large areas quickly, the film interpretation phase is a time consuming and labor intensive activity.

Indoor Cannabis Grow Site Configuration

The value of portable thermal video systems to support indoor cannabis growing investigations was successfully demonstrated in over 15 cases during the year. The use of this off-the-shelf technology is the result of a year-long program which assessed the potential of thermal video to detect and record excessive heat levels of suspect structures. Indoor growing operations use very powerful (1000 watt) grow lights to simulate the sun. A troublesome by-product of these light sources is the large amounts of heat. Consequently, the detection of heat from the public right-of-way by thermally viewing walls, boarded up windows or doors is valuable information which can add to other sources of information to establish probable cause that there is illegal cannabis cultivation at a specific location.

Miscellaneous Efforts

The collection of cannabis phenomenological data relating to variant identification, crop cycles, and cultivation practices is on-going. Additionally, the monitoring of related technologies involving eradication techniques, potency measuring, and source of origin identification are being assessed as to their potential value for either operational or intelligence purposes.

Marijuana Eradication Summary and Strategy

The DCE/SP was established to ensure coordination between Federal, state, and local agencies participating in the eradication of domestically cultivated cannabis in the United States. DEA's role is to encourage state and local eradication efforts and to contribute funding, training, equipment, investigative and aircraft resources.

In 1989, forty-nine states participated in the DCE/SP and shared a 3.8 million dollar budget provided by DEA. A summary of expenditures is in the funding section of this report.

The Office of Training conducted 14 schools for 500 law enforcement personnel at a cost of \$73,000.

The DEA Aviation Unit recorded 372 flying missions, totaling 1,065 hours in the eradication effort, costing \$659,090.

In 1989, DEA had an increase in total plants eradicated and a decrease of sinsemilla plants eradicated as compared to 1988. Total arrest declined by 5 percent compared to 1988 but weapons seized increased by 12.4 percent over last year. Asset seizures showed a significant increase from \$9.8 million in 1988 to \$29.5 million in 1989. Indoor cultivation operation seizures increased by 13 percent. This category has been increasing for the past several years, i.e., the largest single indoor operation seized totalled 8,049 sinsemilla plants. DEA has increased domestic cannabis investigations by 177 percent in all domestic case categories and 138 percent for Class I (highest violator) investigations.

Since DEA is the lead Federal drug law enforcement agency, it has the responsibility of investigating drug traffickers at the highest level. DEA has pursued intelligence leads developed through this initiative. In 1989, high level multi-state conspiracy investigations have been initiated. Through the revenue sharing provisions of the Federal asset forfeiture laws, DEA

assisted state and local agencies in obtaining millions of dollars to enhance their enforcement operations.

DEA's science and engineering programs sponsor major research efforts in remote crop detection, eradication technologies, source of origin identification and crop estimates. Accomplishments include techniques to identify outdoor cannabis fields using visible light and infrared sensor systems; detection of indoor cannabis cultivation; evaluation of eradication agents containing natural substances to reduce the potency of cannabis grown outdoors; through chemical analysis, determining the source of country of seized marijuana; and assessment of the potential for using aerial crop estimation techniques to measure illicit growing activity.

Intelligence analysis and surveys were conducted to determine current patterns, changes and trends in all phases of marijuana cultivation. This information was utilized to determine the effectiveness of current programs and to assist in planning future operations. An example of this is the increased indoor growing operations, due to the effectiveness of outdoor eradication programs. This trend has been monitored for several years and the seizures of indoor operations have been increasing steadily due to DEA's heightened emphasis on indoor detection techniques, training and intelligence dissemination.

The Anti-Drug Abuse Act of 1988 includes mandatory Federal prison sentences for growing certain quantities of marijuana plants and authority for the Civil Air Patrol to assist in drug eradication and interdiction. The 1988 Defense Appropriation Bill gave additional funding to the National Guard and the Department of Defense for drug eradication and interdiction. DEA will be analyzing these laws to determine their impact on the program.



