

## I. Local Useful Plants

- Gibbons, E. 1962. Stalking the wild asparagus. David McKay Company, Inc., New York.
- Gibbons, E. 1966. Stalking the healthful herbs. David McKay Company, Inc., New York.
- Millspaugh, C.F. 1974. American medicinal plants. Dover Publications, Inc., New York.

## A. Evolutionary Perspectives on Apparent Paradoxes

- If most plants use chemical defenses, why are some edible?
  - cultivated plants
  - wild plants
- Medicinal & drug plants often are poisonous plants.  
e.g., *Digitalis* (digitoxin), *Taxus* (taxol)

## B. Wild Woodland Fruits

Wild Grapes (*Vitis* spp.)



•Edible

Wild Grapes (*Vitis* spp.)



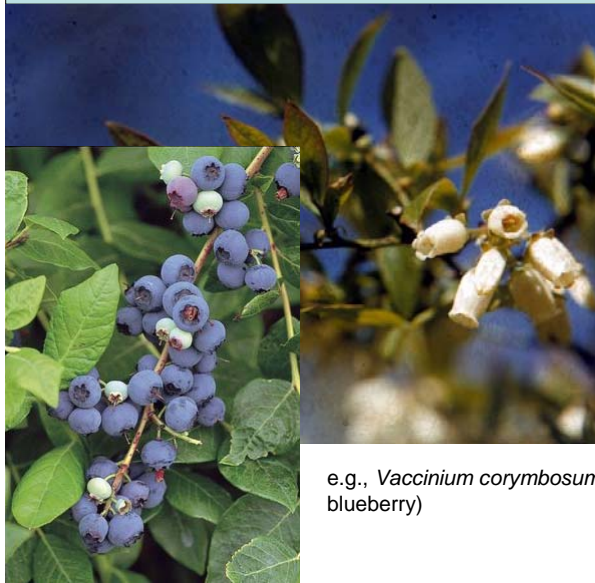
•Careful: closely related genera are poisonous.

*Vitis vulpina*

*Parthenocissus quinquefolia* (Virginia creeper, grape woodbine)



Wild blueberries (*Vaccinium* spp.)



•Edible

e.g., *Vaccinium corymbosum* (high-bush blueberry)

Wild blackberries, raspberries, wineberries (*Rubus* spp.)



•Edible



e.g., *Rubus allenghensis* (common blackberry)

## C. Vegetables (Weeds) in Your Lawn

Dandelion (*Taraxacum officinale*)



- Leaves (young)
  - e.g., salad greens
- Flowers (corolla)
  - e.g., Dandelion wine
    - 3 qts dandelion flowers
    - 1 lb golden raisins
    - 1 gallon water
    - 3 lbs granulated sugar
    - 2 lemons
    - 1 orange
    - yeast and yeast nutrient

Violets (*Viola* spp.)



e.g., *Viola papilionacea* (common blue violet)

- Edible flowers & leaves (e.g., PA Dutch)
  - Vit. C and A
  - e.g., Violet Jam
    - 1 packed cup flws.
    - $\frac{3}{4}$  cup water.
    - Juice of 1 lemon.
    - 2.5 cup sugar.
    - 1 pack pectin powder in  $\frac{3}{4}$  cup boiling water.

Lamb's-quarters (*Chenopodium album*)



- Edible leaves (young)
  - e.g., salad greens, fresh or cooked.
  - More vit. C, A, and calcium than spinach.

Chickweed (*Stellaria media*)



- Edible leaves & stems
  - Veggie smoothies
  - Salad greens
  - Cooked veggies.
  - Rich in vit. C. (available all winter)



## II. Some psychoactive plants

A. *Coffea arabica*

Product: stimulant beverage

Primary Drug: caffeine

B. *Nicotiana tabacum*

Product: tobacco

Primary Drug: nicotine

C. *Papaver somniferum*

Product: pain relievers (legal product)

