

**Voluntary Report** – Voluntary - Public Distribution

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**Report Name:** New Zealand Deer Production and Trends

**Country:** New Zealand

**Post:** Wellington

**Report Category:** Livestock and Products

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**Report Highlights:**

New Zealand is by far the largest exporter of deer meat and products in the world. The first commercial deer farm in New Zealand was established in the early 1970s and since then, the industry has grown into an on-average NZ\$280 million (US\$175 million) per year export earner for the country's agricultural sector. The primary exports derived from deer are venison meat, velvet, and other various unique co-products. The United States continues to be the largest importer of New Zealand venison, while China is the largest consumer of the velvet and co-products. The deer industry is beginning to recover from a fall in export earnings as a result of COVID-19 impacts in key importing countries, and is also facing having to adapt to new Government environmental regulations in New Zealand.

**Executive Summary:**

New Zealand is by far the largest exporter of deer meat and products in the world. The first commercial deer farm in New Zealand was established in the early 1970s and since then, the industry has grown into an on-average NZ\$280 million (US\$175 million) per year export earner for the country's agricultural sector. The primary exports derived from deer are venison meat, velvet, and other various unique co-products. Venison equates to 91 percent of the total volume of deer products exported, however is just over 58 percent of the value. This is as a result of the co-products of deer being quite valuable, particularly as ingredients in traditional Chinese medicine.

The United States continues to be the largest importer of New Zealand venison, accounting for one-third of New Zealand's total exports in 2022. China is the largest consumer of the velvet and co-products, importing almost 80 percent of New Zealand's total exports of these products.

Deer farming in New Zealand is expected to see some turbulence over the remainder of the decade. This is as a result of new and upcoming environmental laws being introduced, such as ones where livestock species such as farmed deer will need to be excluded from natural wetlands and streams. In addition, the impacts of the agricultural emission pricing proposed by the New Zealand Government and scheduled to be implemented by 2025 remain to be seen. The industry's levy funded organisation has been working as a partner in the collaborative partnership – He Waka Eke Noa (HWEN) - to refine the emissions pricing proposal.

*Note: The GAIN Marketing Year (MY) is the same as the calendar year (CY), January 1 to December 31. For the purpose of this report always refer to MY unless otherwise stated. For foreign exchange rate between New Zealand Dollar and United States Dollar, the rate used in this report is NZ\$ 1.00 = US\$ 0.63.*



*Image: Farmed wapiti bulls in velvet. Otago, New Zealand.*

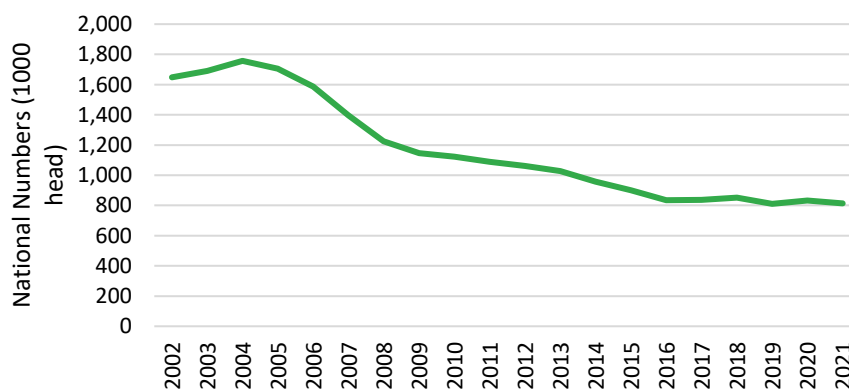
## Background

The first deer arrived in New Zealand for the purpose of wild game in the late 1800s. However, it wasn't until the 1970s that the development of domestic deer farming began to take place. The first deer were selected and handled as domestic livestock by scientists from the crown research institute - now called AgResearch. The primary breeds now farmed in New Zealand are Red and Fallow breeds of European descent, as well as Wapiti (Elk) which originate back to 20 animals gifted to New Zealand by President Theodore Roosevelt. There are other breeds in parts of the country that remain wild such as White-tail, Sambar, Sika, and Rusa. With no natural predators in New Zealand, these wild deer are regarded as pests and are harvested for sport. More recently the New Zealand government has started programs to eradicate excessive wild deer. New Zealand's vast landscape of forestry, mountains, and year-round pasture makes it an ideal location for many breeds of deer.

