Number and density of livestock in New Zealand

This factsheet presents indicators of the number and density of livestock (sheep, dairy cattle, beef cattle, deer) in New Zealand. Livestock play an important role in the New Zealand economy. But poorly managed livestock production can have a major impact on the environment.

Key facts

Overall livestock numbers declined by more than a quarter between 2002–2019. Dairy cattle were the only livestock type whose numbers increased during this period, rising by 21%.

Though sheep numbers decreased by 32% between 2002–2019, sheep still outnumbered all other livestock types combined by a factor of almost three to one at the end of the 2010s.

The Manawatū-Whanganui region had the greatest density of livestock, possessing 264.8 animals per km^2 in 2019.

Agricultural use of land has a major effect on the environment

Cattle, sheep, and deer farming plays a very important role in New Zealand's economy. However, agricultural use of land can cause bodies of water that are used for recreational activities such as swimming, boating, and fishing to become contaminated in several ways (Ministry for the Environment & Statistics New Zealand 2015):

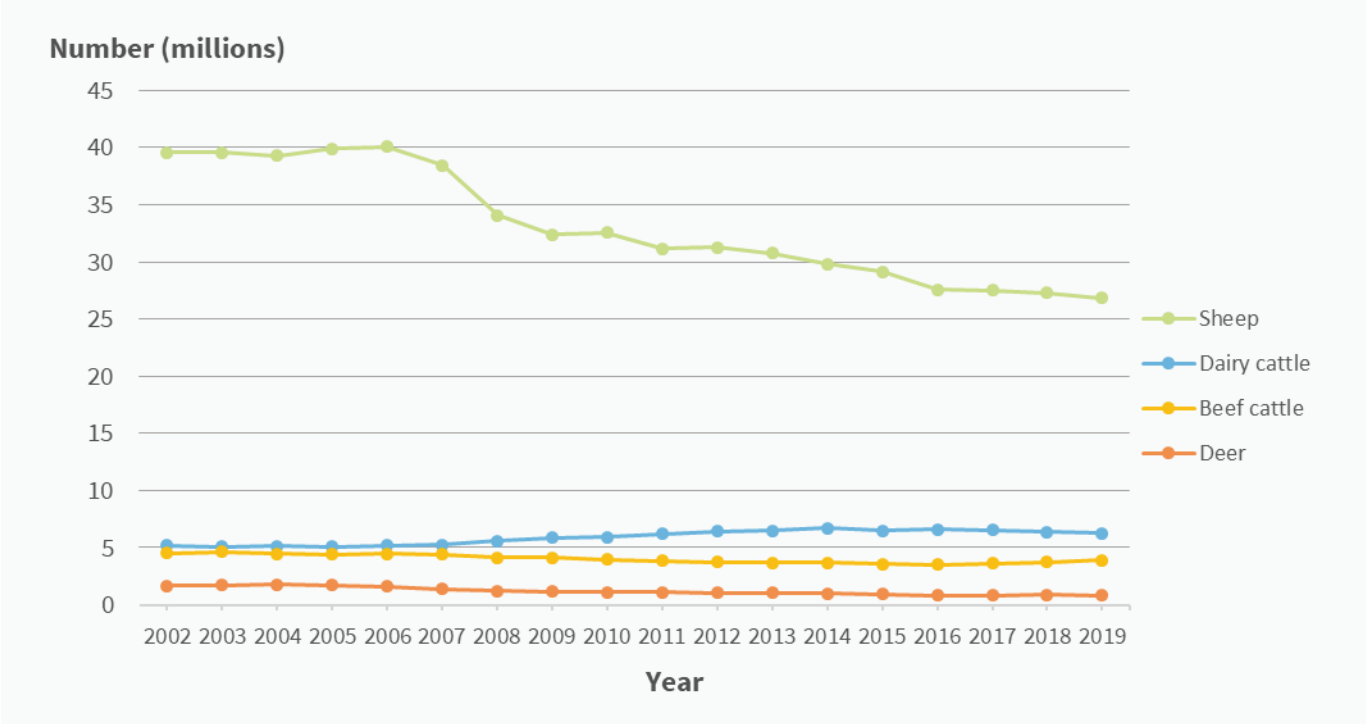
- The run-off of effluent from farms into water sources can affect water quality and cause gastrointestinal or respiratory diseases.
- Excess nutrients, such as nitrogen from fertiliser or livestock urine, can be washed into waterways and pose a negative impact on the water quality.
- Intensive farming consumes large amounts of water for irrigation and as stock water, which affects the water levels in rivers and groundwater supplies.

