CORIOLIS

NEW ZEALAND FIBRE INDUSTRY ECONOMIC ANALYSIS & MODELLING

Stage 1: Current State Baseline

Fashion &Textiles NEW ZEALAND

CLIENT-DEFINED DELIVERABLE 3

April 2026

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KEY CONTACTS FOR THIS REPORT

Virginia Wilkinson is a Director at Coriolis. Virginia is Coriolis' resident expert on consumer insights and market research. She has over fifteen years of experience in primary sector and food and fast moving consumer goods research. Virginia regularly conducts both primary and secondary research on food, fast moving consumer goods, retailing and foodservice across Australasia. You may contact her by e-mail on:

vwilkinson@coriolisresearch.com

Tim Morris is a Director at Coriolis and is recognised as a leading expert and advisor to CEOs and stakeholders in strategy in food, fast moving consumer goods and retailing. Tim is a recognised expert globally in retailing, particularly in private label, with his work being quoted in numerous publications and college textbooks. He is head of Coriolis' retail and consumer goods practise. You may contact him by e-mail on:

tmorris@coriolisresearch.com

If at any point you are unclear where a number came from or how a conclusion was derived, please contact the authors directly. We are always happy to discuss our work with interested parties.

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EXECUTIVE SUMMARY: OVERALL

New Zealand has a real fibre opportunity, but not a broad-based commodity growth story. The current portfolio is best understood as different businesses. First, a set of large legacy co-product streams, particularly wool and skins/hides, that remain economically material but are in long-run structural decline. Second, a set of small emerging niche fibres, including mohair, cashmere, alpaca, hemp, harakeke, and waste-to-fibre pathways, that have attractive narratives and some capable anchor players, but are currently too small, fragmented, or early-stage to matter at scale without deliberate intervention. New Zealand needs to stop thinking of "fibre" as one sector and instead manage it as a portfolio of plays with different economics, different time horizons, and different policy asks.

The starting point is sobering.

- **Wool** remains by far the largest fibre stream, with ~23.4 million animals producing ~114,600 tonnes worth ~NZ$540 million in 2025, but the sector is structurally drifting toward a meat-led, lower-wool system. Production has been declining since 1981, sheep numbers have been falling since the 1980s peak, and realised wool per sheep has deteriorated since around 2010. The diagnosis is clear: this is not a cyclical downturn; it is a structural demand problem in a world that has shifted away from wool as a default fibre.
- **Skins and hides** tell a parallel story: still meaningful at ~54,000 tonnes and ~NZ$370 million, but with most value now captured offshore because New Zealand largely exports raw, pickled, or wet-blue product rather than finished leather. In both cases, New Zealand still has scale, capability, and relevance, but is no longer controls the highest-value parts of the chain.

The smaller natural fibres sound promising, but only as premium niches. Mohair, cashmere, and alpaca each have a credible right to exist in a differentiated New Zealand fibre portfolio, but none today are remotely "industry scale."

- **Mohair** is perhaps the clearest "small but premium" opportunity, with supportive global supply tightness, a functioning aggregator, and downstream processors in place; yet the industry is still only 20–30 tonnes and around NZ$1 million in value.
- **Cashmere** is even smaller, with ~8,000 goats and roughly 1.6 tonnes of production, but has a plausible super-premium positioning built around traceability, welfare, genetics, and integrated processing.
- **Alpaca** appears more fragmented again: credible as a provenance-led micro-industry, but dependent on better aggregation, clearer standards, and more disciplined market development.

Across all three, the pattern is the same: the route to success is not scale tonnage; it is domestic value-add, repeatable quality, and premium brand positioning.

The newer bio-based fibres have strong narratives but unclear current economics.

- **Industrial hemp** has credible long-term upside, but today is small, compliance-constrained, and appears to be shrinking rather than scaling. New Zealand will not win as a commodity hemp producer and instead must compete through integrated processing, differentiated downstream products, and regulatory reform.
- **Harakeke** has a compelling provenance and sustainability story, with real scientific depth and early composite applications, but remains venture-stage and highly execution-dependent.
- **Forestry-to-fibre**, **food-waste-to-fibre**, and **textile-waste-to-new-fibre** are even earlier: they are best viewed as innovation options rather than investable industries today. The common pattern is that these pathways may ultimately matter, but they currently rely on public R&D support, a very small number of commercial pioneers, and unproven scale economics.

In summary, New Zealand's fibre landscape is best understood as a portfolio of distinct plays rather than a single sector. The economically significant legacy streams still matter, but they are structurally weakening, while the newer and smaller fibres offer differentiated promise without yet delivering meaningful scale.

The identified New Zealand fibre streams vary widely by size

SUMMARY OF NEW ZEALAND FIBRE SUPPLY: VOLUME AND FARM-GATE VALUE

Tonnes; NZ$; m; 2025 or as available

Fibre	Volume (t)	Value (NZ$m)	Notes
Wool	114,600t	$540m	
Skins and hides	54,050t	$372m	Some double counting of revenue (e.g. SFF to Lowe)
Mohair	20-30t	$1.0m	Limited current data
Cashmere	1.6t	$0.2m	Based on average of Farmers Weekly article ranges
Alpaca	33t	$0.5m	Limited current data
Hemp	540t	$1.0m	Patchy data in changing regulatory encvironment
Harakeke	175t	$0.5m	Low confidence estimates; no data identified
Forestry	-	-	Pre-commercial; bench scale; proposed/hypothetical
Food	-	-	Pre-commercial; bench scale; proposed/hypothetical
Textile waste	In theory ~220,000+ Currently recovered ~2,100t	$11m	Mechanical recycling/down-cycling sector exists

Source: analysis presented later

Agenda

#	Topic	Page
1	**Wool**	**5**
2	Skins & hides	37
3	Mohair	49
4	Cashmere	59
5	Alpaca	70
6	Industrial Hemp	81
7	Harakeke	91
8	Forestry Waste-to-Fibre	100
9	Food Waste-to-Fibre	115
10	Textile Waste-to-Fibre	122
11	Domestic textiles & apparel	130

EXECUTIVE SUMMARY: WOOL

New Zealand wool is simultaneously a large, important pastoral co-product and a sector in long-run structural decline. Wool has been exported for ~190 years, and sits within a robust, end-to-end sheep supply chain with deep capability across genetics, on-farm services, shearing, handling, testing, scouring, fellmongering, logistics and a small set of value-added product manufacturers.

The issue is not "can New Zealand produce wool?" Rather, it is "can wool can regain demand pull and value capture in a fibre market that has structurally shifted away from wool as a default apparel choice?"

The supply base is tightening, and the drivers are structural rather than cyclical. Wool production has been in constant decline since 1981 at roughly -2.7% CAGR, consistent with the long shift of the sheep sector toward meat economics. Sheep inventory has been trending down since the mid-1980s "wool bubble" popped (-2.4% CAGR), and the number of sheep farms is also declining as farming consolidates into fewer, larger enterprises. Importantly, the average "surviving" sheep farm is carrying similar or higher sheep numbers as always, but producing less wool per farm, consistent with (1) the sector's gradual move to lower-wool or self-shedding genetics, and (2) animal number losses coming from complete land use change (e.g. sheep farms into lifestyle blocks or forestry).

Productivity is also moving in the wrong direction for a commodity input. Realised wool per sheep plateaued from the late-1950s to ~2010, and has been declining rapidly since (-1.8% CAGR over 2010–2025). This is partly complicated by "slipe" wool (~15%) chemically removed at meatworks, which can create apparent production surges when slaughter spikes, another reminder that wool is increasingly a by-product of meat throughput, rather than the primary driver of flock decisions.

Despite this, the sector remains economically material. In 2025 there were ~23.4m animals producing ~114,600 tonnes of wool worth ~NZ$540m (down from ~NZ$1.0b in 2006).

The sector has repeatedly diagnosed the same constraints (fragmented governance, weak market orientation, and chronic underinvestment) across a long list of strategies and reviews, and more recent efforts explicitly call for branding, differentiation, supply chain alignment and innovation.

The structural drift toward meat-led, low-wool systems will likely continue.

Sheep have been in New Zealand for over 250 years and wool has been exported for over 190 years

NEW ZEALAND WOOL INDUSTRY TIMELINE

1773-2025

1773/1777 British government employees introduce sheep, cattle, pigs, and chickens to New Zealand.

1797 The King of Spain, King Charles III, gifts merino sheep from his personal flock to Australia; genetics later sent to NZ.

1800s Settlers establish European-style sheep and cattle farming in New Zealand.

1814 Samuel Marsden brings sheep from NSW to the Bay of Islands; the flock stays small, mission-based.

1834 John Bell Wright imports Merinos from Australia, often described as the foundation of the wool industry.

1835 Wright sends a few bags of wool to Sydney for sale, cited "start point" for NZ wool exports.

Early 1840s Sheep farming expands rapidly in regions like Wairarapa, Canterbury, and Otago, supporting a scaling wool clip.

1840 British immigrant William Mayhew opens the first butcher's shop in Russel.

1851 Scottish inventor James Harrison develops the first mechanical ice-making machine.

1858 NZ Merino breeder George Rich tours Europe and imports sheep from Prussia/France to improve stud quality.

1870 First NZ export shipment of canned meat.

1882 British company constructs the first meatworks in New Zealand. First export shipment of frozen meat carcasses.

1893 21 export meat-focused freezing works.

1894-1900 Increasing levels of government regulation of meat processing through multiple acts.

1907 Ruakura Experimental Station is established by the Department of Agriculture to focus on improving animal productivity.

1910s The two largest global meat traders, Armour (US) and Vestey Brothers (UK), now have operations in New Zealand.

1915 British Government agrees to purchase all exportable meat during WWI. When this agreement ended in 1920, the artificial oversupply leads to a market crash.

1923 Meat Export Control Act creates the NZ Meat Producers Board (NZMB) to solve the problems created by the government selling all meat to Britain.

1932 Despite union objections, the assembly line "meat chain" developed by Swift in the US in 1890+ is finally introduced to New Zealand by British multinationals, decreasing cost and increasing throughput.

1936 New Zealand Wool Publicity Committee formed (precursor marketing/promotion institution).

1937 DSIR established the New Zealand Wool Manufacturers' Research Association which had a further name change to the New Zealand Woollen Mills Research Association in 1945 and again in 1956 to the NZ Wool Industries Research Institute.

1939 Publicity Committee becomes the New Zealand Wool Council.

1940 McDonald's brothers opened their first unit, kicking off the global spread of fast food. By 2020, the firm will purchase 31.3kt of New Zealand beef.

1944 New Zealand Wool Board established under the Wool Industry Act; becomes the central grower-funded marketing/promotion/research body.

1949 American inventor Robert D. McGuire develops Cryovac, a packaging system that extends the shelf life of chilled meats. First export from NZ using this by 1960.

1950–53 Korean War demand shock: the US stockpiles wool; NZ experiences the famous 1951 wool boom.

1959 Britain takes 98% of lamb exports. US takes 82% of beef exports.

1961 WRONZ (Wool Research Organisation of NZ) established as a specialist wool R&D funder/org.

1961 Tegel Chicken is founded in Taranaki. This is later acquired by Watties in 1969. Chicken consumption will later exceed lamb.

1972 Wool Marketing Corporation Act 1972

1973 Britain joins the European Union, triggering multiple rounds of quotas and tariffs..

1978 NZ Wool Marketing Corporation merges with the Wool Board, forming NZ Wool Board.

1978/79 Government introduces Supplementary Minimum Prices (SMP) (including wool), reinforcing pastoral expansion incentives

1982 New Zealand sheep numbers peaked following the end of the wool boom. Industry begins the long process of capacity reduction.

1987 The government ends most farming subsidies, and the New Zealand meat industry is deregulated, followed by numerous bankruptcies, plant closures and new industry entrants.

2000 McKinsey report recommends wool industry restructuring; growers support recommendations.

2001 Dairy cattle numbers now exceed beef-focused breeds.

2003 Under the Wool Industry Restructuring Act 2003, the Wool Board is disestablished.

2008 NZ-China Free Trade Agreement

2018 China is the largest market for New Zealand meat.

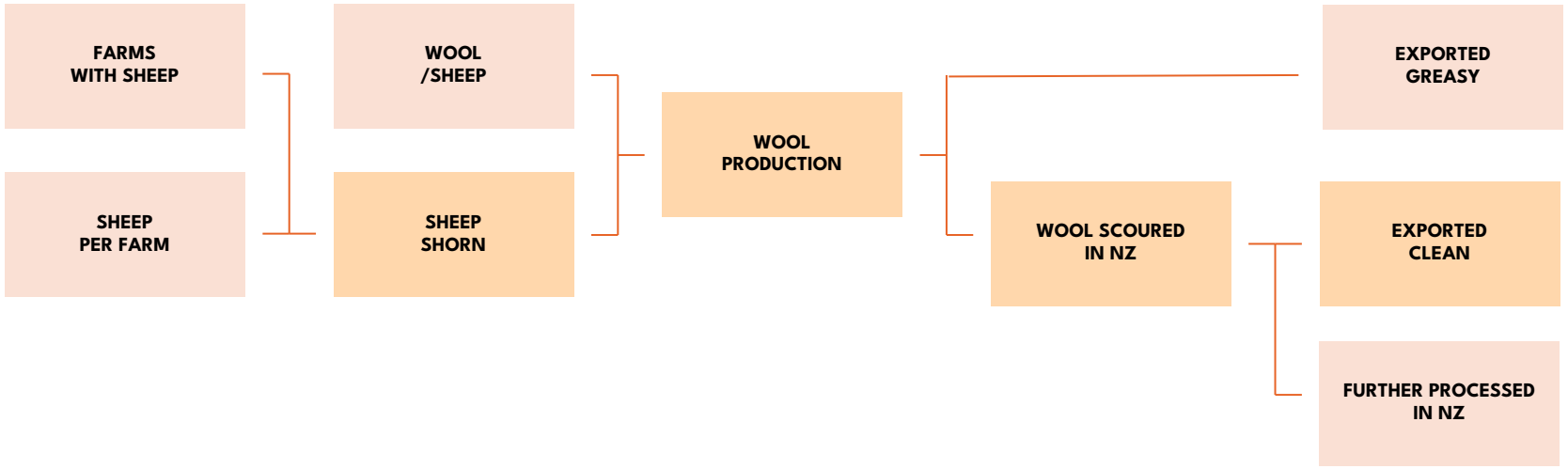
2025 Sheep numbers are now back down where they were 116 years prior (in 1909)

