



Sheep and Beef On-farm Inflation 2023-24

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About this report

The Sheep and Beef On-farm Inflation report provides an inflation rate for sheep and beef farms that reflects the annual change in the prices paid for farm inputs and not changes in the level of total farm expenditure, which consider the volume of inputs in addition to the price of inputs. The On-farm inflation report is published annually following the release of Business Price indices by Statistics New Zealand in mid May.

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Summary for 2023–24

The rate of on-farm inflation has slowed to +2.8% but remains a persistent challenge for farmers

- **On-farm inflation is lower than anticipated** despite these modest gains, the cumulative impact of high input prices over recent years has been significant
- **High farm input prices** have placed significant pressure on farm profitability and cashflow. In the three seasons from 2021-22 to 2023-24 prices rose by 32%.
- **Interest rates** are a key driver of on-farm inflation. The 12% increase contributed half the total on-farm inflation of 2.8% in 2023-24.
- **Decreased Fertiliser, Lime and Seeds input prices** (-4.2%) provided some relief for farmers.
- **Underlying inflation** – which is the change in farm input prices if *Interest* is excluded – was 1.7% in the year to March 2024 because it was influenced by the fall in prices for *Fertiliser, Lime and Seeds*.
- B+LNZ's report shows the importance of understanding that while the rate of price increases has slowed, as it was expected to eventually, significant inflation over recent years and high price levels continue to pose financial challenges for farmers.
- **Persistent price increases have had a massive negative effect** on farm profitability and financial stability for New Zealand farmers.
- **B+LNZ is forecasting that sheep and beef incomes will be 54 percent lower** this year and most farmers will not make a profit this year.

While the inflation rate is lower than the past two seasons, the damage is done.



On-farm inflation

+2.8%



Underlying inflation

+1.7%



Interest

+12%



Fert, Lime, Seeds

-4.2%

*Farm profit before tax includes gross farm revenue, less working expenses, standing charges and interest, rent and depreciation. Farm Profit before Tax is used to meet tax, personal drawings, principal repayments, capital expenditure and development of the farm.



On-farm Inflation

On-farm inflation +2.8% in 2023-24

Farm input prices continue to rise, albeit at a slower rate than forecast

Prices for sheep and beef farm inputs **increased 2.8 per cent** between March 2023 and March 2024 following a 16.3 per cent **increase** in the previous 12-month period (see Figure 1). While the rate of inflation has slowed from much higher rates in the past two seasons, the impact on farm profitability has been considerable. Farmers reduced spending across most categories of farm inputs for the past two years to maintain some level of profitability or reduce the negative impact of high fertiliser prices and high interest rates.

Prices increased in all 16 categories of inputs but one: *Fertiliser, Lime, and Seeds* (-4.2%). The largest increase was for *Interest* (+12.0%), which contributes substantially to the overall increase in on-farm inflation because it comprises 11.4 per cent of total farm expenditure.

Insurance (+8.7%) and *Animal Health* (+8.0%) were the next two largest increases for the year (see Figure 3).

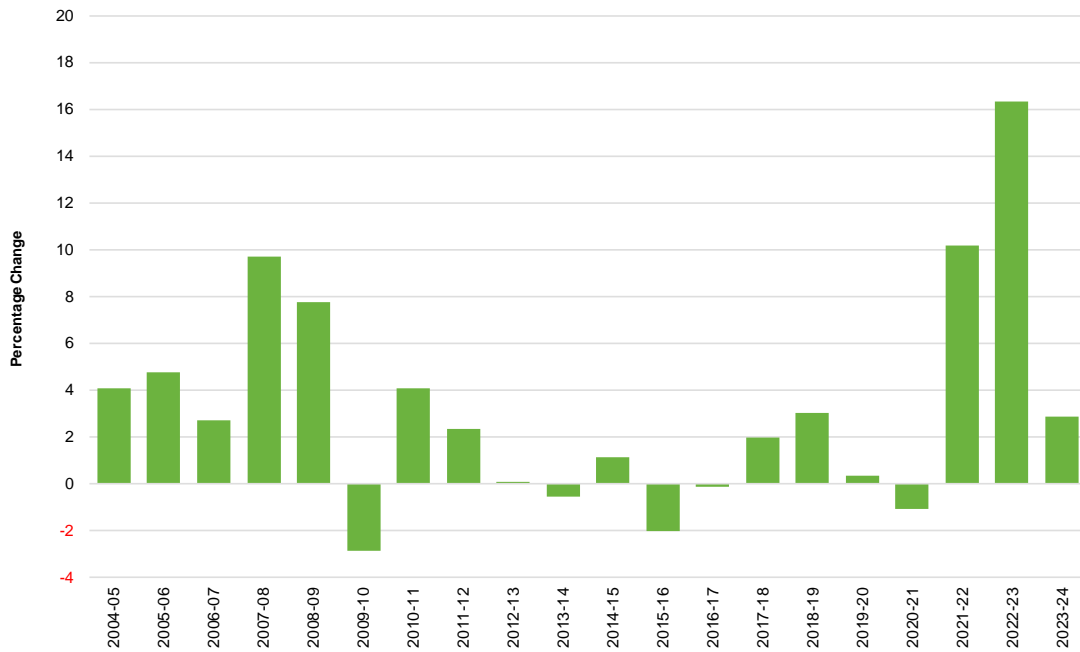
On-farm inflation +30.8% over 5 years and +35.9% over 10 years

