

# Virginia State Crime Commission

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## Synthetic Marijuana "Spice"

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2010

# Synthetic Marijuana “Spice”

## *Executive Summary*

A number of Virginia newspaper articles published in 2010 highlighted the growing problem of synthetic marijuana, more commonly known by the street names of “spice” or “K2.” Staff reviewed the topic, utilizing Virginia and national newspaper articles, phone interviews with the Virginia Department of Forensic Science and the Virginia Board of Pharmacy, and a review of recently enacted legislation in other states.

Synthetic marijuana refers to any of over one hundred artificial cannabinoids that were first synthesized in laboratories in the late 1980’s and throughout the 1990’s. A recent trend has developed where one or more of these chemicals, usually JWH-018, are sprayed or infused with some type of innocuous plant material, such as ground-up catnip. The resulting mixture is typically marketed as an “incense, not for human consumption,” though clearly intended to be smoked as a cannabis substitute. Because there have not been any studies on the safety of these chemicals in humans, and their long term toxicity is unknown, these chemicals may prove to be extremely dangerous.

During 2010, ten states criminalized a number of these synthetic cannabinoid drugs: Alabama, Georgia, Illinois, Kansas, Kentucky, Louisiana, Michigan, Mississippi, Missouri, and Tennessee. There is pending legislation in at least seven other states: Florida, New Jersey, New York, North Dakota, Ohio, Pennsylvania, and Utah. The Federal Drug Enforcement Agency (DEA) began the process of placing some of these chemicals in the list of scheduled drugs under the federal Controlled Substances Act in 2010; a federal ban on these chemicals went into effect on March 2, 2011. Similarly, the Crime Commission officially recommended in 2010

that the possession, distribution, or manufacture of synthetic marijuana be made a criminal offense in Virginia; on March 23, 2011, the Governor signed into law a bill with an emergency enactment clause accomplishing this.

## *Background*

A number of recent newspaper articles have brought public attention to the subject of synthetic marijuana, which is popularly known as “spice,” or “K2,” amongst other street names. Sold under the guise of incense, people are smoking these herbal mixtures as a substitute for marijuana.<sup>1</sup>

The active ingredient in these mixtures, which are sold under popular names such as “Orange Dragon,” “Voodoo,” or “Starry Night,” is a manufactured chemical, typically JWH-018. Typically, this chemical is sprayed upon innocuous, legal plant material, such as catnip or mugwort, and is packaged as an incense, “not for human consumption.” The attraction of these synthetic marijuana mixtures is that they are currently legal, and they do not show up in the standard urine tests for marijuana. (There are drug tests that can detect the use of at least some of these chemicals, but these tests are not in common use at the present time).<sup>2</sup>

JWH-018 is one of a number of synthetic cannabinoids that were synthesized for the first time in the late 1980’s and early 1990’s. These chemicals were developed by researchers that were interested in studying the effects of cannabinoid type chemicals, which mimic the effects of the active ingredient in marijuana, THC. The purpose of this work was to learn more about how cannabinoids affect biological activity generally, and specifically to study how they interact with cannabinoid receptors in the brains of mice.<sup>3</sup> These chemicals were never synthesized for the purpose of creating a marijuana substitute, let alone developing a new, recreational drug. The inventor of JWH-018, Dr.

John W. Huffman (the chemical is named after his initials), has been quoted in the press as warning that "there are no valid, peer-reviewed studies of the effects of this compound in humans, nor are there any data regarding its toxicity,"<sup>4</sup> and that smoking JWH is "dangerous and anyone who uses them is stupid."<sup>5</sup>

This is confirmed both by anecdotal evidence of the strong reactions experienced by some users of "spice,"<sup>6</sup> and by the number of telephone calls received by Poison Control Centers concerning this drug. Nationwide, the American Association of Poison Control Centers reported more than 1,800 calls about synthetic marijuana in 2010.<sup>7</sup> The three Poison Control Centers that administer to Virginia have reported 70 calls as of November 10, 2010, where use of synthetic marijuana was admitted.<sup>8</sup>