Source: see sources at end of section

The New Zealand wool supply is the function of a range of key drivers

KEY DRIVERS OF NEW ZEALAND WOOL SUPPLY

Model



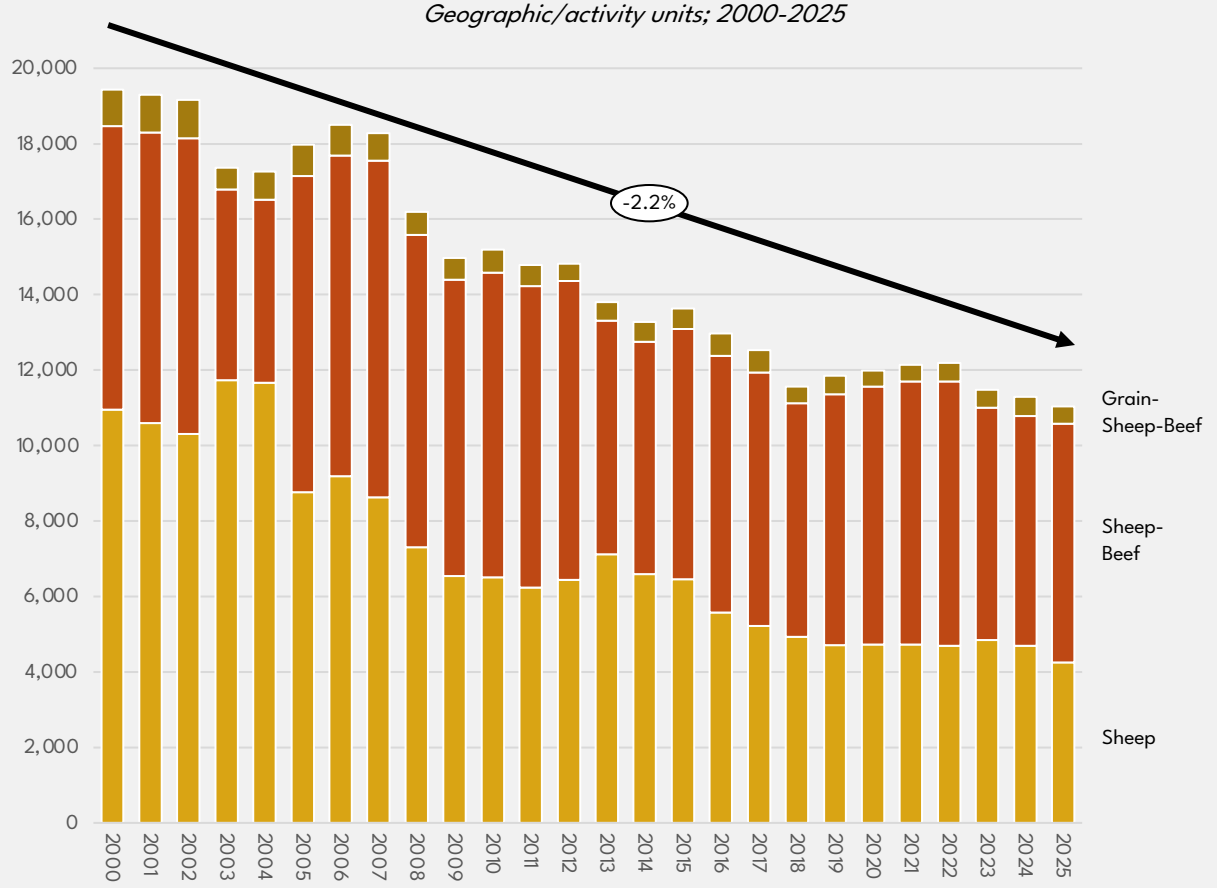
Source: Coriolis

Evidence certainty Data quality/confidence	HIGH

The number of sheep farms in New Zealand is declining

NUMBER OF FARM ENTERPRISES WITH SIGNIFICANT SHEEP

Geographic/activity units; 2000-2025



COMMENTS/NOTES

- Farming in New Zealand, as elsewhere in the developed world, is consolidating into fewer, larger farms
- This trend is occurring for a wide range of reasons, including profit pressures and an ageing farmer base
- These are tax identities; on tax identity may own more than one property
- Classification in the ANZSIC system is by predominant activity; for "significant sheep", we use all farm types with the word sheep in the description
- Alternatively, a single farm may have multiple owners (e.g. a partnership, a JV or an owner and a sharemilker)

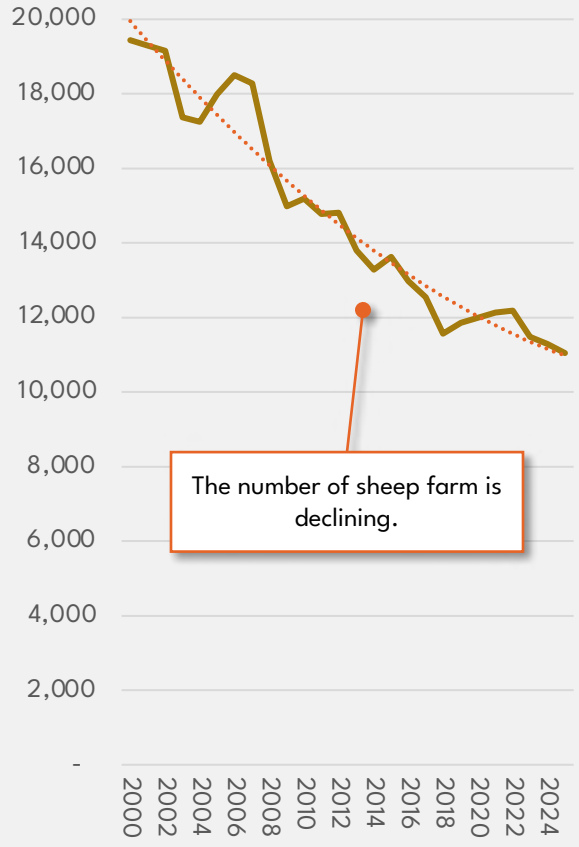
Source: StatisticsNZ (BDS); Coriolis classification and analysis

Evidence certainty Data quality/confidence	MED

The average sheep per farm is stable-to-up, while wool per farm is trending down

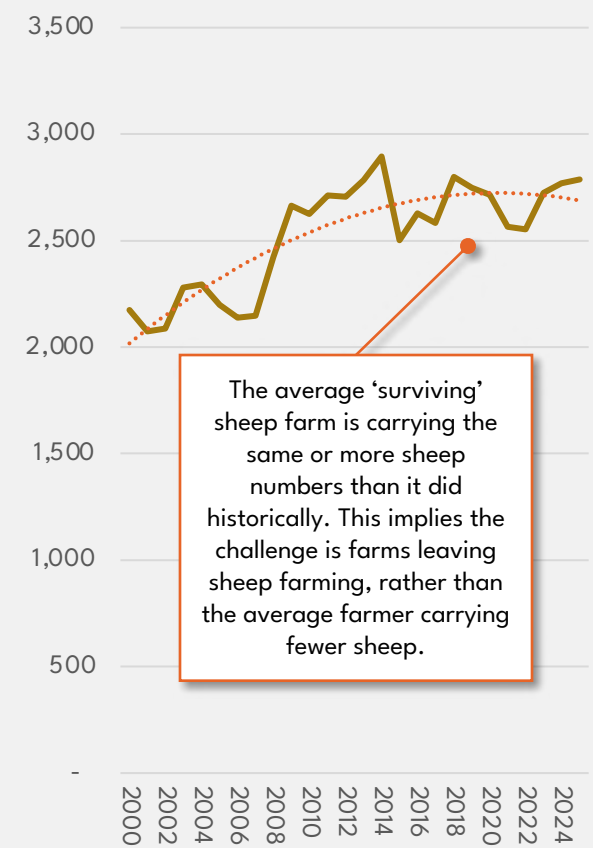
NUMBER OF FARMS WITH SIGNIFICANT SHEEP

Enterprises; 2000-2025



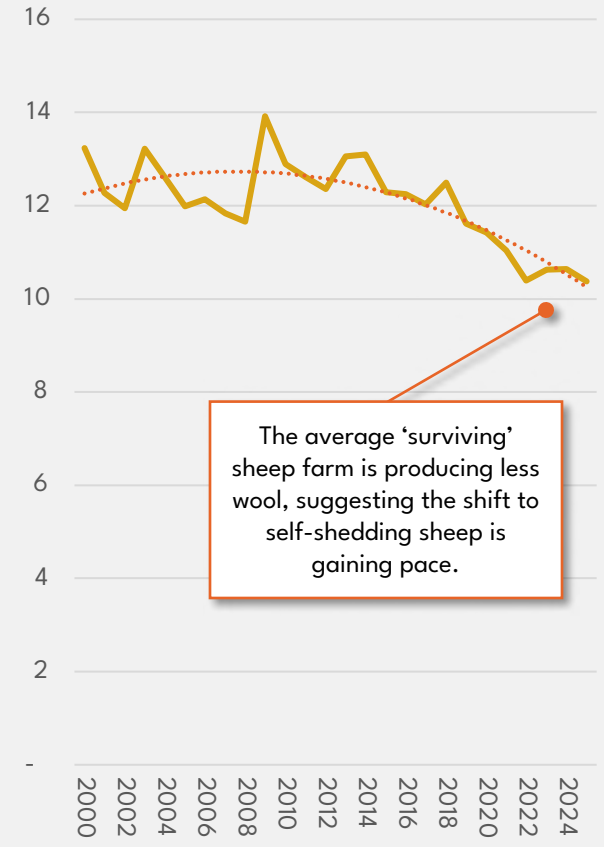
SHEEP PER FARM WITH SIGNIFICANT SHEEP

Head/enterprise; 2000-2025



WOOL PER FARM WITH SIGNIFICANT SHEEP

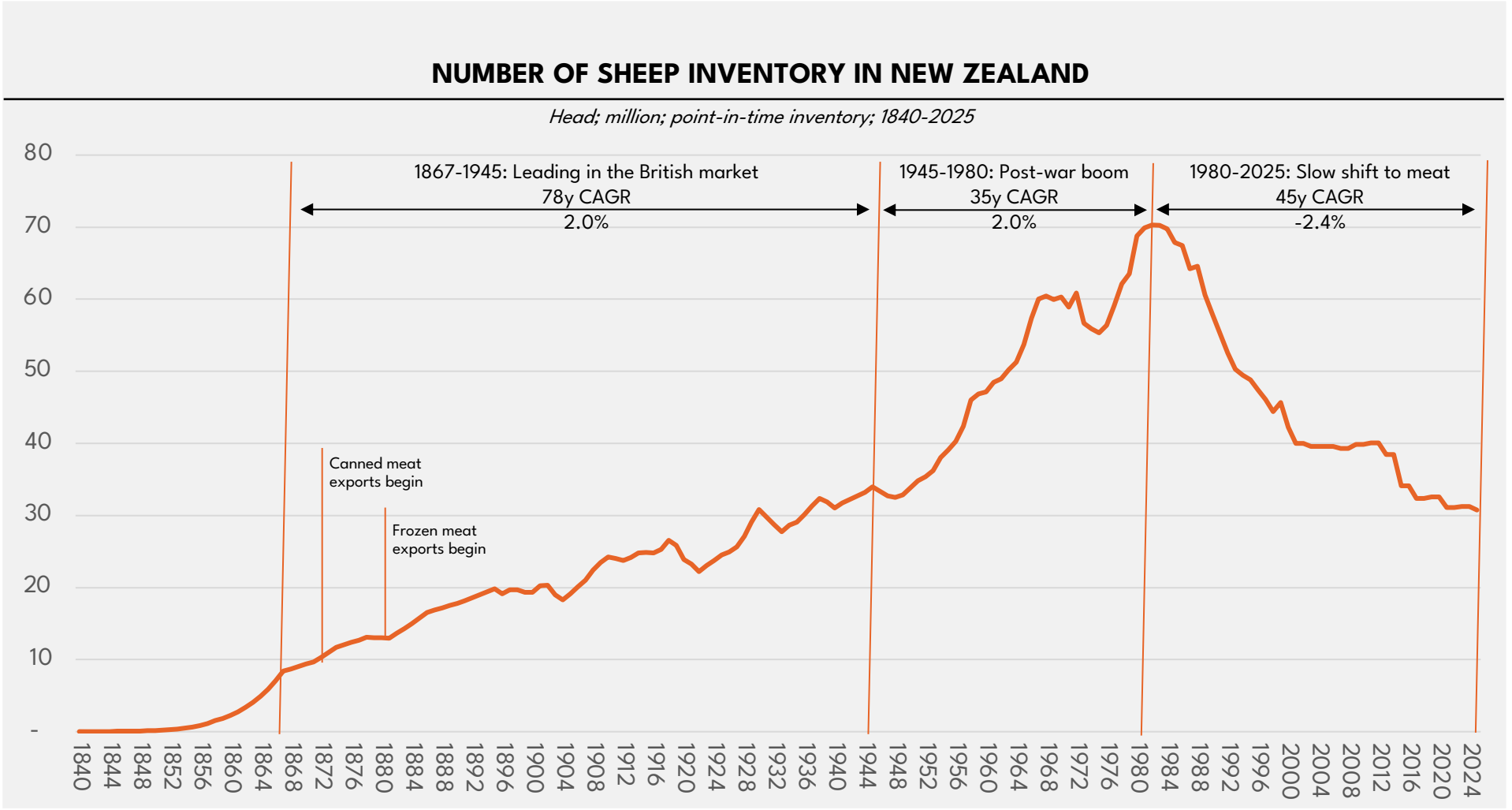
Tonnes/enterprise; 2000-2025



Source: StatisticsNZ (BDS); StatisticsNZ (agriculture); Beef+Lamb NZ; Coriolis classification and analysis

Evidence certainty Data quality/confidence	HIGH

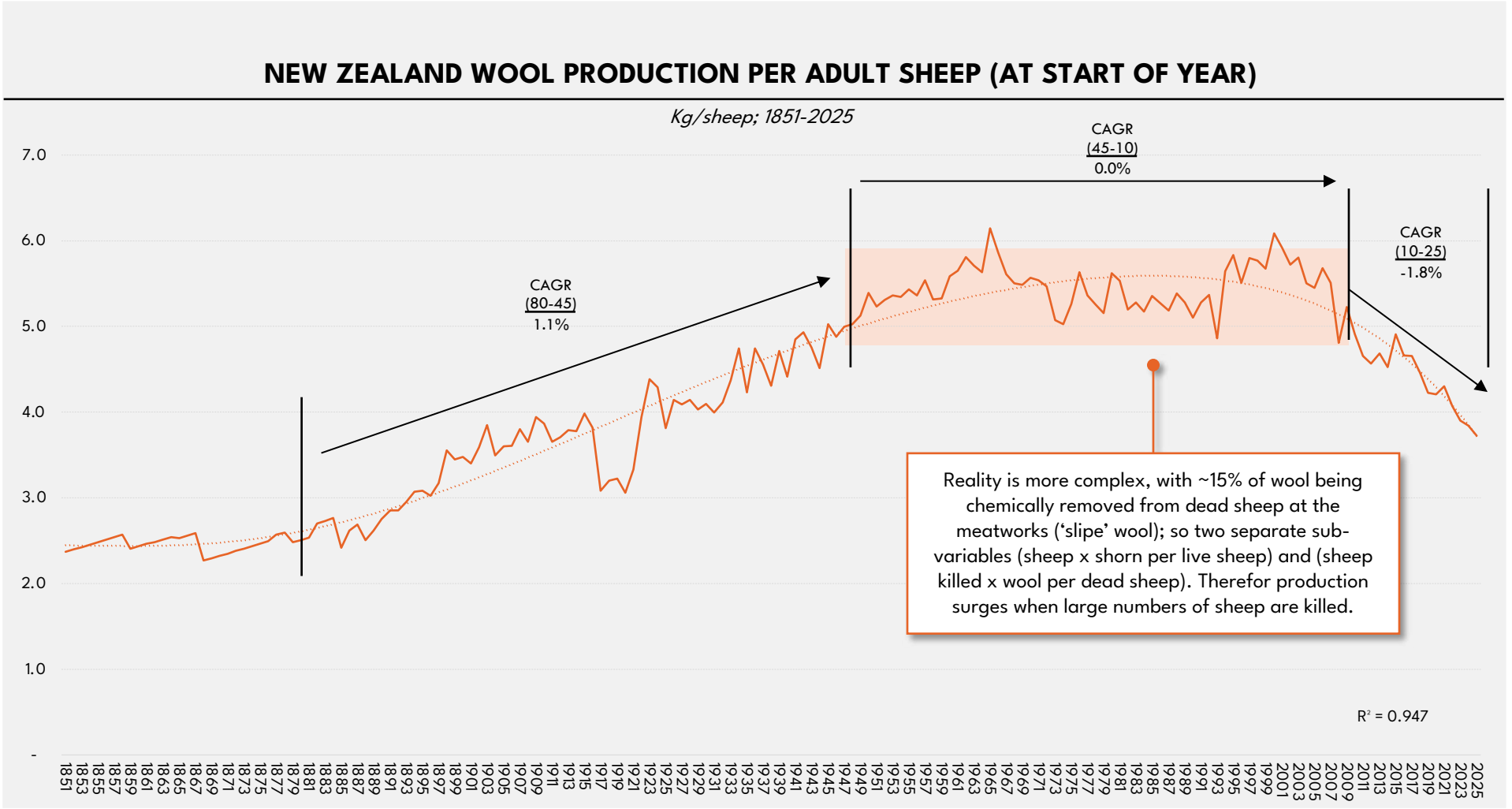
New Zealand's sheep inventory has been trending down since the "wool bubble" popped in the mid 80's