Modern deer farming in New Zealand is run as part of a multi-livestock operation with sheep and beef. Since its inception in the 1970s, deer farmers have managed to find synergies where key times such as mating (rut), birthing (fawning), weaning, slaughter, and harvesting of velvet do not coincide with the key times other livestock operations. In addition, deer farming helps create multiple cash flow streams for operations at different times of the year.

National deer numbers peaked in 2004 at 1.7 million, and since then they have seen a massive decline (see Figure 1). Much of this was due to the national dairy industry expansion that took place at the same time in particular regions. Today, the national farmed deer herd currently sits at just over 800,000, located on 2,000 farms.

**Figure 1: National Deer Numbers**



Source: StatsNZ

## Future/Outlook

Work by the New Zealand deer industry around breeding genetics, processing innovations, and market development is on-going. However, deer farming in New Zealand faces many future-proofing challenges like much of the country's other primary agricultural industries.

### On-Farm challenges

New Zealand’s deer industry is now coming under pressure with upcoming environmental regulations. First among these is one associated with stock exclusions from waterways, and the costs associated to keep deer fenced out from all wetlands and streams. In addition, livestock emissions pricing is set to come into effect in 2025, and the levy funded organization - Deer Industry New Zealand (DINZ) – is a participant of He Waka Eke Noa (HWEN). Deer farms are regarded as a very inefficient converter of feed to products, and modeling indicates the species is a high emitter per animal. As a result, emissions pricing could have a significant impact on production.

### Market Prospects

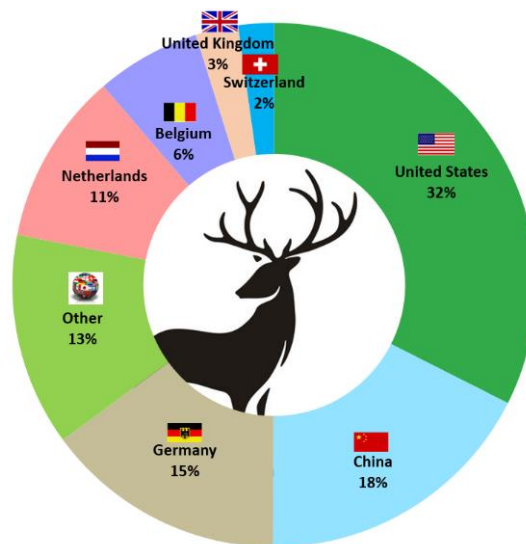
Deer venison and products continue to be targeted to nutrition and health-centric customers through the offering of lean tender meat that is high in iron, or alternative and natural medicines. Deer products have a niche fit despite the apparent scale already created by the industry. However, exports, especially of venison, were heavily impacted by COVID-19 and reduced hotel and restaurant activity in key importers. With countries re-opening around the world, there is a return to higher pricing and demand for deer products and in particular venison, which is anticipated to bring value back to a farm level.

## **Production and Trade**

### **Venison**

New Zealand 2022 exports for venison are estimated to reach NZ\$175 million (US\$110 million), accounting for 58 percent of total deer product exports. New Zealand’s largest customer consistently for venison remains the United States, followed by China, Germany, and Netherlands (see Figure 2). Having been traditionally game meat, domestic farming and genetics have changed eating quality dramatically over the very short industry lifespan so far.

**Figure 2: New Zealand Venison Exports in 2022**



Source: Trade Data Monitor LLC

New Zealand does not differentiate venison based on age or gender of the animal at slaughter like other red meat livestock species. As a result, much of the determination for what goes to slaughter is based on availability and pricing at key times of the year.

