

Fuel and plastic price impacts on red meat processors

Key Findings

This report includes AMPC modelling of the impact from recent price spikes in liquid fuels and plastic due to the current conflict in the Middle East.

The modelling found that last financial year (2024/25) liquid fuels accounted for around \$448m in annual costs to the industry, or 6.2% of total direct costs. Plastic items account for around \$211m in annual costs, or 2.9% of total direct costs.

- Since 2024/25 liquid fuel and plastic commodities have increased by around 80% and 30% respectively. These conditions equate to an additional industrywide annual cost of \$422m or a 5.8% increase to 24/25 operational costs, or an additional \$31 per head for cattle and \$3.7 per head for sheep (not accounting for other market impacts).
- Every 10c/l rise in diesel prices above 2024/25 levels, adds an additional \$24.9m cost to industry, equivalent of \$1.82 per head for cattle, or \$0.22 per head for sheep.
- Every 10% rise in plastic prices above 24/25 levels, adds an additional \$21m cost to industry, equivalent of \$1.54 per head for cattle, or \$0.19 per head for sheep.

Note this analysis considers only the impact of price increases, and does not account for potential disruption to livestock supply, plant production and trade activity. These impacts may be significantly higher

Introduction

Recent conflict in the Middle East has caused a sharp rise in the cost of liquid fuel, with diesel rising from around \$1.80/l in 2024/25 to around \$3.30/l at the time of writing.¹ The cost of plastic materials has also increased by around 30% this financial year.²

Drawing on the finding from AMPC's recent Cost to Operate Research, the analysis below provides a high-level estimate of the liquid fuel and petrol plastic costs within the industry, and the modelled impact on cost of production from price spikes.

Liquid fuels are not only accounted for in transport costs, but may also be felt through other items including staff travel costs, electricity generation, water sewage, consumables and repairs and maintenance. Plastic items are represented predominately in packaging and consumables and may also impact prices of electrical and plumbing.

¹ <https://www.aip.com.au/historical-ulp-and-diesel-tgp-data>

² <https://tradingeconomics.com/commodity/polyethylene>

Fuel and Plastic Costs Prior to Price Shock

Based on AMPC's Cost to Operate Research and the high-level assumptions below, liquid fuel accounted for around \$448m in annual costs to the industry (or 6.2% of total costs) in the 2024/25 financial year. Plastic items accounted for around \$211m in annual costs, or 2.9% of total costs.

Table 1 Estimated annual cost of liquid fuel and plastic within the industry (2024/25 prior to price shock)

Cost Category	Total Industry Cost (\$m) ³	Liquid Fuel		Plastic	
		Estimated % fuel in category	Total fuel cost in category (\$m)	Estimated % plastic cost in category	Total plastic cost in category (\$m)
<i>Processing wages (incl. paid leave)</i>	\$2,684	-	-	-	-
<i>Salaries</i>	\$528	2%	\$11	-	-
<i>Workers Compensation premiums</i>	\$244	-	-	-	-
<i>Retirement benefits</i>	\$273	-	-	-	-
<i>Electricity</i>	\$187	5%	\$9	-	-
<i>Other fuel</i>	\$118	30%	\$35	-	-
<i>Water, sewerage, waste</i>	\$108	2%	\$2	1%	\$1
<i>Registration/Certification</i>	\$196	2%	\$4	-	-
<i>Packaging</i>	\$476	2%	\$10	30%	\$143
<i>Transport (product transport via land and sea)</i>	\$1,171	30%	\$351	-	-
<i>Repairs & maintenance</i>	\$510	2%	\$10	-	-
<i>Processing consumables</i>	\$96	2%	\$2	70%	\$67
<i>Other costs</i>	\$672	2%	\$13	-	-
Total (excl. livestock costs)	\$7,263		\$448		\$211
Percent of total costs			6.2%		2.9%

³ Derived from AMPC Cost to Operate Research (2025)

Impact of Price Rises

From the above information, the impact from price increases is modelled below, showing the current 80% increase in fuel costs and 30% increase in cost of plastics, equating to additional cost of \$422m or a 5.8% increase.

Broadly the modelling shows that:

- Every 10c/l rise in diesel costs above 2024/25 levels, adds an additional \$24.9m cost to industry, equivalent of \$1.82 per head for cattle, or \$0.22 per head for sheep.
- Every 10% rise in plastic costs above 24/25 levels, adds an additional \$21m cost to industry, equivalent of \$1.54 per head for cattle, or \$0.19 per head for sheep.