Note: Some missing years extrapolated; Source: New Zealand Department of Statistics; New Zealand Department of Agriculture; Statistics New Zealand; UN FAO; Beef+Lamb NZ; Coriolis analysis and modelling

Evidence certainty Data quality/confidence	HIGH

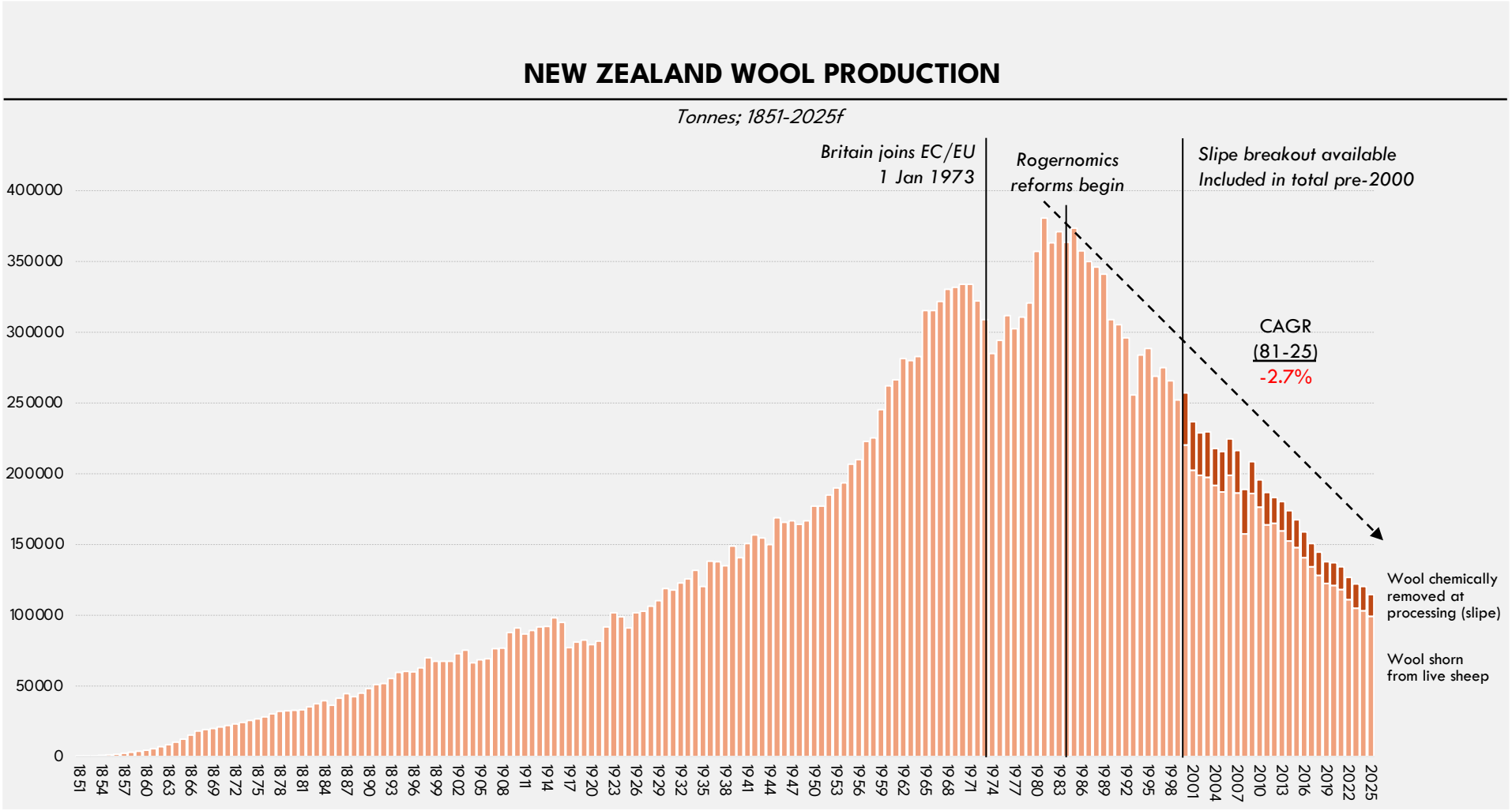
Wool productivity per sheep is falling; realised wool per sheep plateaued from the late 50s to ~2010; since then, it is declining rapidly



Note: Some missing historical data extrapolated; Source: Statistics New Zealand; MPI; UN FAOStat database; B+LNZ; Coriolis analysis and estimates

Evidence certainty Data quality/confidence	HIGH

New Zealand wool production has been in constant decline since 1981, averaging a -2.7% CAGR over the period



Note: Some missing historical data extrapolated; Source: Statistics New Zealand; MPI; UN FAOStat database; B+LNZ; Coriolis analysis and estimates

The New Zealand wool industry has had a long list of reports and proposed strategies over the past fifty years since the peak

SELECT NEW ZEALAND WOOL INDUSTRY STRATEGIES: 1980-2025

Select major reports/action groups; 1980-2025

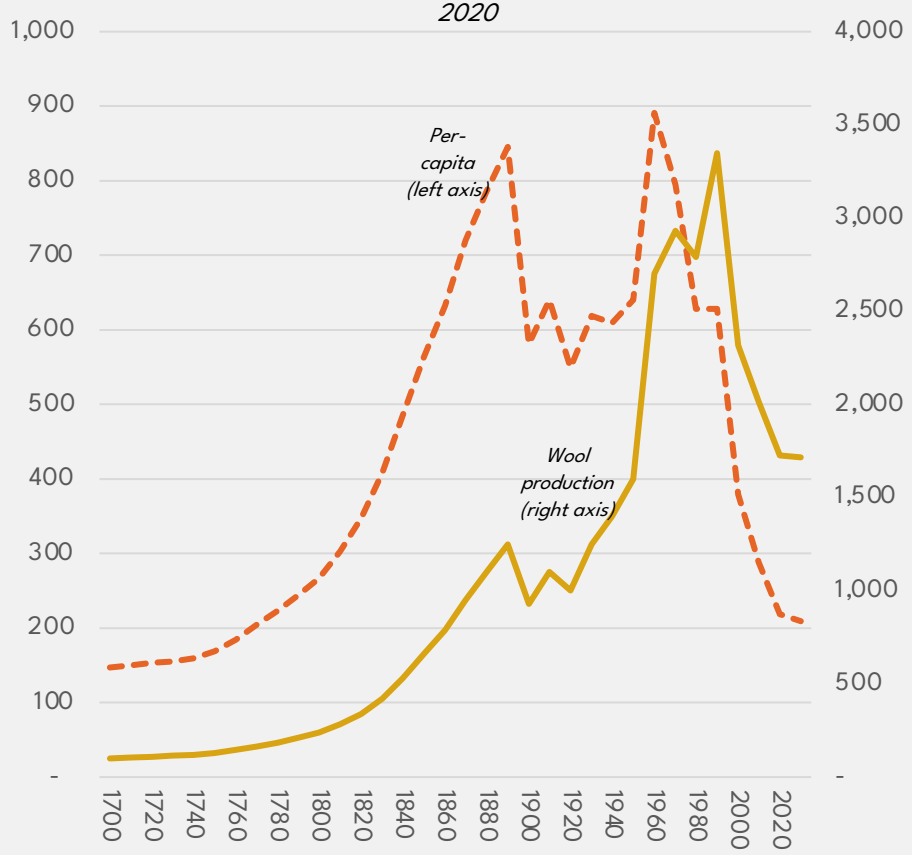
Year	Report title	Who?	Core problem diagnosis and/or recommendation
1992	Strategic directions for the New Zealand wool industry, 1992–2000	NZ Wool Board	Structural weakness in generic promotion; insufficient market orientation
2000	Report to New Zealand Woolgrowers on Improving Profitability*	McKinsey & Company (commissioned by NZ Wool Board)	Levy-funded generic promotion delivered negligible return; centralised governance misaligned with market needs; $160M in reserves eroding
2003	Review of the New Zealand Merino Industry	G. Greer, Lincoln University	Merino sector needed independent strategic assessment separate from strong wool; commercialisation opportunity underdeveloped
2006	Wool Industry Network (WIN) Strategy	MPI / Meat and Wool NZ / Canterbury Development Corporation	Post-Wool Board fragmentation; lack of industry coordination and innovation infrastructure; no shared strategy
2008	The New Industry Transformation: How to Redesign New Zealand's Red Meat and Wool Supply Chains	James Parsons, NZ Nuffield Farming Scholarship	Supply chain adversarial relationships; spot-market dominance; value chain margin captured offshore
2013	"Hello New Zealand Wool: This Is the Future Speaking"	Sandra Faulkner / Rural Leaders	Post-2009 under-representation of growers; no collective voice; chronic underinvestment in R&D and promotion following levy discontinuation
2016	W3 – Wool Unleashed	NZ Merino + MPI (PGP)	“Transformational change” in NZ strong wool production, marketing, and selling, drawing on lessons from fine wool transformation and aiming to move strong wool away from commodity logic toward branding, differentiation, supply chain alignment, design thinking, and market-led innovation.
2019	Wool Data Book	Economist Intelligence Unit / MPI	Structural evidence base for policy action; price collapse for strong wool vs fine wool; synthetic substitution trajectory continuing unchecked
2020	Vision and Action for New Zealand's Wool Sector	Wool Industry Project Action Group (PAG)/MPI / Minister of Agriculture	Sector in long-term decline worsened by COVID-19; lack of governance, investment case, and market coordination
2021	Strong Wool Action Group (SWAG) work programme / recommendations	SWAG, supported by MPI	Developing the action plan and strategic direction for revitalisation; Wool Impact was based on SWAG’s 2021 recommendations.
2021	Fit for a Better World (primary sector roadmap, wool component)	MPI / NZ Government	NZ primary sector underperforming on value creation; wool sector requires concerted effort to lift performance and maximise export earnings
2022	Wool Impact strategy framing and associated public material	Wool Impact, backed by Government	Focused on innovation and investment, demand growth, stronger sector services, and a unified voice for strong wool.

** By far the best; Source: Coriolis*

Global per capita consumption of wool has been falling since the 1960s

GLOBAL PER-CAPITA WOOL CONSUMPTION (LT AXIS) VS. GLOBAL WOOL PRODUCTION (RT AXIS)

Grammes/person/year (left axis); wool production kt greasy (right axis); 1700-2020



COMMENTS/NOTES

Phase 1 (1700-1890): Industrialisation drives per-capita growth (+475%)

The British Industrial Revolution industrialised wool processing from the 1760s, dramatically lowering cost-per-garment. Colonial expansion simultaneously exploded supply: Argentina alone grew from exporting under 2,000 tonnes of wool in 1840 to 55,000 tonnes by 1870, while Australian, New Zealand, and South African flocks scaled at comparable rates. Per-capita consumption rose from ~150g to a pre-Federation drought peak of ~845g. This is the era in which wool was the dominant textile fibre globally, with no synthetic competition.

Phase 2 (1890-1960): Disruption, wars, and recovery (+53% from trough, but volatile)

The 1895-1902 Federation drought (https://en.wikipedia.org/wiki/Federation_Drought) devastated Australian flocks, which explains the sharp 1900 dip in the index. The global wool production peak was actually achieved in 1990 at over 3.35 million tonnes, but the 1960 per-capita peak represents the highest consumption relative to population. Two world wars created alternating demand spikes (military use) and supply disruptions. The post-war Korean War demand boom drove record wool prices in 1950-51, pushing Australian flocks from 113 million to 180 million head by 1970.

Phase 3 (1960-2020): Structural collapse (-74% per-capita)

Synthetic fibres captured the majority of new market growth post-1960. Since their introduction, synthetic fibres have captured the majority of market growth, with wool's share of global fibre consumption falling precipitously. The Wool Crisis of the early 1990s, triggered by the Australian Wool Corporation's Reserve Price Scheme collapse, accelerated the production decline, with global output nearly halving from 3.35 million tonnes in 1990 to 1.78 million tonnes by 2020. Population growth compounded the collapse: with 7.8 billion people consuming a shrinking clip, per-capita consumption dropped to ~229g, levels not seen since the mid-1800s.

Source: Maddison Project; UN FAOStat; IWTO; International Historical Statistics (B.R. Mitchell); Coriolis past client work; Coriolis estimates and analysis

Wool isn't the only natural product that has been disrupted by synthetics

SELECT EXAMPLES OF NATURAL PRODUCTS BEING DISRUPTED BY SYNTHETICS

Across 19th and 20th Century

Natural Rubber	Natural rubber dominated global markets until synthetic rubber (SBR, developed during WWII) captured the commodity tyre market. Natural rubber retreated into high-performance niches (surgical gloves, aircraft tyres) where synthetics cannot match its properties. Current natural rubber is roughly 40% of global rubber consumption, down from near-monopoly.
Natural Indigo	India exported massive volumes of natural indigo to European textile markets for centuries. Synthetic indigo, developed by BASF in 1897, destroyed the trade within a decade. Indian indigo farming collapsed almost entirely. This is arguably the fastest and most complete agricultural disruption on record.
Sisal	Sisal fibre dominated rope, twine, and sacking markets through the mid-20th century. Polypropylene twine disrupted it almost entirely in the 1960s-70s when synthetic baler twine became cheaper and more consistent. Global sisal production dropped roughly 75% from peak. Sisal has since found niche markets in geotextiles and composite materials at small-scale.
Natural Camphor	Taiwan built a near-monopoly export industry in natural camphor, used in celluloid manufacturing and pharmaceuticals. Synthetic camphor, producible from turpentine, eliminated the export trade by the mid-20th century. Taiwan's camphor forests, which had been commercially logged at industrial scale, lost their entire commercial rationale within a generation.
Chicory/Natural Caffeine Substit.	Chicory root was a major traded commodity as a coffee substitute and caffeine source. Industrial food chemistry and synthetic flavour compounds progressively displaced it. Chicory has partially reinvented itself as an inulin and prebiotic fibre source, but the original export commodity trade is a fraction of its historical scale.
Lard and Tallow	Animal fats dominated lubricant, soap, and food manufacturing markets. Petroleum-derived mineral oils disrupted industrial lubricant demand from the early 20th century. Vegetable oil industrialisation (palm, soy) then disrupted food and soap applications. NZ and Australian meat processors saw tallow shift from a valuable co-product to a disposal problem within decades.
Natural Silk	Nylon stockings replaced silk stockings almost overnight after 1940. Silk retreated into luxury and ceremonial markets. The key difference from wool is that silk successfully held a defensible luxury positioning because its sensory properties are genuinely irreplaceable for specific end uses.
Flax Linen	Flax was a dominant fibre crop for millennia, disrupted by cotton industrialization first and then synthetics. European flax linen export industries collapsed progressively through the 19th and 20th centuries. Linen has experienced a partial premium revival recently on sustainability grounds, though volumes remain a fraction of historical levels.
Hay	At peak in the early 1900s, the US had roughly 21 million working horses and mules. Cities ran on horse power. Hay and oat farming occupied a substantial share of US agricultural land, estimated at around 25-30% of total cropland devoted to feeding urban and farm horses. Within 30 years the working horse population had collapsed to under 3 million.
Whales	Three distinct disruption events hit the whaling industry across roughly 130 years: (1) lighting, (2) industrial lubrication, and (3) food/margarine. Each displaced a different product stream. The final disruption was regulatory, not technological. New Zealand was one of the last developed country to operate commercial whaling, closing its final station in 1964.

