

2018 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: _____

Botany for Gardeners Part II

1. Diagram a flower and label the 4 major parts: Petals, Sepals, Stamens and Pistil:
2. Transpiration:
Please Describe how water:
 - a. enters a plant:

 - b. travels through it:

 - c. is lost through evaporation/transpiration:
3. How do the following increase or decrease, evaporation/transpiration in plants?
 - a) High Humidity

 - b) Windy conditions

 - c) Cloudy day

 - d) Cold Temperatures
4. Corn flowers are (monoecious, dioecious, trioecious) and how did you determine that?

5. What is photosynthesis, name four inputs necessary for it to occur and where does it take place in the plant?

Hunger in Maine

6. How many people in Maine are considered Food Insecure?
7. How does Maine rank in the level of food insecurity compared to the other New England States?
8. What are the main causes of Hunger in Maine?
9. How can a person be obese yet food insecure?

Home Garden Plant Disease

10. What is an example of an abiotic plant disease?
11. Choose 1. The majority of biotic plant disease are caused by (Fungal/Bacterial/Viral) pathogens?
12. 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

13. The three distinct body regions of an insect are called:
14. Aphids have: a) chewing b) sucking c) sponging mouthparts.
15. Beetles have: a) chewing b) sucking c) sponging mouthparts.
16. Butterflies undergo _____ metamorphosis.
17. Squash bugs undergo _____ metamorphosis.

Weed Management

18. When cultivating the soil for weed management, why is it recommended to cultivate shallow just below the soil surface?
19. From question 7 above, at what plant stage (developmental stage) does shallow cultivation work the best and at what plant stage is it less effective?

20. How does knowing whether a particular weed is an annual or a perennial help in developing a control strategy?

21. 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	Reproduction Method
Pigweed			
Field Bindweed			
	Celastrus orbiculatus		
	Rumex crispus		
Canada Thistle			

Drip Irrigation and Rain Barrels:

22. 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.

23. 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.

Raised Beds

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

Advantages:

Disadvantages:

25. Why is it recommended that raised beds be no wider than 4 feet?

26. 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?

Landscape Design:

27. What questions should you consider when preparing to design a landscape?

28. What is the difference between a site analysis and site inventory?

29. Why is it important to have an accurate base map?

Herbs:

30. What is an herb?

31. What are some methods to successfully growing herbs indoors?

32. What should you consider when harvesting and drying herbs?

Extra Credit:

Complete this original poem☺:

Trillium erectum is Red

Delphinium elatum can be Blue

Solanum lycopersicum dance in Frank's head

Lavandula angustifolia is for Sue