# Evolution of Fruits

- Following pollination, the ovary walls grow and mature into fruit
- The fruit plays an important role in the dispersal of seeds to new areas suitable for germination and establishment
- The seed is enclosed within protective layers of the seed coat
- Seeds carry with them a high energy food source

- These fruit and seed adaptations guarantee that seeds arrive at their final destination well protected, well fed, and ready to germinate

# Fruit Dispersal

- We will look at the following categories of fruit and determine the adaptations for dispersal and the agent of dispersal:
    - FLESHY
    - NUTS
    - DRUPES WITH A HUSK
    - SAMARAS
    - LEGUMES
    - "STICK-TIGHTS"
    - "PARACHUTE"

# FLESHY

- Sweet, juicy fruit that animals like to eat

- Hard seeds that withstand digestive enzymes

- Examples- apple, tomato, plum, strawberry

# NUTS

- A stony fruit attached to the plant by a cup at the base

- Produced in large numbers

- Have soft seeds inside that cannot withstand damage

- Examples- acorns, hickory nuts, chestnuts

# DRUPES WITH A HUSK

- Fruit is thick but light (air trapped inside)
- Fibrous husk surrounding a seed
- Often plants on islands have this type of fruit
- Example- coconut

# SAMARAS

- Small seed attached to a thin flattened wing of tissue

- Example- Maple, Ash, Elm

# LEGUMES

- A pod, with seeds inside, that splits down two seams

- The seeds are usually tossed out when the pod splits apart

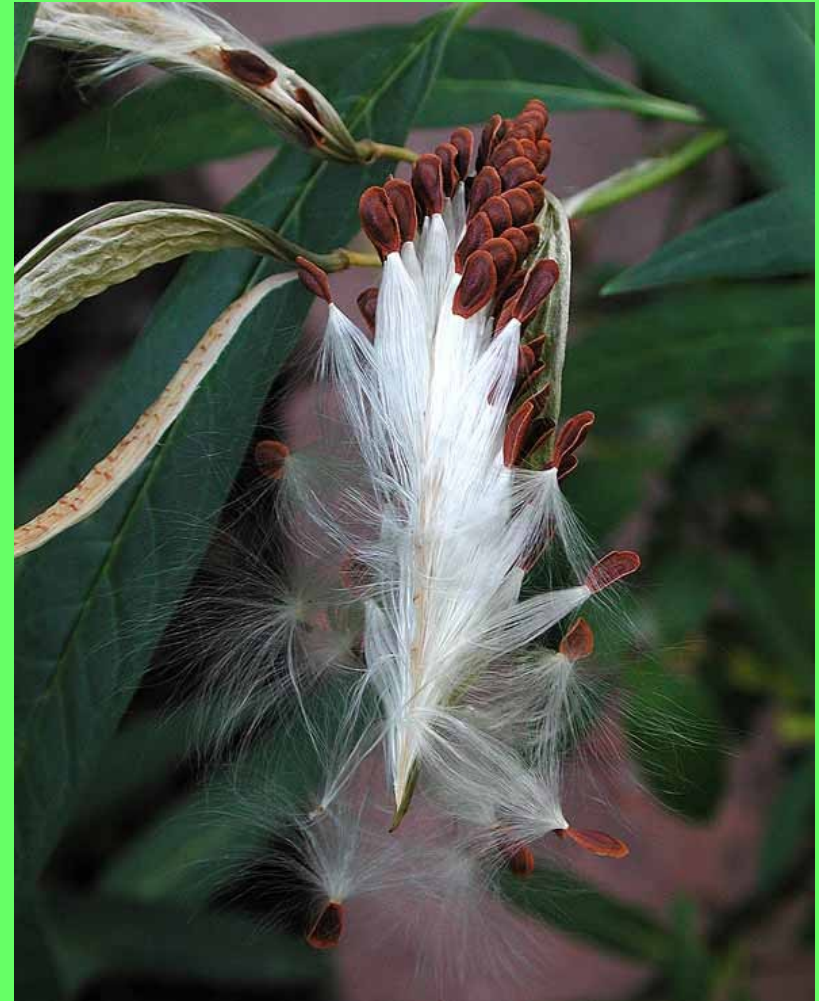- Examples- peanuts, green beans, sweet peas, lentils, witch hazel, impatiens

# "STICK-TIGHTS"

- Adaptation for dispersal are hooks, barbs or spines

- Examples- Burdock, Queen Anne's Lace, Cocklebur, Teasel

# "PARACHUTES"

- Adaptations for dispersal are feathery hairs that are attached to the seeds

- Examples- Dandelion, Milkweed, Willow, Quaking Aspen

# Agents of Dispersal

- Can you figure out the agent of dispersal for each category of fruit?
- The agents of dispersal are:
  - Animals
  - Wind
  - Water
  - Mechanical/Force