

Answer sheets

Business costs: Activity 3

Scenario 1- Budget	Option 1	Option 2	Option 3	Option 4	Option 5
	Buy outright	Buy 50% Lease 50%	Lease all	Lease 50%	Do nothing
Gross farm income	\$1,421,000	\$1,421,000	\$1,421,000	\$1,298,500	\$1,176,000
Operating costs	\$ 942,500	\$ 942,500	\$ 942,500	\$861,250	\$ 780,000
Additional lease costs	\$	\$ 12,500	\$ 25,000	\$ 12,500	\$ -
Operating surplus	\$ 478,500	\$ 466,000	\$453,500	\$424,750	\$ 396,000
Depreciation + managerial allowance	\$ 212,000	\$212,000	\$212,000	\$212,000	\$ 212,000
EBIT	\$ 266,500	\$254,000	\$241,500	\$212,750	\$ 184,000
Total debt	\$1,900,000	\$1,650,000	\$1,400,000	\$1,400,000	\$1,400,000
Finance costs (Interest costs, fees and charges)	\$ 142,500	\$ 123,750	\$ 105,000	\$ 105,000	\$ 105,000
Debt to income ratio (total debt/gross farm income)	1.34	1.16	0.99	1.08	1.19
Interest coverage ratio (EBIT/finance costs)	1.87	2.05	2.30	2.03	1.75

Term	Calculation	Benchmarks
Debt to income ratio	Total debt/ gross farm income	0.5 to 1.0 = low risk 1.0 to 1.5 = minimal risk 1.5 to 2.0 = medium to high risk 2.0 to 2.5 = high risk >2.5 = critical risk

Term	Calculation	Benchmarks
Interest coverage ratio	EBIT/finance costs	<1 = high risk 1.0 to 1.5 = moderate risk 1.5 to 2.5 = minimal risk > 2.5 = low risk

Business costs: Activity 3

Scenario 2- Low yield	Option 1	Option 2	Option 3	Option 4	Option 5
	Buy outright	Buy 50% Lease 50%	Lease all	Lease 50%	Do nothing
Gross farm income	\$1,207,850	\$1,207,850	\$1,207,850	\$1,103,725	\$ 999,600
Operating costs	\$ 942,500	\$ 942,500	\$ 942,500	\$861,250	\$ 780,000
Additional lease costs	\$ -	\$ 12,500	\$ 25,000	\$ 12,500	
Operating surplus	\$ 265,350	\$252,850	\$ 240,350	\$229,975	\$219,600
Depreciation + managerial allowance	\$ 212,000	\$ 212,000	\$ 212,000	\$ 212,000	\$ 212,000
EBIT	\$ 53,350	\$ 40,850	\$ 28,350	\$ 17,975	\$ 7,600
Total debt	\$1,900,000	\$1,650,000	\$1,400,000	\$1,400,000	\$1,400,000
Finance costs (Interest costs, fees and charges)	\$ 142,500	\$ 123,750	\$ 105,000	\$ 105,000	\$ 105,000
Debt to income ratio (total debt/gross farm income)	1.57	1.37	1.16	1.27	1.40
Interest coverage ratio (EBIT/finance costs)	0.37	0.3	0.27	0.17	0.07

Term	Calculation	Benchmarks
Debt to income ratio	Total debt/ gross farm income	0.5 to 1.0 = low risk 1.0 to 1.5 = minimal risk 1.5 to 2.0 = medium to high risk 2.0 to 2.5 = high risk >2.5 = critical risk

Term	Calculation	Benchmarks
Interest coverage ratio	EBIT/finance costs	<1 = high risk 1.0 to 1.5 = moderate risk 1.5 to 2.5 = minimal risk > 2.5 = low risk

Business costs: Activity 3

Scenario 1- High Yield	Option 1	Option 2	Option 3	Option 4	Option 5
	Buy outright	Buy 50% Lease 50%	Lease all	Lease 50%	Do nothing
Gross farm income	\$1,705,200	\$1,705,200	\$1,705,200	\$1,558,200	\$1,411,200
Operating costs	\$ 942,500	\$942,500	\$942,500	\$ 861,250	\$780,000
Additional lease costs	\$ -	\$37,500	\$75,000	\$37,500	
Operating surplus	\$ 762,700	\$ 725,200	\$687,700	\$ 659,450	\$ 631,200
Depreciation + managerial allowance	\$ 212,000	\$ 212,000	\$ 212,000	\$ 212,000	\$ 212,000
EBIT	\$ 550,700	\$513,200	\$475,700	\$447,450	\$ 419,200
Total debt	\$1,900,000	\$1,650,000	\$1,400,000	\$1,400,00	\$1,400,000
Finance costs (Interest costs, fees and charges)	\$ 142,500	\$ 123,750	\$ 105,000	\$ 105,000	\$ 105,000
Debt to income ratio (total debt/gross farm income)		0.97		0.90	
Interest coverage ratio (EBIT/finance costs)	3.86		4.53		3.99

Term	Calculation	Benchmarks	Term	Calculation	Benchmarks
Debt to income ratio	Total debt/ gross farm income	0.5 to 1.0 = low risk 1.0 to 1.5 = minimal risk 1.5 to 2.0 = medium to high risk 2.0 to 2.5 = high risk >2.5 = critical risk	Interest coverage ratio	EBIT/finance costs	<1 = high risk 1.0 to 1.5 = moderate risk 1.5 to 2.5 = minimal risk > 2.5 = low risk