

PHARMACOGNOSY
3RD CLASS, 2ND SEMESTER

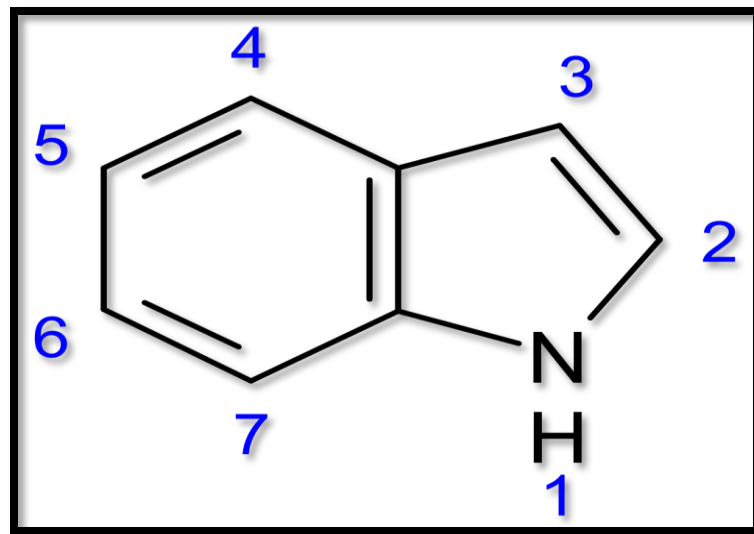


Lab.0

INDOLE ALKALOIDS

INTRODUCTION

- Indole alkaloids are a class of alkaloids containing a structural moiety of indole.
- Indole is an aromatic heterocyclic organic compound. It has a bicyclic structure



INTRODUCTION

HARMALA ALKALOIDS:-

- *Peganum harmala* of the family Nitrariaceae
- It is a woody, perennial, succulent shrub, native to arid regions. The leaves are bright green, finely divided and about 1cm long. Both the roots and seeds contain significant quantities of beta-carbolines (indole) alkaloids. Which are absent from the rest of the plant.

- Botanical name: *Peganum harmala*
- Family name: Nitrariaceae
- Part used: seed
- Local name: الحرمل

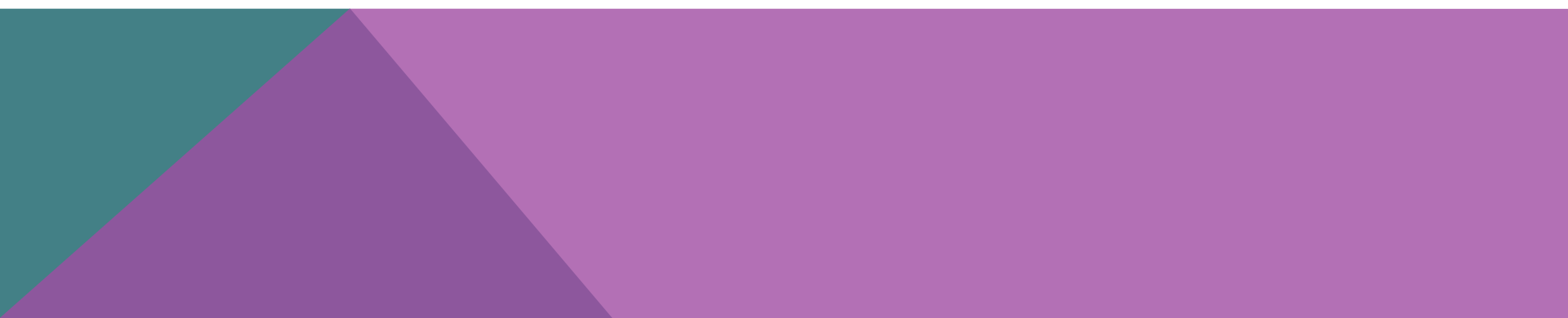


- The round seed capsules measure about 1–1.5 cm in diameter, have three chambers and carry more than 50 seeds.



TRADITIONAL / MEDICINAL USES:-

- This plant has a long history of traditional uses including as dye ((turkey red)) is a color that was widely used to dye cotton in the 18th and 19th century and as incense from ancient times.
- *Peganum harmala* seeds were known to possess hypothermic and essentially hallucinogenic properties since it is MAO inhibitor agent.

- Many studies were conducted to antibacterial, antifungal and antiviral effects of *Peganum harmala* seeds.
 - In Moroccan it is used as traditional medicine.
 - Seed powder is used sometimes for skin and subcutaneous tumors.
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THE ACTIVE ALKALOIDS OF HARMAL SEEDS

- A. Harmane**
 - B. Harmine**
 - C. Harmaline**
 - D. Harmalol**
 - E. Tetrahydroharmine**
 - F. Vasicine & Vasicinone (quinazoline derivatives)**
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