Source: Clayton Christesen; Wikipedia; various other sources; past Coriolis client work; Coriolis analysis

The NZ sheep sector has a robust industry across the total supply chain, with numerous participants all with well developed capabilities

NEW ZEALAND CAPABILITIES DRIVEN SUPPLY CHAIN: SHEEP

SELECT FIRMS

SHEEP GENETICS

HEAD WATERS, EARNSCLEUGH

Numerous others

Industry association has 561 members

VEHICLES/MACHINERY

JOHN DEERE, MASSEY FERGUSON, YAMAHA, TOYOTA, Hitachi, GASCON, FENDT, moreni, POTTINGER, ALPEGO

FARM SUPPLIES

NEW ZEALAND FARM SOURCE, PGG Wrightson, Farmlands

FERTILISER

Ballance, ravensdown

ANIMAL FEED

GLENCORE VITERRA, NRM FEED TO SUCCEED, Weston Milling STOCKFEED, TARANAKI FEEDS, Sharpes FARM FEEDS, Agrifeeds, nutrinza, GOLDEN GRAIN, adv, GASCON

FUEL & LUBRICANTS

Gulf, Allied Petroleum never run out, npd, RD petroleum, McFALL FUEL, SHF

ANIMAL HEALTH

zoetis, Boehringer Ingelheim, Elanco, MERCK Animal Health, BAYER

SHEARING EQUIPMENT

Heiniger, Lister, Ace, BEIYUAN

LAND IN SHEEP/CATTLE

~5.6m hectares+

PEOPLE IN SHEEP FARMING*

~12,000 farmers

~14,000 employees

WOOL AUCTIONS

PGG Wrightson, WRIGHT WOOL, NEW ZEALAND merino, WOOL ONLINE, East Coast Wools Limited, Natural Fibre Exchange

WOOL TESTING

NZWTA, SGS

WOOL HANDLING

Primary WOOL COOPERATIVE LTD, CP Wool, PGG Wrightson, WRIGHT WOOL, SEGARD MASUREL, ELCODIRECT WOOL BUYERS, Curtis Wool Direct, THE SCHNEIDER GROUP

VALUE-ADDED WOOL PRODUCTS

NZ Yarn, Bremworth WOOLCARPETS RUGS, Godfrey Hirst

WOOL SCOURING

WOOLWORKS

FELLMONGERING

Progressive LEATHERS EXPORT, New Zealand

MEAT PROCESSING

SILVER FERN FARMS, ALLIANCE FARMERS' PRODUCE, ANZCO FOODS, Talley's, Greenlea, WILSON HELLABY, UNIVERSAL BEEF, TAYLOR PRESTON, BXFOODS

SHIPPING

MAERSK LINE, HAMBURG SÜD, msc, CMA CGM, Hapag-Lloyd, EVERGREEN, COSCO SHIPPING, YANG MING

LOGISTICS

CODA, KOTAHI, MAINFREIGHT

INDUSTRY ORGS.

FEDERATED FARMERS OF NEW ZEALAND, beef+lamb new zealand, mia Meat Industry Association, NZ WOOL CLASSERS ASSOCIATION, The National Council of New Zealand Wool Growers Incorporated, NEW ZEALAND SHEARING CONTRACTORS, NEW ZEALAND SHEEPFARMERS ASSOCIATION

** Includes "sheep", "sheep-beef" and "grain-sheep-beef" farmers but not "beef cattle" farmers; Source: Coriolis*

In 2025, the New Zealand **wool** industry used 23.4m animals to produce 114,600 tonnes of wool worth NZ$540m

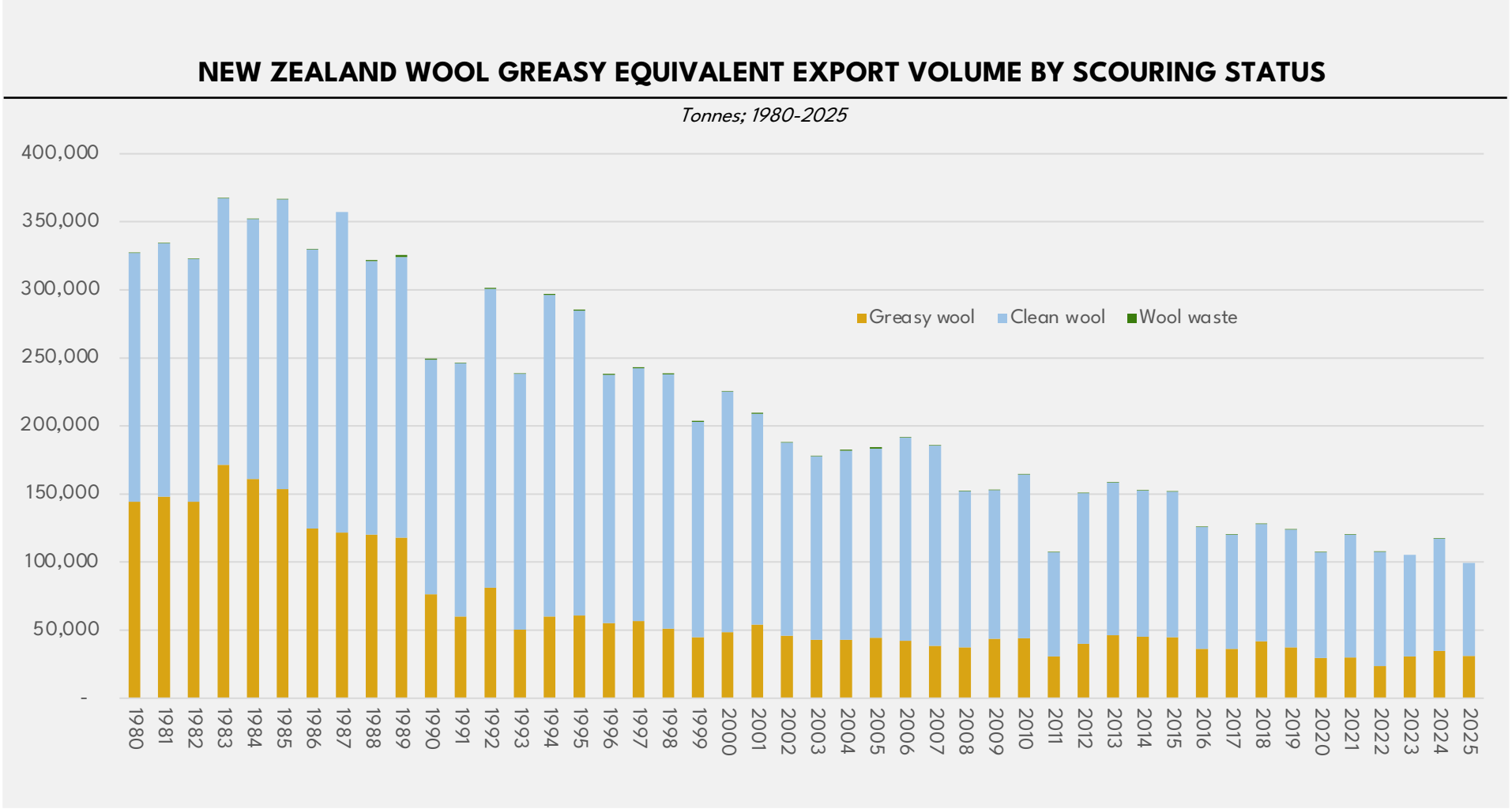
SIMPLIFIED MODEL OF THE NEW ZEALAND WOOL INDUSTRY

Various measures; as available

	Estimated Animal Population	Wool/sheep (kg)	Tonnes produced	$/t	Value	% exported (value)	Export $ Export t
2006	40.1m	5.7	224,600	$4,552	$1,022m		
2024	23.6m	3.8	120,100	$4,734	$569m		
2025	23.4m	3.7	114,600	~$4,700	~$540m		

Source: Statistics New Zealand; MPI; UN FAOStat database; B+LNZ; Coriolis classification and analysis

New Zealand wool exports have been trending down since the end of the wool boom

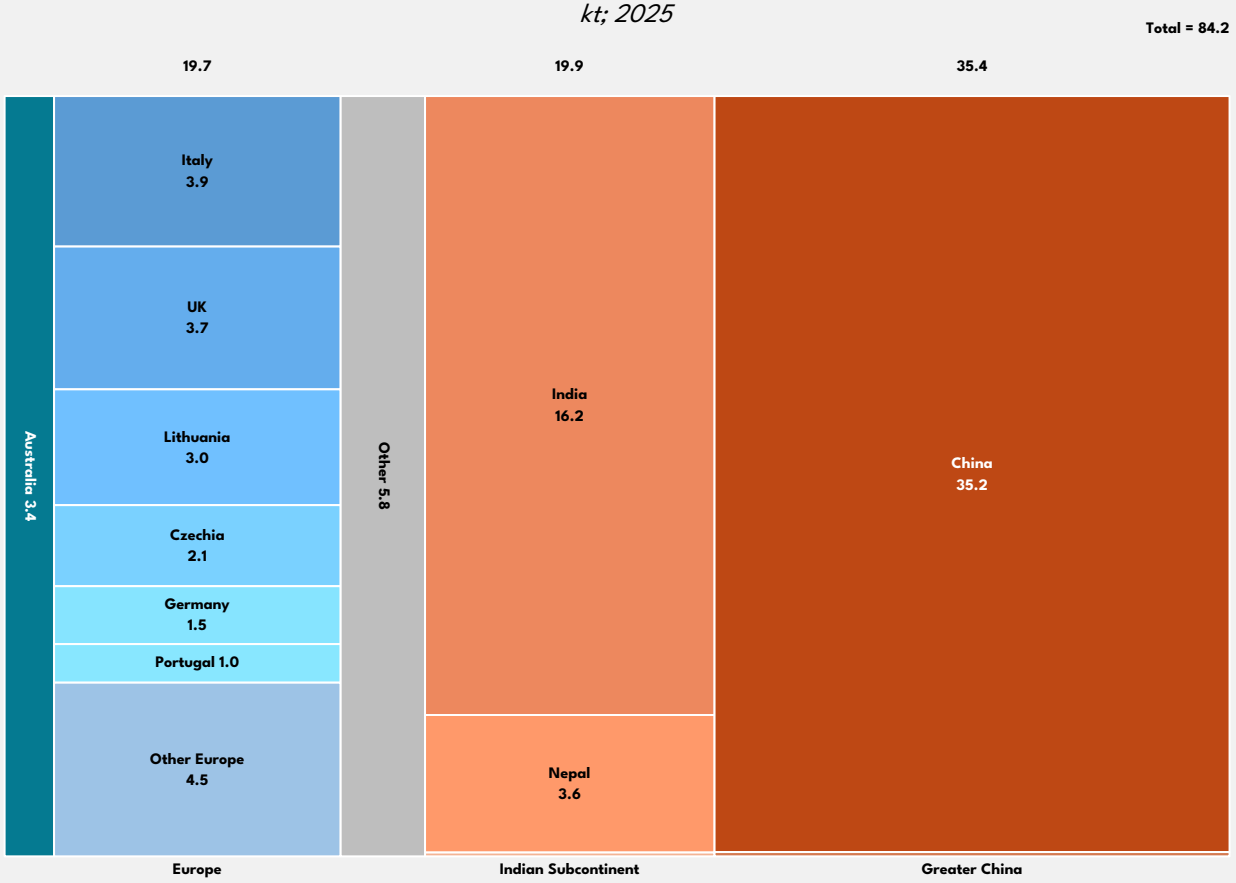


Note: Assumes 77% clean to greasy yield; Source: UN FAOStat; Coriolis classification and analysis

China and India together take over 60% of NZ wool exports, dwarfing all other markets

MARIMEKKO CHART OF EXPORT DESTINATIONS BY REGION AND COUNTRY: WOOL

kt; 2025



COMMENTS/NOTES

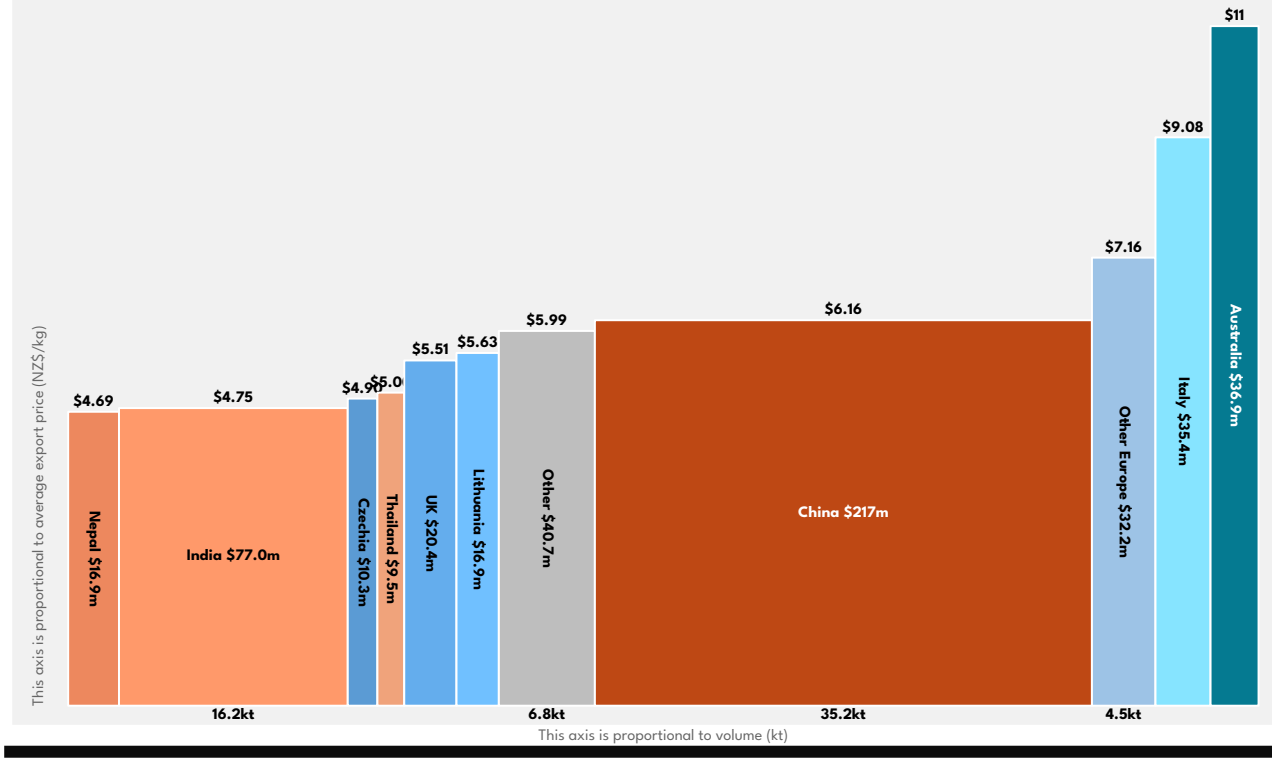
- China is by far the largest single destination, taking 35.4 kt, roughly 41% of total wool exports, making NZ wool highly exposed to Chinese demand conditions.
- India is the second largest market at 16.2 (~19%), with Nepal adding 3.6, making the Indian Subcontinent nearly as large as all of Europe combined.
- Europe collectively takes around 19.7 across multiple countries; Italy (3.9), UK (3.7), Lithuania (3.0) and Czechia (2.1) lead, reflecting strong textile manufacturing demand.
- Australia, as NZ's nearest neighbour, takes 3.4, a solid but modest share, while the Americas combined contribute only 1.6 units, signalling limited traction in those markets.
- The Middle East and Africa remain marginal, with Egypt the largest buyer at 0.9, suggesting untapped potential in growing textile economies in those regions.