Cumulatively inflation has been significant for sheep and beef farmers in recent seasons and detrimental to farm profitability. Prices for sheep and beef farm inputs increased 30.8 per cent over the last five years, and by 35.9 per cent over the last 10 years. See Table 2.

On-farm inflation lower than consumer price inflation in 2023-24

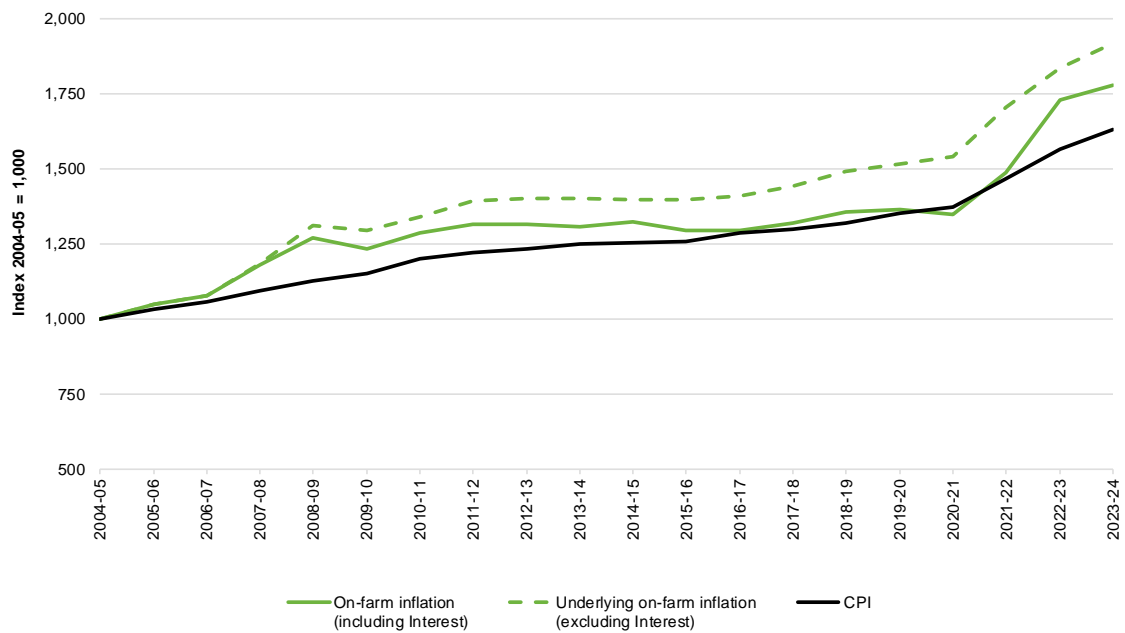
On-farm inflation was lower than consumer price inflation in 2023-24, which was 4.0 per cent between March 2023 and March 2024. Over the last five years, consumer price inflation was 23.4 per cent, and over the last 10 years it was 30.4 per cent (see Figure 2).

Figure 1: Sheep and Beef On-Farm Inflation



Source: Beef + Lamb New Zealand Insights | Statistics New Zealand

Figure 2: Sheep and Beef On-Farm Inflation and CPI



Source: Beef + Lamb New Zealand Insights | Statistics New Zealand



Annual changes in farm input prices

This section analyses annual changes in farm input prices, including areas of expenditure that increased the most over the March year, and the main categories of expenditure for sheep and beef farms.

