2010-2011 LEASE WORKSHOPS
Using Excel Spreadsheets
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Exercise 1 – Create a Table for Production Inputs to Be Used in the Crop Budget

Situation: You want to create a crop budget for your operation. Inputs include seed, fertilizer, pesticides, and drying costs, as well as a cell for the interest rate on operating expenses. These inputs are for three crops: wheat, grain sorghum and soybeans.

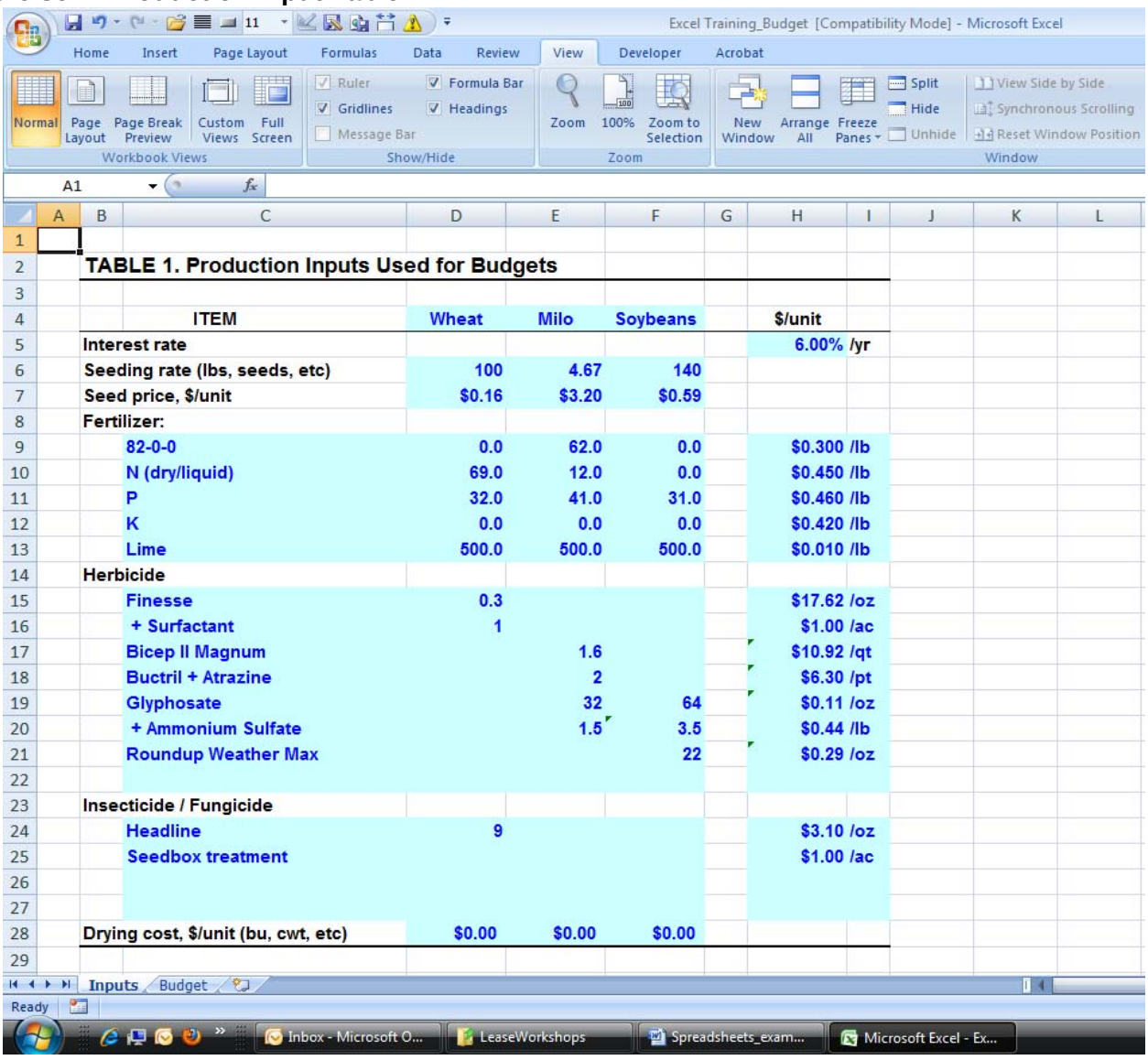
The following table lists the per acre expected use of inputs and their costs.