Source: StatisticsNZ (International Trade); Coriolis classification and analysis

China and India take over half of wool export volume but at below-average prices, while Australia and Italy pay a premium

MEKKO: WOOL EXPORT VOLUME VS. PRICE

NZ$/kg; kt; NZ$m; FOB; 2025



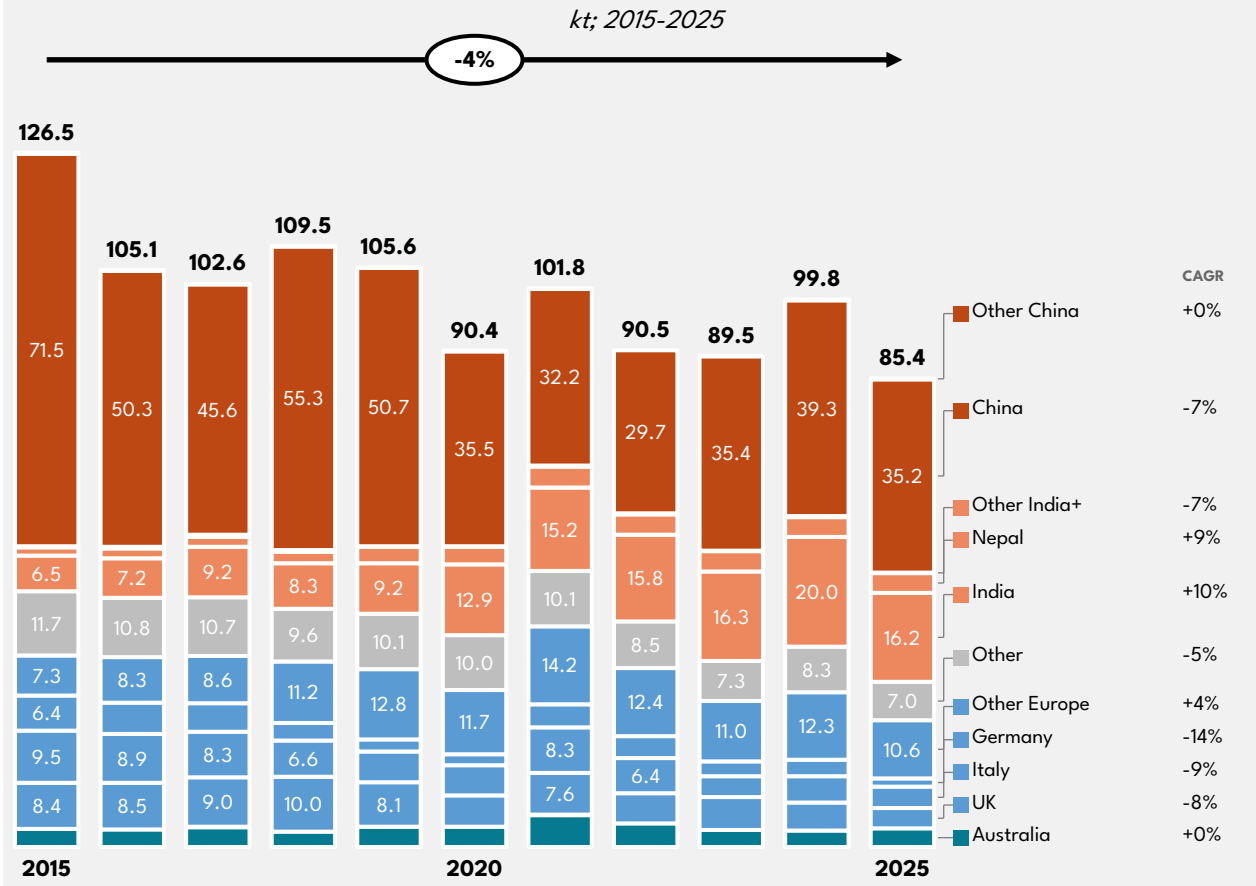
COMMENTS/NOTES

- China is the dominant wool export destination at 35.2kt (42% of total volume), but its price of $6.2/kg is only marginally above average, generating $217m in value.
- India is the second largest market at 16.2kt but pays just $4.8/kg, one of the lowest prices recorded, limiting its value contribution to $77m despite its scale.
- Australia returns the highest price at $10.9/kg across 3.4kt, suggesting strong demand for quality product, while Italy at $9.1/kg adds $35m from 3.9kt.
- Europe collectively (UK, Lithuania, Czechia, Italy, Other Europe) accounts for roughly 17kt of volume with mixed pricing, Italy leading at $9.1/kg versus Lithuania at $5.6/kg.
- Lifting the share of exports going to premium markets like Australia and Italy could significantly improve returns without requiring volume growth.

Source: StatisticsNZ (International Trade); Coriolis classification and analysis

India now rivals Europe as NZ's top wool export market as China's dominance fades and total exports decline

EXPORT VOLUME BY KEY MARKET AND REGION (kt): WOOL



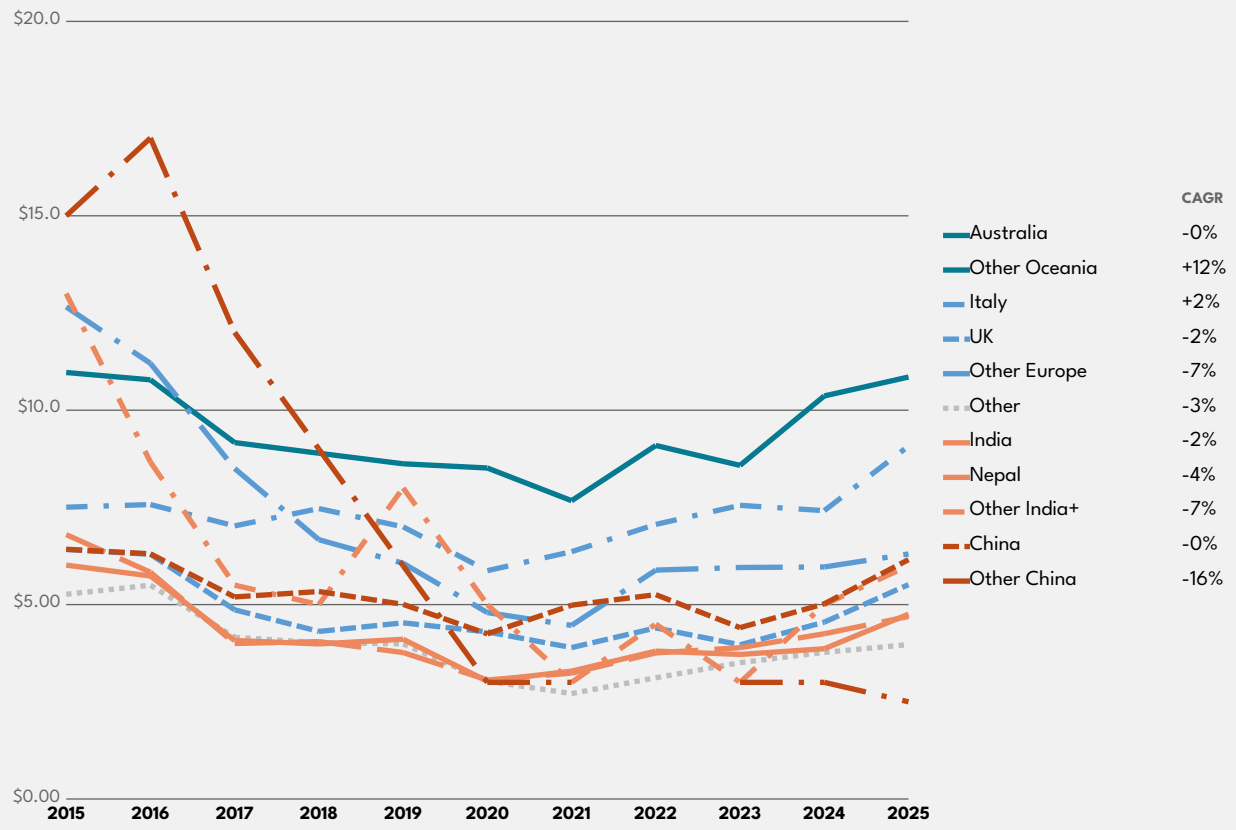
COMMENTS/NOTES

Source: StatisticsNZ (International Trade); Coriolis classification and analysis

NZ wool export prices recovering across most markets after 2020 trough, with Australia and Italy commanding top premiums

AVERAGE EXPORT PRICE BY KEY MARKET; SEGMENT: WOOL

NZ$/kg; 2015-2025



COMMENTS/NOTES

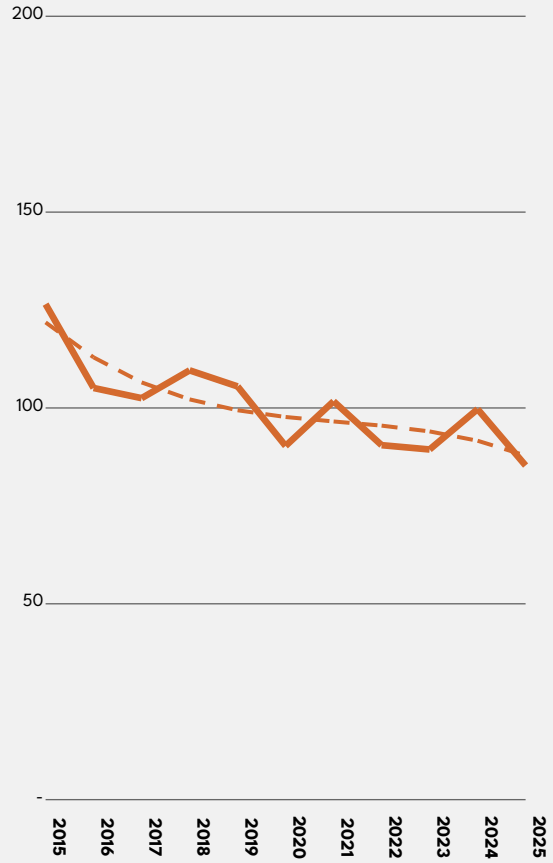
- Australian market returns to peak pricing at NZ$10.9/kg in 2025, matching 2015 levels, making it NZ's highest-value wool export destination and signalling renewed demand for fine wool.
- Italy rebounded sharply to NZ$9.1/kg in 2025, its highest since 2016, reflecting recovering European luxury textile manufacturing and strong demand for quality NZ fibre.
- Most markets bottomed out in 2020-2021 during COVID disruption; the subsequent recovery is broad-based, with nearly all destinations posting 2024-2025 prices above their 2020 lows.
- Other Europe collapsed from NZ$12.7/kg in 2015 to NZ$6.3/kg in 2025, the steepest long-run decline of any market, suggesting structural loss of premium processing capacity in that region.
- China and UK remain mid-tier at NZ$6.2 and NZ$5.5/kg respectively in 2025, well below 2015 levels, limiting upside for NZ exporters heavily exposed to these volume markets.

Source: StatisticsNZ (International Trade); Coriolis classification and analysis

Wool export volume fell over the last decade; some price recovery in the last year; value still well down on historicals

