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Student ID # _____

CS 053 EXAM 3
November 5, 2007
Landscape Weed Management

1. List the five types of landscape beds IN ORDER from the least post-plant weed management options to the most post-plant weed management options. (5 pts)

2. You had dodder (a parasitic, annual weed) in your petunia bed last year. You wish to plant bedding plants in this area again this spring. Which of the following options would enable you to control this weed in your bedding plants this year? Circle the one best answer. (5 pts)
 - a. Spray with Roundup before planting in the spring.
 - b. Cultivate several times before planting
 - c. Solarize the bed all winter
 - d. Hand weed as necessary
 - e. None of the above

3. When doing a site assessment for a new landscape bed – what is the most important question you need to ask yourself (and answer) [from a weed control perspective]? (2pts)

4. Why are perennial weeds more difficult to control in an herbaceous perennial bed than in bedding plants? (3pts)

5. In October you hired *Joe-Bob's Fancy Landscape Company* to prepare a new landscape bed for planting herbaceous perennials this fall. Match the preferred site preparation method that will provide adequate control for this planting. (5 pts) DO NOT choose fumigation unless no other alternative will work.

_____ Crabgrass
_____ Henbit
_____ Dandelion
_____ Goldenrod
_____ Florida betony

- a. Chemical Fumigation
b. Roundup then rototill
c. Solarize the bed

6. How do mulches control weeds? (2 pts)

7. Give two examples of “toxic” mulch? (4 pts)

8. How much organic mulch should be used for weed control around woody landscape plants? (2 pts)

- a. 2 inches
b. 4 inches
c. 6 inches
d. 8 inches

9. How much organic mulch should be placed on top of a geotextile fabric? (2 pts)

- a. no mulch should be used on fabric
b. 2 inches
c. 4 inches
d. 8 inches

10. Describe methods and steps for proper installation of a geotextile fabric. (5 pts)

11. List at least 5 reasons why geotextiles are not often used in NC landscapes. (5 pts)

12. What is solarization and why does it not work well in NC? (5 pts)

13. You have decided that soil fumigation is the only option for preparing a bed for planting. Describe the site preparation necessary to achieve optimal results (at least five items) (5 pts)

14. After treating the soil with chemical fumigants, how long must you wait to remove the tarp and before you can plant? (4 pts)

15. Name the two chemical soil fumigants currently labeled. AND, describe the main difference between the two. (4 points)

16. List the 4 dinitroaniline herbicides commonly used in landscape beds (4 pts)

19. Which dinitroaniline herbicide is least likely to injure herbaceous ornamentals? (2 pts)

20. You have just scouted your woody landscape bed and found that it is infested with a new weed – hoary bolesia. This weed is a winter annual broadleaf that was introduced on contaminated nursery plants that were installed last year. Of the preemergence herbicides that we discussed in class -- which one would be most likely to control this weed? (3 pts)

And, When would you apply this herbicide? (3 pts)

21. Barricade and Regalkade contain the same active ingredient. XL and Surflan both contain oryzalin. Why are Regalkade and XL much safer on herbaceous ornamentals than Barricade and Surflan? (3 pts)

22. What Preemergence herbicide controls annual grasses AND yellow nutsedge? (3 pts)

24. **Use the following tables to answer this question.**
You have an azalea, holly, *Euonymus alata compacta* and perennial heuchera bed that is infested with horseweed (a winter-annual), chickweed, crabgrass, phyllanthus (summer annual) and yellow nutsedge.
- A. Design a preemergence weed control program that will control the weeds in this bed and not injure the ornamentals. Include What herbicide (or herbicides) would you use AND when would you make the application(s) in order to control these weeds next year? (10 pts)
- B. If you did not have Heuchera in the bed – would your choice(s) be different? Explain (be specific). (4 pts)

Weed Species	Barricade	Gallery	Pendulum	Pennant	Surflan	Treflan	XL
Bittercress, hairy	p	G	g	P	F	p	f
Chickweed, common	G	G	G	f	G	G	G
Crabgrass	G	P	G	F	G	F	G
Evening primrose	p	f	G	f	g	p	f
Groundsel, common	f	G	p	F	f-g	p	F
Henbit	G	G	G	f	G	g	G
Horseweed (marestail)	f	G	G	p	f	p	f
Morningglory	F	F	F	P	F-G	p	f
Phyllanthus	P	P	P	P	F - G	P	F
Yellow Woodsorrel (Oxalis)	G	G	G	p	G	f	F
Nutsedge, yellow	p	p	p	G	P	p	P

G = good control, F = fair control, P = poor control. Lower case letters indicate information based on research and experience of the author. Upper case letters indicate information derived directly from the herbicide label.

Species	Barricade	Gallery	Pendulum	Pennant	Surflan	Treflan	XL
Azalea	R	R	R	R	R	R	R
Dahlia			R			R	
Cotoneaster	R	R	R	R	R	R	R
Euonymus alata compacta		I	R	R	R	R	R
Heuchera	I	I	R	I	I	R	R
Holly	R	R	R	R	R	R	R
Marigold			R*	I	R	R	R
Magnolia	R	R	R	R	R	R	R
Pansy	I	I	I	R	I	R	R
Salvia	I	I	R	I	I	R	I

R = registered (this species is on the herbicide label)

R* = registered on some species

I = injury has been reported on this species