

## APPENDIX

### 1) Depreciation and Interest Rate Calculations:

	Depreciation Rates		
	1st year	all other years	remaining value after 15 years
Tractors	15%	12.0%	14.2%
Trucks, tillage and harvesting equip.	18%	14.4%	9.3%
Hay and forage equipment	20%	16.0%	7.0%

Interest costs are based on the average value of the machine over a 15 year life, using annual depreciated values calculated from the above rates. The interest costs are calculated using the beginning value for each year. (see Table below).

### Depreciation and Interest Cost Table for \$100,000 tractor (interest rate 4%)

Year	Depreciation rate	Depreciation	Value	Interest
0	15%		\$100,000	
1	12%	\$15,000	\$85,000	\$4,000
2	12%	\$10,200	\$74,800	\$3,400
3	12%	\$8,976	\$65,824	\$2,992
4	12%	\$7,899	\$57,925	\$2,633
5	12%	\$6,951	\$50,974	\$2,317
6	12%	\$6,117	\$44,857	\$2,039
7	12%	\$5,383	\$39,474	\$1,794
8	12%	\$4,737	\$34,737	\$1,579
9	12%	\$4,168	\$30,569	\$1,389
10	12%	\$3,668	\$26,901	\$1,223
11	12%	\$3,228	\$23,673	\$1,076
12	12%	\$2,841	\$20,832	\$947
13	12%	\$2,500	\$18,332	\$833
14	12%	\$2,200	\$16,132	\$733
15	12%	\$1,936	\$14,196	\$645
	15 year average	\$5,720	\$46,002	\$1,840

**Example:** Tractor costing \$100,000 new. Average annual depreciation for 15 year life is \$5720. Average annual interest cost at 4% interest rate is \$1840.

Hourly depreciation at 450 hours/year	\$5720/450=	\$12.71 per hour
Hourly interest cost :	\$1840/450=	\$4.09 per hour
Insurance and housing cost is 1%/yr	\$1000/450=	\$2.22 per hour
<b>Total fixed costs:</b>		<b>\$19.02 per hour</b>

### 2) Grain Drying Example: Stationary Batch(250 bu.),\$50,000, 150 hr./yr, Wheat from 17% to 14.5%

Ambient Temp. of -7 degrees C, Drying rate of 200 bu./hr.

Custom Rate: (from Table on Page 21)	\$55.07 per hour
Propane Cost: \$0.12/bu. x 1.5 x 200 bu./hr.=	\$36.00 per hour
<b>Total Custom Rate -</b>	<b>\$91.07 per hour</b>

### 3) Chart Formulas (pages 34 and 35):

Cost per hectare or acre =	$\frac{\text{cost per hour}}{\text{hectares or acres per hour}}$
Hectares per hour =	$\frac{\text{width in metres} \times \text{speed in km/h} \times \% \text{ efficiency}}{10.0}$
Acres per hour =	$\frac{\text{width in feet} \times \text{speed in mph} \times \% \text{ efficiency}}{8.25}$

**Note:** (80% field efficiency is assumed in the charts)

To determine the cost or rate per hectare, acre, or bale, use the charts provided on the last two pages.

**Example No. 1.** Combine custom rate is \$150/h; the combine covers 9 acres per hour. Cost per acre would be \$16.67 (from chart on page 34).

**Example No. 2.** Seeding with an air seeder. The rental rate for the air seeder is \$85/h and the tractor custom rate is \$45/h. The total hourly rate = \$130/h. The work rate is 8 ha/h. Rate per hectare = \$16.25 (from chart on page 34).

**Example No. 3.** Baler making 14 bales per hour. Baler rental rate = \$33/h. Tractor custom rate is \$23/h. Total hourly rate = \$56/h plus twine. Cost per bale = \$4.00 plus twine. (from chart on page 35).