

Commercially available poisonous plants

Nicotiana sp. (Tobacco)

Active ingredient:

Nicotine

Effect:

neurotoxic

Toxicity:

high

Availability:

common

Available form:

dried leaves

Preparation:

Crush the tobacco leaves and boil them in alcohol until an oily brown residue remains. Acidify with acetic acid and mix with hot water. Allow the mixture to separate into two layers. Extract the aqueous phase and evaporate water. An aqueous solution is more readily absorbed by the body than organic solvent solutions.

Remarks:

easily absorbed through skin!



Solanum tuberosum (Potato)

Active ingredient:

Solanine

Effect:

cytotoxic

Toxicity:

medium-high

Availability:

extremely common

Available form:

tubers

Preparation:

Put the potatoes in a damp place in direct sunlight until they turn green and sprouts form. Crush the sprouts and mix them with alcohol. Add ethyl acetate 1:1 and stir. Allow the mixture to settle and separate into two layers. Extract the ethyl acetate layer and evaporate until a sticky liquid is formed.



Ruderal vegetation (urban areas or agricultural land)

Atropa belladonna (Deadly Nightshade)

Habitat:

sunny dry open areas, disturbed soil, field margins, forest clearings

Growth form:

tall herb - subshrub

Abundance:

rare

Visibility:

high with flowers or fruit almost all year round

Availability:

all year round in frost-free climates

Active ingredient:

Atropine, Hyoscyamine, Scopolamine

Effect:

anticholinergic

Toxicity:

high

Poisonous parts:

entire plant



Datura sp. (Thornapples)

Habitat:

sunny dry open areas, rubble, disturbed soil, wasteland, ploughed land

Growth form:

herb – subshrub

Abundance:

very common

Visibility:

high with flowers or fruit almost all year round

Availability:

all year round in frost-free climates



Active ingredient:

Atropine, Hyoscyamine, Scopolamine

Effect:

anticholinergic

Toxicity:

high

Poisonous parts:

entire plant, highest concentration in seeds

***Hyoscyamus* sp. (Henbane)**

Habitat:

sunny dry open areas, rubble, disturbed soil, wasteland, ploughed land, gardens

Growth form:

herb – subshrub

Abundance:

very rare

Visibility:

poor (high with flowers in summer)

Availability:

all year round in frost-free climates

Active ingredient:

Atropine, Hyoscyamine, Scopolamine

Effect:

anticholinergic

Toxicity:

high

Poisonous parts:

entire plant, highest concentration in roots and seeds



***Mandragora officinarum* (Mandrake)**

Habitat:

paths, groves, ruins, rocks, on sandy soil

Growth form:

flat stemless rosette-forming herb

Abundance:

overall very rare but locally abundant

Visibility:

poor (high with purple flowers in autumn-spring)

Availability:

all year round, only in frost-free climates

Active ingredient:

Atropine, Hyoscyamine, Scopolamine

Effect:

anticholinergic

Toxicity:

high

Poisonous parts:

entire plant, highest concentration in roots



Preparation of Tropane alkaloid containing plants:

Crush dried plant material and allow it to macerate in alcohol for 2 days. Let the alcohol evaporate and dissolve the residue in a little water or oil.

Optional purification:

Add a small amount of soda ash or quicklime to alkalize the solution, shake and wait for the phases to separate. Recover the aqueous phase and repeat the step several times. Acidify with acetic acid, mix with ethyl acetate again and this time save the ethyl acetate phase. Repeat the step several times. Evaporate the ethyl acetate and dissolve in a small amount of oil or acidified water.