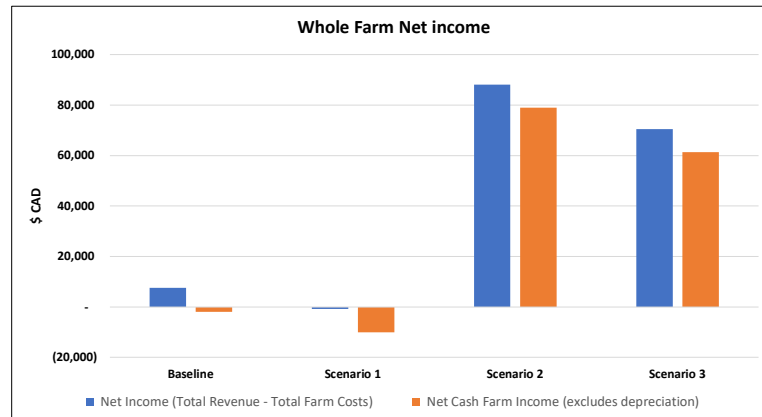


<b>Baseline Farm Description</b>	Start-up, stand-alone operation with no dairy, using milk replacer, taking calves to 600 lbs (facilities developed)
<b>Ration (lb/head/day as fed)</b>	35 days 0.7 kg milk replacer and 0.6 kgs calf starter (increasing to 1kg by end), followed by 140 days of 4.2 kg whole corn and 1.25 kg pellet supplement with a transition period between rations
<b>Scenario 1</b>	Change ADG from 2.35 to 2.2lb, selling about 5 groups per year.
<b>Scenario 2</b>	Change ADG from 2.35 to 2.9lb. Selling 6 groups per year.
<b>Scenario 3</b>	Change ADG from 2.35 to 2.9lb. Selling 6 groups per year. Stocking density reduces by 10%.
<b>Summary</b>	Anything above 2.8 lbs/day resulted in 6 groups sold per year, positively impacting economies of scale with less overhead costs per head.
<b>Disclaimer:</b>	This benchmark is based on 3 farms of data; outliers were excluded as required

Environment	
Average Annual Temperature	5.5°C
Average Annual Precipitation	900–1150 mm
Ecoregion	PRINCE EDWARD ISLAND

Physical Performance Indicators	
Breed	Holstein
Sale date	Year Round
Retained ownership	Dairy Calves
% of feed purchased	N/A
Annual sales of Cattle (no. head)	402
Placement weight (lbs)	90.0
Sale Weight (lbs)	600
Days on Feed	175
Average Daily Gain (lbs/day)	2.35

Financial Descriptor	
Operation Maturity	Starter



Whole Farm Overview	Baseline	Scenario 1	Scenario 2	Scenario 3
<b>Market Revenue</b>				
Dairy-Beef Receipts	318,048	304,950	397,980	356,400
Crop Market Receipts	5,969	4,936	11,422	17,895
Other Farm Revenue +	-	-	-	-
<b>Total Revenue</b>	<b>324,017</b>	<b>309,886</b>	<b>409,402</b>	<b>374,295</b>
<b>Expenses</b>				
Direct costs enterprises	258,853	252,964	271,087	253,172
Overhead costs	25,834	25,834	25,834	25,834
Paid labour	8,268	8,268	8,268	8,268
Rents paid	3,548	3,548	3,548	3,548
Interest paid	20,284	20,284	12,581	12,991
Depreciation	9,089	9,089	9,089	9,089
<b>Total Farm Costs</b>	<b>325,877</b>	<b>319,988</b>	<b>330,408</b>	<b>312,903</b>
<b>Profits</b>				
<b>Net Income (Total Revenue - Total Farm Costs)</b>	<b>7,565</b>	<b>(845)</b>	<b>88,084</b>	<b>70,481</b>
<b>Net Cash Farm Income (excludes depreciation)</b>	<b>(1,860)</b>	<b>(10,102)</b>	<b>78,997</b>	<b>61,392</b>

**Footnotes:**

Cost of Production: Cash Cost + Depreciation + Opportunity Costs

Cash Costs = Cash cost for purchased feed, fertiliser, seeds, fuel, maintenance, land rents, interest on liabilities, wages paid, veterinary costs plus medicine, water, insurance, accounting, etc (excl. Tax)

Depreciation = Linear depreciation on machinery and buildings, calculated on replacement values

Opportunity Costs = Calculated cost for using own production factors like labour (family working hours \* wage for qualified local labour, land (own land \* regional land rents) and capital (non-land equity \* long-term government bonds interest rate)

Whole Farm Profitability = Market returns (+ coupled payments) (+ decoupled payments) - whole-farm costs +/- changes in inventory +/- capital gains/losses.

