

Where marijuana is the top cash crop

The 1980s saw a deadly boom in the production of marijuana in the United States. Estimates for the 45 states where statistics are available, show that marijuana is now cultivated in significant amounts everywhere.

The four bar diagrams (Figure 3) show the scope of the problem. They rank the 45 states in terms of the harvest value of marijuana as a percent of the total value of all other crop

and livestock output of that state.

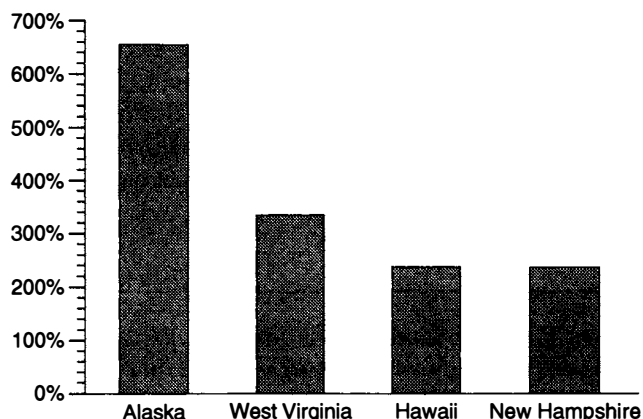
Figure 3a shows that marijuana is 655% of all other farm output combined in Alaska, 335% in West Virginia, 237% in Hawaii, and 236% in New Hampshire. Figure 3b ranks 10 states where marijuana is 50-99% of farm harvest value, from Oregon and Massachusetts (90% or over), down to 55% in the case of Maine. Figure 3c shows 18 states where marijuana ranks from 49% down to 20%. And finally, 13 states where marijuana harvest value is below 20% of other farm output, are ranked in Figure 3d.

Some grown everywhere

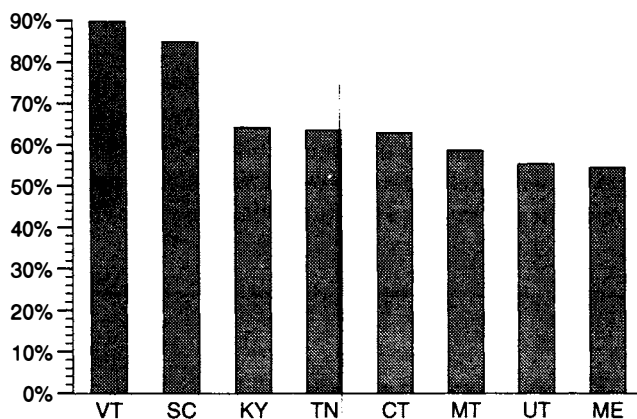
Table 2 is a master table, listing all states in alphabetical order, and giving the dollar value of marijuana output, the

FIGURE 3
State-by-state comparison of marijuana production to total value of crop/livestock output
 (percent of crop/livestock output in 1987)

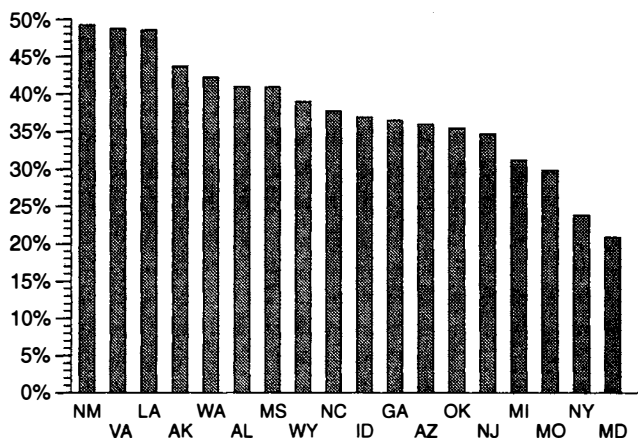
a) Marijuana is over 100% of crop/livestock output



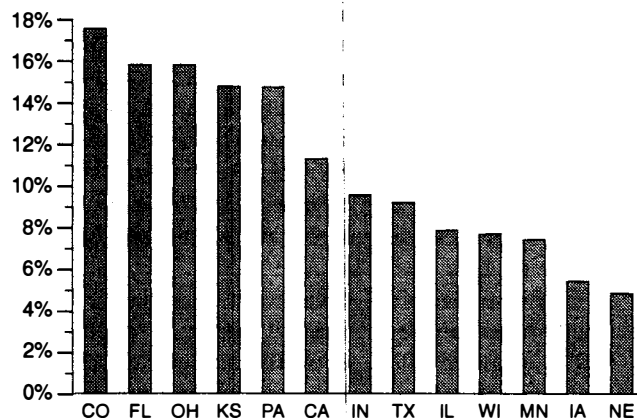
b) Marijuana is 50-90% of crop/livestock output



c) Marijuana is 20-49% of crop/livestock output



d) Marijuana is 4-18% of crop/livestock output



Source: USDA; NORML; EIR estimates

value and name of the leading farm commodity of that state, and the size of the marijuana crop, expressed as a percentage of the leading legal farm commodity. For example, in Vermont, the value of marijuana harvested (\$370 million) is 118% of the value of the state's leading commodity—dairy products (\$314 million).

