

Chapter TWO

S E E D S



Grow out as many seedlings as possible to select the best mothers.



The main bud on this 'Thai' plant growing under the tropical sun appears to be much denser than it actually is.



Leaf from the strain 'Thaitanic' demonstrates the classic *C. sativa* characteristics—long, thin blades or fingers.

Cannabis Strains

Technically and legally, all cannabis, whether rope or dope, is classified as *Cannabis sativa*. Regardless of origin, all cannabis is considered *Cannabis sativa* (*C. sativa*) under international law. However, according to *Hemp Diseases and Pests*, Dr. J. M. McPartland, R. C. Clarke, and D. P. Watson, CAB International, *Cannabis sativa* can be further classified as: *Cannabis sativa* (= *C. sativa* var. *sativa*), *Cannabis indica* (= *C. sativa* var. *indica*), *Cannabis ruderalis* (= *C. sativa* var. *spondanea*), *Cannabis afghanica* (= *C. sativa* var. *afghanica*). Each has distinct growth patterns, look, smell, taste, etc.

Cannabis Sativa

Cannabis sativa (= *C. sativa* var. *sativa*), originated predominately in Asia, the Americas, and Africa. Each area of origin has specific characteristics, but all have the following general traits: tall, leggy stature with spacious internodal length, a large sprawling root system, large narrow-bladed leaves, and somewhat sparse flowers when grown indoors under lights. *Sativas* bloom several weeks to months later than *indica* strains. While good producers outdoors, often growing to 15 feet (4.5 m) or more, indoors pure *sativa* strains often grow too tall too fast—some up to ten feet in three months—to be practical for grow room cultivation. An HID bulb is unable to efficiently illuminate tall plants, and the yield-per-watt-of-light or yield-per-square-foot-of-space is very low. Mexican, Columbian, Thai, and Jamaican strains can be very potent, with a high THC to CBD ratio that produces a soaring, energetic, "speedy" high. But potency can also be minimal, with low levels of THC. Most exported Columbian, Mexican, Thai, and Jamaican marijuana is poorly treated throughout life and abused when dried and packed. This abuse causes more rapid

degradation of THC. Consequently, seeds from fair smoke are often more potent than the parent.

Central African *sativas*, including the THC-potent 'Congolesse', grow similarly to Columbian strains, with a tall leggy stature, often growing more than 15 feet (4.5 meters) tall with loosely packed buds.

South Africa has major seaports. Sailors brought *Cannabis sativa* from many different places and planted it in South Africa. Consequently, potency of South African weed can be very high or very low, and can grow short, tall, leggy, bushy, etc. The famous 'Durban Poison' yields potent, pale-green, early buds and is the best-known South African strain.

Asian *sativas*, including Thai, Vietnamese, Laotian, Cambodian, and Nepalese, have diverse growth characteristics and vary significantly in potency. While Thai and other *sativas* from the area are often super THC-potent, they are some of the most difficult to grow indoors and the slowest to mature. Thai strains produce very light, wispy buds after flowering for about four months on plants with large, sprawling branches. Thai, Vietnamese, Cambodian, and Laotian *sativas* are more prone to grow into hermaphroditic adults.

Nepalese *sativas* can grow oversized leaves on tall leggy plants that produce sparse, late-blooming buds, but other strains from this region develop into short, compact plants that bloom earlier. Tetrahydrocannabinol (THC) production and potency is often quite high, but can also be second-rate.

Hemp strains are all considered to be *Cannabis sativa*. Hemp, affectionately referred to as "rope," is *Cannabis sativa* grown for fiber content. Hemp is often seeded and contains very, very low levels of THC.



This leaf from an industrial hemp plant came from the French entity Chanvre & Co. Industrial "no high" cannabis will pollinate drug cannabis.

Cannabis indica

Cannabis indica (= *C. sativa* var. *indica*) originated in Pakistan and India. *Indica* is prized by indoor growers and breeders for its squat, bushy growth; condensed root system; stout stems; broad leaves; and dense, THC-laden, fat heavy flowers. Foliage is very dark green, and in some strains, leaves around buds turn reddish to purple. Short, whitish pistils turn reddish to purplish in hue. A few *indicas* from this part of the world have narrower leaves, long white pistils, and pale green foliage. *Indica* strains generally contain a higher ratio of CBD to THC, which causes an effect often described as a heavy, incapacitating "sit-on-your-head" stone. Potency of the "high" ranges from fair to stupefying. Some *indicas* have a distinctive odor similar to that of a skunk or cat urine, while others smell sweet and exotic. Heavily resin-laden plants tend to be the most fungus and pest-resistant. Few *indicas* with heavy, dense, compact buds are resistant to gray (bud) mold.



Cannabis indica plant.



Cannabis indica leaf has broader blades than C. sativa leaves, but not as broad as C. afghanica.

Cannabis Ruderalis

Cannabis ruderalis (= *C. sativa* var. *spontanea*) was first brought to Amsterdam from Central Europe in the early 1980s by the Seed Bank to enhance their breeding program. Very similar, if not the same "ruderalis" plants grow from Minnesota north through Manitoba and Saskatchewan, Canada. *C. ruderalis* is a short, weedy, scrubby plant containing very, very little THC, but it starts the flowering cycle after a few weeks growth. Photoperiod does not induce flowering in *C. ruderalis*. Sometimes confused with more potent indicas, pure *C. ruderalis* is true ditch weed. It yields a headache rather than a high! Today a few breeders have incorporated the early flowering *C. ruderalis* genes with other early blooming *C. sativa*, *C. indica*, and *C. afghanica*.



'Lowryder' is one of the few C. ruderalis crosses that is auto-flowering and THC-potent.