Almost all of these synthetic cannabinoids were legal in Virginia up until March of 2011. They were not listed in either Virginia's or the federal government's list of scheduled substances.<sup>9</sup> The very first of these synthetic cannabinoids, HU-210, was the only one that was covered under the federal Controlled Substances Act as a Schedule I drug, and thus was illegal under federal law prior to 2011.<sup>10</sup> After the DEA used its emergency powers to begin the process of adding five of these chemicals to the list of Schedule I drugs, their names were printed in the Federal Register on March 2, 2011, making them illegal in the United States for at least a year, pending the administrative process to add them permanently.<sup>11</sup>

Although Virginia does have a designer drug statute, which criminalizes any substance that is compounded with the intent to circumvent Virginia's drug laws, it only applies to those substances which simulate the effects of a listed Schedule I or II drug through "chemical changes such as the addition, subtraction or rearranging of a radical or the addition, subtraction or rearranging of a

substituent."<sup>12</sup> According to informal discussions with staff at the Virginia Board of Pharmacy, it is not clear if, in a court of law, the common synthetic marijuana chemicals could be proven to be designer drugs, as their chemical structure is distinctly different from that of THC, the active ingredient in marijuana. Therefore, the specific chemicals used to make synthetic marijuana would need to be named with specificity in the Code of Virginia in order for them to be illegal under Virginia law.

In 2010, at least ten states added certain synthetic cannabinoids to their list of controlled substances, making them illegal: Alabama, Georgia, Illinois, Kansas, Kentucky, Louisiana, Michigan, Mississippi, Missouri, and Tennessee.<sup>13</sup> Three other states had previously enacted administrative regulations targeting synthetic cannabinoids: Arkansas, Iowa, and North Dakota.<sup>14</sup> Another seven states have synthetic cannabinoid legislation pending: Florida, New Jersey, New York, North Dakota, Ohio, Pennsylvania, and Utah.<sup>15</sup>

## ***Conclusion***

Due to increased press coverage of this topic, evidence that recreational use of these substances is increasing, and the health dangers that such substances pose, it is the recommendation of the Crime Commission that Virginia should add JWH-018 to the list of Schedule I drugs in the Drug Control Act, as well as any other synthetic cannabinoid chemicals that might be recommended by either the Virginia Board of Pharmacy or the Virginia Department of Forensic Science. The Crime Commission does not have any formal recommendations as to the appropriate criminal penalty that should be imposed for the crimes of possession, distribution, possession with the intent to distribute, or manufacture of these chemicals. During the 2011 Regular Session of the Virginia General Assembly, House Bill 1434 and Senate Bill 745 were introduced, making it

illegal to possess, distribute, possess with the intent to distribute, or manufacture these chemicals. After amendments, the two bills were identical to each other, and were enacted into law by the Governor on March 23, 2011, with emergency enactment clauses, going into effect on that day. The possession of these chemicals is now a Class 1 misdemeanor; the distribution or possession with the intent to distribute these chemicals is a Class 6 felony; and the manufacture of these chemicals is an unclassified felony carrying a penalty of 5 to 30 years incarceration.

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<sup>1</sup> *Spice incense product used to get high, Norfolk officials are investigating ingredients*, WAVY.COM (Wavy News 10, Portsmouth), May 4, 2010, at [http://www.wavy.com/dpp/news/local\\_news/spice-incense-product-used-to-get-high](http://www.wavy.com/dpp/news/local_news/spice-incense-product-used-to-get-high).

<sup>2</sup> Niki D'Andrea, *High Science: Synthetic Marijuana Is Legal, and It Might Get You High – But Is It Safe?*, PHOENIX NEW TIMES, August 19, 2010, available at <http://www.phoenixnewtimes.com/2010-08-19/news/high-science-synthetic-marijuana-is-legal-and-it-might-get-you-high-but-is-it-safe/>.

<sup>3</sup> *Id.*

<sup>4</sup> *Id.*

<sup>5</sup> Alicia A. Caldwell, *US cracks down on fake pot as public health hazard*, ASSOCIATED PRESS, November 26, 2010, available at <http://www.timesfreepress.com/news/2010/nov/26/us-cracks-down-fake-pot-public-health-hazard/>.

