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## An Overview to Explain the Difference between Mazaryun (*Daphne mezereum* L.) and Mazaryun-E-Hindi (*Clitoria ternatea* L.)



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HUMAN

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### ABSTRACT

Mazaryun(*Daphne mezereum* L.) and Mazaryun-e-hindi (*Clitoria ternatea* L.) both are plant origin drugs, but Mazaryun is a poisonous drug used in the Unani system of medicine (USM) after detoxification as per mentioned in classical Unani literature which possesses various pharmacological actions, and Mazaryun-e-hindi is a drug used in Ayurvedic system of medicine which also possesses various valuable actions and therapeutic values. Some authors have erred in their description and mentioned as a same drug in their books but both above drugs are different because the morphologies, organoleptic characters and chemical properties are completely different, but some actions are same. *Mazaryun* is native to Europe, western Asia, Russia and some species found as a wild and also cultivated in Kashmir, India. Its leaves and roots are used medicinally in Unani system of medicine. Mazaryun-e-hindi originated from tropical Asia and later was distributed widely in South and Central America, East and West Indies, China and India. This article discusses the differences between *Mazaryun* and *mazaryun-e-hindia*s per the mentioned in Unani literature as well as scientific publications.



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## INTRODUCTION

### 1. Mazaryun (*Daphne mezereum* L.)

Mazaryun(*Daphne mezereum* L.) is a latex-producing, poisonous and strong sprig drug used in Unani system of medicine[1,2,3].It is important and valuable drug because mostly Unani scholars and authors mentioned about this in their books and treatises.

#### 1.1.Botanical description

*Daphnemezereum*L.is a deciduous shrub in the family *Thymelaeaceae*, native to Europe, western Asia, and Russia and some species found in Kasmir;India.[4] The leaves are soft, 3-8 cm long and 1-2cm broad, arranged in spirally on the stem. The flower are produced before the leave appear. The fruit is a bright red berry 7-12 mm diameter and very poisonous for humans, though fruit-eating birds like thrushes are immune and eat them [5]. *Daphne mezereum* is a toxic poisonous drug due to the chemical compounds mezerein and daphnin. The mezerein is anti-inflammatory and anticarcinogenic [4, 6].

#### 1.2.Scientific classification[7]

Kingdom – Plantae; Division – Angiosperm; Clade – Tracheophytes; Clade – Eudicotus; Clade – Rosids; Order – Malyales; Family – Thymelaeaceae; Genus – *Daphne*; Species – *D.mezereum*.

#### 1.3.Vernacular names

English: Mezereon[6], Punjabi: Kanthan[6],Kutilal:[8], Arabic: Habb-uz-Zerat[9], Unani: Khmala:[1,10,11], Persian: Mazaryun[10].

#### 1.4.Description in Unani literature

*Mazaryun* has two varieties, one with broader leaves and other with smaller leaves. The variety with broader leaves is thin and the other one is thick and bulky. The variety with smaller leaves is not good one whereas the variety with broader leaves is considered to be good medicinally [1,10,11]. According to some other scholars, it has three varieties.[4] Small and large leaves do not imply that they are of same plant, rather they are found in different plants [11]. The black *Mazaryun* is poisonous and fatal and can't be used medicinally

*Mazaryun* containing white and larger leaves is considered better and the leaves are in similitude with that of olive's [1, 2, 10, 11, 12].

### 1.5. Pharmacological actions

Mushil-e-Akhlat (Purgative)[3,11,13] , Muhallil-e-Auram (anti-inflammatory)[1,3,13,14], Mukhrij-e-Kiram-e-Shikam (anti helminthic)[14], Mudir (diuretic)[13], Akkal (corrosive)[1,12], Jali(detergent)[2,13], Mujaffif-e-Rutoobat(Siccative) etc [1].

### 1.6. Scientific reports[15,16]

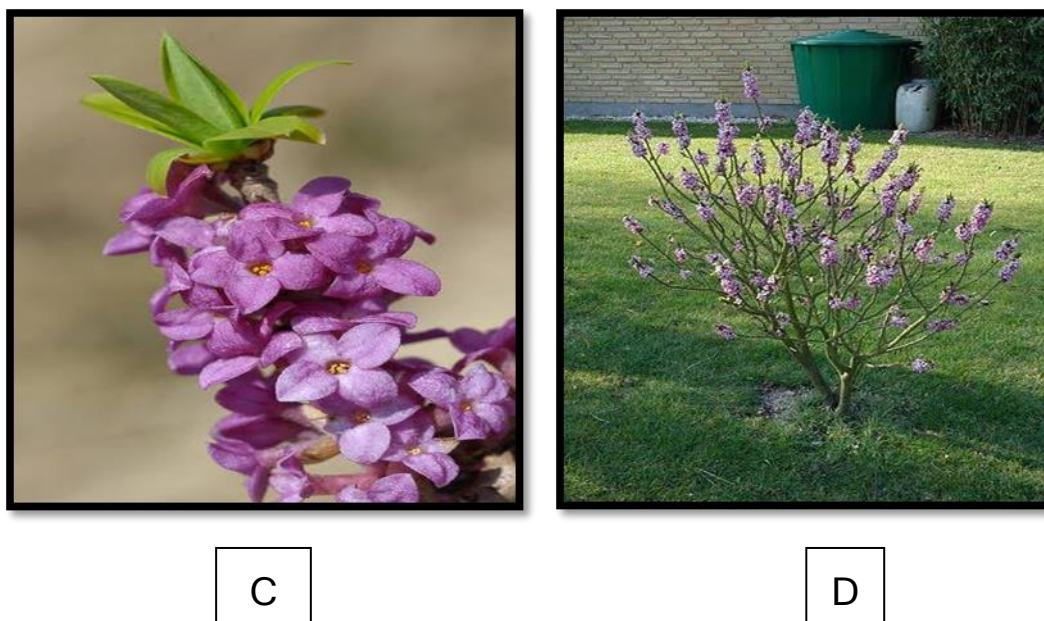
Anti-inflammatory activity, Cholesterol-lowering activity, Neurotrophic activity, Antifertility activity, Skin irritant activity, Piscicidal activity, Antileukemic activity, Wound healing property, Antimicrobial property and Antioxidant property etc.



