

Cannabis cultivation in Canada

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We do not know exactly when cannabis was introduced in Canada. Following his trips to Canada (1534-1542) Jacques Cartier reported have seen “hemp” but it is not clear that what he saw was cannabis hemp. It is commonly believed that Native Americans used marihuana in their peace pipes, but some historians believe that cannabis was introduced by Europeans. For instance, Louis Hébert, an apothecary and the best-know French settler in Canada, was knowledgeable about herbs and drug and might have cultivated cannabis. Marijuana was made illegal under the Opium and Narcotic Drug Act of 1923 and cultivation of cannabis hemp was forbidden in 1938. Since 1998 it has been legal to cultivate cannabis hemp for legal purposes but producers obviously did not wait until then to cultivate it for illicit purposes.

Since the first scientific Canadian survey about illegal drug use, cannabis has been the most commonly used illegal psychoactive substance in Canada. During the past decade, cannabis use has increased more quickly than use of other illegal psychoactive substances. While the prevalence of cocaine, hallucinogens, speed, and heroin has remained below 2.0% (over a 12 month period) among the Canadian population of 15 years and over, cannabis prevalence has more than doubled between 1989 and 2004. In fact, the number of consumers increased from 6.5% in 1989 to 7.4% in 1994, to 14.1% in 2004 (Adlaf, Begin and Sawka, 2005). In 2004, 44.5% of Canadians aged 15 years and over reported having used marijuana at least once. Given the popularity of this illegal substance, it is legitimate to wonder whether Canada has remained mainly a consumer of the drug or has begun to develop increased production capacities.

In recent years, the production of cannabis in Canada has undergone significant technological developments. In 2004, police officers from the Sûreté du Québec found creeping marijuana plants, hidden in a field used for pumpkin cultivation.¹ Producers have been able to genetically modify plants, transforming the leaf appearance and even the cannabis plant itself, in hopes of deceiving police investigators.

The most important technical developments, however, were in the area of indoor culture, a type of production increasingly used in Canada. For example, in 2004, the Sûreté du Québec found a vertical hydroponic greenhouse (ecosystem type) in a private house. They also found a rotating garden with central lights.² These discoveries show that facilities are increasingly refined and productive. Hydroponics’ culture allows better

¹ Information from a private discussion with a Surete du Quebec representative from the investigation service.

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control of annual production, provides a greater yield per plant, and results in a superior product. It is also more easily hidden from police and thieves (Bouchard, Dion and Claude, 2007; Department of Public Safety of Canada, 2004).). However, it is usually too expensive for small producers.

Bouchard, Dion and Claude (2007) studied the relationship between the development of cannabis cultivation and sales of hydroponic equipment in Quebec. They found that these stores facilitate cannabis production, as they not only give producers easy access to the equipment required for indoor culture but they also provide practical advice on how to use it. It is important to note, however, that many hydroponic equipment suppliers are unaware that they are assisting cannabis producers.

In Quebec, the early 1990s was marked by an increasing number of both cannabis cultivation offences and hydroponics' shops. Although Bouchard, Dion and Claude (2007) do not distinguish between indoor and outdoor production, their results are still interesting, suggesting that cannabis producers are good customers for hydroponic equipment suppliers. Between 1997 and 2003, more than 93 new hydroponics' supply businesses have entered the market, although there has been no reported increase in food production.

Technological developments in both indoor and outdoor production are probably among the main factors responsible for the sharp increase of cannabis production in Canada. Official police data on the actual number of cases directly related to the cultivation of marijuana show an exponential increase.