	Wheat	Milo	Soybeans	Cost/unit
Interest rate (%)				6.00% / yr
Seeding rate (lbs)	100	4.67	140	
Seed price ($/lb)	$0.16	$3.20	$0.59	
Fertilizer: 82-0-0	0.0	62.0	0.0	$0.300 / lb
Fertilizer: N (dry/liquid)	69.0	12.0	0.0	$0.450 / lb
Fertilizer: P	32.0	41.0	31.0	$0.460 / lb
Fertilizer: K	0.0	0.0	0.0	$0.420 / lb
Fertilizer: Lime	500.0	500.0	500.0	$0.010 / lb
Herbicide: Finesse	0.3			$17.62 / oz
Herbicide: Surfactant	1.0			$1.00 / ac
Herbicide: Bicep II Magnum		1.6		$10.92 / qt
Herbicide: Buctril_Atrazine		2.0		$6.30 / pt
Herbicide: Glyphosate		32.0	64.0	$0.11 / oz
Herbicide: Ammonium Sulfate		1.5	3.5	$0.44 / lb
Herbicide: Roundup WeatherMax			22.0	$0.29 / oz
Insecticide: Headline	9			$3.10 / oz
Insecticide: Seedbox treatment				$1.00 / ac
Drying cost ($/bu)	$0.00	$0.00	$0.00	

What to do:

1. Create the spreadsheet with these values in it. An example of the finished budget is on the next page.

Exercise 1: Production Input Table



Exercise 2 – Constructing crop budgets and calculating breakeven prices and yields

Situation: Using the previously created input spreadsheet, now create crop budgets for the three crops, as well as breakeven prices and yields, for a 1600 acre farm, with 800 acres of wheat, 400 acres of grain sorghum and 400 acres of soybeans. Yields, crop prices and other information are below:

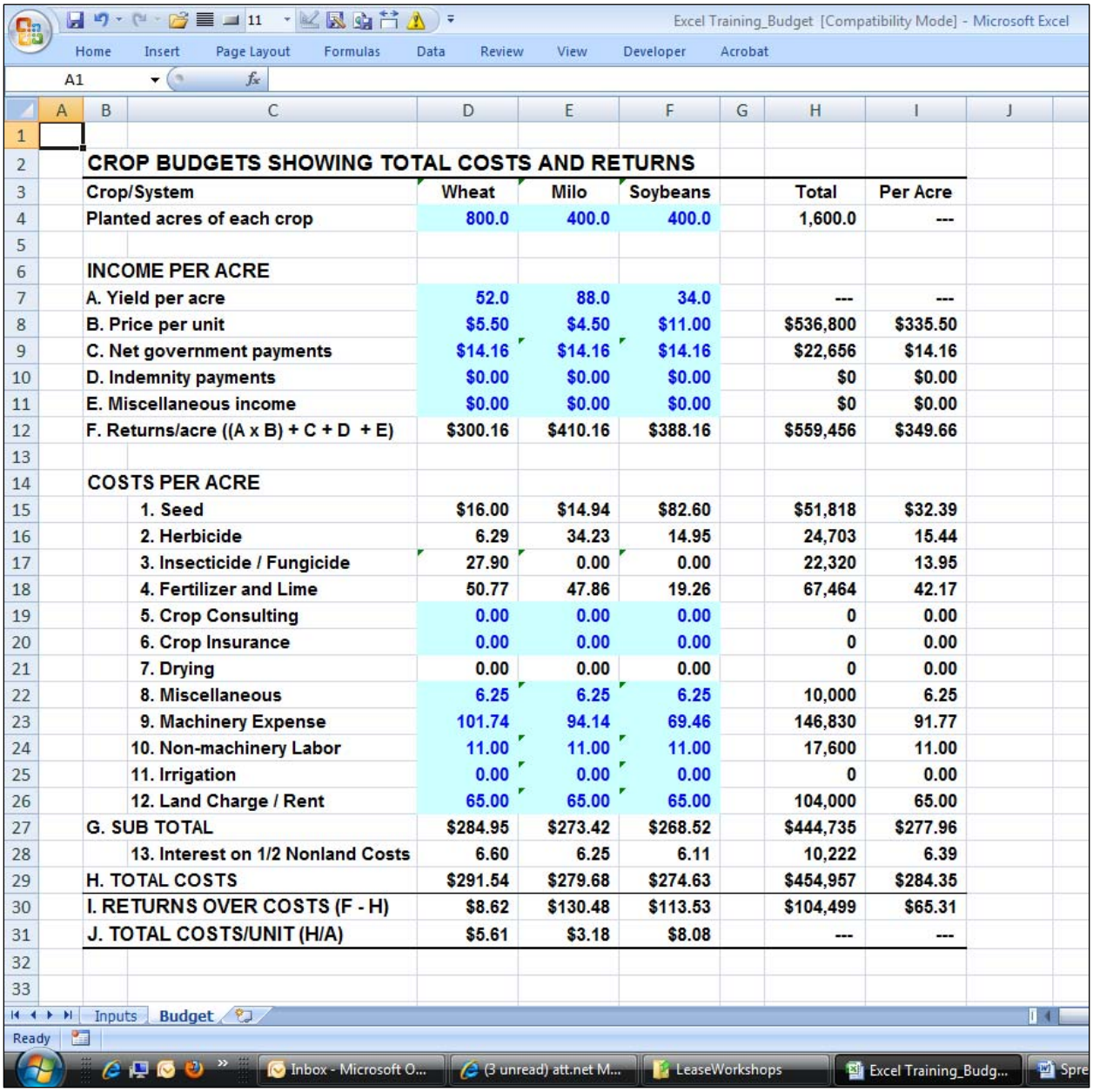
	Wheat	Milo	Soybeans
Yield	52	88	34
Price	$5.50	$4.50	$11.00
Government payment	$14.16	$14.16	$14.16
Miscellaneous expenses	$6.25	$6.25	$6.25
Machinery expenses	$101.74	$94.14	$69.46
Land rent charge	$65.00	$65.00	$65.00
Interest	6% on ½ of non-land expenses		