Since early 1988, DEA has targeted companies selling high-grade marijuana seeds and marijuana growing equipment. These businesses are located throughout the United States. In cooperation with other Federal, state and local authorities, raids were conducted nationwide on these businesses, which led to arrests and seizures of equipment, seeds and property.

The overall 1989 Domestic Eradication Program was a success. In 1990, the program will focus on domestic cannabis investigations and asset seizures. Additional efforts will be made to increase arrests and Federal prosecution of cultivators under the Federal minimum mandatory sentencing law.



Wholesale and Retail Prices Marijuana

Jul - Sept 1989

Area	Primary Sources	Wholesale Price (Per Pound)		Retail Price (Per Ounce)	
		Commercial	Sinsemilla	Commercial	Sinsemilla
National	MEX/COL/DOM	\$300-\$2,800	\$700-\$4,000	\$20-\$250	\$100-\$600
Atlanta	DOM/MEX/COL	\$600-\$800	\$800-\$1,500	\$40-\$200	\$250
Boston	COL/MEX/DOM	\$900-\$2,800	\$1,300-\$2,800	\$160-\$240	\$300-\$600
Chicago	COL/MEX	\$800-\$1,200	\$2,500-\$3,000	\$50-\$150	\$155-\$185
Dallas	MEX	\$450-\$500	\$850-\$2,000	\$75-\$120	\$125-\$150
Denver	MEX/COL	\$900-\$1,200	\$1,000-\$2,000	\$20-\$100	\$135-\$250
Detroit	DOM/COL	\$850-\$1,300	\$1,200-\$2,000	\$80-\$120	\$150-\$250
Houston	MEX/COL/DOM	\$300-\$600	\$1,500-\$2,500	N/A	N/A
Los Angeles	THAI/MEX/DOM	\$400-\$1,500	\$1,200-\$2,500	N/A	\$150-\$250
Miami	DOM/COL/MEX	\$400-\$1,000	\$700-\$4,000	\$50-\$80	\$240
New Orleans	MEX/COL/DOM	\$800-\$1,000	\$1,000-\$1,600	\$100-\$150	N/A
New York	DOM/MEX	\$400-\$800	\$1,200-\$2,200	\$30-\$70	\$200-\$250
Newark	MEX/JAM/COL	\$800-\$2,000	N/A	\$160-\$250	N/A
Philadelphia	MEX/JAM	\$2,000-\$2,240	\$2,400-\$2,600	\$60-\$140	\$100-\$200
Phoenix	MEX/DOM	\$600-\$800	\$800-\$1,000	\$60-\$90	N/A
San Diego	MEX/DOM	\$500-\$750	\$1,500-\$3,000	\$45-\$150	\$125-\$250
San Francisco	DOM/THAI	\$900-\$1,250	\$2,400-\$3,000	\$60-\$100	\$300
Seattle	DOM/MEX	\$400-\$1,500	\$2,000-\$2,300	\$50-\$125	\$100-\$250
St. Louis	DOM/COL/JAM	\$550-\$1,000	\$1,200-\$1,500	\$40-\$160	\$150-\$300
Washington, DC	DOM/MEX/COL	\$1,000-\$1,500	\$1,200-\$2,000	\$75-\$150	\$135-\$200

Note: Because of U.S. preference for marijuana, hashish prices are unavailable in many regions. When encountered, however, retail price per lb. averages between \$1,200 - \$2,000, and \$80 - \$400 per ounce. THC content of hashish seized in the U.S. during 1989 averaged 5%, while the THC content of hashish oil in 1989 averaged 7.52%. Hashish oil sells for \$35 - \$55 per gram.