Figure 4 gives another comparative view of the spread of marijuana cultivation, by showing that in 37 states, the harvest value of marijuana cultivated exceeds that of the top crop (i.e., excluding non-crop agricultural commodities, such as livestock and dairy) grown in that state.

But this map also indicates an important counter-pattern. In the Midwest corn belt, the marijuana does not outrank the value of the corn and soybean harvests. And it does not outrank the cotton in Texas or citrus in Florida—at least not yet.

A deeper look at the state data shows clearly that the top farm states are not the top pot-producing states—neither in percentage nor in absolute terms. The one exception to this is California, which is special in many respects. That state has the largest population in the nation, and an economy larger than that of many nations. It has a rich, varied agriculture, with secluded and favorable growth locations for marijuana. It also has Hollywood and a history of pro-drug counterculture, and cases of experimentation with hallucinogenic drugs provided clandestinely to masses of people.

The map in Figure 5 shows the locations of the top 10 farm states in the country, and the top 10 marijuana states. Only California ranks in both. The top 10 farm states account for 52% of the total crop and livestock commodity marketings in 1987. The top 10 marijuana-producing states account for 42% of the harvest value of all marijuana produced in the United States in 1987.

Marijuana centers

It is clear that the two centers of marijuana production are 1) the Pacific states: Hawaii, California, Oregon, and Washington, and 2) the eastern central states of Arkansas, Missouri, Tennessee, Kentucky, Georgia, and North Carolina. The adjacent counties of southwestern Virginia, and other remote parts of adjoining states, such as West Virginia, could also be included.

The Pacific states were famous in the mid-1980s for what was called the "Emerald Triangle," in northern California. However, in the past three years, networks of dope dealers have vastly expanded the number of growing areas with high-quality seeds, specialized growing equipment, and other inputs throughout the larger region. Hawaii's climate can sustain three crops a year. Places in southern California and Arizona have developed underground greenhouses, with grow lights and hydroponics.

The Eastern states marijuana cultivation is spread throughout the remote areas of the Ozarks and Appalachians. Both the farm crisis of the 1980s, and the layoffs in the coal

TABLE 2

State-by-state comparison of marijuana harvest vs. leading agricultural commodity

(millions of \$)