What to do:

1. Create the budget, as shown below. Use input values from the input table (do NOT enter those numbers directly).

2. Create formulas to calculate your total costs and total costs per acre.

3. Calculate the “RETURNS OVER TOTAL COSTS” and “TOTAL COSTS PER UNIT”.



CROP BUDGETS SHOWING TOTAL COSTS AND RETURNS						
Crop/System	**Wheat**	**Milo**	**Soybeans**		**Total**	**Per Acre**
Planted acres of each crop	**800.0**	**400.0**	**400.0**		**1,600.0**	**---**
INCOME PER ACRE						
A. Yield per acre	**52.0**	**88.0**	**34.0**		**---**	**---**
B. Price per unit	**$5.50**	**$4.50**	**$11.00**		**$536,800**	**$335.50**
C. Net government payments	**$14.16**	**$14.16**	**$14.16**		**$22,656**	**$14.16**
D. Indemnity payments	**$0.00**	**$0.00**	**$0.00**		**$0**	**$0.00**
E. Miscellaneous income	**$0.00**	**$0.00**	**$0.00**		**$0**	**$0.00**
F. Returns/acre ((A x B) + C + D + E)	**$300.16**	**$410.16**	**$388.16**		**$559,456**	**$349.66**
COSTS PER ACRE						
1. Seed	**$16.00**	**$14.94**	**$82.60**		**$51,818**	**$32.39**
2. Herbicide	**6.29**	**34.23**	**14.95**		**24,703**	**15.44**
3. Insecticide / Fungicide	**27.90**	**0.00**	**0.00**		**22,320**	**13.95**
4. Fertilizer and Lime	**50.77**	**47.86**	**19.26**		**67,464**	**42.17**
5. Crop Consulting	**0.00**	**0.00**	**0.00**		**0**	**0.00**
6. Crop Insurance	**0.00**	**0.00**	**0.00**		**0**	**0.00**
7. Drying	**0.00**	**0.00**	**0.00**		**0**	**0.00**
8. Miscellaneous	**6.25**	**6.25**	**6.25**		**10,000**	**6.25**
9. Machinery Expense	**101.74**	**94.14**	**69.46**		**146,830**	**91.77**
10. Non-machinery Labor	**11.00**	**11.00**	**11.00**		**17,600**	**11.00**
11. Irrigation	**0.00**	**0.00**	**0.00**		**0**	**0.00**
12. Land Charge / Rent	**65.00**	**65.00**	**65.00**		**104,000**	**65.00**
G. SUB TOTAL	**$284.95**	**$273.42**	**$268.52**		**$444,735**	**$277.96**
13. Interest on 1/2 Nonland Costs	**6.60**	**6.25**	**6.11**		**10,222**	**6.39**
H. TOTAL COSTS	**$291.54**	**$279.68**	**$274.63**		**$454,957**	**$284.35**
I. RETURNS OVER COSTS (F - H)	**$8.62**	**$130.48**	**$113.53**		**$104,499**	**$65.31**
J. TOTAL COSTS/UNIT (H/A)	**$5.61**	**$3.18**	**$8.08**		**---**	**---**