

#### **The Strawberry Plant**



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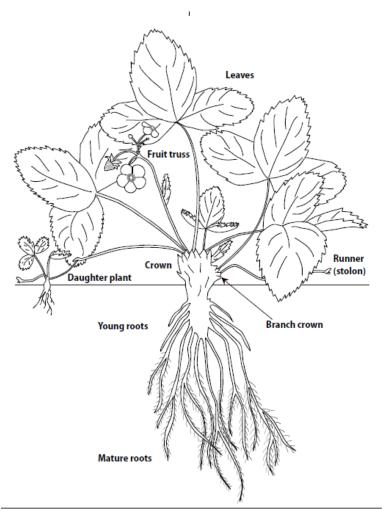
## **Strawberry Plant**

 Basic understanding the biology of the strawberry plant will help growers to be more successful in their strawberry production systems





## The Plant



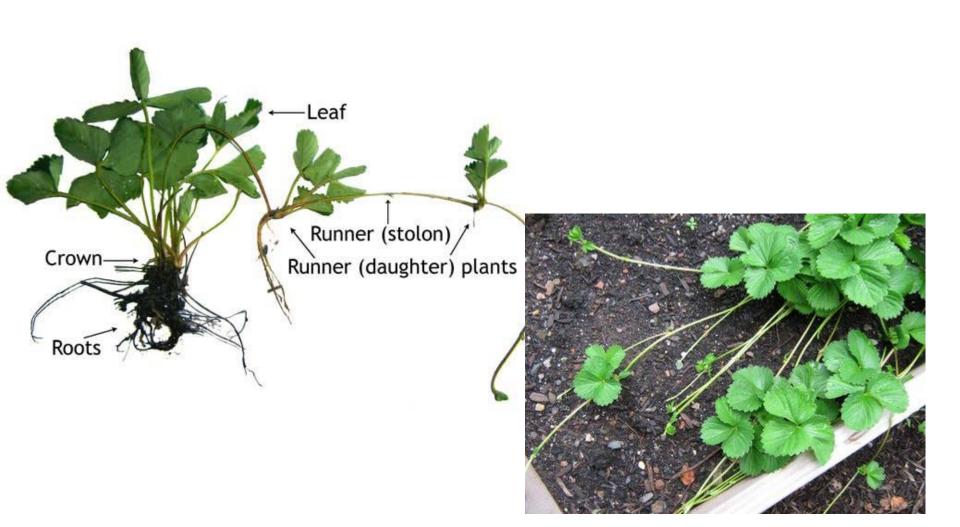
The strawberry plant is a nonwoody perennial plant

• It has a structure called a crown

From this crown the following organs arise

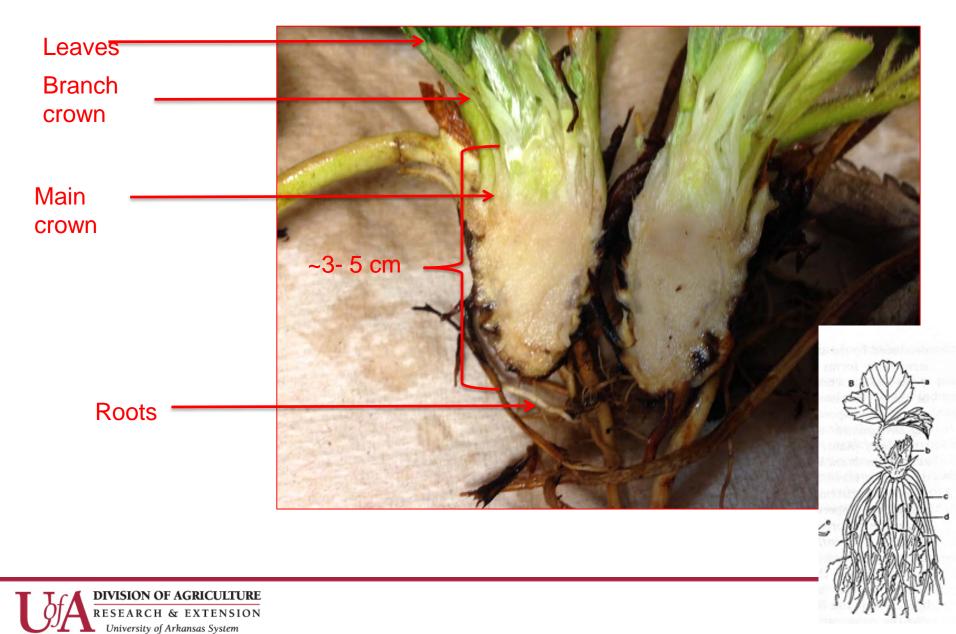
- Leaves
- Flowers (later fruit)
- Stolons- runners
- Root system







### The Crown: A Cross Section



#### Leaves

- Compound pinnate and trifoliate
  - Three leaflets
  - Live a few months

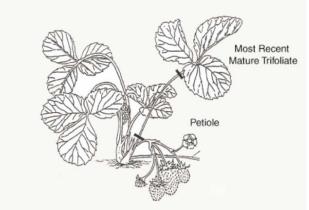


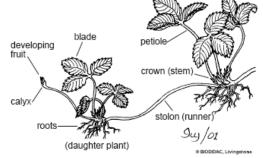
Figure 1. Proper Leaf and Petiole Samples Ensure Reliable Results





## **Stolons or Runners**

- Stolon: Above ground stem
- A means for asexual plant propagation
- Each stolon can produce new stolons (daughter plants)
- "Mother" plant can transfer water, nutrients, and assimilates to "daughter" plant from several weeks to years



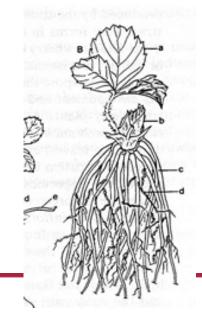




## Roots

- Roots- from the base of leaves on the crown
  - primary roots live for up to one year
  - 50-90% of roots are in the upper 6" of the soil







#### **Flowers**



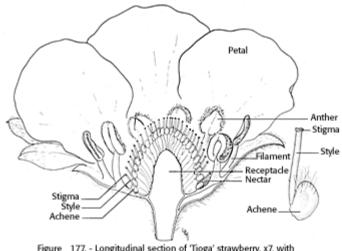


Figure 177. - Longitudinal section of 'Tioga' strawberry, x7, with individual achene and style, x35.

Male and female parts in the same flower Require a pollination agent (insects or wind)



## Photoperiod

- The developmental responses of plants to the relative lengths of the light and dark periods
  - timing of both the light and dark periods



## Photoperiod

- Strawberry cultivars vary greatly in the expression of repeat flowering
- Strawberry cultivars traditionally have been classified into photoperiodic response groups for flowering
- However, since 1936 the influence of temperature on flower initiation in strawberry was noted



# **Strawberry Flowering Types**

- Short day plants (June bearer)
  - Initiate flowers when photoperiod <14 hr</li>
  - Chandler
- Long day plants
  - Require photoperiods > 12hrs
  - Not used commercially
- Day neutral (Ever bearer)
  - photoperiods 9 to 16 hrs



## **Buying Plants**

Bare root- dormant plants





### Questions?