Whole Farm Net Income = Whole farm profitability + depreciation + changes in inventory + capital gains/losses. Known as: 'Net farm income' (Agri Profits, 2018)

Revenue = sales of calves, cull cows, breeding stock, government payments and other revenue applicable to the specific enterprise

NOTE: Feed costs are based on cost of producing if homegrown.

<b>FINISHING</b>	<b>Baseline</b>	<b>Scenario 1</b>	<b>Scenario 2</b>	<b>Scenario 3</b>
No. of beef cattle sold per year	322	308	402	360

Note: breeding stock sales are in the cow-calf enterprise

<b>REVENUE (\$/head Sold)</b>	<b>Baseline</b>	<b>Scenario 1</b>	<b>Scenario 2</b>	<b>Scenario 3</b>
Market Returns from Retained Ownership	990.00	990.00	990.00	990.00
Other Returns (Government payments, by-products)	-	-	-	-
<b>Total</b>	<b>990.00</b>	<b>990.00</b>	<b>990.00</b>	<b>990.00</b>

<b>Costs (\$/head Sold)</b>	<b>Baseline</b>	<b>Scenario 1</b>	<b>Scenario 2</b>	<b>Scenario 3</b>
<b>VARIABLE COSTS</b>				
Animal purchases	201.01	193.28	193.28	195.42
Feed (purchase feed, fertiliser, seed, pesticides)	538.96	566.83	412.42	438.51
Machinery (maintenance, depreciation, contractor)	14.85	15.53	11.77	13.14
Fuel, energy, lubricants, water	46.39	48.63	36.27	39.68
Vet & medicine	33.77	33.08	32.85	33.17
Other inputs	46.68	46.40	43.47	44.54
<b>Labour</b>				
Paid Labour	25.97	27.14	20.57	22.97
Unpaid Labour	106.46	111.29	84.33	94.16
<b>Total Variable Costs</b>	<b>1,014.10</b>	<b>1,042.18</b>	<b>834.95</b>	<b>881.59</b>
<b>CAPITAL COSTS</b>				
Insurance, taxes	10.07	10.55	7.89	8.63
Buildings (maintenance, depreciation)	27.52	28.79	21.81	24.36
<b>Land Cost</b>				
Rented Land	11.17	11.67	8.83	9.86
Owned Land	2.49	2.60	1.97	2.20
<b>Capital Costs</b>				
Liabilities	2.17	2.25	1.55	1.65
Own capital	2.17	2.25	1.55	1.65
<b>Total Capital Costs</b>	<b>55.58</b>	<b>58.12</b>	<b>43.59</b>	<b>48.33</b>

<b>TOTAL COSTS</b>	<b>Baseline</b>	<b>Scenario 1</b>	<b>Scenario 2</b>	<b>Scenario 3</b>
Cash Costs	930.03	954.32	768.09	806.67
Depreciation Costs	28.53	29.84	22.61	25.25
Opportunity Costs	108.95	113.89	86.29	96.36
<b>Total Production Costs (excludes own capital)</b>	<b>1,067.51</b>	<b>1,098.05</b>	<b>876.99</b>	<b>928.28</b>

<b>Profits</b>	<b>Baseline</b>	<b>Scenario 1</b>	<b>Scenario 2</b>	<b>Scenario 3</b>
Margin over operating costs	1.02	1.11	0.84	0.94
Short-term profit (cash costs)	59.97	35.68	221.91	183.33
Medium-term profit (cash + depreciation)	31.44	5.83	199.30	158.08
Long-term profit (cash + depreciation + opportunity)	(77.51)	(108.05)	113.01	61.72

<b>Net Income (\$/head sold)</b>	<b>Baseline</b>	<b>Scenario 1</b>	<b>Scenario 2</b>	<b>Scenario 3</b>
Net Income	(30.49)	(58.70)	170.40	125.33
Net Cash Farm Income	(0.52)	(27.79)	193.00	150.58

<b>Labour</b>					
Paid Labour	hours per year	500	500	500	500
Unpaid Labour	hours per year	2,050	2,050	2,050	2,050
Return to labour input	\$/hour	8	5	34	25
Average wages (paid and calculated)	\$/hour	17	17	17	17

<b>Net Income (annual total)</b>					
Net Income	\$ per year	(7,109)	(14,415)	68,499	45,120
Net Cash Farm Income	\$ per year	2,315	(5,158)	77,586	54,209