Additionally, agriculture is a major contributor of greenhouse gas emissions. The methane (CH4) produced by dairy cattle and sheep constitutes roughly a third of New Zealand's greenhouse gas emissions, making it the largest source of emissions in the country (Landcare Research 2020).

Total livestock numbers continued to decrease

Between 2002 and 2019, the total number of livestock in New Zealand decreased by almost 26%, from 50.9 million to 37.8 million (Figure 1). The bulk of the decline is owed to the decrease in sheep numbers, which reduced by almost a third during this period. Deer numbers also declined significantly, with a 51% decrease between 2002–2019. Numbers of beef cattle decreased by 13%. However, dairy cattle numbers increased by 21%, with most of the additional animals being concentrated in the South Island, where the number of dairy cattle almost doubled from 1.3 to 2.4 million.

Figure 1: Number of livestock, by type, 2002–2019



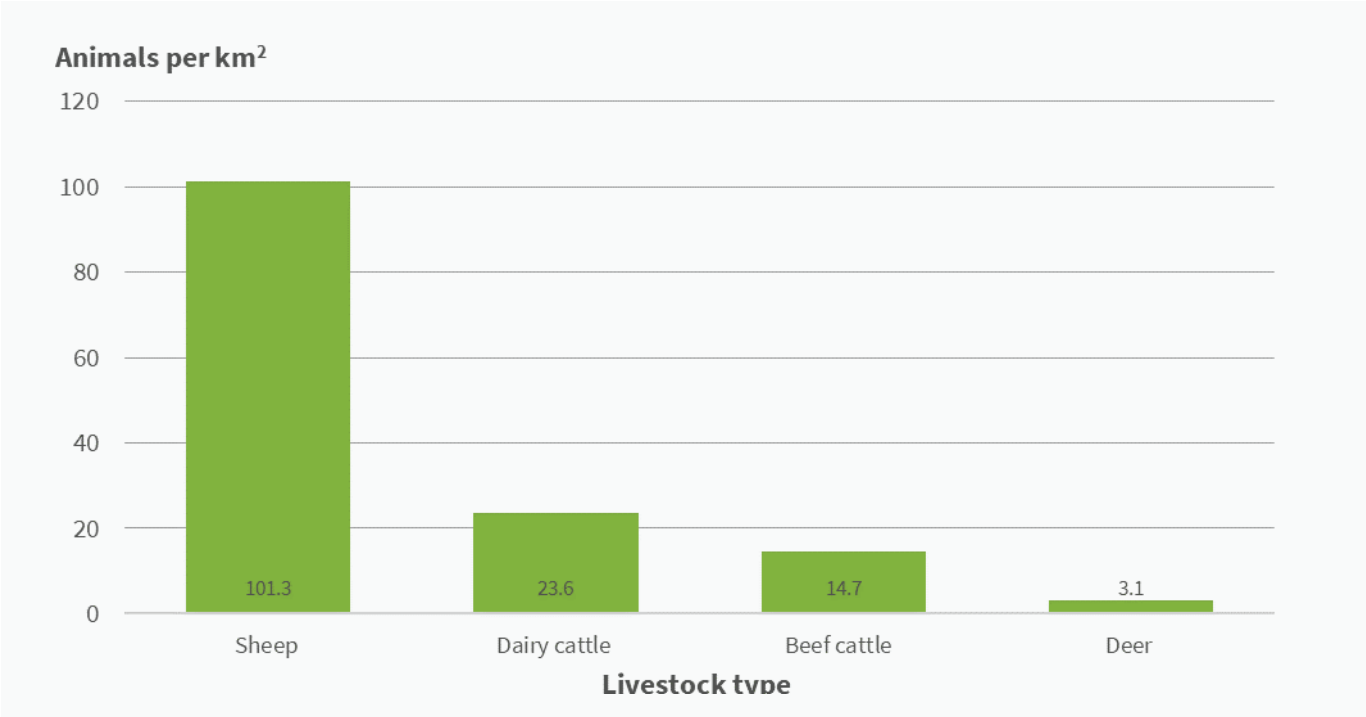
Livestock type	2002 (millions)	2019 (millions)	Percent change
Sheep	39.6	26.8	-32.2%
Dairy cattle	5.2	6.3	+21.2%
Beef cattle	4.5	3.9	-13.4%
Deer	1.6	0.8	-50.8%
Total	**50.9**	**37.8**	**- 25.7%**