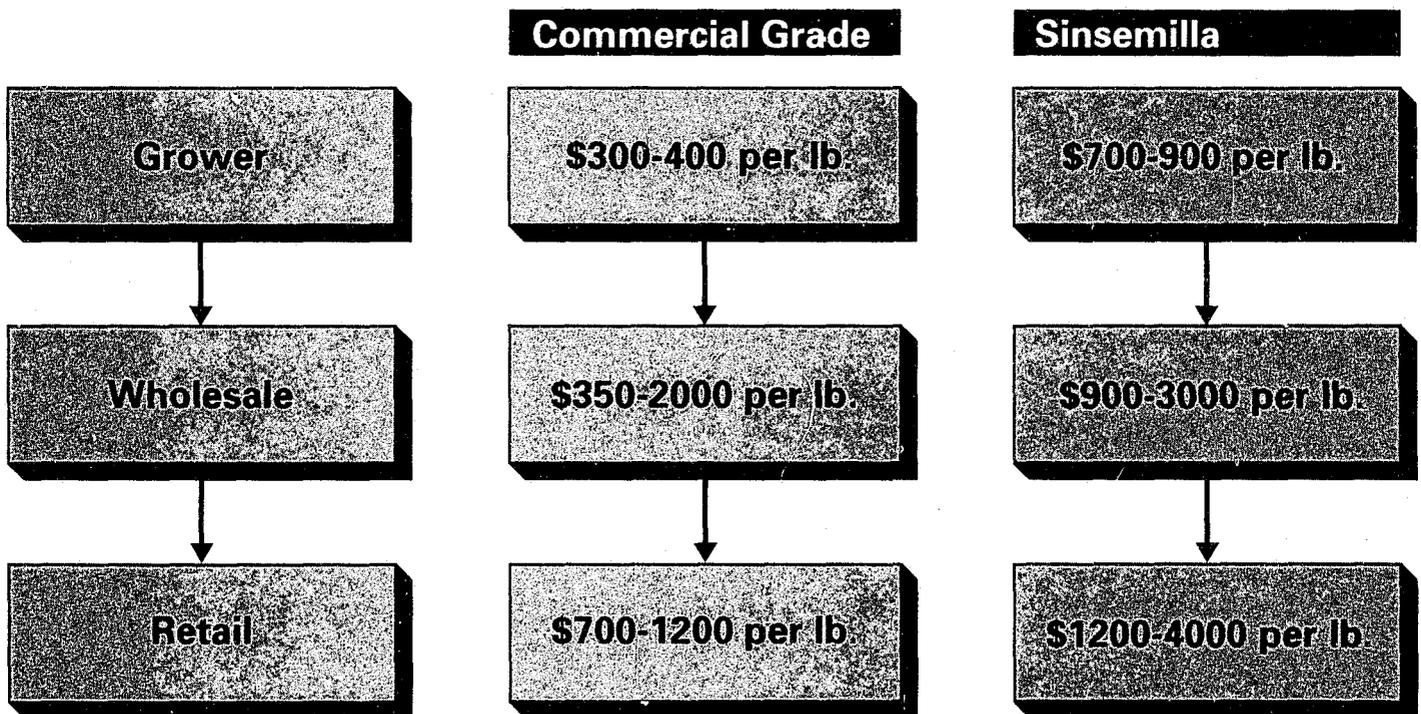
Marijuana Summary Data

Type	1985	1986	1987	1988	(Jul-Sept) 1989
Commercial Grade					
Wholesale (pound)	\$300-\$600	\$350-\$700	\$350-\$1,450	\$350-\$1,800	\$350-\$2,000
Retail (ounce)	\$50-\$100	\$45-\$120	\$60-\$130	\$30-\$250	\$20-\$225
Sinsemilla					
Wholesale (pound)	\$1,200-\$2,000	\$800-\$2,000	\$1,400-\$2,100	\$800-\$3,000	\$800-\$4,000
Retail (ounce)	\$120-\$200	\$100-\$200	\$160-\$210	\$120-\$300	\$120-\$300

Prepared by DEA, Office of Intelligence, OISD

Domestic Marijuana

Selling Prices for One Pound of Marijuana at Successive Levels of Trafficking.



Hashish

Since American cannabis users prefer marijuana, there is limited trafficking in hashish. When encountered, however, a pound of hashish at the retail level sells for \$1200 to \$2000; an ounce for \$80 to \$400. The probable sources of hashish available in the United States are Pakistan/Afghanistan, Lebanon, and Morocco.