<sup>6</sup> Niki D'Andrea, *High Science: Synthetic Marijuana Is Legal, and It Might Get You High – But Is It Safe?*, PHOENIX NEW TIMES, August 19, 2010, available at <http://www.phoenixnewtimes.com/2010-08-19/news/high-science-synthetic-marijuana-is-legal-and-it-might-get-you-high-but-is-it-safe/>; Donna Leinwand, *DEA bans K2, other 'fake pot' products*, USA TODAY, November 24, 2010, available at [http://www.usatoday.com/news/washington/2010-11-24-k2-ban-dea\\_N.htm](http://www.usatoday.com/news/washington/2010-11-24-k2-ban-dea_N.htm).

<sup>7</sup> There were more than 750 calls as of July, 2010. *State Sen. Ralph Smith files bill to ban synthetic marijuana*, RICHMOND TIMES DISPATCH, October 28, 2010, available at <http://www2.timesdispatch.com/news/2010/oct/28>

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</state-sen-ralph-smith-files-bill-bany-synthetic-marijuana-613598/>. By November 10, 2010, there were more than 1,800 calls for the year, according to information obtained from a phone interview with staff at the Virginia Poison Center. According to a news article, by the end of 2010, there had been 2,874 calls. Jim Salter and Jim Suhr, *Synthetic Drugs Send Thousands to ER*, ASSOCIATED PRESS, April 6, 2011, available at

<http://www.timesfreepress.com/news/2011/apr/07/synthetic-drugs-send-thousands-er/>.

<sup>8</sup> These figures were obtained through phone interviews with staff at the Virginia Poison Center, the National Capital Poison Center, and the Blue Ridge Poison Center.

<sup>9</sup> VA. CODE ANN. § 54.1-3445 *et seq.* (Michie 2010); 21 U.S.C. § 812 (2010); 21 C.F.R. § 1308 (2010).

<sup>10</sup> 21 U.S.C. § 812 (2010); 21 C.F.R. § 1308 (2010); *see also Drugs and Chemicals of Concern: HU-210*, U.S. D.O.J., D.E.A., Office of Diversion Control, at [http://www.deadiversion.usdoj.gov/drugs\\_concern/spice/spice\\_hu210.htm](http://www.deadiversion.usdoj.gov/drugs_concern/spice/spice_hu210.htm).

<sup>11</sup> Schedules of Controlled Substances: Temporary Placement of Five Synthetic Cannabinoids Into Schedule I, 76 Fed. Reg. 11,075 (March 2, 2011) (to be codified at 21 C.F.R. pt. 1308).

<sup>12</sup> VA. CODE ANN. § 54.1-3456 (Michie 2010).

<sup>13</sup> ALA. CODE § § 13A-12-214.1 (West 2010); GA. CODE ANN. § 16-13-25 (West 2010); 720 ILL. COMP. STAT. 570/204 (2010); KAN. STAT. ANN. 65-4105 (2010); LA. REV. STAT. ANN. § 40:964 (West 2010); MICH. COMP. LAWS § 333.7212 (2010); MISS. CODE ANN. 41-29-113 (West 2010); TEN. CODE ANN. § 39-17-438 (West 2010); KY. REV. STAT. ANN. 218A.010 (West 2010); MO. ANN. STAT. 195.017 (West 2010).

<sup>14</sup> ARK. ADMIN. CODE. § 007.15.8-I to VIII (2011); IOWA ADMIN. CODE. r. 657-10.41 (2011); N.D. ADMIN. CODE. § 61-13-01-01 to -03 (2011).

<sup>15</sup> H.B. 39, 113th Reg. Sess., 2011 Sess. (Fl. 2011); A. 2644, 214th Leg., 2d Ann. Sess. (N.J. 2011); S.B. 1834, 2011 Leg., 2011-2012 Leg. (N.Y. 2011); S.B. 2119, 62nd Leg. Assem., 2011 Sess. (N.D. 2011); H.B. 64, 129th Gen. Assem., 2011-2012 Sess. (Ohio 2011); S.B. 164, 2011 Leg., 2011-2012 Reg. Sess. (Pa. 2011); H.B. 23, 59th Leg., Gen. Sess. (Utah 2011).