Interest, Insurance and Animal Health

Interest +12%

Between March 2023 and March 2024, the overall price for *Interest* increased by 12.0 per cent following an 86.5 per cent increase for the previous 12-month period. Higher levels of debt are often, but not always, associated with farmers in early stages of their career due to purchasing land. This results in greater debt-servicing requirements and greater exposure to interest rates. Some farmers are more affected by interest than others.

Broadly, approximately 75 per cent of sheep and beef farm term liabilities are subject to floating interest rates and 25 per cent fixed interest (see Figure 5).

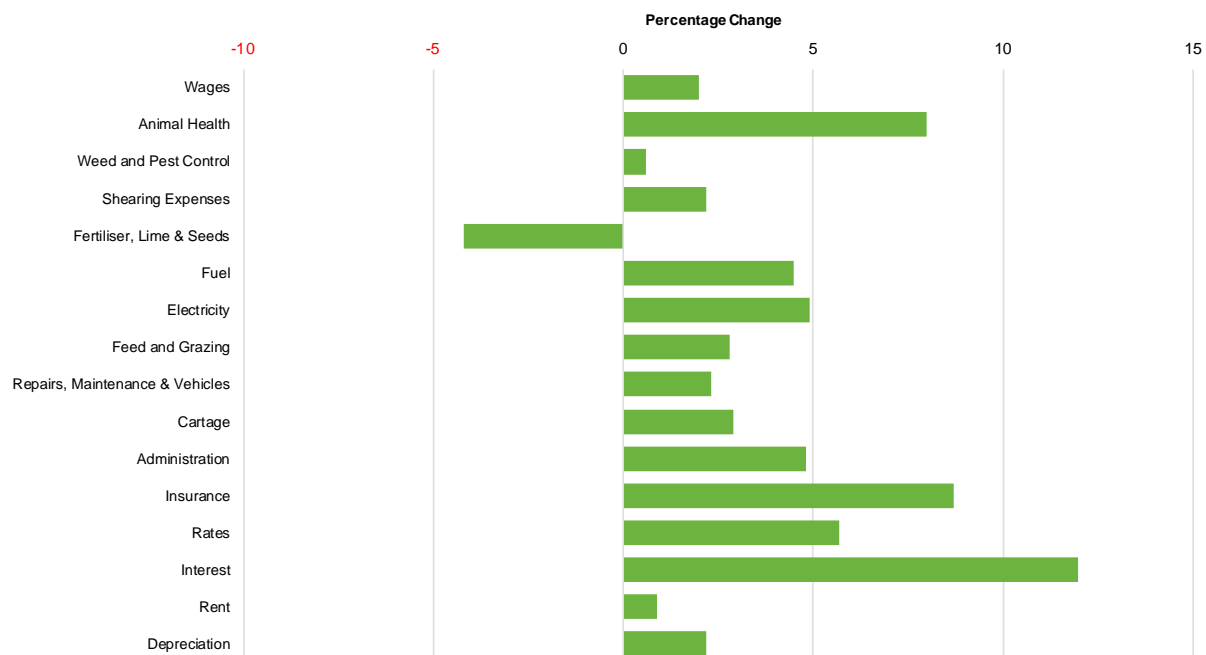
Insurance +8.7%

The overall price for *Insurance* increased 8.7 per cent in the year to March 2024, which is similar to the 9.0 per cent increase for the previous 12-month period. *Insurance* has increased by 23 per cent over the past three years.

Animal Health +8.0%

The price of *Animal Health* increased by 8.0 per cent in the year to March 2024, following an increase of 7.2 per cent in the previous year.

Figure 3: Sheep and Beef Farm Input Prices Changes – March 2023 to March 2024



Source: Beef + Lamb New Zealand Insights | Statistics New Zealand

Major items of expenditure

Fertiliser, Lime & Seeds; R&M & Vehicles; and Interest

The major items of expenditure are *Fertiliser, Lime & Seeds*; *Repairs, Maintenance & Vehicles*; and *Interest*. Together they account for approximately 42 per cent of total farm expenditure and combined prices increased 0.9 per cent due to the influence of lower fertiliser input prices.

Fertiliser, Lime & Seeds is often the largest expenditure category for many sheep and beef farms. It averaged around 18.0 per cent of expenditure for the period 2020-21 to 2023-24. A decrease in fertiliser prices has provided some relief to farms this season.

