

# CANNABIS

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# WHAT IS *CANNABIS*?

*Cannabis* is the generic term used for the psychoactive substance derived from the species of the *Cannabis* plant. It means having a relatively significant effect on the central nervous system. There are many varieties of *Cannabis* known. Among them the species that are most pertinent includes:



*Cannabis sativa*



*Cannabis indica*



*Cannabis ruderalis*

# TAXONOMY OF *Cannabis*

KINGDOM

PLANTAE

PHYLUM

ANGIOSPERM

CLASS

ROSIDS

ORDER

ROSALES

FAMILY

CANNABACEAE

GENUS

CANNABIS

SPECIES

- *Cannabis sativa* L.
- *Cannabis indica* Lam.
- *Cannabis ruderalis* Janisch



# MORPHOLOGY OF *Cannabis sativa*

- ERECT
- ANNUAL
- DIOECIOUS
- UNDER SHRUB

## PLANT BODY



- SIMPLE
- STIPULATE
- ALTERNATE
- LOBED

## LEAVES



- SMALL & UNISEXUAL
- MALE FLOWERS- 5 perianth, 5 stamens.
- FEMALE FLOWER- 1 carpel, 1 loculated single pendulous ovary, 2 styles.

## FLOWERS



# HABITAT OF *Cannabis sativa*

*C. sativa* is a species well-adapted to diverse climates, from plains to altitudes of 10,000 feet.

It probably originated from Central Asia and is now distributed widely, enjoying a global reputation.

The major pool of cannabis supply is from China, Russia, India, Pakistan and Iran, but it is also cultivated in other parts of the world.

*“Gardening is civil and social, but it wants the vigor and freedom of the forest and the outlaw.”*



# REQUIREMENTS FOR CULTIVATION OF *Cannabis sativa*

*Cannabis* needs certain conditions to flourish.

- **Growth medium(SOIL)**- Well manure sandy soil or light loamy soil.
- **pH**- Ranges between 5.9-6.5
- **Warmth**-The optimal day temperature range for cannabis is 24 to 30 °C (75 to 86 °F)
- **Light**- Optimum light.
- **SPACE**-Abundant space.
- **Water**-Watering frequency and amount is determined by many factors, including temperature and light, the age, size and stage of growth of the plant and the medium's ability to retain water
- **Nutrients**-During the vegetative stage, cannabis needs more N than P and K, while during the flowering stage, P is more essential than N and K..

Because *Cannabis* nutrient needs vary widely depending on the variety, they are usually determined by trial and error and fertilizers are applied sparingly to avoid burning the plant.



## CULTIVATION OF *Cannabis sativa*

- ❑ The plant is grown as a monsoon crop and the sowing is done during the month of June- July.
- ❑ Seeds are sown at the rate of 5- 10kg per hectare in rows running 1.2mts apart.
- ❑ When the plant has attained a height of about 20cm, thinning is done to reduce their number in row.
- ❑ In order to keep free from weeds, regular weeding is necessary.
- ❑ Irrigation is done whenever necessary.
- ❑ Flowering begins in month of November. Soon after this male plants are removed since very little resin is produced by them.





## HARVESTING AND PROCESSING OF *C. sativa*

- ❑ Harvesting of plants is done during the month of December- January and is started when lower leaves drop off and upper portions of inflorescence turns yellow.
- ❑ At the proper stage inflorescence are cut, spread out in rings and furrows in processing yards and pressed by treading them.
- ❑ The material is dried and treading is done again, it been turned on regular intervals.
- ❑ The material is then collected and made into circular heaps, 60-90 high and kept under pressure for a couple of days.
- ❑ Chemical changes takes place in heaps, which are broken up, turned over and spread out in thick layer.





# *Cannabis* as **RECREATIONAL DRUGS**

The psychoactive effects of *Cannabis* are known to have a triphasic nature.

## 1. Primary Psychoactive Effect

- a state of relaxation,
- to a lesser degree, euphoria from its main psychoactive compound, tetrahydrocannabinol.

## 2. Secondary Psychoactive Effect

- facility for philosophical thinking
- anxiety and paranoia

## 3. Tertiary Psychoactive Effect

- increase in heart rate and hunger,
- believed to be caused by 11-OH-THC, a psychoactive metabolite of THC produced in the liver.

# MEDICINAL USES OF *Cannabis*

There are eight medical conditions for which patients are given cannabis in different forms and concentration:

**Cancer**

**Glaucoma**

**HIV/AIDS**

**Muscle spasms**

**Seizures**

**Severe pain**

**Severe nausea**

Synthesized cannabinoids are also used as prescription drugs such as Marinol and Cesamet.



# NON- MEDICINAL USES OF *Cannabis*

Cannabis contributed a huge role not only in today's science but from the ancient civilizations. Cannabis are well known for its sedating properties, which is widely exploited in both ancient and modern medicinal industries. Apart for being used as a beneficial drug, *Cannabis* is misused as a object of euphoria.

Hemp which is a product of Cannabis is widely used in industries for manufacture of different industrial product. As history is evident, hemp is used as clothing, pottery and for tombs.



# EFFECTS OF *CANNABIS*

*Cannabis* affects almost every body system. It combines many of the properties of alcohol, tranquillizers, opiates and hallucinogen. It is anxiolytic, sedative, analgesic, psychedelic. An altered state of consciousness.