| State | Marijuana harvest | Leading commodity | | Marijuana as % of commodity |
|-------------------|-------------------|-------------------|-----------------|-----------------------------|
| | | Commodity | Amount | |
| Alabama | \$880 | Eggs | \$156 | 564.1% |
| Alaska | \$190 | Greenhouse | \$13 | 1,461.5% |
| Arizona | \$640 | Cotton | \$339 | 188.8% |
| Arkansas | \$1,375 | Soybeans | \$369 | 372.6% |
| California | \$1,750 | Greenhouse | \$1,464 | 119.5% |
| Colorado | \$560 | Wheat | \$221 | 253.4% |
| Connecticut | \$230 | Greenhouse | \$95 | 242.1% |
| Delaware | NA | Greenhouse | \$30 | NA |
| Florida | \$825 | Greenhouse | \$933 | 88.4% |
| Georgia | \$1,125 | Peanuts | \$454 | 247.8% |
| Hawaii | \$1,325 | Cane/sugar | \$218 | 607.8% |
| Idaho | \$755 | Potatoes | \$321 | 235.2% |
| Illinois | \$485 | Corn | \$1,858 | 26.1% |
| Indiana | \$370 | Corn | \$884 | 41.9% |
| Iowa | \$475 | Soybeans | \$1,689 | 28.1% |
| Kansas | \$845 | Wheat | \$810 | 104.3% |
| Kentucky | \$1,550 | Tobacco | \$441 | 351.5% |
| Louisiana | \$690 | Cotton | \$282 | 244.7% |
| Maine | \$225 | Potatoes | \$108 | 208.3% |
| Maryland | \$235 | Greenhouse | \$176 | 133.5% |
| Massachusetts | \$375 | Greenhouse | \$122 | 307.4% |
| Michigan | \$780 | Corn | \$196 | 398.0% |
| Minnesota | \$430 | Soybeans | \$769 | 55.9% |
| Mississippi | \$810 | Cotton | \$532 | 152.3% |
| Missouri | \$1,100 | Soybeans | \$808 | 136.1% |
| Montana | \$790 | Wheat | \$332 | 238.0% |
| Nebraska | \$330 | Corn | \$1,003 | 32.9% |
| Nevada | NA | Hay | \$46 | NA |
| New Hampshire | \$245 | Greenhouse | \$15 | 1,633.3% |
| New Jersey | \$195 | Greenhouse | \$192 | 101.6% |
| New Mexico | \$565 | Hay | \$69 | 818.8% |
| New York | \$600 | Greenhouse | \$208 | 288.5% |
| North Carolina | \$1,400 | Tobacco | \$730 | 191.8% |
| North Dakota | NA | Wheat | \$701 | NA |
| Ohio | \$540 | Soybeans | \$741 | 72.9% |
| Oklahoma | \$975 | Wheat | \$290 | 336.2% |
| Oregon | \$1,825 | Greenhouse | \$210 | 869.0% |
| Pennsylvania | \$475 | Greenhouse | \$298 | 159.4% |
| Rhode Island | NA | Greenhouse | \$38 | NA |
| South Carolina | \$790 | Tobacco | \$149 | 530.2% |
| South Dakota | NA | Wheat | \$238 | NA |
| Tennessee | \$1,225 | Cotton | \$178 | 688.2% |
| Texas | \$835 | Cotton | \$980 | 85.2% |
| Utah | \$330 | Hay | \$45 | 733.3% |
| Vermont | \$370 | Hay | \$9 | 4,111.1% |
| Virginia | \$825 | Tobacco | \$114 | 723.7% |
| Washington | \$1,200 | Apples | \$462 | 259.7% |
| West Virginia | \$740 | Apples | \$22 | 3,363.6% |
| Wisconsin | \$385 | Corn | \$229 | 168.1% |
| Wyoming | \$250 | Sugar beets | \$37 | 675.7% |
| U.S. total | \$33,095 | | \$20,624 | 160.5% |

Source: USDA; NORML; EIR estimates

the other way. The law enforcement officer or citizen who does try to take action in this environment, is targeted for harassment or even death.

Extensive acreage in the national park lands is planted to marijuana, both because of the remoteness of the land, and because the grower calculates thus to avoid personal property

seizure in case he is caught. The 661,000-acre Daniel Boone National Forest in Kentucky has had large patches of marijuana sown in secluded hollows, behind corn fields, and inside rows of corn. In Hawaii, on the Big Island, marijuana growers take advantage of vast tracts of the undeveloped land.

Even the pattern of occasional drug busts provides

Our sources and method

The agricultural statistics used in this study come from the U.S. Department of Agriculture's Economic Research Service, "State Financial Summary, 1987."

The state-by-state marijuana production statistics come from a June 17, 1988 press release issued by the National Organization for the Reform of Marijuana Laws (NORML), and have been cross-checked in aggregate terms against official U.S. government statistics published by the National Narcotics Intelligence Consumers Committee (NNICC—an inter-departmental committee which includes DEA, CIA, FBI, State Department, and other federal agencies), data provided by U.S. congressional committees, and international statistics provided by various producer nations.

The NORML statistics are substantially higher (3-4 times) than those provided by most U.S. government agencies (NNICC in particular). Both NNICC and NORML start from the official DEA figures for tons of marijuana eradicated. NNICC then estimates total crop size based on their assumptions regarding what percentage of the total crop they believe to have been eradicated. Thus, in 1987, they assumed that the DEA eradicated almost two-thirds of all marijuana production; in 1989, they more modestly claimed only one-half was eradicated. NORML's estimate—based on state-by-state budget analyses, *in situ* reports, etc.—is that, from the mid- to late 1980s, only 16% of the crop was eradicated.

The NNICC notoriously underestimates most drug production statistics, for a combination of political and methodological reasons. Take the case of coca production in Peru. In our July 8, 1988 issue, *EIR* used official Peruvian statistics to estimate that total 1987 coca production in that country was about 300 tons (maximum HCl of cocaine capacity)—50% higher than the NNICC's estimate for that year. But the 1989 NNICC annual report subsequently revised their own earlier estimates upward, making their 1989 figures consistent with *EIR*'s—and de facto admitting that *EIR* was right all along.

NNICC figures for Mexican marijuana production are also revealing. Their 1989 report states them as follows:

1987 = 4,200 tons

1988 = 4,710 tons

1989 = 42,283 tons

The gigantic, order-of-magnitude jump for 1989, the NNICC admits, is *not* due to that much new production, but to the fact that their earlier numbers were much too low. Or, as they put it: "This increase is the result of improved estimation methodologies and a review of cultivation areas that had not been included in previous years."

