

White Willow (*Salix Alba*)

Cassady Gappmayer

Botany 3800 X02

Dr. Ostraff





Botanical Information

- Fast-growing, short-lived seed plant
- Up to 80 feet tall and 70 feet across
- Found near water sources
- Long slender leaves
- Separate male and female trees
- Attracts various insects, mammals, and birds
- Native to Europe, central Asia, and northern Africa





Symbolism and Folklore

Greek mythology

- Hecate, the Greek Goddess of the Underworld
- Helice, Zeus's nurse, translates to "Willow"
- Orpheus would carry willow branches on his journeys to the Underworld

Chinese symbolism

- Renewal, vitality, immortality
- Used to ward off evil

Associations with sorrow and mourning

- Shakespeare's Willow Song
- 19th-century gravestones
- Katniss Everdeen's song Under the Willow Tree



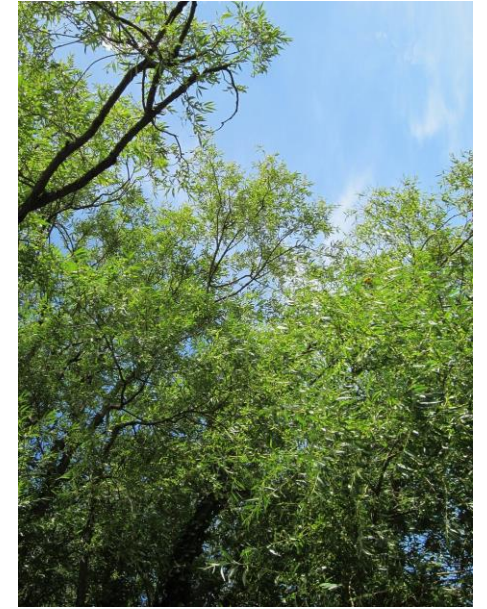
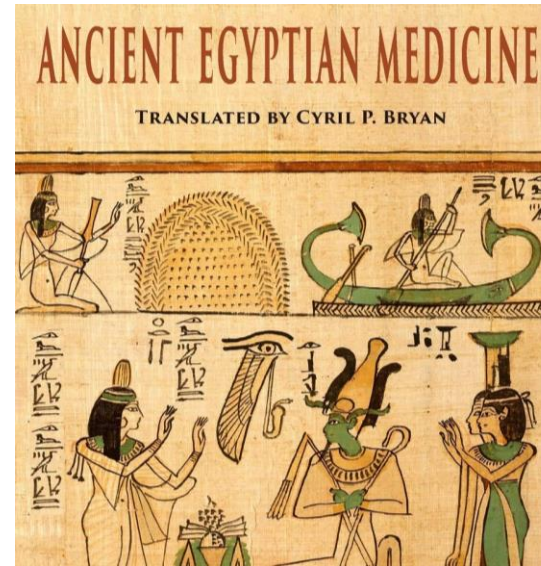
Non-medicinal Uses

- Willows have been used in building houses, coffins and containers, cricket bats, Dutch clogs, Celtic chariot wheel spokes, and Gypsy clothes pegs.
- Indigenous tribes in the Great Basin of North America use willow trees to produce ornamental winnowing baskets.
- A basket (6th century) and anchor rope from two Scottish archipelagoes have been found.
- Willow bark was used to make a dye used to tan leather.
- Lakota *cansasa* is a red willow bark herb used in ceremonies.



