

CRUDE PLANT DRUGS

This is a very interesting group of materials (Table XX) that pose some difficult problems. In most instances neither the animal nor the human pharmacology of the crude drugs has been well characterized. Many of them are used in religious rites by primitive peoples. Their effects can in several cases be attributed to the most potent drug that they are known to contain.

Anhalonium lewinii (S 242) or peyote contains mescaline and is used in sacramental fashion in the rites of the Native American Church. Even though peyote causes more nausea and vomiting than mescaline or LSD, a small illegal traffic in it has developed which is entirely unrelated to its religious use. It is a hallucinogen and has at least moderate potential for producing dependence. *Psilocybe mexicana* (S 248) is a small mushroom found in Mexico, which contains psilocybine and psilocin. It is used in religious and therapeutic rituals by Mexican Indians. It is hallucinogenic and illicit use and traffic in the mushroom has occurred. Like peyote, it must be judged to have definite dependence potential.

The bark, seeds and pods of several trees, *Anadenanthera peregrina* (S 241), *Mimosa hostilis* and *Virola calophylla*, are ground and used as snuff by Indians in South America and the Caribbean Islands. These materials contain principally dimethyltryptamine and congeners of dimethyltryptamine. No illicit traffic in these materials has yet occurred but they must be regarded as having some dependence potential if available.

Less is known about *Banisteropsis caapi* (S 244), *Amanita muscaria* (S 243) and *Tabernanthe iboga* (S 249) but all have been described as being hallucinogenic. No rating of dependence potential can be made.

Myristica fragrans (S 246) or nutmeg, is sometimes used as an intoxicant, but nutmeg seems to be only weakly hallucinogenic (if at all). Rather, nutmeg seems to cause primarily an unpleasant kind of drunkenness. The spice is abused most frequently by prisoners since it is relatively easy to obtain. Its abuse potential, in view of its great availability, must be rated as quite low. *Piper methysticum* (S 247) or *kava*, is used ritualistically by Polynesians in the South Pacific. The intoxication has not been

well characterized but appears to be mild. Its dependence potential is low.

The seeds of the morning-glories, *Rivea corymbosa* and *Ipomea violacea* (S 250), contain compounds that are congeners of LSD but that are not truly hallucinogenic^{407, 410} Many other varieties of morning-glory contain varying amounts of these drugs. The seeds are used ritualistically by Mexican Indians. Eating morning-glory seeds became popular for a time in the USA but the practice has spontaneously died out because of the low activity and unpleasant side-effects. The dependence potential of morning-glory seeds is regarded as being very low.

Datura stramonium (S 245) contains belladonna alkaloids and belongs to the group of anticholinergic hallucinogens. *Datura* has no or very low dependence potential because of the unpleasantness of its effects. It is sometimes used to adulterate *Cannabis*.

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TABLE XX

CRUDE PLANT DRUGS

Scientific name of plant	Type of plant	Parts of plants used	Names commonly used	Active ingredients	Dangers of abuse	References
S 240 <i>Catha edulis</i>	Shrub	Fresh leaves	Khat	(+)-nor-pseudo-isoephedrine (cathine)	Stimulation	318, 408, 426, 427, 434
S 241 <i>Anadenanthera peregrina</i> (Syn. <i>Piptadenia peregrina</i>) Various varieties of above <i>Mimosa hostilis</i> <i>Virola calophylla</i>	Tree	Bark, seeds, seed pods	Cohoba, paricá, Epéna	Bufotenine (5-OH-DMT); Dimethyltryptamine; Dimethyltryptamine N-oxide; Bufotenine 5-OH-DMT) N-oxide; 5-methoxydimethyltryptamine	Psychoses	318, 401, 411, 420, 425, 426, 430
S 242 <i>Anhalonium lewinii</i> (Syn. <i>Lophophora williamsii</i>)	Cactus	Dried " buttons "	Peyote, peyotl	Mescaline	Psychoses	318, 375, 402, 414
S 243 <i>Amanita muscaria</i>	Mushroom	Entire mushroom	Fly agaric, panx	Muscarine; Muscimole; Ibotenic acid	Poorly characterized	318, 403, 406, 429, 431, 432
S 244 <i>Banisteropsis caapi</i>	Vine	Lower part	Ayahuasca, caapi, yagé	Various harmine and harmaline alkaloids	Psychoses	318, 338, 404, 411, 413
S 245 <i>Datura stramonium</i>	Herbaceous weed	Leaves	Asthmador, loco weed	Belladonna (atropine) alkaloids	Psychoses	318, 407, 418
S 246 <i>Myristica fragrans</i>	Tree	Kernel of seed, outside of seed shells (arillus)	Nutmeg, mace	Many terpenes and aromatic compounds; Myristicin, etc.	Poorly characterized	318, 416, 419, 422, 423, 426, 428, 433, 435
S 247 <i>Piper methysticum</i>	Perennial shrub	Powdered roots of plants	Kava, kava-kava, kawa, cava	Contains many 5,6-dihydro- α -pyrones	Poorly characterized	318, 413, 410, 412, 415, 417
S 248 <i>Psilocybe mexicana</i>	Mushroom	Entire mushroom	—	Psilocybine; psilocin	Psychoses	318, 404
S 249 <i>Tabernanthe iboga</i>	Shrub	Roots	—	Ibogaine	Poorly characterized in man	318, 405, 421
S 250 <i>Rivea corymbosa</i> <i>Ipomea violacea</i> Many other varieties	Climbing flowering vines, morning-glories	Seeds	Ololiqui; ololinqui	Various indoles such as D-lysergic acid amide, isolysergic amide, ergine, etc.	Sedation; Psychoses?	318, 332, 407, 419, 424

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