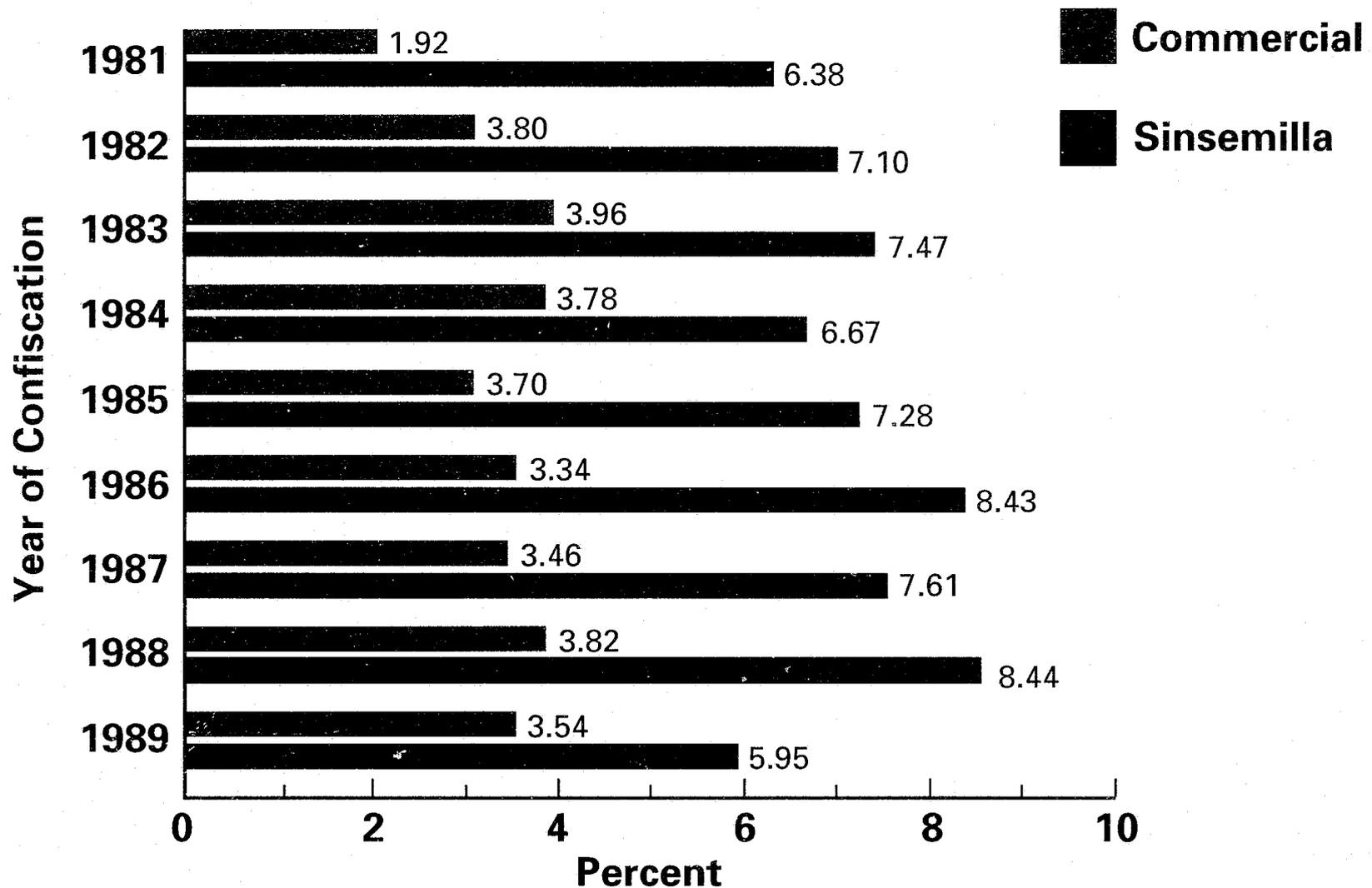
Hashish Oil

Hashish oil is generally imported into the United States from Jamaica for sale at the gram level. Prices range from \$35 to \$45 per gram.