In the years prior to the outbreak of COVID-19, the venison market saw an increase in demand and strong prices as a result of the outbreak of African swine fever in China, which increased demand for global animal protein. In addition, many large manufactures sourced it as a petfood ingredient. The outbreak of COVID-19, however, had a major impact on trade as venison has been reliant on the hotel, restaurant, and café industry (HORECA), especially in the United States and European marketplace. COVID-19 presented an immense challenge for markets with many HORECA outlets globally remaining closed due to government regulations. However, the industry was able to partially pivot towards e-commerce and home delivery options, and with the easing of COVID-19 restrictions around the world, global exports have begun to grow again.

### Exports

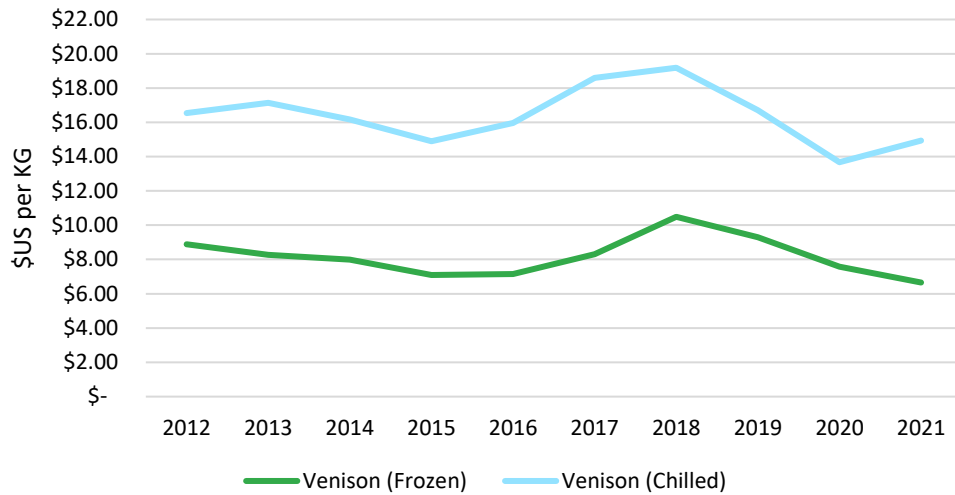
Total deer product exports by value in 2022 is estimated to be NZ\$ 303 million (US\$191 million), of which 58 percent has been venison meat and the rest derived from co-products. Venison, and especially chilled venison, has a price premium over lamb and beef (see Table 1). As mentioned, venison export prices strengthened in 2017 and 2018 because of strong global animal protein demand, but then fell as a result of COVID-19 impacts (see Figure 4). Prices and export volumes in 2021 and 2022 have recovered with returning demand.

**Table 1: New Zealand Red Meat Exports by Unit Value**

USD/KG	2017	2018	2019	2020	2021	5-year Average
Venison (Chilled)	\$18.60	\$19.18	\$16.72	\$13.67	\$14.94	\$16.62
Venison (Frozen)	\$8.30	\$10.49	\$9.30	\$7.59	\$6.66	\$8.47
Lamb	\$5.85	\$6.52	\$6.60	\$6.28	\$7.34	\$6.52
Beef	\$5.04	\$5.06	\$5.30	\$5.18	\$5.81	\$5.27