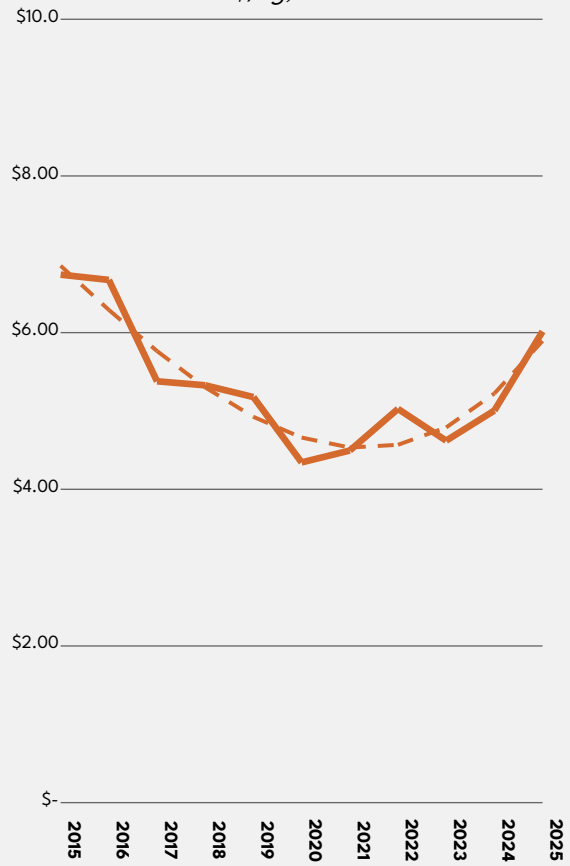
NZ EXPORT VOLUME

kt; 2015-2025



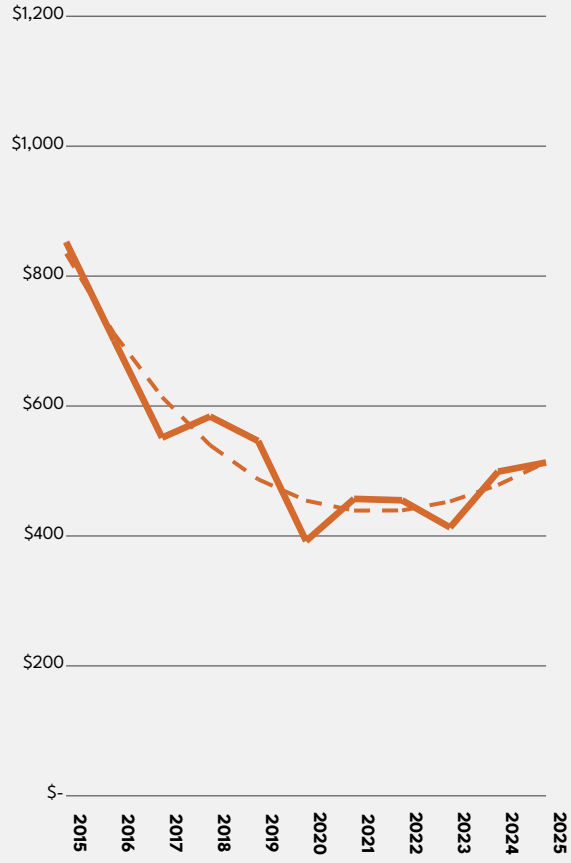
NZ AVERAGE EXPORT PRICE

NZ$/kg; 2015-2025



NZ EXPORT VALUE

NZ$; m; 2015-2025

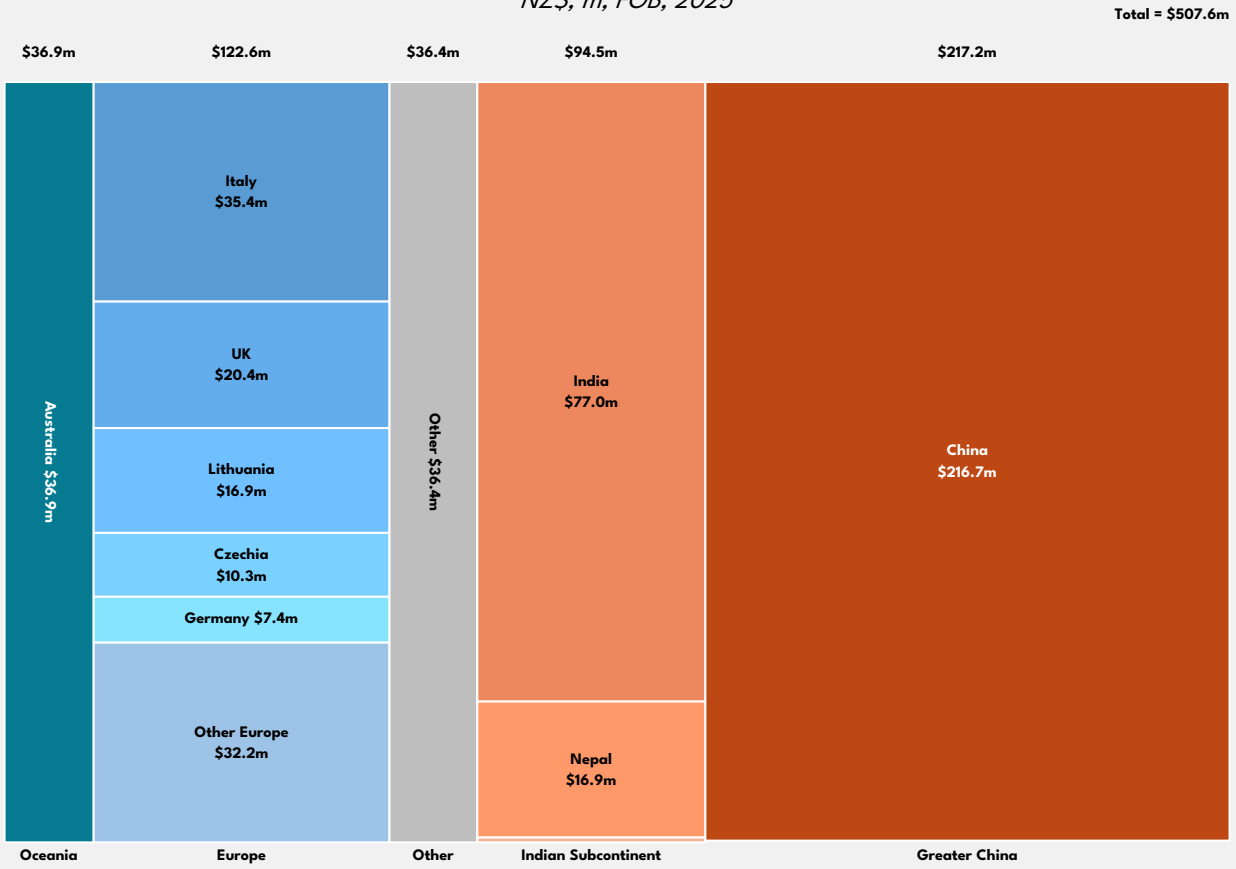


Source: StatisticsNZ (International Trade); Coriolis classification and analysis

China dominates New Zealand wool exports, taking 42% of value, with India and Europe as secondary but significant markets

MARIMEKKO CHART OF EXPORT DESTINATIONS BY REGION AND COUNTRY: WOOL

NZ$; m; FOB; 2025



COMMENTS/NOTES

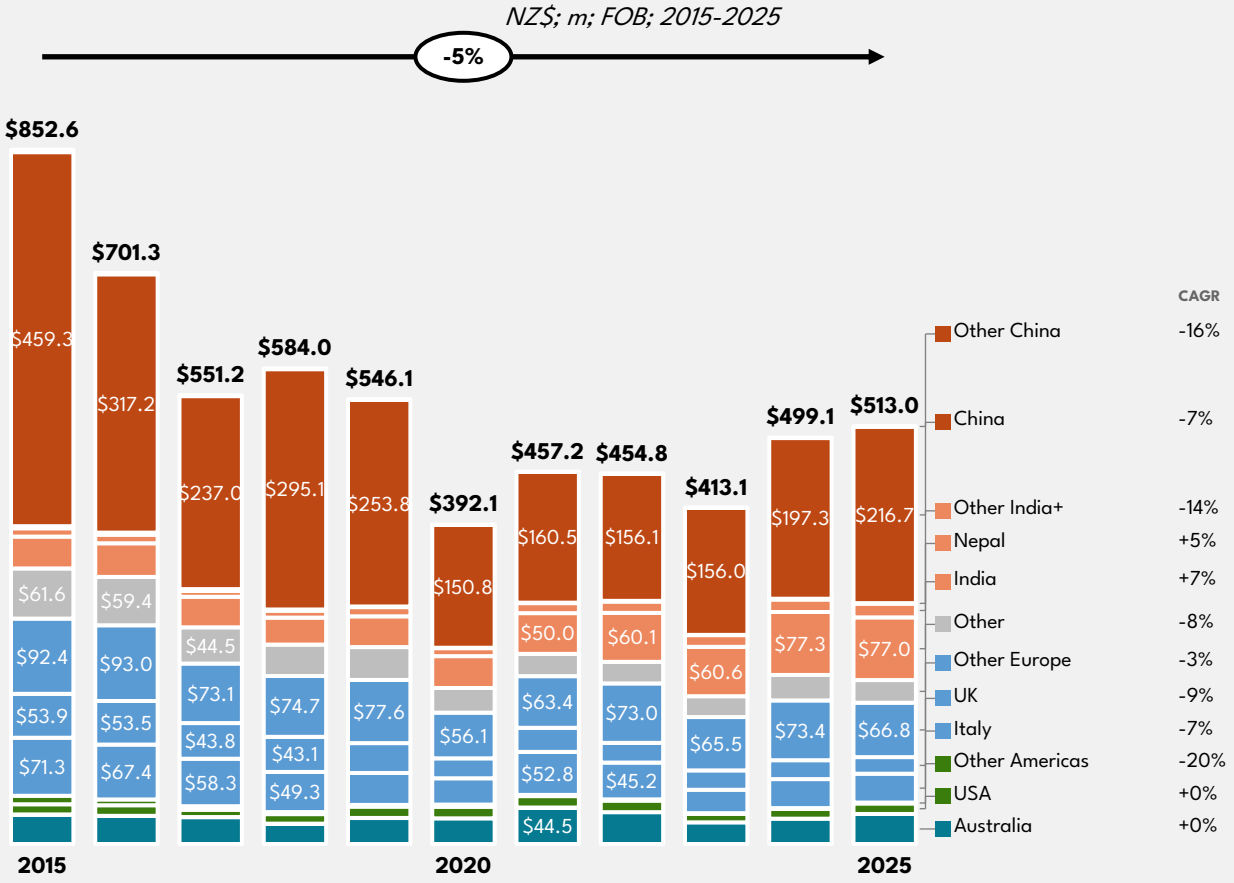
- China is by far the largest wool export destination at $216.7m, representing roughly 42% of total exports, creating significant concentration risk for New Zealand exporters.
- Europe is the second-largest regional market at $122.6m combined, led by Italy ($35.4m), UK ($20.4m) and Lithuania ($16.9m), showing strong demand from traditional textile manufacturing centres.
- The Indian Subcontinent takes $94.5m (18% of exports), driven almost entirely by India ($77.0m), signalling India's growing importance as a wool processing and manufacturing hub.
- Australia accounts for $36.9m, making it the largest single Oceania destination, likely reflecting trans-Tasman trade for processing and re-export rather than domestic consumption alone.
- Smaller but notable markets include Nepal ($16.9m), Thailand ($9.5m) and Egypt ($4.5m), suggesting diversified demand across craft, textile and apparel manufacturing sectors globally.

Source: StatisticsNZ (International Trade); Coriolis classification and analysis

NZ wool exports recovering to $513M in 2025 but remain well below 2015 peak of $853M

EXPORT VALUE BY KEY MARKET AND REGION: WOOL

NZ$; m; FOB; 2015-2025



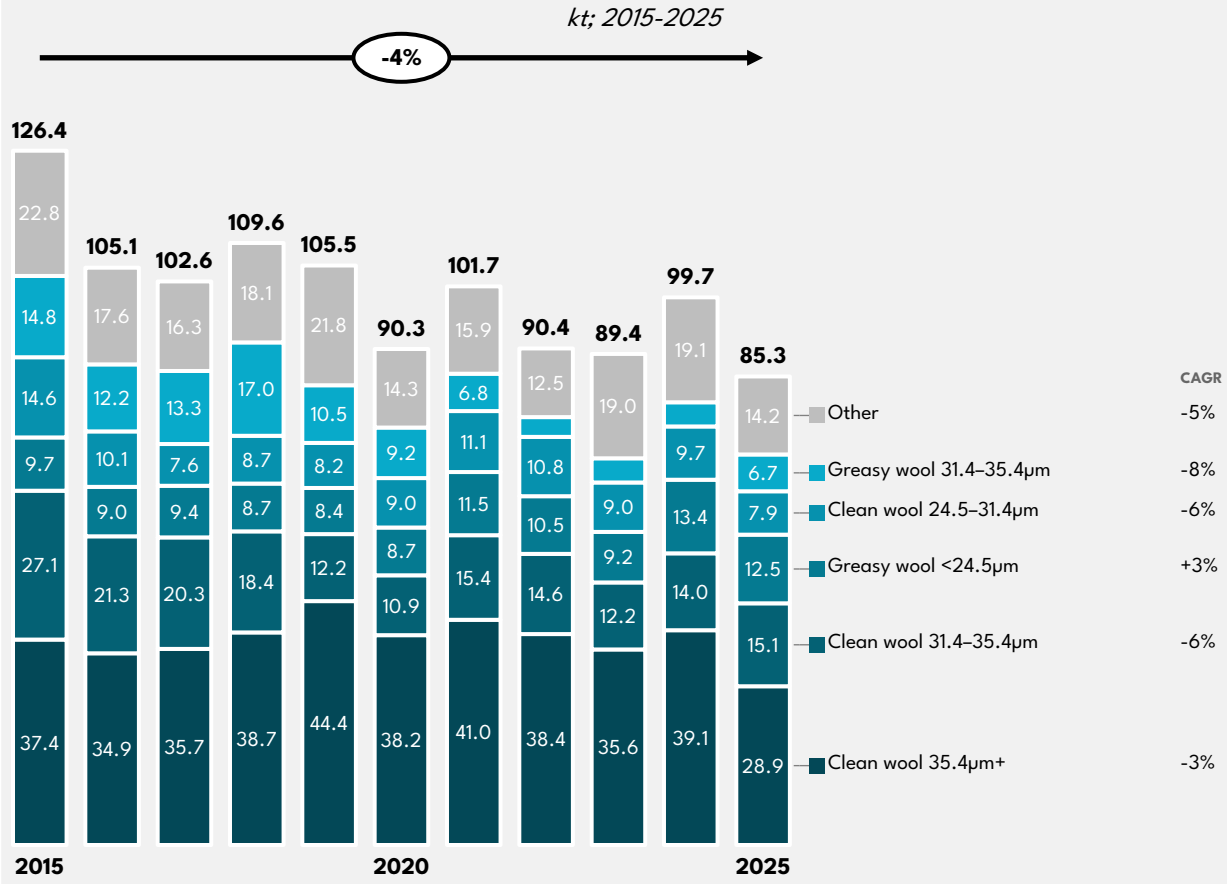
COMMENTS/NOTES

- China dominates but has collapsed: fell from $459M (54% of exports) in 2015 to $157M in 2023, partially recovering to $217M in 2025, still less than half the 2015 level.
- India is the standout growth story: exports nearly doubled from $39M in 2015 to $77M in 2025, now rivalling Italy as the second-largest single-country destination.
- European markets in structural decline: Italy fell from $71M to $35M, UK from $54M to $20M, reflecting long-term contraction in traditional wool textile manufacturing.
- USA is the most stable major market: exports held in a narrow $9-14M range across the decade, providing reliable but modest baseline demand through all cycles.
- Total exports hit a low of $392M in 2020, likely COVID-driven, but the 2025 recovery to $513M remains 40% below 2015, signalling lasting demand or price challenges.