Cannabis Potency

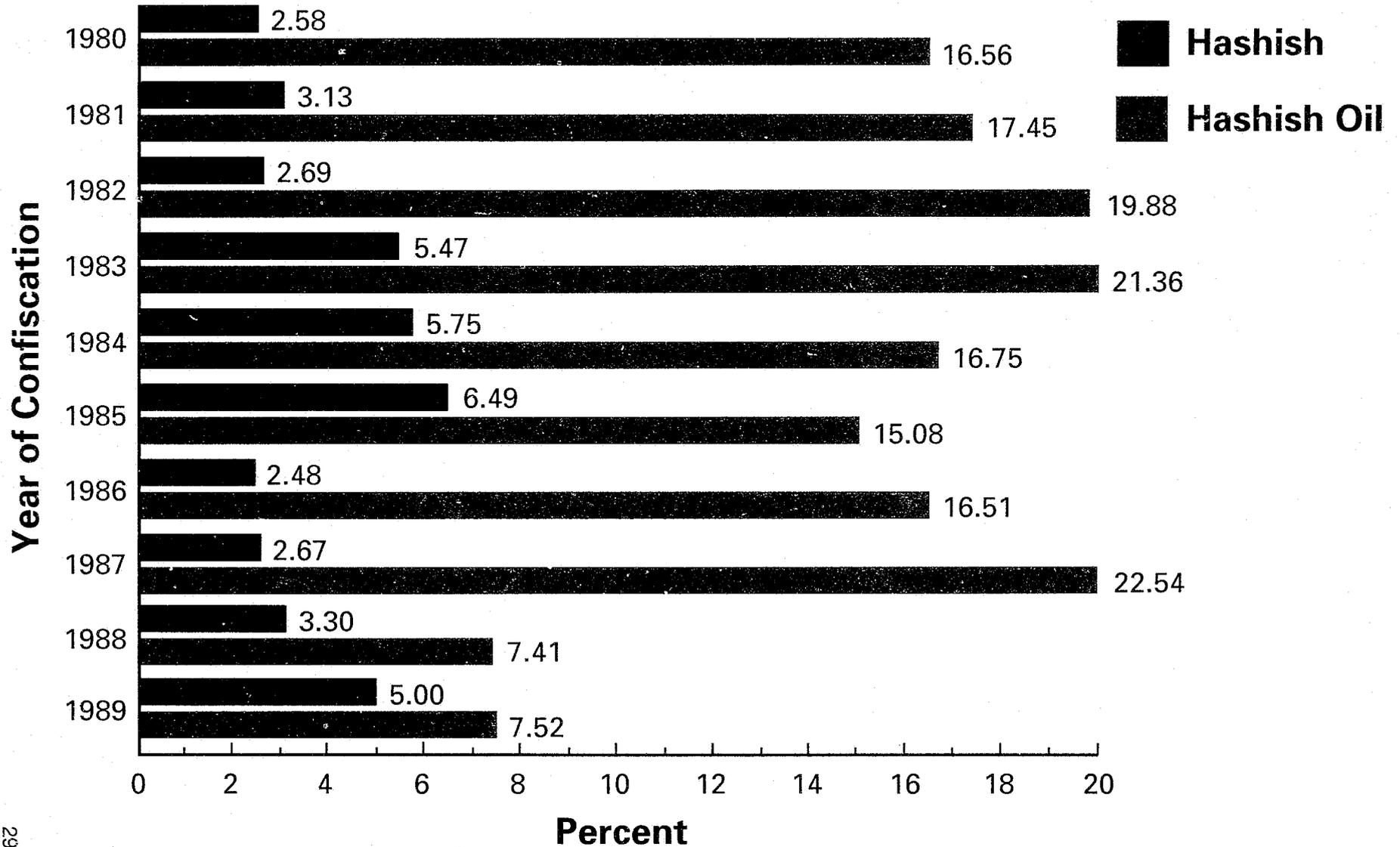
Average Percent Delta-9 THC Content

CY 1981-CY 1989