Repairs, Maintenance & Vehicles increased 2.3 per cent between March 2023 and March 2024. Some farmers defer spending in these areas when profitability is challenged or volatile.

Figure 3 shows the change in price of each input while Figure 4 shows the change in price of each input **weighted** by its proportion of total farm expenditure.

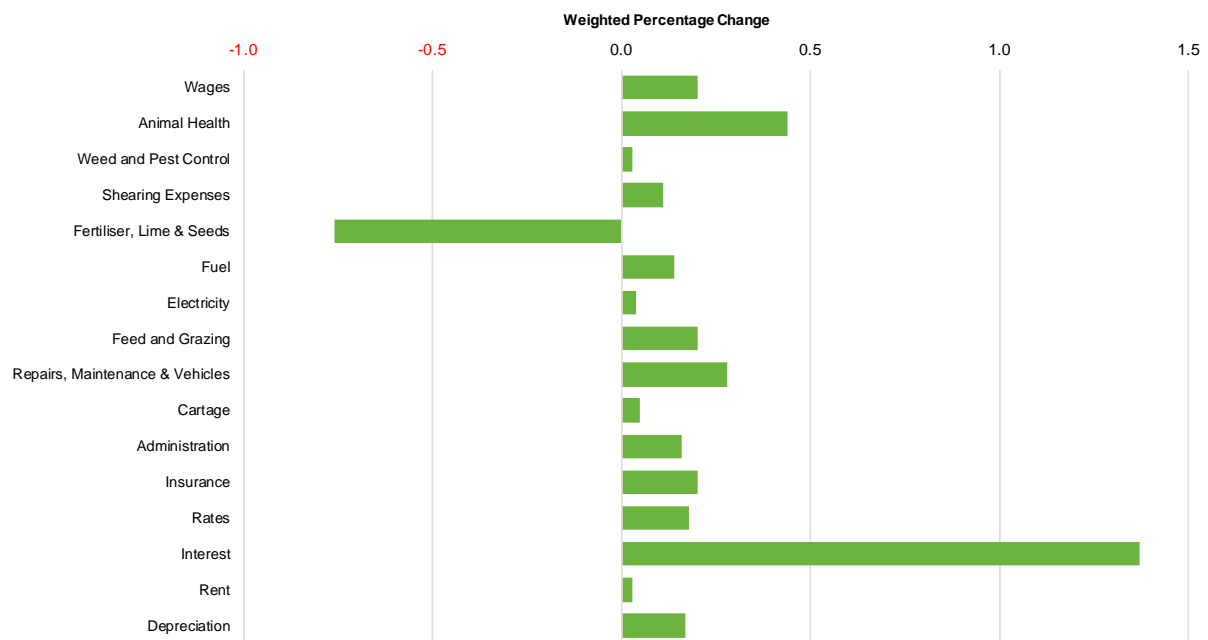
The price of *Interest* showed the greatest annual change (+12.0%) and with a weighting of 11.4 per cent of farm expenditure it is the biggest driver of on-farm inflation (Figure 4).

The charts in Appendix 1 and Appendix 2 show the cumulative changes in prices for each item of expenditure since 2004-05. Appendix 3 shows annual percentage changes for each item of expenditure. A time-series of the percentage weights of expenditure items is shown in Appendix 4.

An individual farm business will have its own experience with inflation depending on the weightings of farm expenditure in their business, which relates to farm operational policies and capital structure. For 2023-24, those farm businesses with higher debt levels will have felt the increase in *Interest* more keenly.