Source: Statistics New Zealand 2020

Sheep remained the primary livestock animal in 2019

In 2019, the nationwide density of livestock was 143.1 animals per km^2, a decrease of 0.9% since 2018. Sheep were the predominant stock animal, with an overall density of 101.3 animals per km^2, more than four times the density of the next most numerous animal – dairy cattle, with a density of 23.6 animals per km^2 (Figure 2). Density is calculated based on the total land area of a region, rather than area of farmland specifically.

Figure 2: Density of livestock, by type, 2019



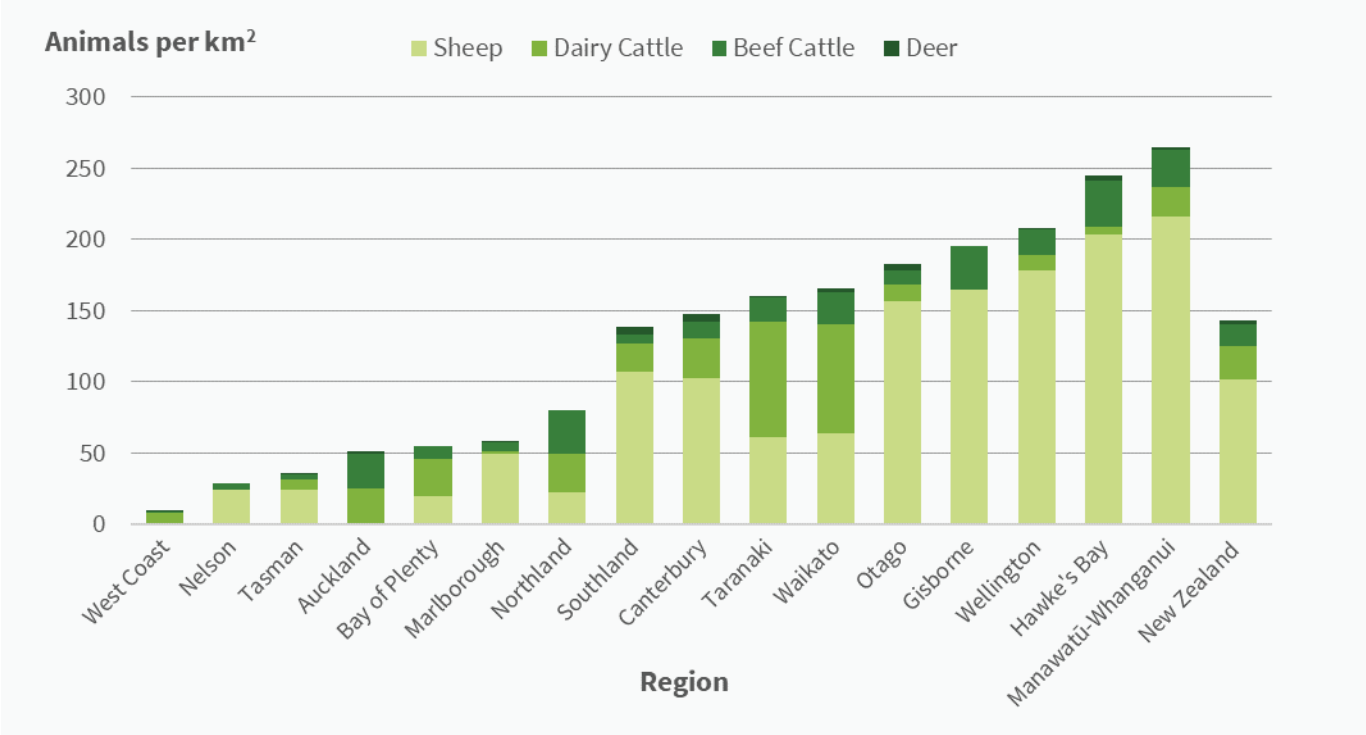
Source: Statistics New Zealand 2020