Hashish/Hashish Oil

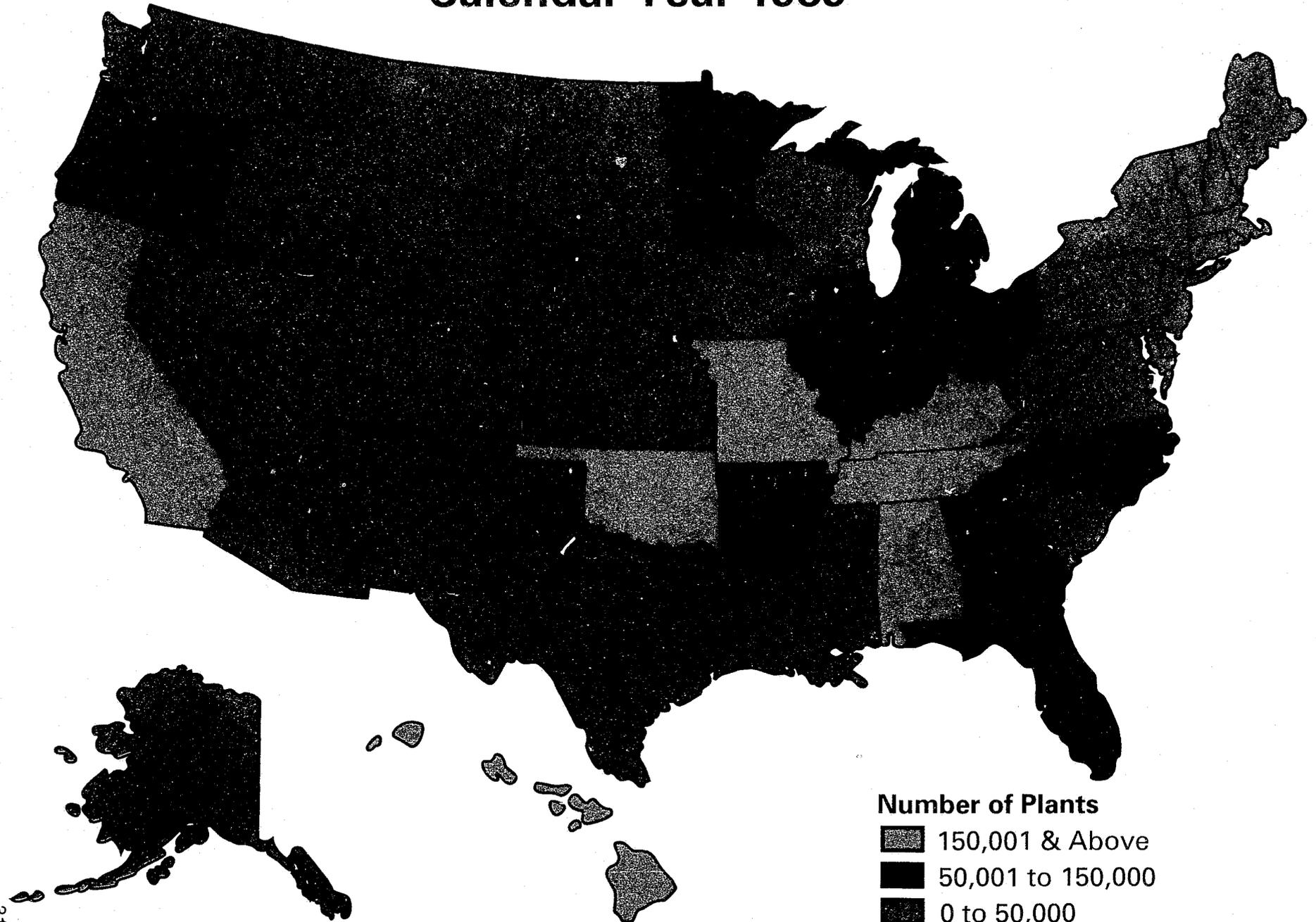
Average Percent Delta-9 THC Content 1980-1989



