**2019 York County Master Gardener**

**Open Book Review # 3**

**Due in Class June 19th!!**

This review is open book take home – use any and all resources, including consulting/working together with fellow MGs if you wish.

Please write **CLEARLY** or type your answers on the computer. You may submit your review as a email attachment of if you choose, print it and bring it to class completed.

**Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Home Garden Plant Disease**

1. What is an example of an abiotic plant disease?
2. Choose 1. The majority of biotic plant disease are caused by (Fungal/Bacterial/Viral) pathogens?
3. What are the three components of the disease triangle, and how would you use this knowledge to combat plant disease in the home garden?

**Insects in the Home Garden**

1. The three distinct body regions of an insect are called:
2. Aphids have: a) chewing b) sucking c) sponging mouthparts.
3. Beetles have: a) chewing b) sucking c) sponging mouthparts.
4. Butterflies undergo \_\_\_\_\_\_\_\_\_\_\_ metamorphosis.
5. Squash bugs undergo \_\_\_\_\_\_\_\_\_\_\_ metamorphosis.

**Weed Management**

1. When cultivating the soil for weed management, why is it recommended to cultivate shallow just below the soil surface?
2. From question 9, at what plant stage (developmental stage) does shallow cultivation work the best?

 At what plant stage is it less effective?

1. How does knowing whether a particular weed is an annual or a perennial help in developing a control strategy?
2. Listed below are five weeds commonly found in the home garden. For each weed, fill the table below with the pertinent botanical information.

**Hint**: Use the New Jersey Weed Gallery: <http://njaes.rutgers.edu/weeds/> or the UMass Extension Weed Herbarium: <https://extension.umass.edu/landscape/weed-herbarium>

|  |  |  |  |
| --- | --- | --- | --- |
| **Common Name** | **Botanical Name** | **Life Cycle (annual/biennial/perennial)** | **Reproduction Method** |
| Redroot Pigweed |  |  |  |
| Field Bindweed |  |  |  |
|  | Celastrus orbiculatus  |  |  |
|  | Rumex crispus |  |  |
| Asiatic Bittersweet |  |  |  |

**Drip Irrigation and Rain Barrels:**

1. Why does drip irrigation allow water to penetrate the soil more deeply than in using an overhead sprinkler system? **Hint**: refer to the fact sheet on drip irrigation from the blog post.
2. A rain barrel must be elevated by \_\_\_\_\_\_ feet above the garden surface to gain 1 Pound per Square Inch (PSI) of pressure. **Hint**: refer to the fact sheet on drip irrigation from the blog post.
3. I have an 1800 sq. ft. roof. It rains 1 inch. How much water has run off this roof?

(Hint refer to fact sheet from blog on Rain Harvesting)

**Raised Beds**

1. List 3 advantages and 3 disadvantages for gardening in raised beds.

Advantages:

Disadvantages:

1. Why is it recommended that raised beds be no wider than 4 feet?
2. Raised beds have limited space, therefore, what are some strategies (list 3) you could adopt for to plan for a continuous harvest and keep the bed full all season long?

**Herbaceous Plants**

1. Why are native plants more important for local flora and fauna than plants which, while they are not invasive, did not evolve here?
2. List 5 herbaceous plants (common name and Latin names) native to Maine that would both do well in the landscape and also support native pollinators:
3. List 4 considerations you would take into account for determining what is the “Right Plant for the Right Place”:

**Woody Ornamental Plants**

1. Describe how you would prune a multi-stemmed shrub such as Red Twig Dogwood or Lilac:
2. List 5 woody ornamental plants (common name and Latin names) native to Maine that would both do well in the landscape and also support native pollinators:

**Extra Credit:**

Complete this original poem☺:

*Trillium erectum* is Red

*Delphinium elatum* can be Blue

*Solanum lycopersicum* dancein Frank’s head

*Lavandula angustifolia* is for Sue