

**2014 Cowboy Classic  
Agricultural Technology and Mechanical Systems  
Environmental and Natural Resources**

As part of an internship with the University of Wyoming Plant Specialist Extension program, you have been selected to work with local farmers to incorporate Integrated Pest Management (IPM) as a part of their crop management practices. You have been assigned to work with Mr. Christopher Lindt with alfalfa weevil eradication in his alfalfa operation. Mr. Lindt has 50 acres of irrigated alfalfa scheduled to be harvested in 9 days, that is in rotation with corn on alternate years, so it is important that chemigation practices are not utilized as a part of the management plan. The chemical controls that you are investigating for use include Mustang Max; Baythroid 2; and Lannate LV. Determine which of the chemicals is the most appropriate for this crop operation.

**The back may be used for calculations.**

Costs of Products	Cost per Gallon	Application Rates	Conversions
Mustang Max	\$72.00	2.24 – 4.0 Ounces / Acre	1 pint = 16 oz.
Baythroid 2	\$84.00	1.6 – 2.8 Ounces / Acre	
Lannate LV	\$50.27	1.5 – 3 pints/Acre	

**Calculate the following:**

Which Insecticide is the most logical choice for this application?	How much insecticide concentrate in ounces will you need to cover the entire field?
Lannate LV	50 ac. X 1.5 = 75 X 16 = 1200 ounces 50 ac. X 3 = 150 X 16 = 2400 ounces
How many gallons of concentrate will need to be mixed?	What is the total cost of the insecticide that will be used on your alfalfa?
1200 / 128(Ounces per gallon) = 9.375 gallons 2400 / 128(Ounces per gallon) = 18.75 gallons	9.375 X \$50.27 = \$471.28 18.75 X \$50.27 = \$942.56

Criterion	Points possible	Points earned
Questions	28 (7 points ea.)	
Safety	2	