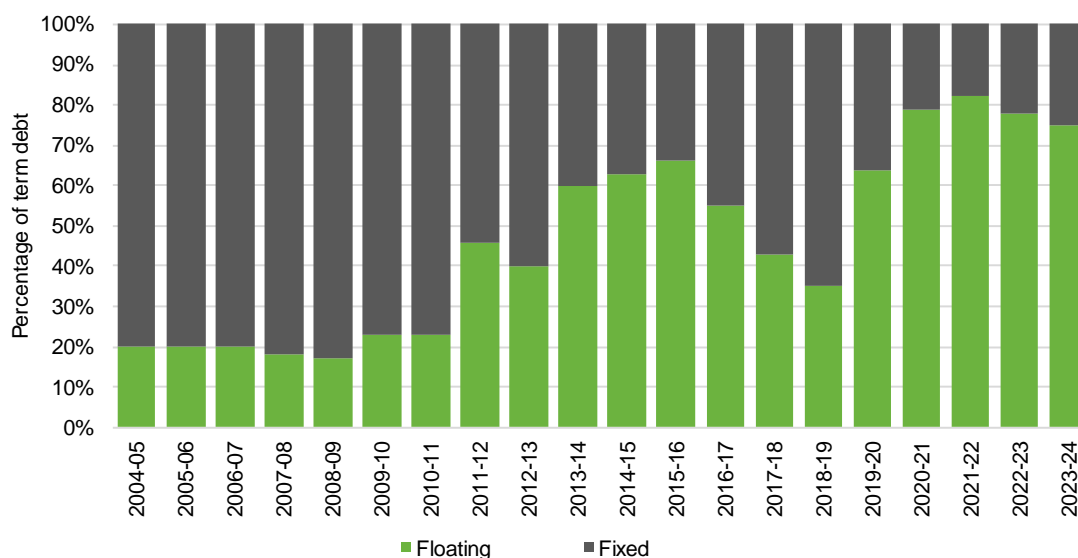
When comparing farm classes, North Island Hill Country farms (Farm Class 4) had a slightly higher inflation rate, at 3.1 per cent, than the New Zealand average of 2.8 per cent. This is due in part to a slightly higher proportion of total farm expenditure on interest.

Figure 4: Sheep and Beef Farm Weighted Input Price Changes – March 2023 to March 2024



Source: Beef + Lamb New Zealand Insights | Statistics New Zealand

Figure 5: Sheep and Beef Farm Term Debt – Floating and Fixed Interest Rates



Source: Beef + Lamb New Zealand Insights | Statistics New Zealand

Table 1: Sheep and Beef Farm Input Price Changes

Sheep and Beef Farm Input Price Changes March 2023 to March 2024			
Categories of Expenditure	Percentage Change	Percentage Weight ¹	Weighted Percentage Change ²
	Col. 1	Col. 2	Col. 3
Wages	+2.0	10.2	+0.20
Animal Health	+8.0	5.5	+0.44
Weed and Pest Control	+0.6	4.5	+0.03
Shearing Expenses	+2.2	5.2	+0.11
Fertiliser, Lime & Seeds	-4.2	18.0	-0.76
Fuel	+4.5	3.2	+0.14
Electricity	+4.9	0.8	+0.04
Feed and Grazing	+2.8	7.3	+0.20
Repairs, Maintenance & Vehicles	+2.3	12.2	+0.28
Cartage	+2.9	1.7	+0.05
Administration	+4.8	3.4	+0.16
Insurance	+8.7	2.3	+0.20
Rates	+5.7	3.1	+0.18
Interest	+12.0	11.4	+1.37
Rent	+0.9	3.5	+0.03
Depreciation	+2.2	7.7	+0.17
TOTAL		100.0	+2.84

Notes:

1. Average three-year pattern of expenditure for Sheep and Beef Farms, i.e. (2020-21 to 2022-23p)

2. Col.(3) equals Col.(1) multiplied by Col.(2) divided by 100.

The result is rounded to two decimal places, e.g.

Wages $+2.0 \times 10.2 / 100 = 20.4 / 100 = +0.20$

Source: Beef + Lamb New Zealand Insights | Statistics New Zealand

Underlying On-farm Inflation



Underlying on-farm inflation +1.7%

When *Interest* is excluded from the calculation of the change in sheep and beef farm input prices, underlying on-farm inflation was 1.7 per cent in the year to March 2024 due to the influence of *Fertiliser, Lime & Seeds*, which decreased by 4.2 per cent.

Table 2 compares on-farm inflation with underlying on-farm inflation. Underlying on-farm inflation over the past decade was 37.0 per cent, moderately higher than consumer price inflation over the same period at 30.4 per cent.