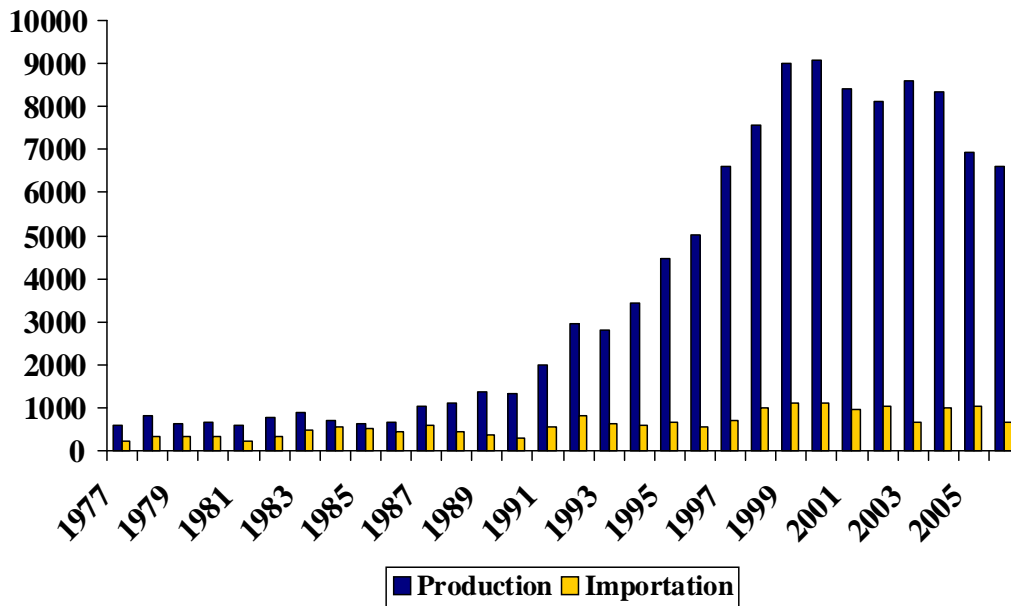


Figure 2: Production / importation of cannabis in Canada (actual incidents)

Source : Statistics Canada

Between 1977 and 2005, the increase in reported incidents directly related to cannabis importation to Canada increased slowly (Figure 1). During this period incidents related to cannabis importation appear to have followed trends of recorded consumption among Canadian adults since the late 1980s. However figure 1 also shows an exponential increase in cases related to cannabis production in Canada from the early 1990s until 2003.

Data from the Royal Canadian Mounted Police (2005) show that, in 2003, 95% of cannabis seized by the police came from Canadian sources. Marijuana production in Canada varied between 960 and 2400 tonnes (Department of Public Security of Canada, 2004). Quebec, British Columbia and Ontario to stand out with regard to the amount of marijuana produced.

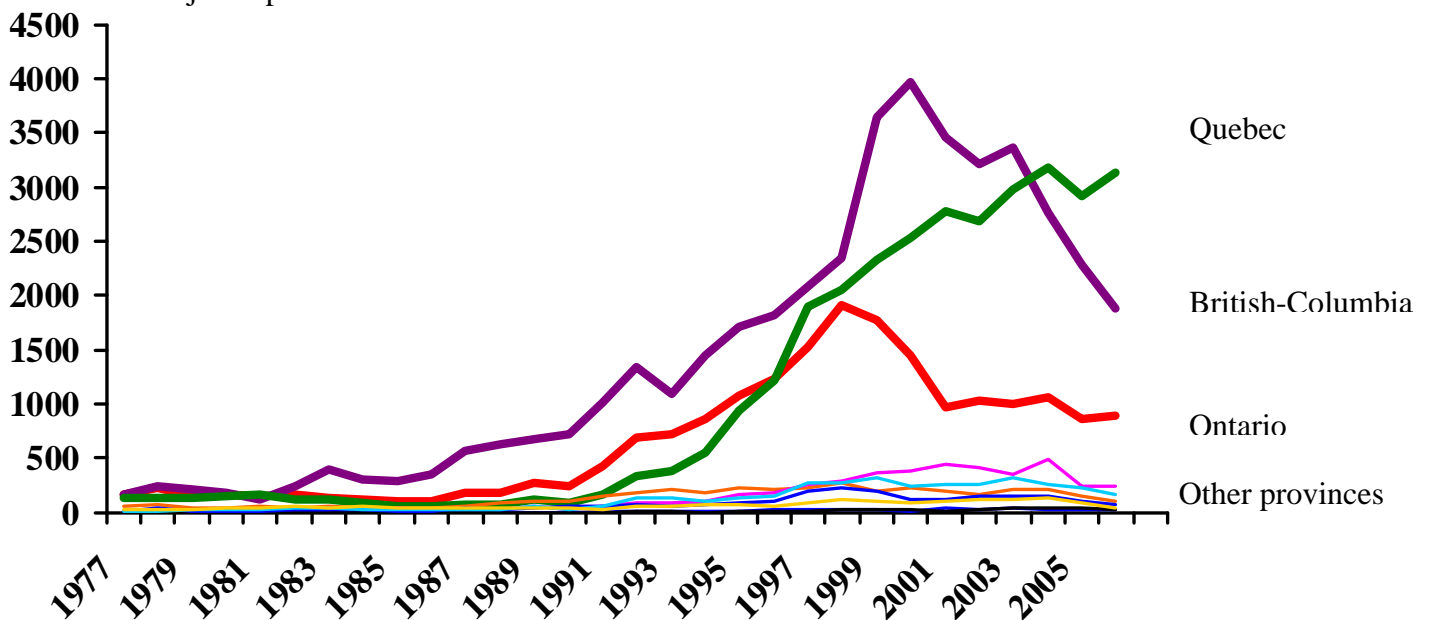


Figure 3 : Cannabis production by Canadian provinces (actual incidents)

