BIOL 305L Spring 2020
Laboratory Four
A dictionary of botanical terminology of fruits

This list of terms has been adapted from a free web resource by **CACTUSPEDIA,** entitled ***The fascinating world of cacti and succulents.*** This website can be found at: http://www.cactuspedia.info/index.htm

Fruit Terminology

A fruit is the ripened ovary or ovaries of a flowering plant, together with accessory parts consolidated with it, containing the seeds and occurring in a wide variety of forms and to some extent assists in the dissemination of the seeds. Typically a fruit start to develop after that an ovule is fertilized as a result of the process of pollination, the ovary begins to enlarge. The petals of the flower drop and the ovule develops into a seed.

The ovary, together with accessory parts of the flower or other organs (e.g. scales, bracts, modified branches, perianth, or inflorescence parts.) comes to form a structure surrounding the seed or seeds that is the fruit. Fruit development continues until the seeds have matured.

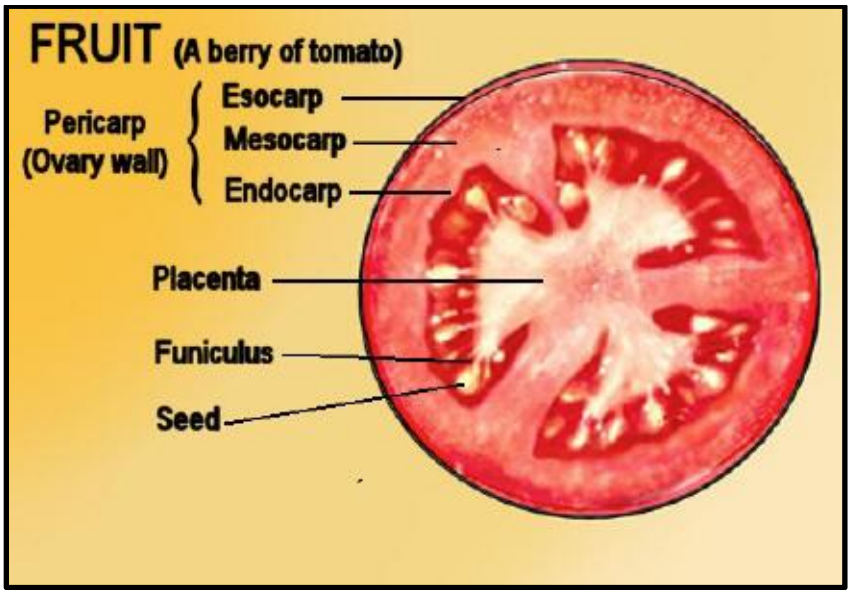

Figure1: The internal structure of a tomato fruit

Fruits may be pulpy or dry and are classified in three basic types:

1. **Simple fruit** Derived from the ripening of a simple or compound ovary with but one pistil.

2. **Aggregate fruit** Derived from a flower with numerous simple pistils.

3. **Multiple fruit** Derived from a cluster of flowers (called an inflorescence).

Dry fruits can also be divided in:

1. **Dehiscent** Opening to discharge seeds.
2. **Indehiscent** Not opening to discharge seeds.

The fruit is a complex structure composed of many different parts. Some of the more common terms used for describing a fruit are:

- **Pericarp:** The fruit wall, often composed of three layers: epicarp, mesocarp, and endocarp.
- **Epicarp or exocarp** (also called **ectocarp**) The outermost layer of the pericarp (the skin).
- **Mesocarp:** The middle layer of the pericarp (the fleshy pulp).
- **Endocarp:** The innermost layer of the pericarp (the stone or pit).
- **Mericarp.** A portion of fruit that seemingly matured as a separate fruit.
- **Carpel:** The basic unit of an ovary formed from one highly modified leaf.
- **Fruitlet**: Any of the unit that make up a schizocarpic fruit
- **Locule:** A chamber or cavity of a fruit.
- **Pit or Stone:** The hardened endocarp of a drupe or drupelet.
- **Sarcocarp:** Any internal fleshy layer of a fruit.
- **Seed:** Mature ovules composed of a seed coat, endosperm, and embryo.
- **Funiculus:** Seed stalk.
- **Placenta:** Region of attachment of seeds on inner fruit wall.
- **Segment:** A division or portion of a fruit. Usually these correspond to the locules.
- **Septum or Dissepiment.:** A partition between two fused carpels.
- **Valves:** The parts of the pericarp (fruit wall) that are separated at dehiscence.
- **Peduncle:** The stalk connecting a fruit to the main stem

Fruit and Seed dispersal:

Dispersal is the natural process of dispersing of plant fruit and seeds over a wide area. There are six common means of dispersal:

- **Anemochory:** Dispersal by wind.
- **Autochory:** Dispersal by physical expulsion, often explosively.
- **Endozoochory:** Dispersal through animal ingestion and excretion.
- **Epizoochory:** Dispersal by attachment to fur or feathers.
- **Hydrochory:** Dispersal by water.
- **Myrmecochory:** Dispersal by ants.

Other term relating to fruit:

- **False fruit:** a fruit-like structure that resembles a fruit but is not derived from a flower or flowers. (for example, some gymnosperms, have fleshy arils or fleshy cones that resemble fruits).

- **Parthenocarpic** of seedless fruit that develops in the absence of pollination/fertilization of ovules.

- **Acarpous** is a plant that does not produce fruit.

- **Cryptocarp** is a fruit which is retained concealed buried inside of the stem of the plant.