Table 2: Sheep and Beef On-Farm Inflation

Year	On-farm inflation (including Interest)		Underlying on-farm inflation (excluding Interest)	
	Percentage Change	Index ¹	Percentage Change	Index ¹
2013-14	-0.6	1,308	-0.2	1,401
2014-15	+1.1	1,323	-0.3	1,397
2015-16	-2.0	1,296	0.0	1,397
2016-17	-0.2	1,294	+1.1	1,412
2017-18	+2.0	1,320	+2.2	1,443
2018-19	+3.0	1,359	+3.5	1,494
2019-20	+0.4	1,364	+1.5	1,517
2020-21	-1.1	1,350	+1.6	1,541
2021-22	+10.2	1,487	+10.7	1,706
2022-23	+16.3	1,729	+7.8	1,838
2023-24	+2.8	1,778	+4.4	1,919
10 years to 2023-24	+35.9		+37.0	
5 years to 2023-24	+30.8		+28.5	
3 years to 2023-24	+31.8		+24.6	
2 years to 2023-24	+19.6		+12.5	

1. Index 2004-05 = 1000

Source: Beef + Lamb New Zealand Insights



Methodology and sources

The sheep and beef on-farm inflation report indicates the annual changes in farm input prices and not the annual changes in total farm expenditure. On-farm inflation is different to total farm expenditure because it focuses on the price of inputs while expenditure considers the price and volume of inputs used. B+LNZ's latest forecasts for expenditure were published in its Mid-Season Update, which is available from B+LNZ's [Economic reports page](#).

The objective in this analysis is to isolate the price changes for the various input categories. An inflation rate (or overall price change) is then derived by weighting the price change for each individual category by its proportion of total farm expenditure. These proportions are based on a three-year moving average.

GST is excluded from the calculation of farm input price changes because this tax is recovered from farm expenditure.

This publication relies heavily on Statistics New Zealand's (SNZ) Farm Expenses Price Index (FEPI). The March quarter data, published by SNZ in May, are released online at www.stats.govt.nz under the category "Business Price Indexes" (BPI) as downloadable tables.

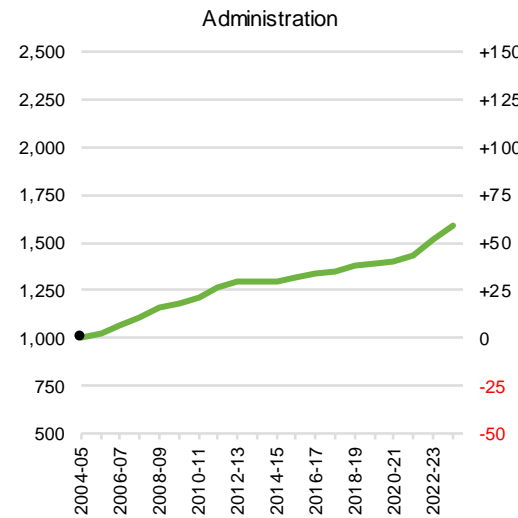
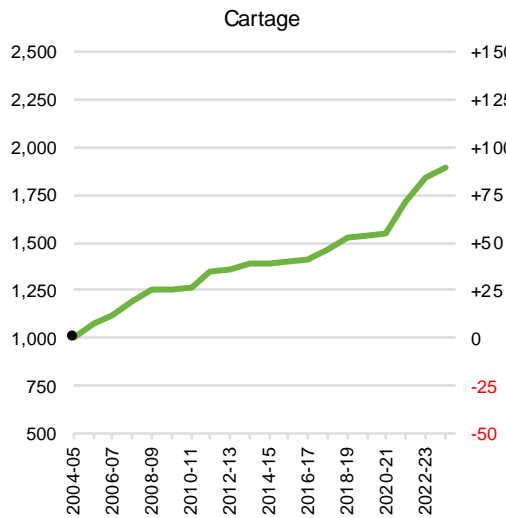
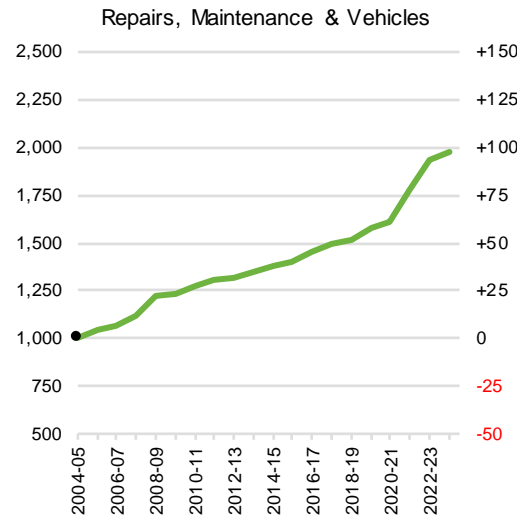
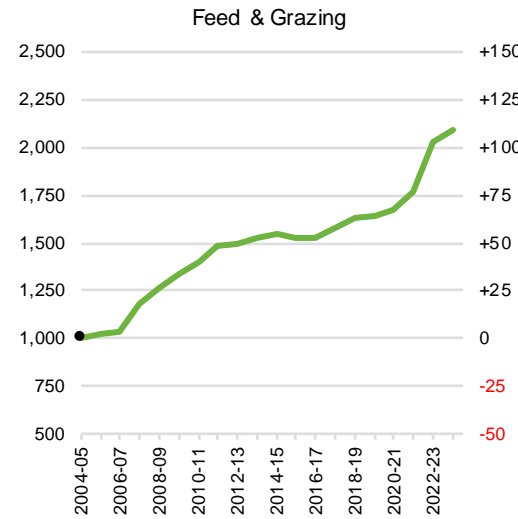
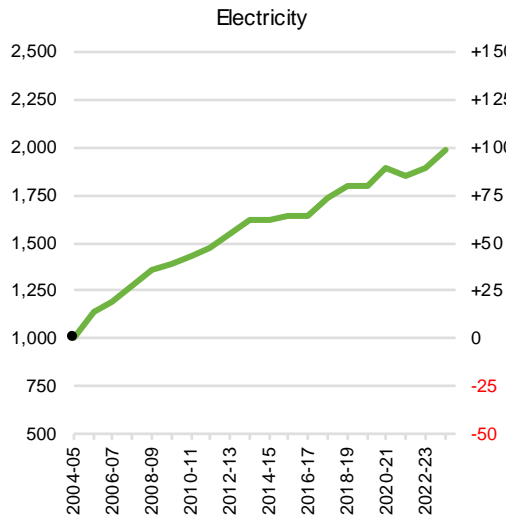
Beef + Lamb New Zealand's Sheep and Beef Farm input prices differ from the SNZ data in three areas:

