

Papaver somniferum:
The Opium Poppy



Family: Papaveraceae

Origin: Mesopotamia/ Mediterranean

Plant Characteristics:

Height: 3-4 feet

Colors: White, purple, pink

Seeds: About 200 seeds per pod

Flowers: Hermaphroditic

Season: March-May

Additional Facts: Lacticifer

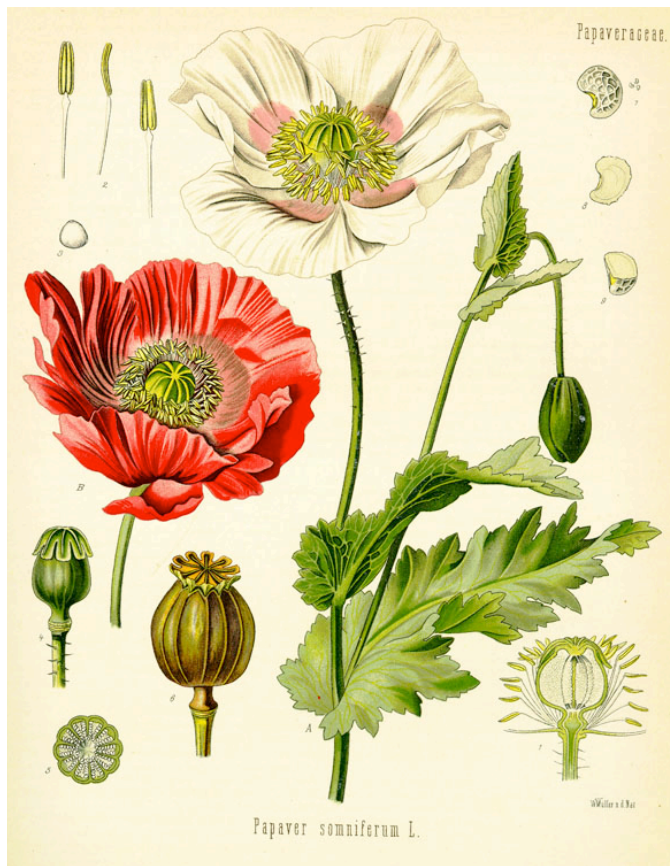


Poppy Goddess found on Crete dated back to 3,500 years ago





Uses of *Papaver somniferum*



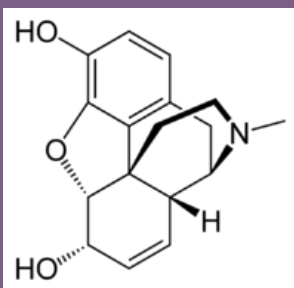
- Medicinal Purposes
 - Morphine, Codeine, Narcotine, Thebaine
- Illicit Purposes
 - Opium and Heroin
- Food
 - Poppy seeds, oil, cake and flour; salads
- Ornaments and Decorations
 - Flowers; gilded and painted capsules
- Aphrodisiac, Baby Rattles, Bird Food, Cooper Indicator, Fuel, Currency

+ Medicinal Purposes



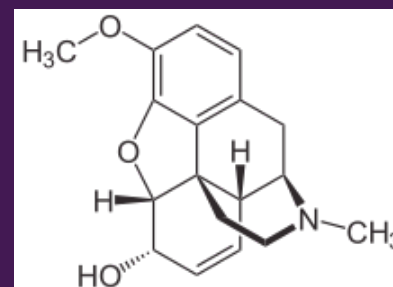
Morphine

- Can be between 3-23% of opium content
 - Principle alkaloid compound in opium
- Isolated discovery by F.W. Serturmer in 1805
- Primarily used to relieve pain by acting directly on the central nervous system
- Burst onto the scene with invention of hypodermic needle in 1853 (Franco-Prussian War 1870)
- Used as a cure for opium and heroin addiction, until found to be equally addictive



Codeine

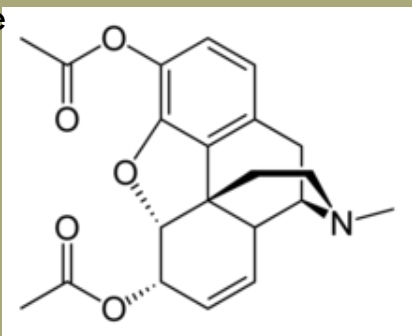
- Can be between 0.1-4% of opium content
- Most codeine extracted from morphine through O-demethylation, but can also be obtained from opium itself
- 8-12% the strength of morphine (200 mg of codeine \approx 30 mg of morphine)
- Most widely used opiate and drug in the world; commonly used with Tylenol and Aspirin



+ Illicit Purposes

Heroin

- Diacetylmorphine (heroin) synthesized from morphine in 1874; used by H. Dresser for the Bayer Company in 1896
 - Originally used to treat tuberculosis
- Acetic anhydride along with about 5 other chemicals are used in transforming morphine into heroin (2x more active)
- Thought to be an effective treatment against morphine addiction, but highly addictive



Opium

- Substance that can be used directly from extracted latex product of the unripe seedpod of the opium poppy (lancing)
- Opium is a combination of chemicals, not actually a chemical compound of its own
 - Contains up to 25 alkaloids
 - A dozen are used within drugs on the market (also papaverine, narcotine, and thebaine)
- Administered as an effective treatment for chronic alcoholism
- Still used in rural areas as a source of medicine, currency, food , clothing
 - Hill tribe people in S.E. Asia (Laos and Burma) are leading producers

+ Illicit Purposes

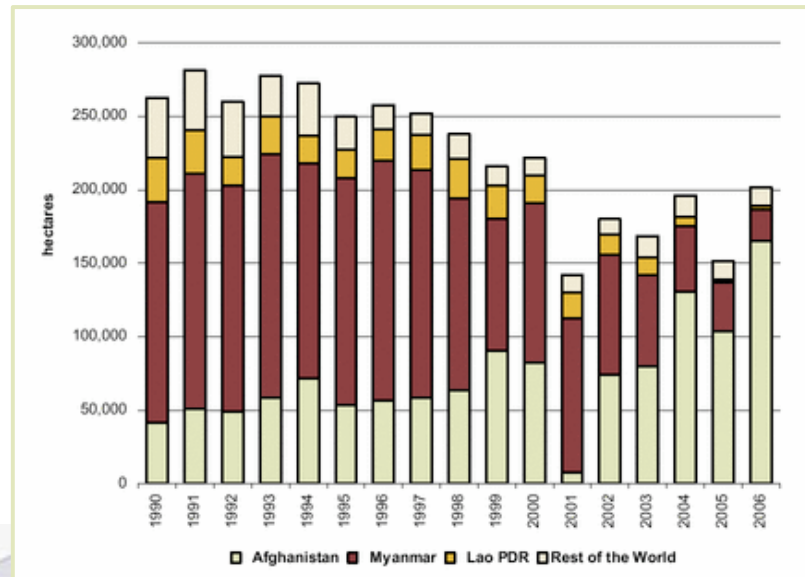
Heroin



Opium



+ Opium Poppy Production Today



www.shaps.hawaii.edu/drugs/golden/fig2.gif