Source : Statistics Canada

For years, Canadian marihuana was cultivated primarily in British Columbia (Department of Public Safety, 2004) but recent official data on actual incidents of cannabis production in Canada (Figure 3), shows that as of 2001, British Columbia has sharply decreased in the number of incidents related to cannabis cultivation while Quebec continues to show an increase, a trend that began more than ten years ago. On these reports, Quebec has more incidents of cannabis cultivation than British Columbia. However, we have to remember that these data come from official police records and are not an estimate of actual culture in each province. It is possible that the increase recorded for Quebec is due to increased police interest in removing illicit drug production sites. It is also possible that British Columbia growers are refining their production activities and becoming more difficult to catch. Plecas, Malm and Kinney (2005) suggest that British Columbia producers are now cultivating increasingly large amounts of cannabis. They report that while the average number of plants per grow was estimated to be 149 in 1997, it was 236 in 2003; while the average harvest per marihuana grow was 2,4 kilos in 1997,

in 2003 it was 7.2 kilos. This hypothesis is supported by the fact that, despite the slight decrease in actual cannabis culture incidents since 2000, the Royal Canadian Mounted Police report increasing numbers of plants seized in Canada. While less than 1 million cannabis plants were seized before 1998, around 1 million were seized from 1998 to 2002, about 1.5 million in 2003 and 2004 and 2 million in 2005.

Almost all (95%) of cannabis seized in Canada was of domestic origin (Royal Canadian Mounted Police, 2004). Most of Canada is supplied by local crops, while the scale of production scale suggests that some is also exported to the United States. Although the majority of the cannabis found in the United States comes from Mexico and Colombia, Canada is increasingly becoming a major supply source for its Southern neighbors.

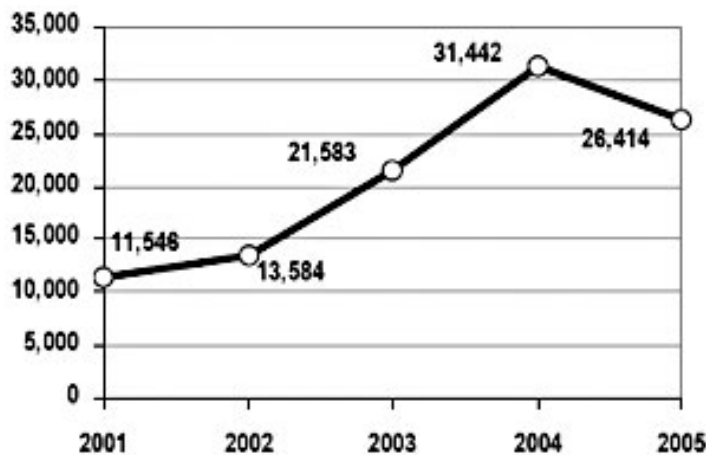


Figure 3 : Total marijuana seized in Canada-US borders, in kilograms, 2001-2005. (Source:US Federal-Wide Drug Seizure System)

According to the National Drug Intelligence Center (2006), in 2001, 11.5 tons of Canadian cannabis were collected at the American border, increasing to 13.6 tons in 2002, 21.6 tons in 2003, 31 tons in 2004, and 26.4 tons in 2005. Based on the estimated quantity of marijuana produced in Canada, between 30% and 70% of Canadian production is exported to the United States. Canadian marijuana is destined primarily for Chicago, Los Angeles, San Diego, Miami, New York, Phoenix, Tucson, and Seattle. It is estimated that the majority of marijuana from Canada is in the form of generally more powerful cuttings.

Organized crime in Canada is responsible for large amounts of cannabis production and distribution, both on the local and the American market. The criminal motorcycle gangs and Asian (Chinese and Vietnamese) organized crime are the two main groups involved in the marijuana industry in Canada (Royal Canadian Mounted Police, 2006). The threat posed by Asian criminal groups to the Canada-US border has gradually supplanted that of the criminal motorcycle gangs (Ministry of Public Security of Canada, 2004). In recent years migration of Asian criminals from western Canada to the east,

mainly Quebec, has even been observed and may be associated with the recent expansion of cannabis culture in Quebec.³

It is reasonable to assume that Canada is no longer just a consumer of cannabis but also a producer in a changing environment. Technological developments, especially in indoor cultivation, probably explain some of the higher amounts of marijuana produced in the country. Producers seem to have found an effective way to circumvent bad weather and seasonal disadvantages of crop growing in Canadian by turning from outdoor cultivation to hydroponics' productions. Organized crime seems to play an important role in this profitable criminal activity, with a monopoly held by criminal motorcycle groups and Asian criminal gangs that have moved to Canada. Faced with this relatively new and growing problem, Canadian police forces seem to be having difficulties organizing their actions (Plecas, Dandurand, Chin and Segger, 2002)

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