



# Agricultural land use

This factsheet presents statistics on the area of land used for agricultural purposes in New Zealand.

## Key facts



The area of land used for agricultural purposes decreased by 5.4% between 2007–2017.



There was a marked diversification away from specialised sheep farming and into mixed sheep and beef cattle farms.



The area of farmland used for grazing livestock is vastly higher than any other agricultural land use, making up roughly three quarters (72.5%) of all farmland.



The area of agricultural land as a proportion of a region's total land declined in most regions. The largest decline was in the Otago region, where 8.2% of the region's land was converted from farmland to other uses.



The area of irrigated agricultural land has almost doubled since 2002. Three-quarters of all water used for agriculture is taken from lakes and rivers.

## Relevance of agricultural land use to water quality

Water pollution in farming areas is a key issue identified in the 2020 'Our Freshwater' report issued by the Ministry for the Environment. Computer models suggest that between 2013–2017, 95% of waterways whose catchments included areas of farmland exceeded guideline values for water turbidity or dissolved nutrients.

The models also suggest that 24% of the total river length in those catchments had E. coli levels that were greater than would be expected under natural conditions (Ministry for the Environment, 2020). For more information about E. coli concentrations in waterways, see our [Suitability for swimming](#) indicator.

## The total area of farmland has slightly reduced

Between 2007–2017, the area of land in New Zealand used for agricultural purposes decreased by 5.4%, an area equivalent to 800,490 hectares (Figure 1).

**Figure 1: National area of agricultural land, 2007, 2012 & 2017**



Source: Statistics New Zealand

The bulk of the decline was in the Canterbury and Otago regions (Figure 2), which account for 70.6% of the decline between them (with a reduction of 339,925 and 255,237 hectares respectively).

**Figure 2: Area of farmland, by region, 2007 & 2017**



Source: Statistics New Zealand

## Half of New Zealand's land area is used for farming

Agricultural land makes up at least 50% of the area of almost all regions (Figure 3). Consequently, New Zealand uses a little over half of its entire land area for agricultural purposes. Though most regions experienced a reduction in agricultural land between 2007–2017, farmland expanded in a few regions. Notable expansions occurred in Auckland and Bay of Plenty, where an additional 8.6% and 6.5% (respectively) of the region's land area was converted to farmland. The largest decline was in the Otago region, where 8.2% of the region's land was converted from farmland to other uses.

