

**2014 Wyoming State FFA CDE
Agricultural Technology and Mechanical Systems
Environmental and Natural Resources**

You have recently graduated with an agronomy degree from the University of Wyoming and are employed as a manager at TTR Custom Farming Solutions in Riverton WY. One of your clients has decided they want to diversify their crop production choices and decides to include Hard Red Winter Wheat (HRW) for the coming year. Since you have recently graduated, your employer has entrusted you to make all of the decisions for the customer's wheat choice since they are not familiar with its growth habits and the costs associated with it. In order to ensure enough farmland for the wheat for the coming season, the farmer has leased 40 acres of land specifically for growing HRW. A concern however is the "Orange Blossom Wheat Midge" which is considered to be a major pest to HRW. Three choices of insecticides are suitable for control of this pest.

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

Chemical must be a systemic, applied by ground application, and can be used within 45 days of harvest.

1. Which of the chemicals will be the best application choice for control of the Orange Blossom Wheat Midge?
Cygon 480-AG

2. What will be the total chemical cost?

1-liter concentrate per ha 40 acres = 16ha
 $\$6.46 \times 16 = \103.36

1 acre = .40 ha	
Cheminova Methyl - 4 EC	\$33.25 - liter
Lorsban 4E	\$8.78 - liter
Cygon 480 - AG	\$6.46 - liter

After you have determined the appropriate chemical for your purposes and considering the following information, calculate your potential profit for the production of Hard Red Winter Wheat (Show all work)

1 acre = $\$42.00 + \$18.00 + \$62.00 = 122.00$ per acre
 40 acres X 122.00 = \$4880.00
 $\$4880.00 + \$103.36 = \$4983.36$ Total Costs

Projected market price	\$6.67/bushel
Production costs	\$42/acre
Harvest and transportation cost	\$18/acre
Land lease	\$62/acre
Estimated production per acre = 37 bushels HRW	

1 acre = $\$6.67 \times 37 = \246.79 per acre
 40 acres X \$246.79 = \$9871.60 Total Income

$\$9871.60 - \$4983.36 = \$4888.24$ Profit

Criterion	Points possible	Points earned
Correct Chemical Choice	15	
Total Chemical Cost	6	
Correct Profit Calculation	6	
Safety	3	

Name _____ School _____ Contestant Number _____