The Manawatū-Whanganui region had the greatest concentration of livestock

In 2019, the Manawatū-Whanganui region had the highest livestock density (264.8 animals per km^2) nationwide (Figure 3). The region also possessed the greatest density of sheep (215.6 animals per km^2). As for other types of livestock,

- the greatest concentration of dairy cattle was in Taranaki (80.9 per km^2),
- beef cattle were most densely farmed in the Hawke's Bay region (31.8 per km^2)
- deer were densest in the Canterbury region (5.6 per km^2)

Figure 3: Livestock density by type and region, 2019



Source: Statistics New Zealand 2020

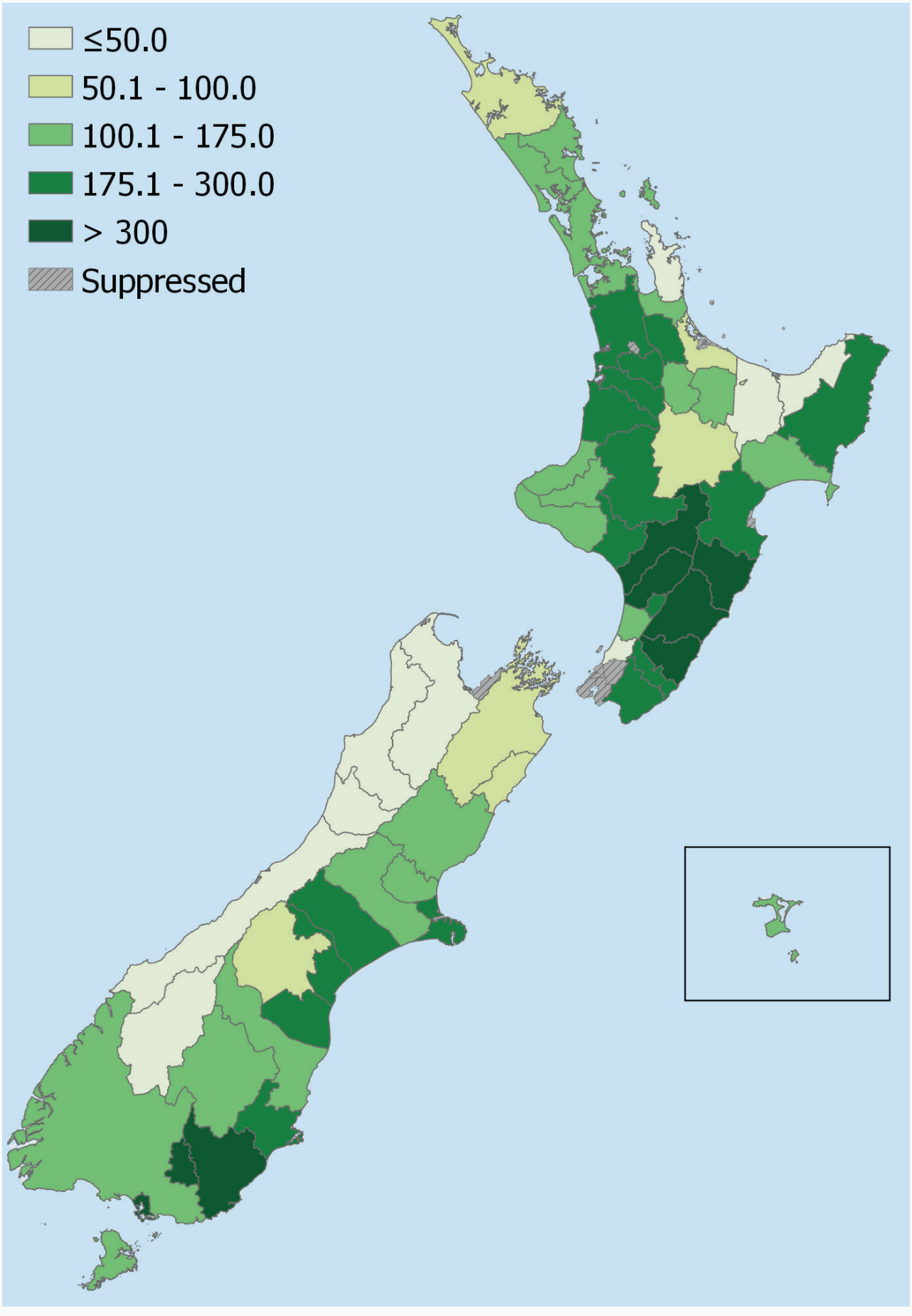
Livestock density by territorial authority (TA)