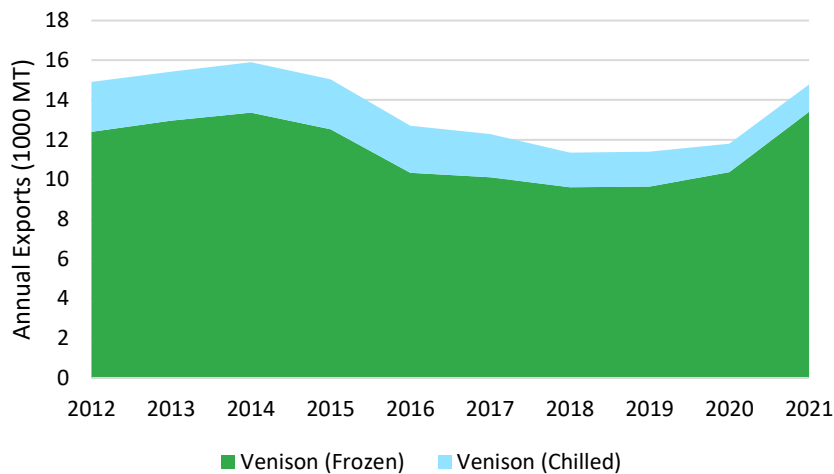
Source: Trade Data Monitor LLC

**Figure 4: New Zealand Venison Exports by Unit Value**



Source: Trade Data Monitor LLC

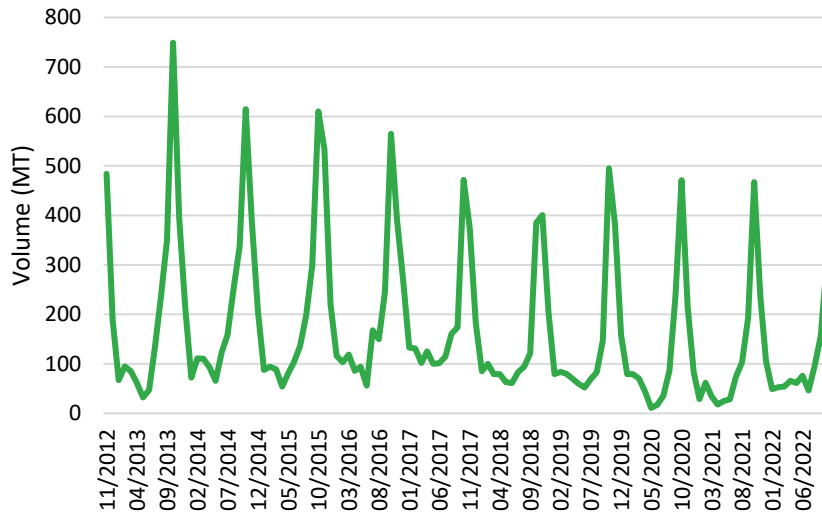
**Figure 5: New Zealand Venison Exports by Volume**



Source: Trade Data Monitor LLC

Venison is exported both frozen and chilled (Figure 5). Although chilled is the smaller of the two markets, this is a very seasonal market and priced almost double that of frozen venison (Figure 6). The peaks in demand are experienced in October for the chilled market, as a result most venison farmers in New Zealand target slaughtering animals early coming out of the New Zealand winter for this market and the strong prices associated. The chilled market venison is destined typically for European markets such as Belgium, Germany, Netherlands, and Switzerland. These sales follow the cuisine traditions in parts of Europe that as winter approaches there is increased consumption of venison stews, and the hunting of wild deer in these markets is typically insufficient to meet market demands.

