



NSW DEPARTMENT OF PRIMARY INDUSTRIES

GUIDE TO TRACTOR AND IMPLEMENT COSTS

196 KW PTO (263 HP) AND 242 KW ENGINE (325 HP), powershift

Example tractor : Case IH STX 335, JD 9230 (4WD)

New price: **\$238,550**
 Trade-in price: 45% of new = \$107,348
 Interest rate: 10%

Yearly work: **1000 hrs/yr**
 Age at trade-in: **5000 hrs = 5.00 years**
 Average value: \$172,950

Tractor Overhead Costs		per year cost	per hour cost
Depreciation = (\$238550-\$107348)/5 yrs =		\$26,240	\$26,240 /1000hrs/yr= \$26.24
Interest = ((\$238550+\$107348)/2)*10% =		\$17,295	\$17,295 /1000hrs/yr= \$17.29
Insurance = ((\$10/\$1000)*(\$238550+\$107348)/2) =		\$1,729	\$1,729 /1000hrs/yr= \$1.73
			Tractor Overhead Costs: \$45.26/hr
Tractor Variable Costs			
Item	No.	Cost	Use
Diesel fuel		\$1.12/L	48 L/hr
Engine oil		\$6.20/L	42L/250hrs
Transmission oil		\$6.00/L	122L/1200hrs
Air filter-inner	1	\$78/filter	1000 hrs/filter
Air filter-outer	1	\$121/filter	1000 hrs/filter
Fuel filter	1	\$77/filter	250 hrs/filter
Hydraulic oil filter	2	\$107/filter	250 hrs/filter
Oil filter	1	\$79/filter	250 hrs/filter
Cab filters	1	\$35/filter	1000 hrs/filter
Water filter	1	\$54/filter	250 hrs/filter
Tyres - 620 -70R42	8	\$3,300/tyre	3500 hrs/tyre
Tyres - small	0	\$0/tyre	3500 hrs/tyre
Batteries	1	\$312/battery	2000hrs/battery
Repairs		2% tractor price/yr	
			FUEL: \$53.69/hr
			OIL: \$1.64/hr
			FILTERS: \$1.93/hr
			TYRES: \$7.54/hr
			BATTERIES: \$0.16/hr
			REPAIRS: \$4.77/hr
			Tractor Variable Costs: \$69.73/hr
			TOTAL Tractor Costs per hour: \$115.00/hr
			(Based on 1000 hours work per year)

Example Implements:	(a)New price	(b)Trade-in	(c)Work hours/yr	(d)Trade-in age	Average value
Offset disc: 10.2m width: 8km/ha: 6.528ha/hr	\$50,000	\$17,500	250	9 years	\$33,750
Chisel plough: 11.3m width: 8km/ha: 7.232ha/l	\$79,000	\$27,650	200	9 years	\$53,330
Cultivator: 12.2m width: 10km/ha: 9.76ha/hr	\$67,500	\$23,625	400	9 years	\$45,560
Air seeder: 12.2m width: 10km/ha: 8.54ha/hr	\$152,000	\$53,200	200	4 years	\$102,600
Spray unit: 24m width: 15km/ha: 30.6ha/hr	\$50,000	\$17,500	250	9 years	\$33,750
					\$268,990

Implement	Overhead Costs		Variable costs (g)Repair \$/yr	Variable cost/hour g/c	(h)Total cost/year e+f+g	Total cost/hour h/c
	(e)Depreciation (a-b)/d	(f) Interest ((a+b)/2)*10%				
Offset disc	\$3,611	\$3,375	\$2,500	\$10.00	\$9,486	\$37.94
Chisel plough	\$5,706	\$5,333	\$3,950	\$19.75	\$14,988	\$74.94
Cultivator	\$4,875	\$4,556	\$3,375	\$8.44	\$12,806	\$32.02
Air seeder	\$24,700	\$10,260	\$7,600	\$38.00	\$42,560	\$212.80
Spray unit	\$3,611	\$3,375	\$2,500	\$10.00	\$9,486	\$37.94

Tractor and Implement Combinations

Variable Costs used in budgets

(based on hours/yr work as above)

	\$/hr	Speed
Tractor + Offset disc:	\$79.73/hr	0.15 hrs/ha
Tractor + Chisel plough:	\$89.48/hr	0.14 hrs/ha
Tractor + Cultivator:	\$78.17/hr	0.10 hrs/ha
Tractor + Air seeder:	\$107.73/hr	0.12 hrs/ha
Tractor + Spray unit:	\$79.73/hr	0.03 hrs/ha

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Machine	Width (m)	Speed	Efficiency	ha/hrs	hrs/ha
Offset disc	10.2	8 km/hr	80%	6.53	0.15
Chisel plough	11.3	8 km/hr	80%	7.23	0.14
Cultivator	12.2	10 km/hr	80%	9.76	0.10
Air seeder	12.2	10 km/hr	70%	8.54	0.12
Spray unit	24	15 km/hr	85%	30.60	0.03