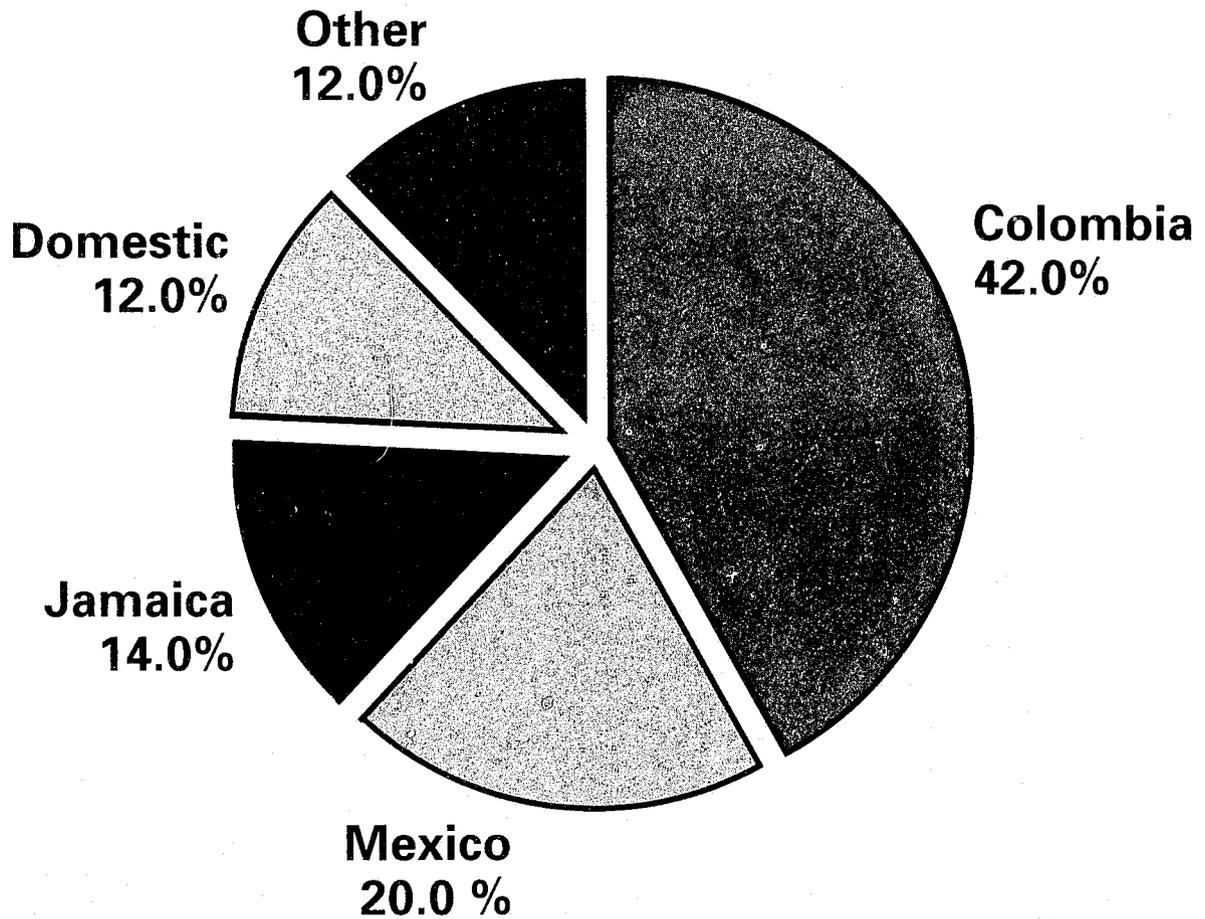
Number of Indoor Cultivation Operations Seized Calendar Year 1988



