

Poisonous Plants of Turkey

Week 9

PSYCHOACTIVE PLANTS

Many of these drugs may alter the individual's sensation with such affections as tranquillity, relaxation, escapism...

This type of medication has been used by people since the very old times with the desire to ESCAPE from REALITY or REPLACE the REALITY.

Psychoactive Plants
(=Psychoactive/Mind Altering Plants)

-These plants affect the performance of brain, central and peripheral nervous system by affecting signal transmission of neurons.

When they are taken in small amounts they act as stimulant or cause mood modifying effects but in high amounts they can be lethal.

Plants carrying psychoactive substances classified:

- According to chemical structure of the substances they contain,**
- According to their effects,**
- According to sources they obtained**

Psychoactive compounds are classified as:

1) Stimulants

These compounds stimulate the mind, increase the engagement and feel a sense of well being.

Plants or drugs include this group of compounds are **coffee, tea, cocoa, guarana, mate, *Ephedra, Coca* ..**

2) Sedatives, Hypnotics, Narcotics

Anesthetic compounds, occasionally may cause perceptual changes such as dreaming and sometimes they may also give a feeling of well-being next to their sedative, sleeping and anxiety-reducing effects.

Plants or drugs include this group of compounds are ***Papaver somniferum, Opium, Valeriana*** (Valerian), Humulus lupulus

3) Hallucinogens

They are the compounds cause different changes in the space and time perceptions.

***Peyote (*Lophophora williamsii*),
Cannabis sativa.***

CHEMISTRY AND PHARMACOLOGY OF PSYCHOACTIVE SUBSTANCES

- Chemical substances containing nitrogen (N) and included in one of the alkaloid groups, they generally show psychoactive properties.**

-Before the psychoactive substances reach to target organ, they must enter to the bloodstream and move to the activity site.

Agonist drugs that mimic neurotransmitters in the peripheral nervous system, and drugs that inhibit these neurotransmitters are called antagonists.

Cannabis sativa **(Marijuana, Hemp)**

Visible glandular hairs on female inflorescences

The leaves and bractea on the top of the female inflorescences of dioic plants are rich in psychoactive substances.

Dry female inflorescences, which are sticky and including resin, are grinded and kneaded and turn in to a mass called HASHISH/HASH.

**TETRAHYDRO CANNABINOL
(THC) compound in this resin-based
product has a narcotic effect that
cause addiction and harmful to
society.**

**.HASHISH IS ONE OF THE MOST
FREQUENTLY CONSUMED SUBSTANCES.**

**THE ACTIVE SUBSTANCE
TETRAHYDROCANNABINOL (THC) activates
specific canniboid receptors in brain.**

**These receptors are related to the memory,
thought, concentration, coordinated
movements, perception of time and depth.**