In 1986, the House Select Committee on Narcotics Abuse and Control published figures on U.S. marijuana imports (30,000 tons) which were two to three times the standard NNICC figures. These congressional figures are far closer to NORML's estimates than those of the NNICC. So it is safe to assume that the NNICC is substantially understating U.S. pot production.

It is *EIR*'s view, after careful examination of the data, that, even though NORML has "an ax to grind," their global statistics more closely reflect reality than do any other published data series. (We cannot at this time vouch for their state-by-state breakdown.)

To further verify at least the order-of-magnitude accuracy of NORML's figures, *EIR* independently estimated non-U.S. marijuana production in the Western Hemisphere at approximately \$115 billion in 1987 (see *EIR*, Nov. 9, 1990). If NORML's data are accurate, then U.S. pot production of \$33 billion that year would constitute about 22% of the value of the total output from the Western Hemisphere. The vast majority (80-90%) of this hemispheric marijuana is consumed in the United States, so that the proportions that apply to hemispheric production pretty much hold for the proportions of U.S. consumption coming from different hemispheric suppliers. That is, it is safe to assume, based on the above statistics, that the United States itself produces about 22% of the marijuana consumed in this country.

Compare this with the DEA's own estimates on U.S. consumption. They report that about 25% of the pot consumed in the U.S. is produced domestically. This is in the same ball park as the percentage which results from employing NORML's numbers in combination with *EIR*'s calculations—in fact, it is surprisingly close, given the obvious difficulty of accurately calculating the size and value of what is still an illegal crop.



Stuart Lewis

Farmers are told to grow dope in order to survive, while the rock-drug counterculture hooks the nation's youth. Shown here are dopers on parade in New York City.

enough public information to show the social and geographic characteristics of the marijuana cultivation:

Clay County, Kentucky: As many as 40% of the county's 24,100 citizens grew marijuana as of 1989, according to local authorities. The county has suffered 25% unemployment, compared with an official rate of 6% nationally; half the population is living on Social Security, disability, or unemployment payments; there is a 50% dropout rate from high school, compared with 25% nationally.

This area is a former coal-producing region where the mines shut down. As of a year ago, Clay County was the largest producer of marijuana in Kentucky, which in turn is the third-largest producing state in the nation.

Southwestern Virginia: The same situation prevails in this 15-county region, where coal mining is dying out, and there is nothing else growing in this mountainous area. Last summer, one raid destroyed 10,753 plants there, with a value roughly estimated to be \$10.7 million.

Two new patterns are apparent in the Pacific states:

Hawaii: For the last decade, this state has been the first or second largest marijuana producer in the nation. Marijuana plots as large as a quarter of an acre came to dot the state forests. Some growers hid their crops amid sugar cane fields. When a six-month eradication effort called Operation Wipe-out was conducted last year, it was estimated that 800,000 plants were destroyed. This represents about 80% of the estimated outdoor plants, and shows the extent of the dope operations, which press reports of the raid estimated to be \$8 billion.

California: Some dope growers from California's Emerald Triangle have moved south to avoid harassment from law

authorities. They have invested in high-tech underground pot production. The Drug Enforcement Administration captured 130 indoor farms in 1989, and over 260 in 1990. The most advanced setups are designed to produce four crops a year. One "farm" raided last fall in the desert near Lancaster cost about \$1 million to build, and had the potential to grow 8,500 plants four times a year, for an annual profit of \$75 million.

The farm states

Both the raids and the statistics show that the average farmer is *not* viewing marijuana as an alternative, despite the encouragement that the Reagan-Bush economic "recovery" provides. The map in Figure 5 shows that the grain belt states are *not* part of the pattern of the 37 other states where the harvest value of marijuana exceeds the value of the state's top crop (excluding dairy or livestock). The corn belt states produce relatively little marijuana—if hundreds of millions of dollars per year can be considered "little." They only look good in comparison to the West Coast and Appalachian "marijuana belt." Typically, various plots of wild types of marijuana are cultivated in the grain belt, and few high-tech greenhouses are used.

In none of the top 10 U.S. farm states does the value of marijuana outrank that of the top farm commodity, as Table 2 shows. However, in California and Florida, marijuana harvest value exceeds the value of the greenhouse and nursery output—the second-ranking commodity in each state.

The harvest value of marijuana exceeds that of the third-ranking commodity in four states: California (cattle), Texas (wheat), Kansas (grain sorghum) and Florida (tomatoes).