**Figure 3: Agricultural land as a percentage of regional area, 2007 & 2017**



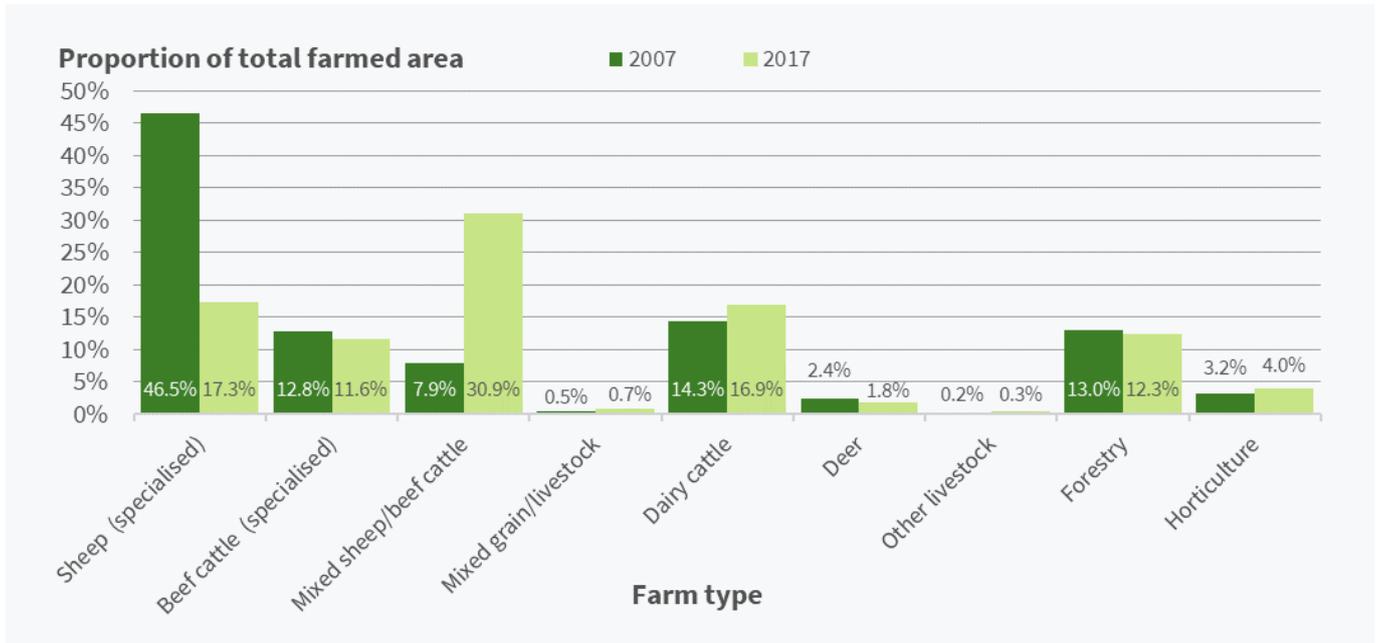
Source: Statistics New Zealand

## Specialised sheep farming has declined, cattle farming has expanded

Between 2007 and 2017, the area of farmland used exclusively for sheep farming decreased by an area equivalent to 29% of all farmland (Figure 4). The number of sheep farmed in New Zealand also declined by around a third during that period, suggesting sheep are not being farmed more intensely given the smaller area. The agricultural sector's diversification away from specialised sheep farming is indicated by the area of mixed sheep & beef farming quadrupling between 2007 and 2017.

From an environmental perspective, a given weight of cattle tends to have a greater impact on their environment than an equivalent weight of sheep owing to their greater mass, higher feed requirements and increased output of waste in the form of faecal matter and methane emissions.