Source: StatisticsNZ (International Trade); Coriolis classification and analysis

NZ wool exports fell to a decade low of 85.3 kt in 2025, with coarse wool decline masking fine wool resilience

TOP 5 EXPORT HS CODES (kt): WOOL



COMMENTS/NOTES

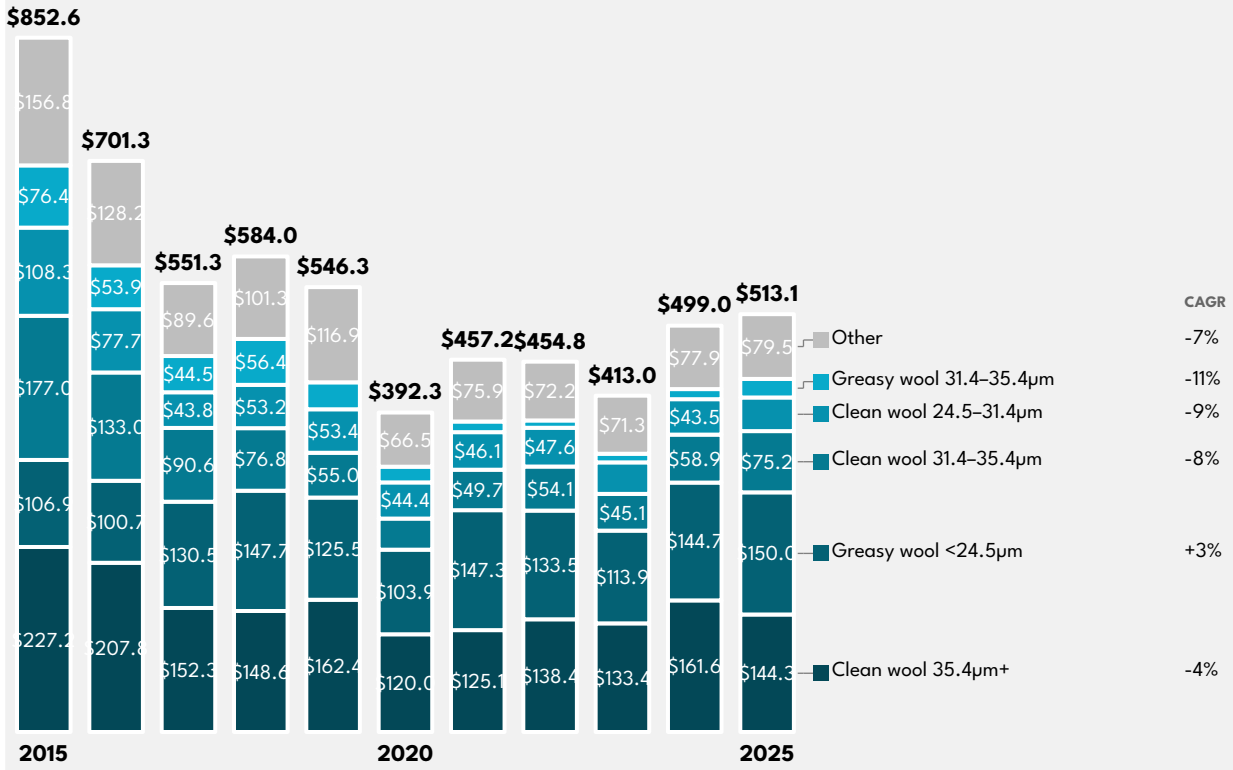
- Total wool export volume dropped 34% from 126.5 kt in 2015 to 85.3 in 2025, with 2025 the lowest year on record in this period, signalling sustained structural decline in demand.
- Coarse clean wool (35.4µm+) remains the largest category at 28.9 kt but fell sharply from 44.4 in 2019, reflecting weak global demand for carpet and interior textile grades.
- Fine greasy wool (<24.5µm) is the standout performer, nearly doubling from 9.7 in 2015 to 13.4 in 2024, showing premium apparel markets value NZ fine fibre.
- Mid-grade clean wool (31.4-35.4µm) collapsed from 27.1 in 2015 to 15.1 in 2025, losing half its value as this crossbred segment faces the sharpest buyer retreat.
- The 2025 result of 85.3 follows a partial recovery to 99.7 in 2024, suggesting the rebound was short-lived and structural headwinds for wool persist.

Source: StatisticsNZ (International Trade); Coriolis classification and analysis

NZ wool exports have halved since 2015 but show partial recovery, with fine wool now driving growth

TOP 5 EXPORT HS CODES (NZ$m, FOB): WOOL

NZ$; m; FOB; 2015-2025



COMMENTS/NOTES

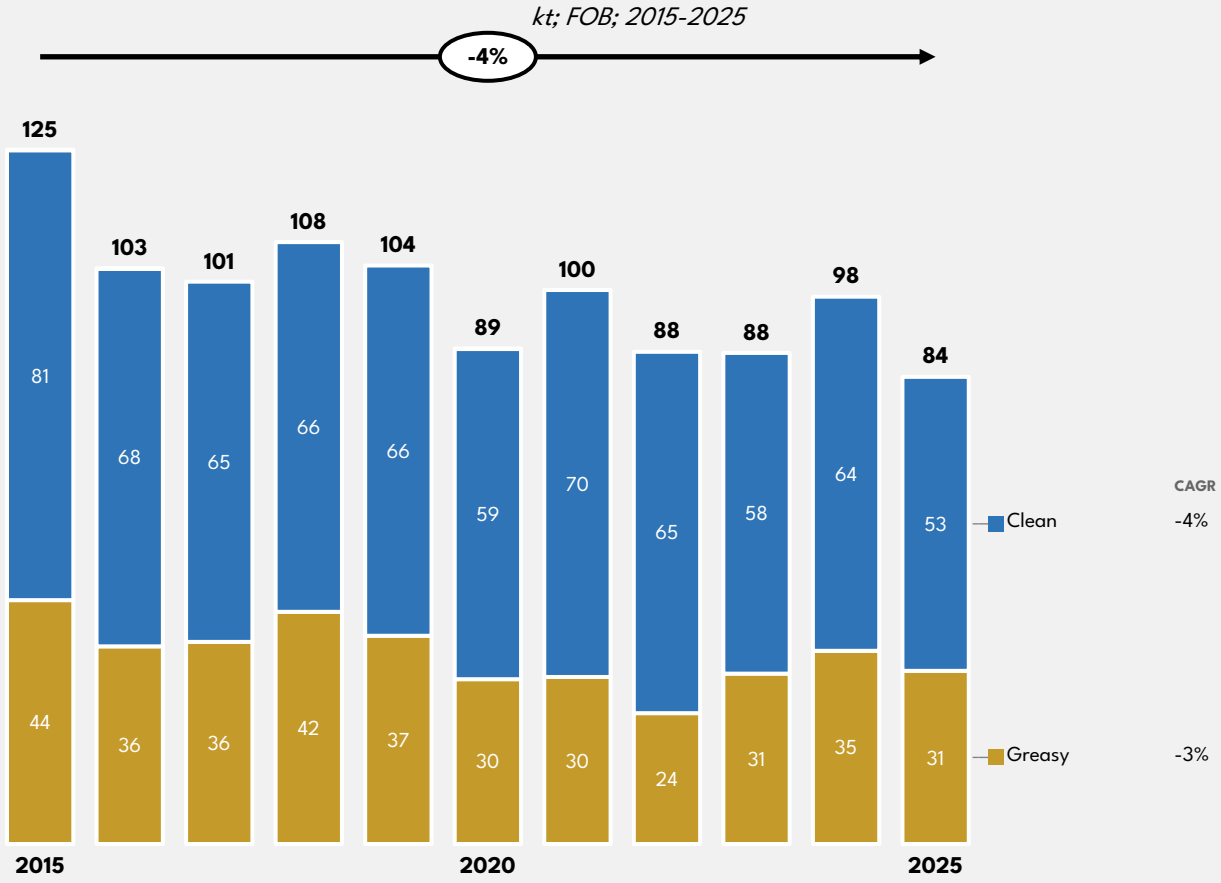
- Total wool exports fell from $853M in 2015 to a low of $392M in 2020, a 54% decline, reflecting weak global demand and competition from synthetic fibres.
- Coarse clean wool (35.4µm+) remains the largest category at $144M in 2025, but is still well below its 2015 peak of $227M, signalling structural decline in carpet wool demand.
- Fine greasy wool (<24.5µm) is the standout performer, growing from $107M in 2015 to $150M in 2025, now effectively tied for the top position and showing resilient premium apparel demand.
- Mid-range clean wool (31.4–35.4µm) has collapsed from $177M to $75M, losing nearly 60% of value over the decade, suggesting this segment faces the sharpest market displacement.
- Since the 2020 trough, exports have recovered to $513M in 2025, up 31%, but remain 40% below 2015 levels, indicating recovery is real but incomplete.

Source: StatisticsNZ (International Trade); Coriolis classification and analysis

New Zealand wool exports have fallen 33% from 2015 peak, dropping to 83.8k tonnes in 2025

EXPORT QUANTITY BY WOOL CONDITION: AS REPORTED

kt; FOB; 2015-2025



COMMENTS/NOTES

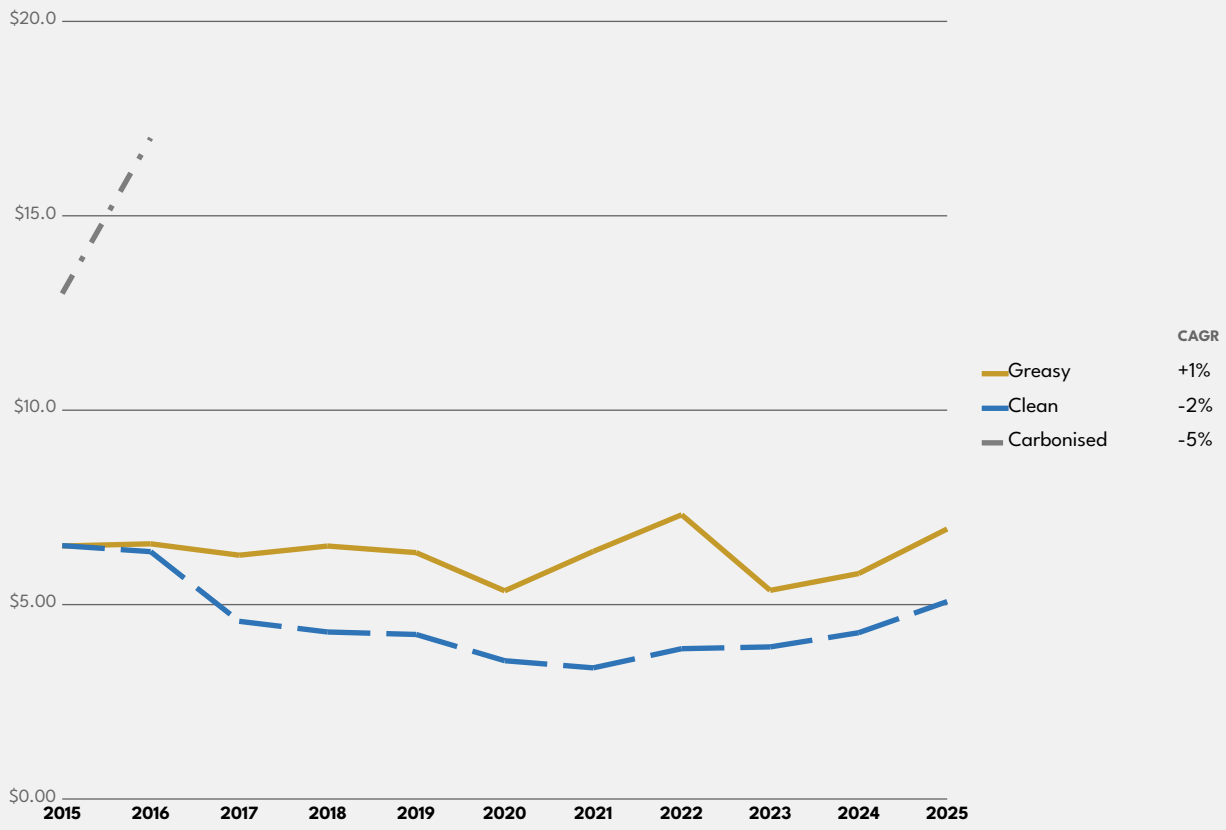
- Total wool exports peaked at 124.7kt in 2015 and have declined sharply to 83.8kt in 2025, a 33% fall over the decade, signalling sustained structural demand weakness.
- Clean wool dominates exports at 52.8kt in 2025 but has dropped 35% since 2015 (80.8kt), suggesting processors prefer to source semi-processed fibre elsewhere or switch to alternatives.
- Greasy wool exports fell from 43.8kt in 2015 to 31.1kt in 2025, down 29%, with a notable low of 23.5kt in 2022 reflecting COVID disruptions and weak Chinese demand.
- The 2020 trough of 89.0kt total exports marked a decade low at the time, driven by COVID-related trade disruptions, but recovery was short-lived with 2025 hitting a new low of 83.8kt.
- Carbonised wool exports are negligible (near zero throughout), confirming NZ's export base is concentrated in greasy and clean forms with limited value-added processing onshore.

Source: StatisticsNZ (International Trade); Coriolis classification and analysis

NZ wool export prices recovering in 2025 but remain well below decade-ago levels across all forms

AVERAGE EXPORT PRICE BY WOOL CONDITION; SEGMENT: WOOL

NZ$/kg; 2015-2025



COMMENTS/NOTES

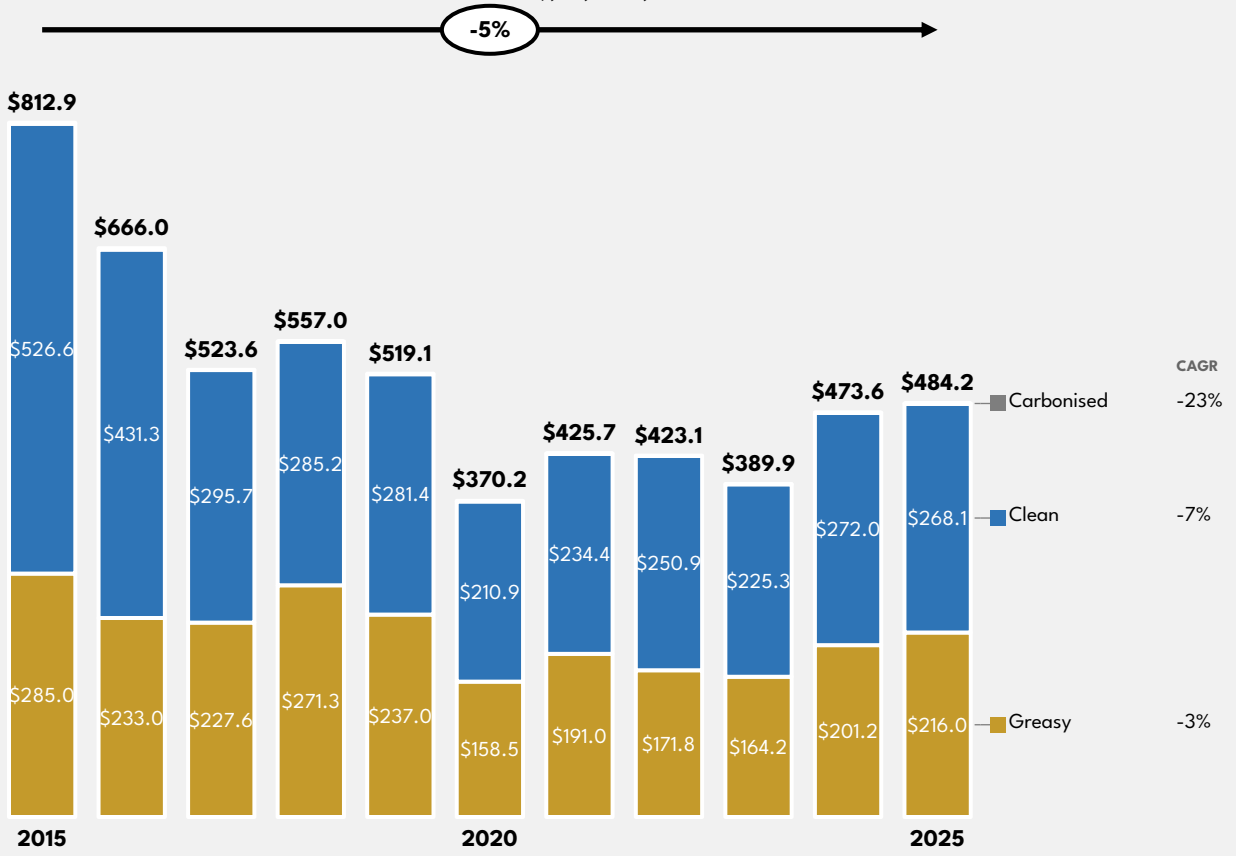
- Greasy wool prices hit NZ$7.3/kg in 2022, the decade peak, but crashed to NZ$5.4/kg in 2023 before partially recovering to NZ$6.9/kg in 2025, still below 2022 highs.
- Clean wool prices have fallen sharply from NZ$6.5/kg in 2015 to a low of NZ$3.4/kg in 2021, recovering modestly to NZ$5.1/kg in 2025, signalling fragile demand.
- The gap between greasy and clean wool prices has narrowed significantly, suggesting processors are capturing less value-add premium than a decade ago.
- Carbonised wool data is largely absent across the decade, with only three data points recorded, indicating this is a minor or irregularly traded export category.
- The 2025 recovery across both greasy and clean prices is encouraging but sustained improvement depends on global textile demand, particularly from China, NZ's key wool buyer.