**Figure 6: New Zealand Chilled Venison Exports (Monthly)**



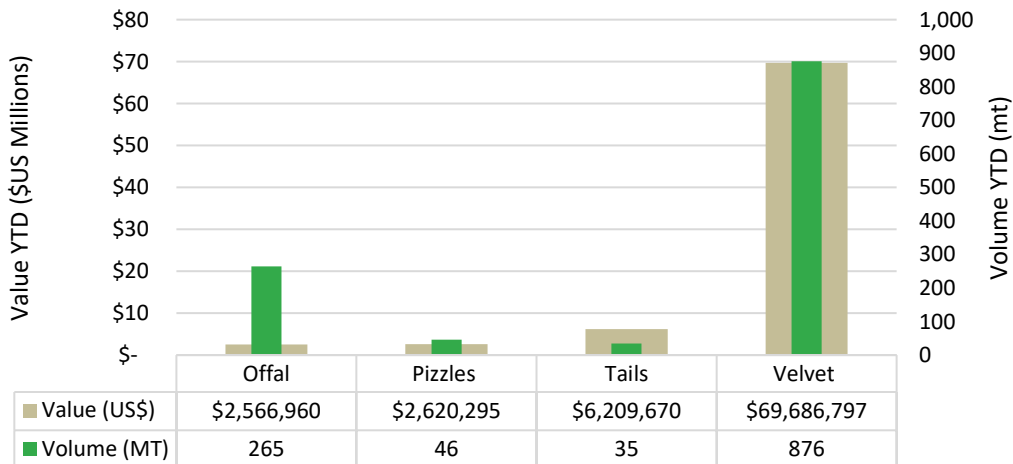
Source: Trade Data Monitor LLC

**Co-Products**

**Exports**

Of New Zealand deer products export value, over 40 percent has been derived from the co-products. These consist of velvet/antler, pizzles, and tails used as ingredients in various traditional Chinese medicines. The value of exports of all these co-products is estimated to reach NZ\$129 million (US\$81 million) in 2022, a significant increase on the previous five-year average of NZ\$90 million (US\$56 million).

**Figure 7: 2022 Velvet and Co-Products Exports & Value**



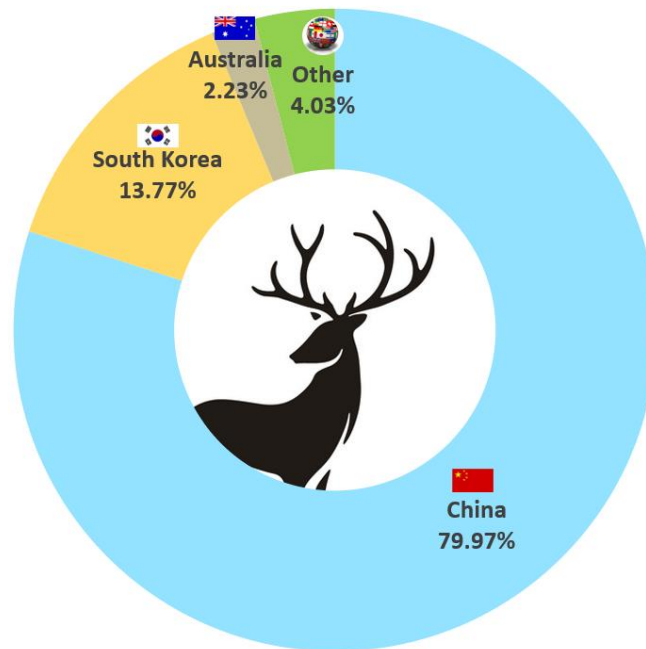
Source: Trade Data Monitor LLC



## Velvet

In 2022 New Zealand exports of velvet and antler are expected to reach NZ\$111 million (US\$70 million). New Zealand's largest customer consistently for velvet is China followed by South Korea (Figure 8). Velvet is one of the fastest growing mammalian tissues, which is harvested off the live males and used as an ingredient in traditional Chinese medicine for the purpose of immunity, anti-fatigue, and mobility.

**Figure 8: New Zealand Velvet Exports in 2022**



Source: Trade Data Monitor LLC

## Other Products

New Zealand exports in 2022 of offal, pizzles and tails value is at NZ\$18 million (US\$11 million). New Zealand's largest customers consistently for tails and pizzles are China and Hong Kong, as they are used as ingredients in traditional Chinese medicine products for vitality and remedies. The unique value per unit of these co-products has been a valuable revenue source for the industry, despite being previously thought of as a waste product.

The United States is consistently the largest importer of deer offal, importing over 700 MT in the last five years, and over the same period China imported 380 MT and 21 4MT went to Hong Kong. Much of this product is destined for the pet food industry.



**HS Codes**

<i>Venison</i>	<i>Co-Products</i>
Frozen - 0208900018 Chilled - 0208900017	Offal - 0208900015 Pizzles -0208900011 Tails - 0208900013 Velvet - 050790

**Attachments:**

No Attachments.