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The following production and financial data serves as a practice ranch when learning to calculate Whole Farm Cost of Production using WBDC's Cost of Production Excel Tool.

About ABC Ranch

ABC Ranch is a 200-head cow-calf operation that raises its own replacement heifers, keeps back steer calves at weaning to background and sell the following spring, the ranch makes its own hay and owns pasture land for grazing. Therefore ABC Ranch has five (5) enterprises – each with their own cost of production. Cost of production will be calculated for each enterprise in order for ABC Ranch to determine where the ranch is making money and where the ranch is losing money.

Cow-Calf Enterprise

The bulls are turned out every year to breed the cows on July 1st and are pulled September 1st. Heifers are exposed 2 weeks earlier (June 15th) and the bulls are pulled August 1st. The first calf was born April 5th (1st calvers start calving 2 weeks earlier). Calves are always weaned November 10th and the cows were put back out to bale graze till February 1st. From February 1st to pasture turnout on June 1st the cows were fed a hay diet with some barley supplementation. The cows are then out on grass till end of October.

# Females exposed to breeding in 2013	186 Cows + 35 Heifers
# Bulls used for breeding season	8
# Females determined bred in Fall 2013	200 (170 Cows; 30 Heifers)
Cows culled	24
Bulls culled	2
Cows died	3

2014 Calf Crop

Number of Calves born Spring 2014	196 (96 steers; 100 heifers)
# Calves weaned Fall 2014	Average wt
Steer	93 535
Heifers	96 510
# Calves retained	95 (60 steers; 35 heifers)

Type	Beginning Inventory		Ending Inventory	
	# Head	Value (\$/hd)	# Head	Value (\$/hd)
Bulls	7	\$3500	8	\$3500
Cows	170	\$1250	173	\$1250
Bred Heifers	30	\$1150	30	\$1450

Sales

	No. Head	Avg Wt.	Price (\$/lb)	Total \$
2014 Steer Calves	33	540	\$1.63	\$29,047
2014 Heifer Calves	61	515	\$1.43	\$44,923
Cull Cows	24	1400	\$0.70	\$23,520
Cull Bulls	2	2000	\$0.80	\$3,200

Purchases

	No. Head	Avg Wt.	Price (\$/hd)
Herd Bulls	3		\$3900 ea.

Breeding Herd Winter Feed

The fall/winter prior to this year's calving start, ABC Ranch bale grazed from November 1st till February 1st. After bale grazing the herd was brought closer to the yard and fed hay and some rolled barley. They were fed 40 lb/d hay and 5 lb/hd/day rolled barley till pasture turnout June 1st (120 days). The homegrown hay was valued at \$65/tonne (400 ba) and the barley was bought for \$180/tonne. An additional 300 ba had to be purchased for \$50/ba and fed to the breeding herd. Free choice salt and mineral was also provided.

The bulls were fed 45 lb/d hay (\$65/tonne) and 8 lb/hd/d barley (for 60 d) (paid \$180/tonne) from November 1st till pasture turnout June 1st (212 days).

Breeding Herd Grazing

The cattle were turned out to grass June 1st till November 1st (153 d). Thirty-five pairs were sent to the Community Pasture (breeding field) June 20th until October 25th (total cost: \$5400). Fifty pair grazed rented pasture (280 ac) from June 1st to September 30th (rate: \$0.67/pair/day); 2 herdsires were put out with these cows from July 1-Sept 1. Grazing on ABC Ranch's pasture land is valued at \$1/pair/day (\$0.75/hd/d for replacements and \$1.10/hd/d for herdsires).

Replacement Heifer Enterprise

Replacements are ranch-raised. There were 35 heifers kept back from the previous calf crop which was weaned Nov 10th. The heifers had a market value of \$750 at weaning. During the post-weaning phase the heifers were fed a hay (15 lb/hd/d) and rolled barley (5 lb/hd/d) diet. The hay is homegrown and valued at \$65/tonne. The rolled barley was purchased for \$180/tonne. They were turned out to grass on June 1st (grazing valued at \$0.75/hd/d). Two bulls were turned out for breeding from June 15th till August 1st.

The heifers were pregnancy checked on November 1st. Five opens were sold November 7th, averaging 900 lbs (\$1.20/lb). The 30 bred heifers were transferred to the main herd at a value of \$1450 per head.

Backgrounder Enterprise

Each year ABC Ranch keeps back 60 steer calves to background and sell in Spring. The 60 steers were weaned November 10th averaging 550 lb with an estimated market value of \$1.53/lb. One steer died and the rest were sold March 10th for \$1.32/lb averaging 750 lb (grossing \$58,410).