1. Interest charges are calculated independently to take account of both overdraft and mortgage interest rates, including fixed term interest, and are weighted using data from B+LNZ's Sheep and Beef Farm Survey.
2. Depreciation is included to measure the price changes for capital replacement. This item correctly lines up the input prices paid index with the on-farm expenditure reported by the B+LNZ Sheep and Beef Farm Survey.
3. A three-year moving average of actual on-farm expenditure from the B+LNZ Sheep and Beef Farm Survey is used to weight individual categories to the single overall percentage price change for the year.

Appendices

Appendix 1: Cumulative On-Farm Inflation Indexes and Percentage Change – Farm Working Expenses (2004-05 = 1000)





Appendix 2: Cumulative On-Farm Inflation Indexes and Percentage Change – Standing Charges and Depreciation (2004-05 = 1000)



Appendix 3: Annual percentage changes in Sheep and Beef Farm Input Prices

ANNUAL PERCENTAGE CHANGES IN SHEEP AND BEEF FARM INPUT PRICES

March Quarter Prices										
FARM EXPENDITURE	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Wages	+2.0	+1.2	+1.3	+1.8	+1.7	+1.3	+2.1	+2.8	+3.6	+2.0
Animal Health	+2.0	+0.3	+1.9	+2.6	+2.0	+3.7	+3.8	+3.0	+7.2	+8.0
Weed & Pest Control	-0.6	-0.9	-1.1	+4.6	-0.2	+0.6	+5.0	+14.9	+4.4	+0.6
Shearing Expenses	+1.8	+0.3	+1.3	+2.3	+11.2	+1.4	+2.2	+3.2	+3.5	+2.2
Fertiliser, Lime & Seeds	-2.3	+0.6	-3.8	-0.6	+6.2	-0.3	+0.8	+23.0	+14.0	-4.2
Fuel	-21.7	-12.7	+18.8	+12.1	+4.0	-0.4	-4.7	+54.3	+0.9	+4.5
Electricity	+0.2	+1.1	-0.3	+5.8	+3.7	-0.1	+5.8	-2.6	+2.4	+4.9
Feed & Grazing	+1.1	-1.1	-0.3	+3.6	+3.3	+1.0	+1.9	+5.5	+14.8	+2.8
Repairs, Maintenance & Vehicles	+2.2	+1.7	+3.5	+2.7	+1.4	+4.2	+2.4	+10.4	+8.6	+2.3
Cartage	+0.3	+0.7	+0.9	+3.4	+4.0	+0.6	+1.3	+10.5	+7.0	+2.9
Administration	-0.2	+1.4	+2.0	+0.6	+2.3	+0.9	+0.1	+2.4	+6.1	+4.8
Insurance	+2.4	-0.4	+2.7	+6.7	+4.1	+5.0	+2.5	+3.6	+9.0	+8.7
Rates	+4.9	-0.7	+2.0	+2.7	+5.1	+3.7	+1.3	+6.5	+3.8	+5.7
Interest	+9.4	-14.5	-7.5	+0.5	+0.1	-7.2	-18.9	+5.9	+86.5	+12.0
Rent	+0.2	0.0	+1.5	+0.3	+4.0	+0.4	+0.5	+2.6	+0.5	+0.9
Depreciation	+1.4	+1.3	+1.2	+1.4	+0.4	+1.4	+0.1	+4.7	+4.3	+2.2
On-Farm Inflation (including Interest)	+1.1	-2.1	-0.2	+2.0	+3.0	+0.4	-1.1	+10.2	+16.3	+2.8
Underlying On-Farm Inflation (excluding Interest)	-0.3	0.0	+1.1	+2.2	+3.5	+1.5	+1.6	+10.7	+7.8	+1.7
Consumer Price Index (CPI)	+0.3	+0.4	+2.2	+1.1	+1.5	+2.5	+1.5	+6.9	+6.7	+4.0