The most recent data concerning livestock numbers and density at the TA level is from the Agricultural Census, which was last conducted in 2017 and takes place every five years. Consequently, there is no new information to report in this edition of the Livestock Numbers & Density factsheet. The following summarises the findings of the previous census:

- Gore had the densest total livestock (684.5 animals per km^2), followed by Central Hawke's Bay District (391.3 animals per km^2) and Masterton District (390.6 animals per km^2)
- Timaru District had the highest density of deer (21.7 animals per km^2)
- Gore District had the highest density of sheep (589.8 animals per km^2)
- Central Hawke's Bay District had the highest density of beef cattle (42.6 animals per km^2)
- Matamata-Piako District had the highest density of dairy cattle (211.1 animals per km^2)

See Figure 4 for more information.

Figure 4: Livestock density, by Territorial Authority, 2017 (number per km^2)



Note: Some areas are suppressed as the counts for one or more livestock types in those areas were suppressed or kept confidential by Statistics New Zealand.
Source: Statistics New Zealand 2018

Data for this indicator

Data comes from Statistics New Zealand's Agricultural Production Statistics, which contain the results of the Agricultural Production Censuses and Agricultural Production Surveys conducted from the year 2002 onwards. For additional information, see the metadata link below.

References

Landcare Research. 2020. *Methane Emissions*. **www.landcareresearch.co.nz/science/greenhouse-gases/agricultural-greenhouse-gases/methane-emissions** (accessed May 2020).

Ministry for the Environment (MfE) & Statistics New Zealand. 2015. *New Zealand's Environmental Reporting Series: Environment Aotearoa 2015*. Available from **www.mfe.govt.nz** and **www.stats.govt.nz** (accessed July 2017).

Statistics New Zealand. 2020. *Agricultural production statistics: June 2019 (final)*. Data available from **www.stats.govt.nz/information-releases/agricultural-production-statistics-june-2019-final** (accessed June 2020).

Other recreational water topics include:

Water-borne diseases related to recreational water

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Further information

For descriptive information about the data **Metadata Sheet**

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