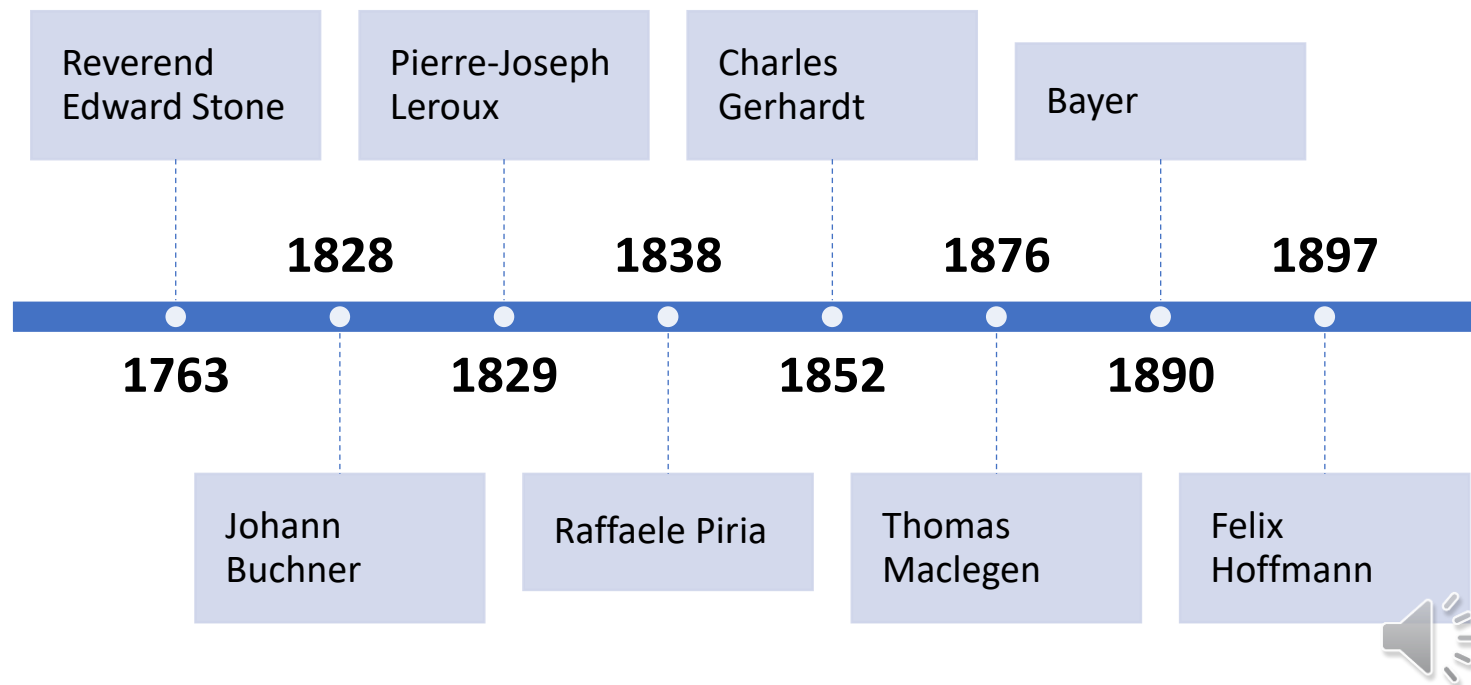
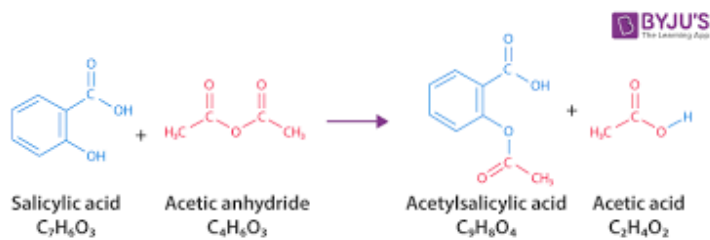
Medicinal History

- As far back as the Sumerian civilization in 4000 B.C.
- Assyrians and Chinese
- Ebers Papyrus from 1550 B.C.
- Egyptians used willow to treat ailments like colic, gout, and earaches
- Hippocrates and Pliny the Elder
- Native Americans used willow species for headaches, fevers, chills, and body pains





Aspirin



Salicylic Acid

- Used in food preservatives, skin care products, cosmetics, and topical medications
- Mild to moderate acne treatment, skin cell build-up
- Removes dead skin cells, reduces swelling and inflammation, helps acne heal more quickly
- 1966 – biosynthesis, now commercially biosynthesized
- Study using Arabidopsis found that stress caused plants to produce salicylic acid as a mechanism of protection