Primary Drug: morphine, codeine,  
\*heroin, \*methadone

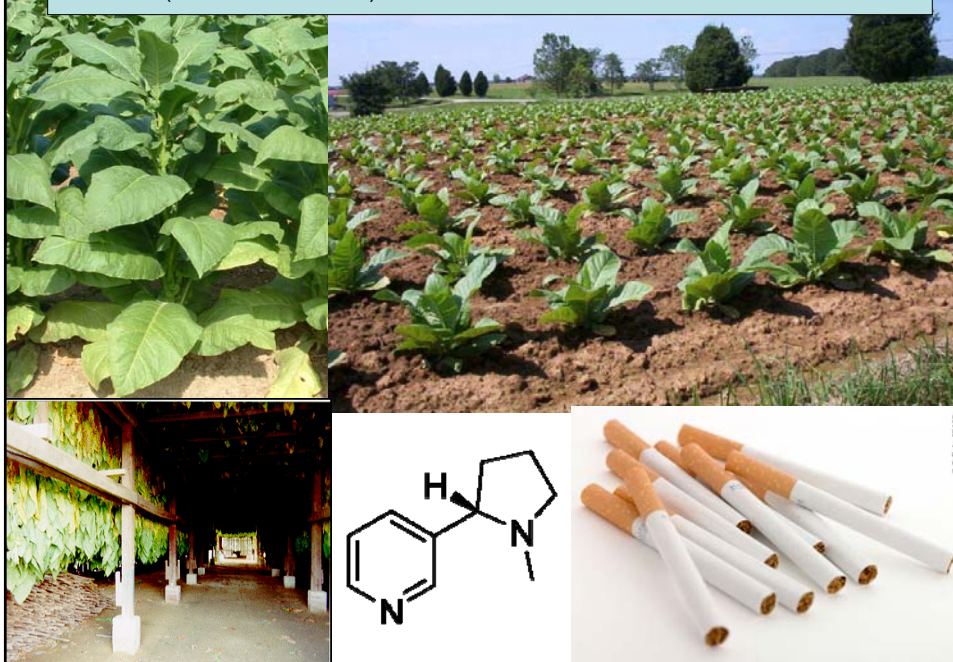
D. *Lophophora williamsii*

Product: edible peyote

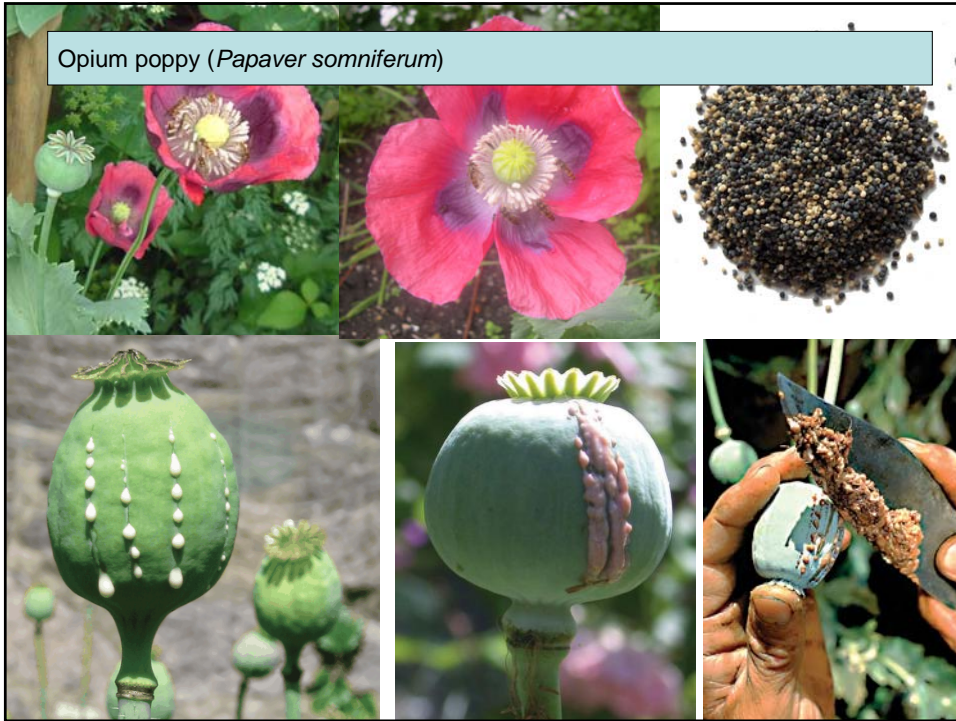
Primary Drug: mescaline



Tobacco (*Nicotiana tabacum*)



Opium poppy (*Papaver somniferum*)



Opium poppy (*Papaver somniferum*)

CN1CC[C@]23[C@@H]4OC5=C[C@@]1(C)CC[C@]2(C)C5

**morphine**

CN1CC[C@]23[C@@H]4OC5=C[C@@]1(C)CC[C@]2(C)C5C6=CC=CC=C6

**heroin**

CN1CC[C@]23[C@@H]4OC5=C[C@@]1(C)CC[C@]2(C)C5

**codeine**

CN1CC[C@]23[C@@H]4OC5=C[C@@]1(C)CC[C@]2(C)C5C6=CC=CC=C6

**methadone**

COUGH

The Sum of Clinical Experience Designates Glyco-Heroin (Smith) as a Respiratory Sedative Superior in All Respects to the Preparations of Opium, Morphine, Codeine and Other Narcotics and without devoid of the toxic or depressing effects which characterize the latter when given in doses sufficient to reduce the reflex irritability of the bronchial, tracheal and laryngeal mucous membranes.

THE PROBLEM  
HAS BEEN SOLVED BY  
the pharmaceutical compound known as

GLYCO-HEROIN (Smith)

The results attained with Glyco-Heroin (Smith) in the alleviation and cure of cough are attested by numerous clinical studies that have appeared in the medical journals within the past five years.

Scientifically Compounded, Scientifically Conceived, GLYCO-HEROIN (SMITH) simply stands upon its merits before the profession, ready to prove its efficacy to all who are interested in the advances in the art of medication.

N O T E .

Glyco-Heroin (Smith) is supplied to the druggist in alternate ounce dispensing bottles only. The quantity ordinarily prescribed by the physician is five, three or two ounces.

D O S E .

The adult dose of Glyco-Heroin (Smith) is one teaspoonful, repeated every two hours or at longer intervals, as the case may require. Children of ten or more years, from a quarter to a half teaspoonful. Children of five years or more, five to ten drops.

SEE NEAREST DRUGGIST.

THOMAS CHRISTY & CO.,      HARTMAN & SMITH & CO., Chemists,  
60 WEST 14TH STREET, LONDON, E. C.      NEW YORK CITY.

Samples and Literature      Supplied on Request.



Peyote cactus (*Lophophora williamsii*)