Source: Beef + Lamb New Zealand Insights | Statistics New Zealand

Appendix 4: Percentage allocation of Sheep and Beef Farm Expenditure

PERCENTAGE ALLOCATION OF SHEEP & BEEF FARM EXPENDITURE (JUNE YEAR)

FARM EXPENDITURE	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Wages	9.0	8.9	8.8	9.0	9.2	9.3	9.4	9.7	10.2	10.2
Animal Health	5.1	5.2	5.1	5.1	5.1	5.3	5.3	5.3	5.3	5.5
Weed & Pest Control	3.7	3.6	3.8	3.9	3.9	4.2	4.2	3.9	4.2	4.5
Shearing Expenses	5.4	5.3	5.2	5.0	5.0	5.0	5.2	5.4	5.4	5.2
Fertiliser, Lime & Seeds	17.4	17.2	17.2	17.0	16.8	16.9	16.8	17.5	18.1	18.0
Fuel	3.8	3.5	3.1	2.8	2.6	2.8	2.9	2.8	2.7	3.2
Electricity	0.9	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.8
Feed & Grazing	8.0	8.0	8.2	8.0	8.5	8.0	8.5	8.1	7.5	7.3
Repairs, Maintenance & Vehicles	11.9	11.8	11.9	12.0	12.0	11.8	12.1	12.1	12.5	12.2
Cartage	1.8	1.7	1.7	1.6	1.7	1.7	1.7	1.6	1.6	1.7
Administration	3.6	3.6	3.7	3.7	3.6	3.4	3.3	3.3	3.3	3.4
Sub-Total Working Expenses	70.6	69.8	69.6	69.0	69.3	69.3	70.3	70.6	71.7	72.0
Insurance	1.9	2.0	2.0	2.0	2.1	2.1	2.1	2.2	2.2	2.3
Rates	3.0	3.1	3.1	3.2	3.3	3.1	3.1	3.1	3.1	3.1
Interest	14.2	14.3	14.2	14.2	13.7	13.6	12.8	12.3	10.9	11.4
Rent	3.0	3.3	3.5	3.6	3.4	3.5	3.5	3.7	3.7	3.5
Sub-Total Standing Charges	22.1	22.7	22.8	23.0	22.5	22.3	21.5	21.3	19.9	20.3
TOTAL CASH EXPENDITURE	92.7	92.5	92.4	92.0	91.8	91.6	91.8	91.9	91.6	92.3
Depreciation	7.3	7.5	7.6	8.0	8.2	8.4	8.2	8.1	8.4	7.7
TOTAL FARM EXPENDITURE	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Notes:

1. All cost movements are calculated exclusive of GST.
2. Changes are weighted by the average three-year pattern of expenditure on Sheep and Beef farms using the last two final Survey years and the provisional year.
3. Wages includes Managerial Salaries and ACC from 2004-05 onwards.
4. Feed & Grazing includes Feed and Grazing + Cultivation and Sowing + Cash Crop Expenses categories.
5. Irrigation Expenses are not included in the price changes.

Source: Beef + Lamb New Zealand Insights

