

## Poppy seed-An Overview

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**Abstract:-** Poppy seed is obtained from the Synonym of Raw Opium, the Biological source of *Papaversomniferum* (*Papaveraceae*) normally, the poppy latex only has the major active constituents of Quinoline- Isoquinoline alkaloids of morphine, codeine. We tried to focus the poppy seed and its medicinal property in this review.

**Key Words:-** Poppy Seed; *Papaversomniferum*, Morphine, codeine

### INTRODUCTION:



Fig: 1 Poppy seed



Fig: 2 Poppy fruit



fig 3 Poppy seed with fruit

### CULTIVATION AND COLLECTION:-

- The cultivation of Opium is governed by the governments of different countries, including India.
- In India, all the activities about opium and its derivatives are controlled under Narcotic drugs and Psychotropic substances Act- 1985.
- Types of Opium Seeds:- The genus *Papaver* has 50 different species in which only six species are found in India. They are: *P.somniferum*(Opium poppy), *P.nudicaule* (Ice land poppy), *P.rhoeas* (Corn poppy), *P.orientale*, *P.argemone*, *P.dubium*.
- Description of Plant:



- The poppy plant is an erect plant attaining 60-120 cm height. It is rarely branched. The leaves are oblong or ovate and having a dentate and serrate margin.
- It bears bluish-white, purple or violet coloured large flowers.
- In India it is cultivated mainly in Madhya Pradesh, Rajasthan and Uttar Pradesh.
- Weather Conditions:
- It is grown with success in sub-tropical climate in winter season, as there is favourable yield in cold weather.
- Propagation and Growth:-
- Opium poppy is grown from November to March. Propagation is done by sowing seeds, for which 3-4kg of seeds per hectare are necessary.
- The growth of plant requires highly fertile, well drained loamy soil with fine sand.
- The soil should contain organic matter, nitrogen and should have pH around 7. The distance between two plants is usually 25cm and plant reaches maximum height of one meter.
- The plants are kept totally free from weeds with the use of fertilizers and weedicides. The plant should be protected from various insect pests like cut worms, leaf-minor, and poppy borer.
- Collection of seeds:-
- After sowing, within 3-4 months, the plant bears flowers which are converted to capsules within few days and attain maturity after 15-20 days.
- The exudations are made for the collection of opium in at this time, consecutively for few weeks.
- After the collection of opium, the capsules are collected and dried in open areas and further the seeds are separated by beating.

#### **Description Of Poppy Seeds:-**

- Size- less than one millimeter.
- Shape- kidney shape

- Colour:-Bluish- Black or Yellowish- white
- Odour- Mild nut like aroma
- Taste- Nutty taste
- Flavour compound- 2-pentyl furan.

#### **Constituents-**

- Minerals like calcium, iron, phosphorus, magnesium, and potassium.

#### **Uses of Poppy seeds:-**

- They are nutritionally dense with high levels of essential minerals like calcium, iron, magnesium, phosphorus, and potassium.
- Whole poppy seeds are used as spice and decoration items.
- Paste of poppy seeds is used as a moisturizer.
- Poppy seed oil has multiple culinary, industrial, and medicinal uses.
- Used for preparation of emulsions.
- Preparation of paints, varnishes and soap.

#### **Poppy seed oil:-**

- Poppy seed oil contains vitamin -E and opium alkaloids like morphine and codeine in quantities of 400 mg/ml.
- High linoleic acid, oleic acid and palmitic acid.
- Poppy seed oil is used for treatment of tumors.
- Lipiodol- Iodized poppy seed oil has an especially high rate of uptake into cells of hepatocellular carcinoma(HCC). This property was recognized and treated in case of chemo-therapy and radiotherapy.
- It is used in the treatment of diarrhea, dysentery and scalds.

#### **Allergies and Side Effects:-**

- Hallucinogenic and sedative properties.



- Redness of skin, pink-eye(conjunctivitis), difficulty in breathing etc..

#### CONCLUSION:

Poppy seed is a biological source of *Papaversomniferum*, belonging to the family of *papaveraceae*. The poppy seed contains fixed oil, the poppy seed oil is used as edible oil also, it is a good source of energy. It is used for preparing emulsion in pharmaceutical preparations. Here we tried to produce cultivation, collection, medicinal and pharmaceutical ailment of Poppy seed.

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