They were fed hay (18 lb/hd/d) and rolled barley (5 lb/hd/d) diet. The hay is homegrown and valued at \$65/tonne. The rolled barley was purchased for \$180/tonne.

Pasture Enterprise

ABC Ranch consists of 1900 acres of tame pasture. It also rents 280 ac from a neighbor and sends 35 pairs to the Community Pasture.

Hay Enterprise

ABC Ranch has 1 section of brome-alfalfa hay. They baled 1050 bales (1400 lb) and value them at \$65/tonne.

Unpaid Labour

ABC Ranch's owner does not have an off-farm job. He values his ranch as a full-time job (40 hr/week x 50 weeks/yr = 2000 hrs) and he estimates that if he had to hire someone to manage the ranch in his absence he'd have to pay \$20/hour. His unpaid labour is valued at \$40,000/year. He divides his labour up across his five enterprises with the following percentage allocations:

Cow-Calf	Replacements	Backgrounders	Hay/Forage	Pasture
55%	15%	8%	15%	7%

Expenses

Expenses

ALLOCATION OF EXPENSES ACROSS ENTERPRISES

Item	\$ Total	Allocation Total	Cows	Repl Hfr	Bkgrd	Hay	Pasture
Salt & Mineral	5400	100	85	10	5		
Vet & med	6000	100	85	10	5		
Livestock Supplies	800	100	85	10	5		
Fuel	10000	100	40	15	10	30	5
Tractor repairs	2500	100	40	15	10	30	5
Stock trailer	350	100	75	10	15		
Pick up truck repairs	1500	100	40	15	10	30	5
Baler repairs	1100	100				100	
Small tools	2800	100	40	15	10	30	5
Building Repairs	5000	100	40	15	10	30	5
Fence Repairs	1000	100					100
50% Phone/Cell/Internet	1500	100	50	20	10	15	5
Accounting & Legal	800	100	40	15	10	30	5
50% Gas, power	1380	100	50	15	10	20	5
Office expense	400	100	60	15	10	10	5
Entertainment & Travel	1700	100	60	15	10	10	5
Subscriptions	200	100	80	10	10		
Corral cleaning	1500	100	75	10	15		
Capital Interest	27000	100	10	5	5	40	40
Operating interest	900	100	80	10	10		
Bank Charges	400	100	20	20	20	20	20
Property taxes	13970	100				25	75
Insurance	6000	100	20	20	20	20	20
Auto Licenses	2500	100	20	20	20	20	20
Trucking/Hauling	2000	100	70	5	25		
Hauling bales	2500	100				100	
Commissions & Levies	4400	100	65	3	32		
Twine	1300	100				100	

Assets

ABC Ranch owns the following assets. They have provided the current value of the assets and percentage allocations to their five enterprises so that the Allocation Total equals 100%.

Item	Current Value	Allocation Total	ALLOCATION OF MACHINERY ACROSS ENTERPRISES				
			Cows	Repl Hfr	Bkgrd	Hay	Pasture
Tractor	2000	100				50	50
Auger	500	100	75	15	10		
Tractor w FEL	28000	100	50	15	10	20	5
ATV	12000	100	20	20	20	20	20
2001 1/2 ton truck	4500	100	20	20	20	20	20
2012 ½ ton truck	28000	100	20	20	20	20	20
Stock Trailer	10000	100	80	5	15		
Haybine	10000	100				100	
Rake	2000	100				100	
Baler	20000	100				100	
Bale trailer	1500	100				100	
Post Pounder	1000	100					100

Depreciation on Buildings

Item	Current Value	Allocation Total	ALLOCATION OF BUILDINGS ACROSS ENTERPRISES					Hay	Pasture
			Cows	Repl Hfr	Bkgrd				
Shop	40,000	100	50	15	7		20	8	
Chute & Handling System	20,000	100	75	10	15				
Cattle Shelters	25,000	100	60	25	15				
Barn	25,000	100	60	25	15				
Bale feeders	4,000	100	60	25	15				
Troughs	2,500	100	60	25	15				
Portable Windbreaks	3,000	100	80	10	10				
20 mi fencelines	30,000	100						100	
Dugouts	7,500	100						100	
Watering Bowls	10,000	100	70	15	15				
2 grain bins	4,000	100	75	10	15				
Shop tools	10,000	100	40	5	5		40	10	
10% House (office)	12,000	100	45	15	10		25	5	