

# THC content of marihuana and hash in Dutch coffeeshops (2001-2002)

## Summary

The policy on cannabis use in The Netherlands is substantially different from that in many other countries. It is based on the idea that separating the markets for hard drugs and soft drugs prevents soft drug users to resort to hard drug use. Over the years so-called coffeeshops emerged. Coffeeshops are alcohol free establishments where the selling and using of soft drugs is not prosecuted, provided certain conditions are met. Many of the cannabis products sold in these coffeeshops originate from Dutch-grown grass called 'nederwiet'. Critics of the Dutch drug policy have claimed that the THC content of nederwiet has increased drastically over the last decade. However, the THC content of cannabis products as sold in the coffeeshops has not systematically been tested. On request of the Ministries of Health and Justice, the potency of cannabis products as sold in coffeeshops in The Netherlands was investigated.

$\Delta$ <sup>(1)</sup>-Tetrahydrocannabinol (THC) is the main psycho-active compound in marihuana and hashish. The aim of this study was to investigate the concentration of THC in marihuana and hash as sold in Dutch coffeeshops. In addition we wanted to know whether there are differences between the cannabis products originating from Dutch grown hemp (nederwiet) and those derived from foreign hemp. It is the third time that this study is performed, the first time was in 2000, the second in 2001 (Niesink, e.a., 2000; 2001).

The names and addresses of 50 Dutch coffeeshops were randomly selected. For the purpose of this study, 119 samples of nederwiet, 42 samples of foreign marihuana, 24 samples of Dutch hash and 106 samples of hash prepared from foreign hemp were anonymously bought in the selected coffeeshops. In addition, 97 samples of the most potent marihuana product that were sold in the coffeeshop, were bought. As a rule samples of 1 gram were bought.

The average THC content of the marihuana samples was 14,6% and that of the hash-samples 20,6%. The average THC content of nederwiet (15,2%) was significantly higher than that of foreign marihuana (6,6%). Hash derived from Dutch hemp contained more THC (33,0%) than hash originating from foreign hemp (17,8%). The average THC percentage of nederwiet and of hash made from nederwiet was significantly higher than in previous years. The THC-percentage in foreign marihuana did not differ from the previous samplings. The average THC-percentage of the marihuana samples that were bought as most potent (17,2%) did not differ from the average percentage of nederwiet and was also significantly higher than previous years.

The price that had to be paid for foreign marihuana was lower than the price for any of the other cannabisproducts. Prices in Amsterdam were somewhat higher than those in the rest of the country. The THC-content of nederwiet seems to become higher every year. However, more samplings have to be done to give a final conclusion.

Continuation of the systematic collection of data on the THC content of samples of cannabis consumed by regular users should have a high priority. Apart from that, it is necessary to have factual information about the relation between high THC content of cannabis products and the actual body-burden as well as scientific information on acute and chronic toxicity from regular high THC-blood concentrations.

(1) Most potent as indicated by the coffeeshop personel; of course this is a subjective concept.

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## THC-concentraties in wiet, nederwiet, en hasj in Nederlandse coffeeshops (2001-2002)

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