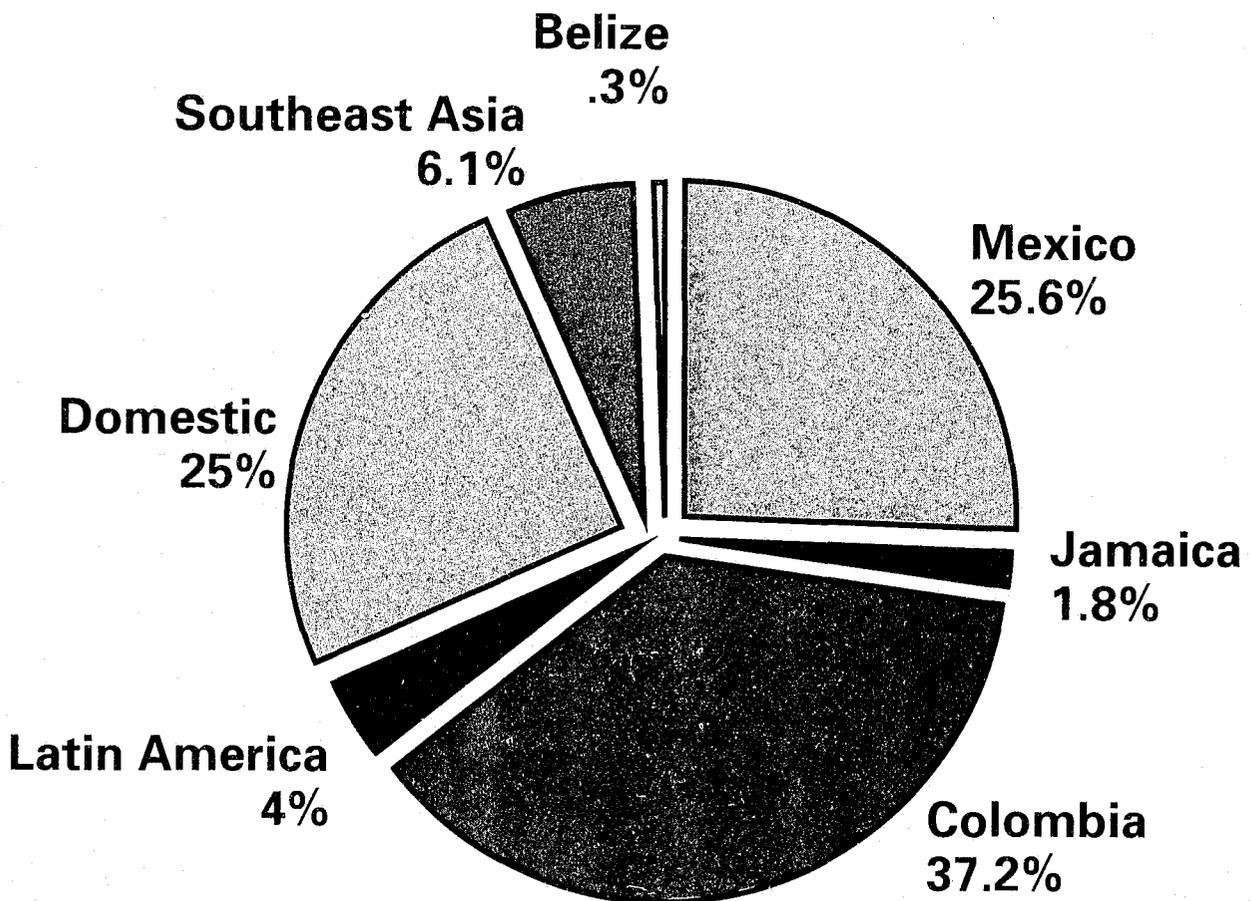
Cultivated Cannabis Eradicated in the United States Calendar Year 1989



Ranking of Major Countries 1984



Ranking of Major Countries 1988



Number of Indoor Cultivation Operations Seized During Calendar Years 1984-1989