The tables below may be used to model impacts from various future price scenarios.

Industrywide cost impacts

Table 2 Change in total industry costs from increased fuel and plastic costs (\$m)

		Fuel Price Increase							
	Diesel Price (\$/l)	\$ 1.80	\$ 2.16	\$ 2.52	\$ 2.88	\$ 3.24	\$ 3.60	\$ 3.96	\$ 4.32
		0%	20%	40%	60%	80%	100%	120%	140%
Plastic price increase	0%	\$ -	\$ 90	\$ 179	\$ 269	\$ 358	\$ 448	\$ 537	\$ 627
	10%	\$ 21	\$ 111	\$ 200	\$ 290	\$ 379	\$ 469	\$ 558	\$ 648
	20%	\$ 42	\$ 132	\$ 221	\$ 311	\$ 400	\$ 490	\$ 579	\$ 669
	30%	\$ 63	\$ 153	\$ 242	\$ 332	\$ 422	\$ 511	\$ 601	\$ 690
	40%	\$ 84	\$ 174	\$ 264	\$ 353	\$ 443	\$ 532	\$ 622	\$ 711
	50%	\$ 106	\$ 195	\$ 285	\$ 374	\$ 464	\$ 553	\$ 643	\$ 732
	60%	\$ 127	\$ 216	\$ 306	\$ 395	\$ 485	\$ 574	\$ 664	\$ 753
	70%	\$ 148	\$ 237	\$ 327	\$ 416	\$ 506	\$ 595	\$ 685	\$ 775
	80%	\$ 169	\$ 258	\$ 348	\$ 437	\$ 527	\$ 617	\$ 706	\$ 796
	90%	\$ 190	\$ 280	\$ 369	\$ 459	\$ 548	\$ 638	\$ 727	\$ 817
	100%	\$ 211	\$ 301	\$ 390	\$ 480	\$ 569	\$ 659	\$ 748	\$ 838

Table 3 Change in total industry costs from increased fuel and plastic costs (%)

		Fuel Price Increase							
	Diesel Price (\$/l)	\$ 1.80	\$ 2.16	\$ 2.52	\$ 2.88	\$ 3.24	\$ 3.60	\$ 3.96	\$ 4.32
		0%	20%	40%	60%	80%	100%	120%	140%
Plastic price increase	0%	0.0%	1.2%	2.5%	3.7%	4.9%	6.2%	7.4%	8.6%
	10%	0.3%	1.5%	2.8%	4.0%	5.2%	6.5%	7.7%	8.9%
	20%	0.6%	1.8%	3.0%	4.3%	5.5%	6.7%	8.0%	9.2%
	30%	0.9%	2.1%	3.3%	4.6%	5.8%	7.0%	8.3%	9.5%
	40%	1.2%	2.4%	3.6%	4.9%	6.1%	7.3%	8.6%	9.8%
	50%	1.5%	2.7%	3.9%	5.2%	6.4%	7.6%	8.9%	10.1%
	60%	1.7%	3.0%	4.2%	5.4%	6.7%	7.9%	9.1%	10.4%
	70%	2.0%	3.3%	4.5%	5.7%	7.0%	8.2%	9.4%	10.7%
	80%	2.3%	3.6%	4.8%	6.0%	7.3%	8.5%	9.7%	11.0%
	90%	2.6%	3.8%	5.1%	6.3%	7.5%	8.8%	10.0%	11.2%
	100%	2.9%	4.1%	5.4%	6.6%	7.8%	9.1%	10.3%	11.5%

Per head cost impacts

On a per head basis the current price increases equate to around \$31 per head for cattle and \$3.7 per head for sheep.

