

Name _____ School _____

**2015 Wyoming State FFA CDE
Agricultural Technology and Mechanical Systems
Environmental and Natural Resources**

Your parents have recently retired and have put you in charge of the family farm. It is mid-late May and all of your heifers have calved leaving you with 75 cow-calf pairs in your calving pasture. As a part of your responsibilities managing the farm, you institute a rotational grazing plan to maximize the land you have to use for this purpose. As you are planning for the first rotation, you have 100 acres designated for grazing in late June to place the cows in after branding. You go out to the pasture to check for down fence and loose wire when you notice for the first year the growth of Houndstounge and Wild Licorice. These have been known to have negative effects on cattle, so before moving the cattle in the next month you will need to develop a strategy to remove them. You print off information sheets on these weeds to determine what the best management strategies may be and determine that spraying is the most economical solution. Additional research highlights three potential herbicides for use.

Analyze the provided documents to assist in making the best selection for your use considering the following:

Herbicide	Unit cost	Unit spray	Unit coverage		Conversion factors:
2-4 D	\$55.95/ 2.5 gallons	2 quarts*	1 acre		1 quart = 32 ounces
Tordon 22k	\$97.42/2.5 gallons	0.5 pints	1 acre		1 quart = 2 pints
Escort	\$85.95/ 8 ounces	2 ounce	1 acre		1 quart = 0.25 gallons
*1 quart 2-4 D is used if mixed with another herbicide					

Questions:

- 1) Determine the precise costs of each herbicide prior to determining your treatment plan. **Provide all work and answers in the allotted space.**

2-4 D =

Tordon 22K =

Escort =

- 2) Which spray(s) will you use to control your weed problem? **Refer to packet and briefly explain your choice.**
- 3) How much will the total treatment cost be? Total cost =
- 4) You are on a limited budget so you decide to keep your treatment options open. You decide to use another method of treatment alongside or separate from herbicide use. What method(s) would be effective for control of both pest species? **Refer to packet.**

Criterion	Points possible	Points earned
Correct Chemical Choice - #2	13	
Questions # 1, 3, 4	15 (5 pts. ea.)	
Safety	2	

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