**Figure 4: Allocation of farmed area, by farm type, 2007–2017**

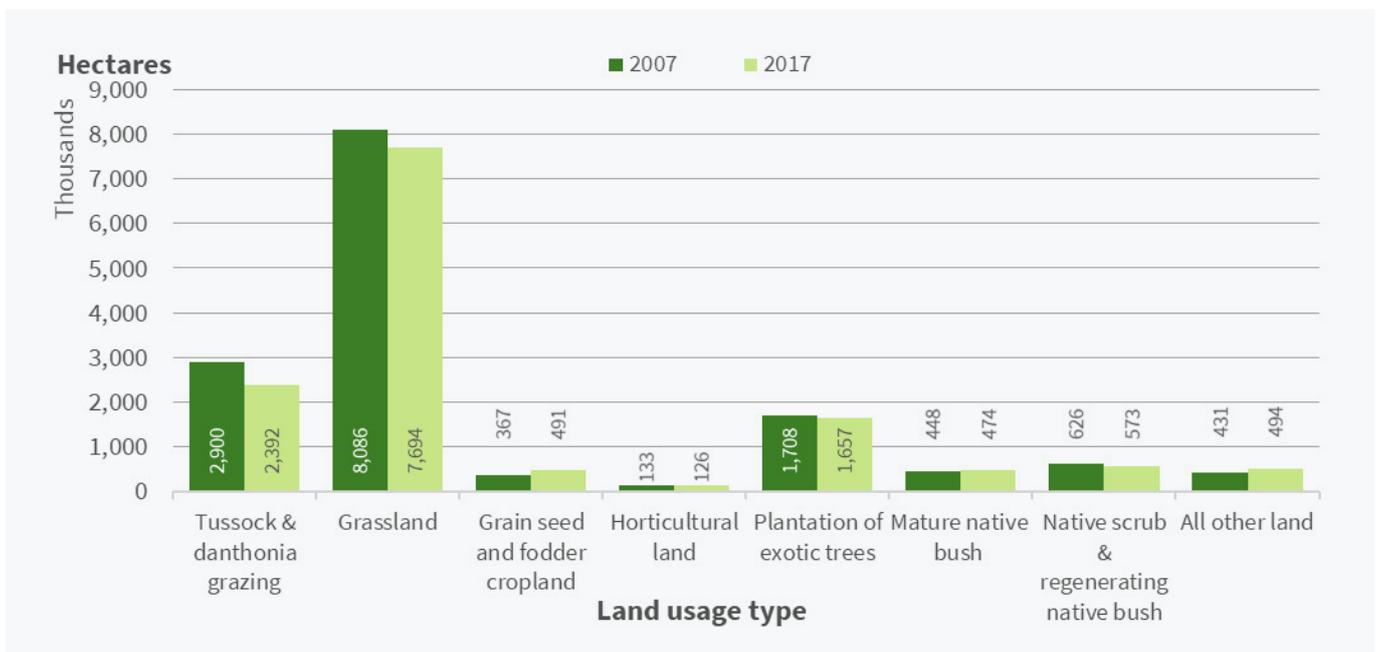


Source: Statistics New Zealand

### The area of grazing land is declining

Most of the reduction in farmland relates to a decline in the area of grassland, tussock and danthonia used for grazing livestock (a decline of 392,000ha and 508,000ha respectively). However, grazing land still accounts for 72.5% of all farmland in New Zealand. While grazing land declined, some of the less common types of land use expanded. The most notable increase was the area planted with grain seed and fodder crops, which grew by 33.5% (124,000ha) between 2007 & 2017. The area of mature native bush growing on agricultural land also increased by 5.7% (26,000ha) (Figure 5).

**Figure 5: Agricultural land use, by type, 2007–2017**



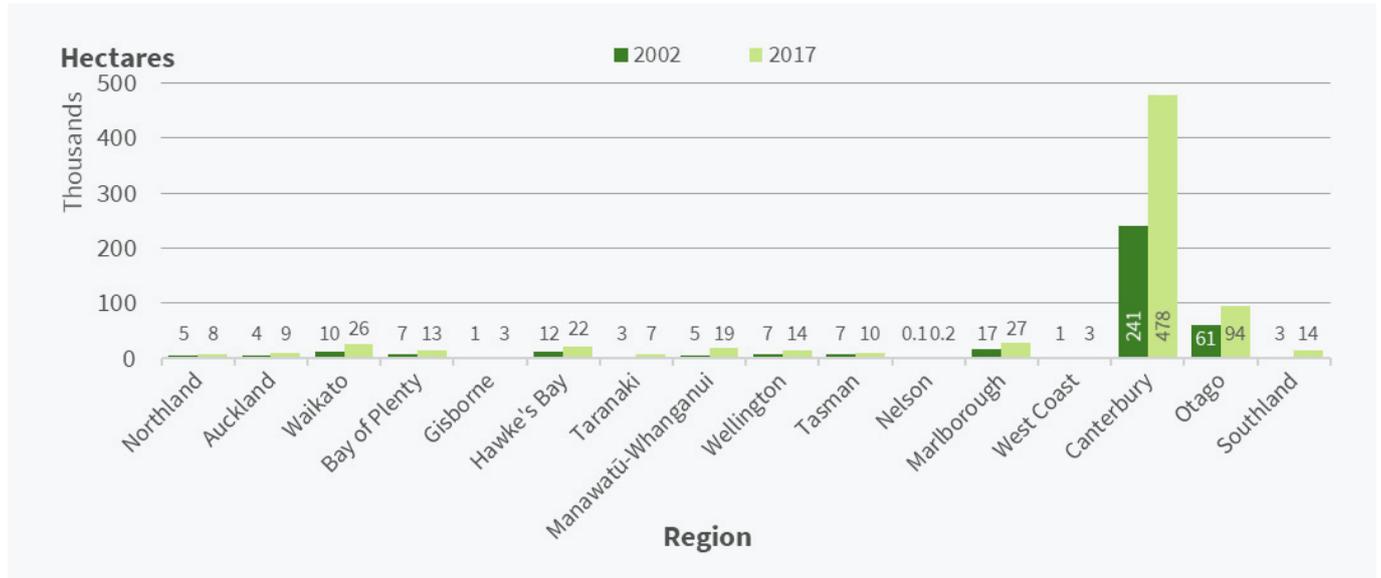
Note: 'Plantation of exotic trees' includes harvested areas awaiting restock, and areas that have not yet been harvested.