A



R



**FIGURE 1: *Daphne mezereum* L. (A) Fruits(B) Leaves(C) Flowers(D) Whole plant**

## **2. Mazaryun-e-Hindi (*Clitoria ternatea* L.)**

*Clitoria* genus is an inconsequential, indigenous climber and a common garden flower found throughout the tropical and subtropical regions of the world.[17] *Clitoria ternatea*, known as butterfly pea, is from the Fabaceae family [18]. The plant is mainly distributed in the tropical regions of India, Sri Lanka, Malaysia, Burma, and the Philippine islands [19].

### **2.1. Botanical description**

The plant *Clitoria ternatea* L. is 90.00 to 162.00 cm tall. It is a long-lived perennial herb with an erect habit. *Clitoria ternatea* has solitary flowers with vivid, deep-blue and white coloration. The flowers are also 6.00 to 12.00 cm long. Furthermore, it also contains 6 to 8 brown or black-colored seeds per pod which are slightly pubescent or glabrous [18,20].

### **2.2. Scientific classification [21]**

Kingdom – Plantae; Division – Angiosperm; Clade – Tracheophytes; Clade – Eudicotus; Clade – Rosids; Order – Fabales; Family – Fabaceae; Genus – *Clitoria*; Species – *ternatea*.

### 2.3.Vernacular names

**English:** Butterfly pea, Blue pea vine, Mussel-shell climber, Pigeon wings. **Sanskrit:** Ashphota, AparajitaSaukarnika.**Hindi, Bengali, and Oriya:** Aparajita or Aparajit.**Gujrati:** Bismar, Garani, Koyala. **Punjabi:** Dhanattar.**Rajasthan:** Koyalri, Titlimatar.**Marathi:** Gokurna[17,22].

### 2.4.Description in Unani literature

*Clitoria ternatea*L. is not used in Unani system of medicine, therefore it is not mentioned in the classical and authentic books of Unani system of medicine. But this drug widely used in the Ayurvedic system of medicine [23]

### 2.5 Pharmacological actions[17,18,19,24]

Analgesic, anti-inflammatory, anti-pyretic, anti-helminthic, anti-oxidant, hepatoprotective, anti-microbial, anti-helminthic, anti-asthamatic, memory enhancer, anti-stress, anxiolytic, anti-depressant, anti-convusant, sedative agent.

### 2.6 Scientific reports[17,18,19,24]

Anti-oxidant activity, anti-diabetic activity, anti-microbial activity, anti-helminthic activity, hepatoprotective activity, anti-asthametic activity, anti-inflammatory activity, cytotoxic activity, central cholinergic activity in rat, proteolytic activity, larvacidal activity, antipyretic activity etc.

Table 1:

Differences between Mazaryun and Mazaryun Hindi [4, 5, 17, 18, 19, 20, 25]

S.N		Mazaryun	Mazaryun Hindi
1	<b>Scientific name</b>	<i>Daphne mezereum</i> L.	<i>Clitoria ternatea</i> L.
2	<b>Family</b>	Thymelaeaceae	Fabaceae (Leguminosae)
3	<b>Synonym</b>	February plant, Habb-uz-zerat)	Blue Pea, Aprajita
4	<b>Source</b>	Plant	Plant
5	<b>Habitat</b>	Europe, western Asia, and Russia and in Kashmir;India	India, Sri Lanka, Malaysia, Burma, andPhilippine islands
6	<b>Part used</b>	Mostly Leaf	Leaf, Flower, Seed, Stem, Root
7	<b>Toxicity</b>	Toxic (detoxified leaves used)	Non-toxic
8	<b>Chemical composition</b>	Mezerein, Daphnin	flavonoids, alkaloids,saponins, tannins, taraxerol, and taraxerone







A



B



C



D

**FIGURE 2: Clitoria ternatea L. (A) Flower (B) Leaves (C) Seeds (D) Pods**

## CONCLUSION



Mazaryun (*Daphne mezereum* L.) is a poisonous plant but it is being used as a medicine for various disease conditions in Unani system of medicine. It cannot be used without detoxification because it has some harmful effect on liver and hot temperament people. Its leaves used in Unani system of medicine as a purgative, dissolving and detergent etc. Mazaryun-e-hindi (*Clitoria ternatea* L.) is an also medicinal plant used in the Ayurvedic system of medicine for the various disease conditions. Its leaves, flowers, seeds, roots and stem used as a medicine in the Ayurvedic system of medicine. Both above drugs are different completely but some Unani authors mentioned as the same drug in their books then it is not used in Unani system of medicine.

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