Table 4 Increase in cattle processing costs from increased fuel and plastic costs (\$/head increase since 24/25)

		Fuel Price Increase							
Diesel Price (\$/l)		\$ 1.80	\$ 2.16	\$ 2.52	\$ 2.88	\$ 3.24	\$ 3.60	\$ 3.96	\$ 4.32
		0%	20%	40%	60%	80%	100%	120%	140%
Plastic price increase	0%	\$ -	\$ 6.5	\$ 13.1	\$ 19.6	\$ 26.2	\$ 32.7	\$ 39.3	\$ 45.8
	10%	\$ 1.5	\$ 8.1	\$ 14.6	\$ 21.2	\$ 27.7	\$ 34.3	\$ 40.8	\$ 47.4
	20%	\$ 3.1	\$ 9.6	\$ 16.2	\$ 22.7	\$ 29.3	\$ 35.8	\$ 42.4	\$ 48.9
	30%	\$ 4.6	\$ 11.2	\$ 17.7	\$ 24.3	\$ 30.8	\$ 37.4	\$ 43.9	\$ 50.5
	40%	\$ 6.2	\$ 12.7	\$ 19.3	\$ 25.8	\$ 32.4	\$ 38.9	\$ 45.5	\$ 52.0
	50%	\$ 7.7	\$ 14.3	\$ 20.8	\$ 27.4	\$ 33.9	\$ 40.4	\$ 47.0	\$ 53.5
	60%	\$ 9.3	\$ 15.8	\$ 22.4	\$ 28.9	\$ 35.4	\$ 42.0	\$ 48.5	\$ 55.1
	70%	\$ 10.8	\$ 17.3	\$ 23.9	\$ 30.4	\$ 37.0	\$ 43.5	\$ 50.1	\$ 56.6
	80%	\$ 12.3	\$ 18.9	\$ 25.4	\$ 32.0	\$ 38.5	\$ 45.1	\$ 51.6	\$ 58.2
	90%	\$ 13.9	\$ 20.4	\$ 27.0	\$ 33.5	\$ 40.1	\$ 46.6	\$ 53.2	\$ 59.7
100%	\$ 15.4	\$ 22.0	\$ 28.5	\$ 35.1	\$ 41.6	\$ 48.2	\$ 54.7	\$ 61.3	

Table 5 Increase in sheep processing costs from increased fuel and plastic costs (\$/head increase since 24/25)

		Fuel Price Increase							
Diesel Price (\$/l)		\$ 1.80	\$ 2.16	\$ 2.52	\$ 2.88	\$ 3.24	\$ 3.60	\$ 3.96	\$ 4.32
		0%	20%	40%	60%	80%	100%	120%	140%
Plastic price increase	0%	\$ -	\$ 0.79	\$ 1.59	\$ 2.38	\$ 3.17	\$ 3.96	\$ 4.76	\$ 5.55
	10%	\$ 0.19	\$ 0.98	\$ 1.77	\$ 2.57	\$ 3.36	\$ 4.15	\$ 4.94	\$ 5.74
	20%	\$ 0.37	\$ 1.17	\$ 1.96	\$ 2.75	\$ 3.55	\$ 4.34	\$ 5.13	\$ 5.92
	30%	\$ 0.56	\$ 1.35	\$ 2.15	\$ 2.94	\$ 3.73	\$ 4.53	\$ 5.32	\$ 6.11
	40%	\$ 0.75	\$ 1.54	\$ 2.33	\$ 3.13	\$ 3.92	\$ 4.71	\$ 5.50	\$ 6.30
	50%	\$ 0.93	\$ 1.73	\$ 2.52	\$ 3.31	\$ 4.11	\$ 4.90	\$ 5.69	\$ 6.48
	60%	\$ 1.12	\$ 1.91	\$ 2.71	\$ 3.50	\$ 4.29	\$ 5.09	\$ 5.88	\$ 6.67
	70%	\$ 1.31	\$ 2.10	\$ 2.89	\$ 3.69	\$ 4.48	\$ 5.27	\$ 6.07	\$ 6.86
	80%	\$ 1.50	\$ 2.29	\$ 3.08	\$ 3.87	\$ 4.67	\$ 5.46	\$ 6.25	\$ 7.05
	90%	\$ 1.68	\$ 2.47	\$ 3.27	\$ 4.06	\$ 4.85	\$ 5.65	\$ 6.44	\$ 7.23
100%	\$ 1.87	\$ 2.66	\$ 3.45	\$ 4.25	\$ 5.04	\$ 5.83	\$ 6.63	\$ 7.42	

Conclusions

This modelling of fuel and plastic price impact maybe used by processors to understand current and future cost scenarios. Noting that additional impacts may occur if fuel and plastic unavailability cause disruption to livestock supply, plant production and trade activity. These impacts may be significantly higher.