Source: Statistics New Zealand

## The area of irrigated land increased in all regions

Irrigating agricultural land can place pressure on recreational water bodies by increasing the runoff of agricultural chemicals or faecal pollutants from the land into the water. Between 2002 & 2017, the area of irrigated agricultural land almost doubled from 384,152 to 746,739 hectares, an increase of 94%. Around 84% of all irrigated land is in the South Island, primarily in the Canterbury and Otago regions (Figure 6), accounting for 64% and 13% of the total area respectively.

**Figure 6: Area of irrigated land, 2002 & 2017**



Source: Statistics New Zealand

Measured by volume, surface water (i.e. water from rivers & lakes) provides 73% of all consented freshwater takes for agricultural use (Table 1), most of which is used for irrigation. Surface water takes can affect the speed and volume of water flow in rivers from which water is taken, which in turn can affect the water quality within these waterways. River flow helps to disperse pollutants such as toxic algae and bacteria, so reduced flow can lead to build-ups of these contaminants.

**Table 1: Consented annual freshwater takes for agricultural purposes, by region, 2017/18 (shown in billions of litres)**

Region:	Northland	Auckland	Waikato	Bay of Plenty	Gisborne	Taranaki	Manawatū-Whanganui	Hawke's Bay	Wellington	Tasman	Marlborough	West Coast	Canterbury	Otago	Southland	New Zealand
Maximum consented take	67.7	15.2	105.5	7.3	33.3	67.1	290.1	301.6	153.5	53.1	286.8	169.2	5443.6	1188.5	61.0	<b>8243.4</b>
Max. consented take from surface water	37.9	2.1	83.0	2.1	21.8	63.0	212.2	63.0	97.7	29.5	222.8	169.2	3866.9	1115.7	9.4	<b>5996.3</b>
Surface water as percentage of max. take	56%	14%	79%	29%	65%	94%	73%	21%	64%	56%	78%	100%	71%	94%	15%	<b>73%</b>

**Note:** This graph reflects the maximum quantity of water permitted to be taken, not the amount actually used.

**Source:** Statistics New Zealand

## Data for this indicator

Data comes from Statistics New Zealand's Agricultural Production Statistics, specifically the Agricultural Production Censuses from the year 2002 onwards. Data on freshwater takes is sourced from Statistics New Zealand's 'Consented freshwater takes' indicator. For additional information, see the metadata link below.

## References

Ministry for the Environment. (2020). *Our freshwater 2020*. Retrieved June 12, 2020, from <https://www.mfe.govt.nz/node/26610>

Statistics New Zealand (2002, 2007, 2012 & 2017). *Agricultural Production Census*. Retrieved October 27, 2020 from <https://www.stats.govt.nz/information-releases/> and <http://archive.stats.govt.nz/>

Statistics New Zealand (2020). *Consented freshwater takes*. Retrieved November 5, 2020 from <https://www.stats.govt.nz/indicators/consented-freshwater-takes>

## Other related topics include:

[Number and density of livestock](#)

[Suitability for swimming at recreational bathing sites](#)

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## Further information

For descriptive information about the data [🔍 Metadata Sheet](#)

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