Source: StatisticsNZ (International Trade); Coriolis classification and analysis

New Zealand wool exports have halved since 2015, with a modest recovery underway but still far below peak

EXPORT VALUE BY WOOL CONDITION: GREASY VS CLEAN VS CARBONISED

NZ$; m; FOB; 2015-2025



COMMENTS/NOTES

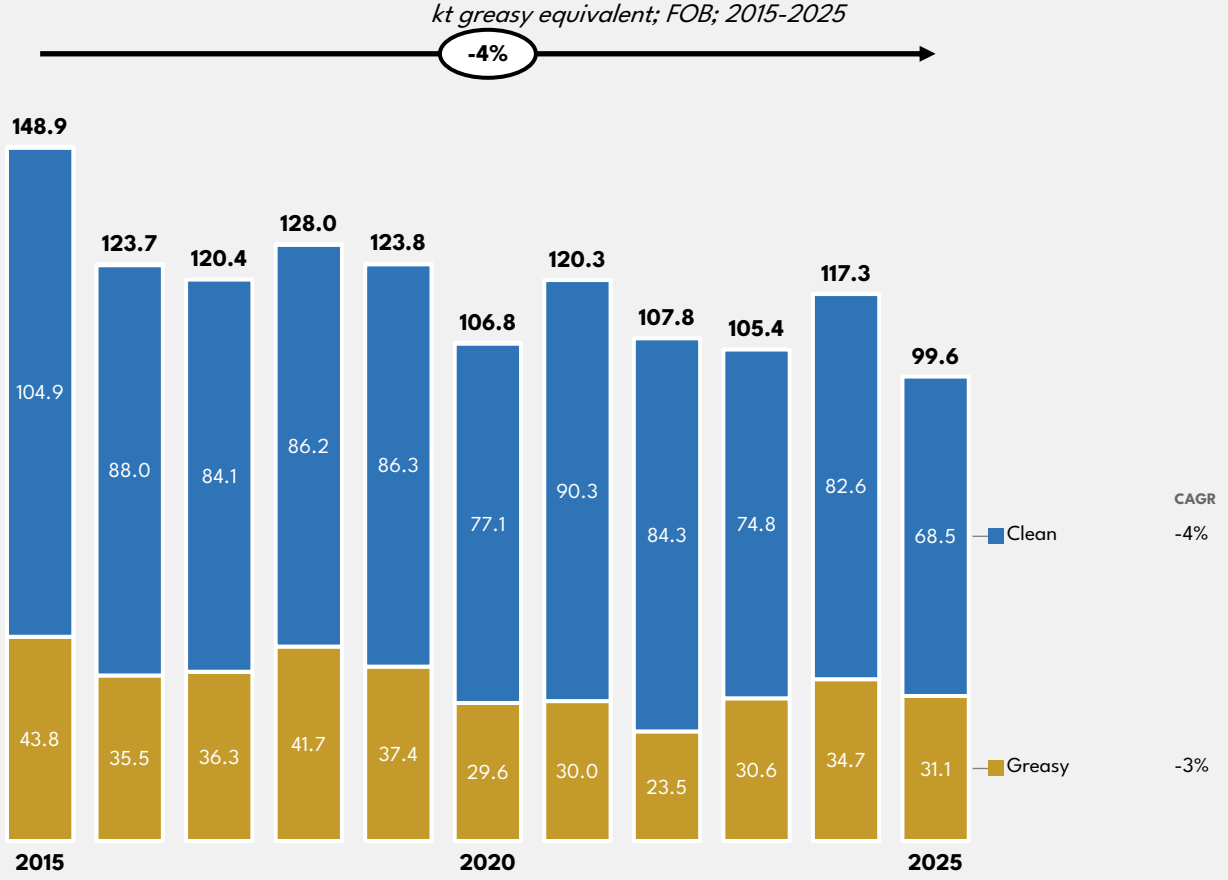
- Total wool exports collapsed from $813M in 2015 to $370M in 2020, a 54% fall, driven by weak global demand and low farmgate prices squeezing grower returns.
- Clean wool dominates the mix at $268M in 2025, but is still nearly half its 2015 peak of $527M, suggesting structural demand loss in apparel and carpet markets.
- Greasy wool exports fell to a low of $158M in 2020 but have partially recovered to $216M in 2025, reflecting some price improvement and continued Chinese processing demand.
- A recovery from the 2020 trough is visible, with totals rising to $484M in 2025, but growth has stalled and exports remain 40% below 2015 levels.
- Carbonised wool is negligible at under $1M, confirming this is a minor processing pathway with no material impact on overall export performance.

Source: StatisticsNZ (International Trade); Coriolis classification and analysis

NZ wool exports have fallen 33% from 2015 peak to 99.6k tonnes in 2025, with clean wool driving the decline

EXPORT QUANTITY BY WOOL CONDITION: GREASY EQUIVALENT

kt greasy equivalent; FOB; 2015-2025



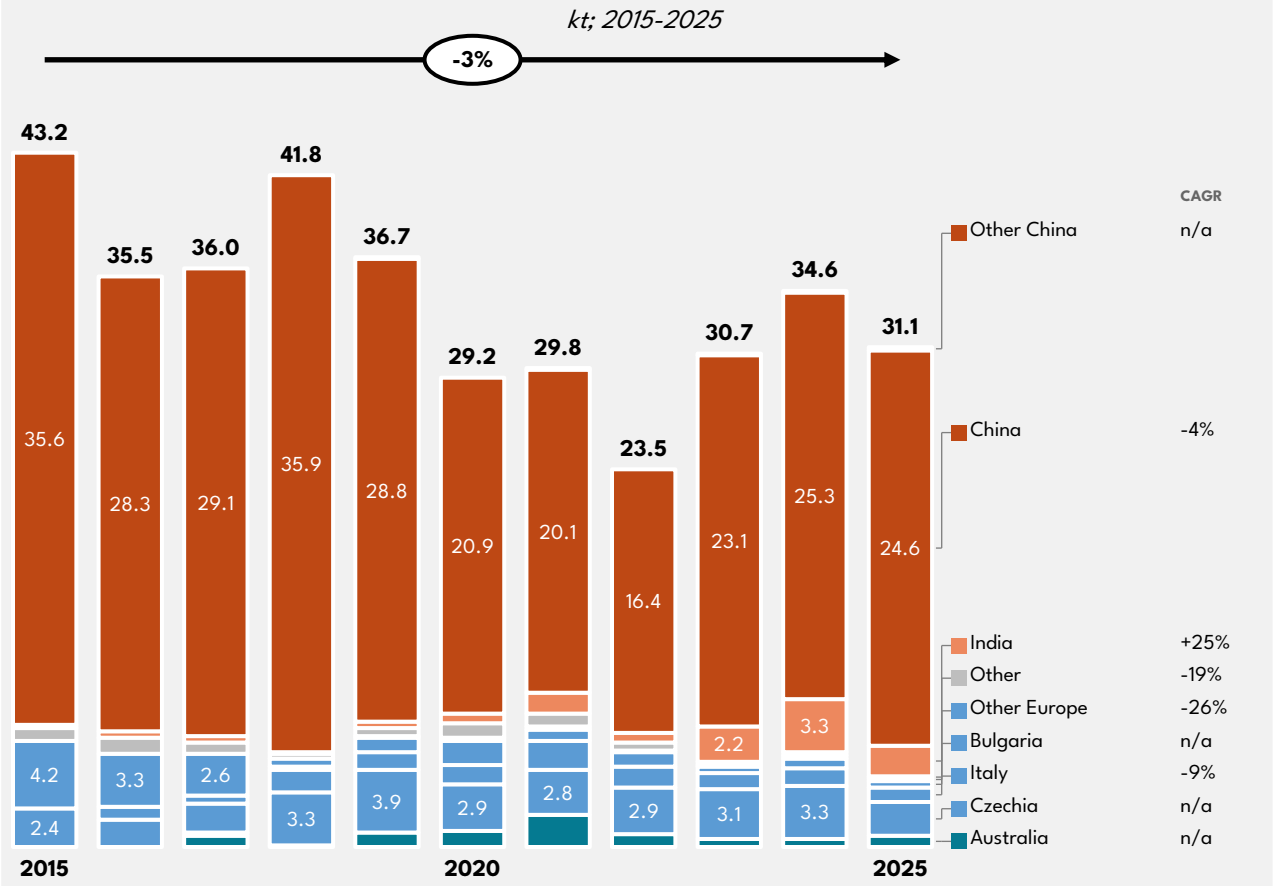
COMMENTS/NOTES

- Total wool exports peaked at 148.9kt in 2015 and hit a decade low of 99.6kt in 2025, a 33% fall signalling structural demand weakness.
- Clean wool dominates the export mix at 68.5kt (69% of 2025 total), but has dropped 35% since 2015, reflecting softening global demand for apparel and carpet wool.
- Greasy wool exports have halved from 43.8kt in 2015 to 31.1kt in 2025, suggesting less raw fibre is being shipped for offshore scouring and processing.
- Carbonised wool exports have effectively ceased, falling from a marginal 0.2kt in 2015 to zero since 2021, eliminating a minor but once-present product stream.
- Exports recovered partially to 117.4kt in 2024 before dropping sharply to 99.6kt in 2025, raising concern that the brief recovery has reversed and volumes are now at a new lower baseline.

Source: StatisticsNZ (International Trade); Coriolis classification and analysis. Clean→GE yield: 77%

Export volume for greasy shorn wool

EXPORT VOLUME BY KEY MARKET AND REGION (kt): GREASY SHORN WOOL (HS6 510111)



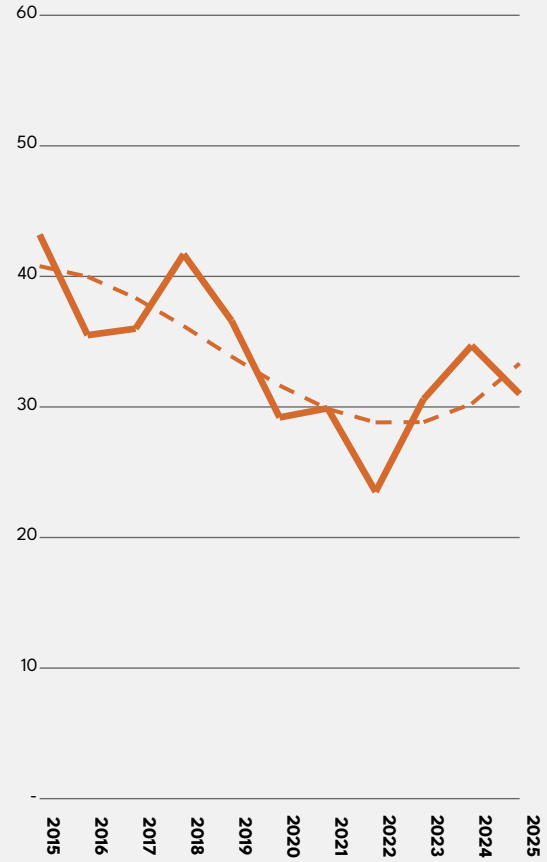
COMMENTS/NOTES

Source: StatisticsNZ (International Trade); Coriolis classification and analysis

Volume, price, and value trends for greasy shorn wool exports

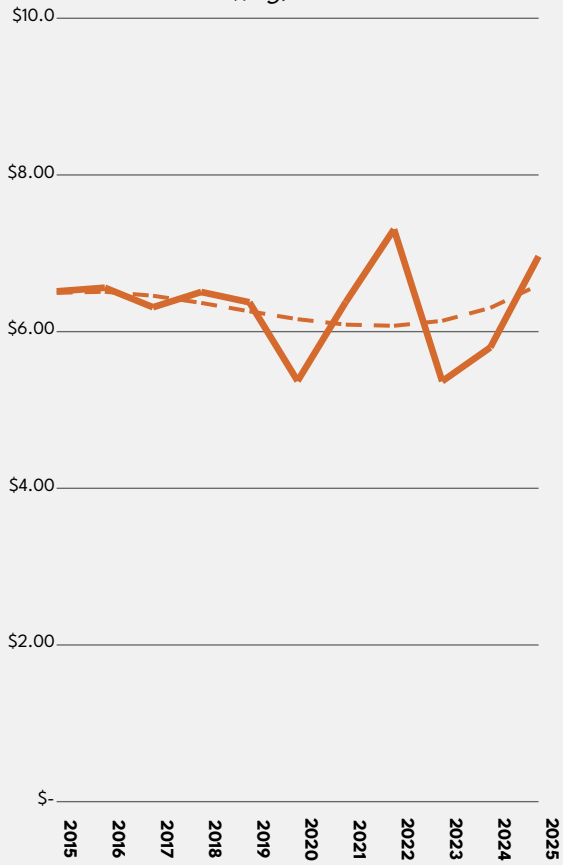
EXPORT VOLUME

kt; 2015-2025



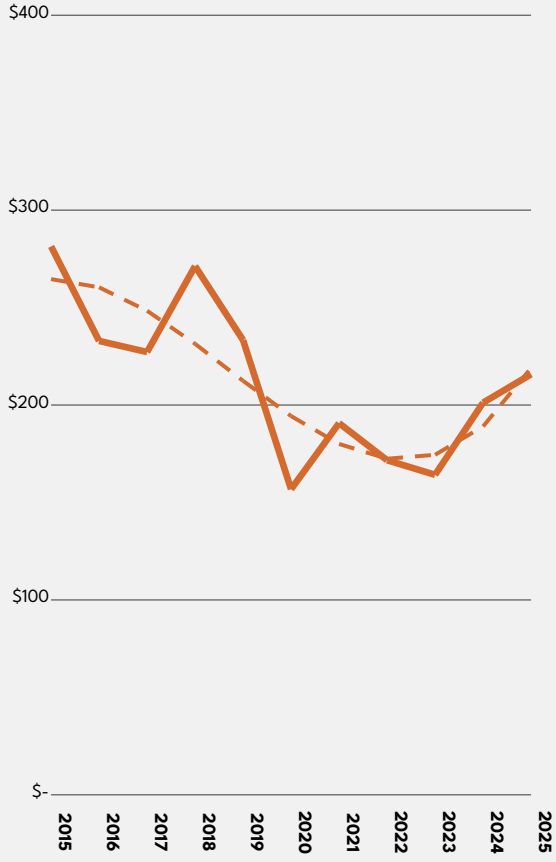
AVERAGE EXPORT PRICE

NZ$/kg; 2015-2025



EXPORT VALUE

NZ$; m; 2015-2025

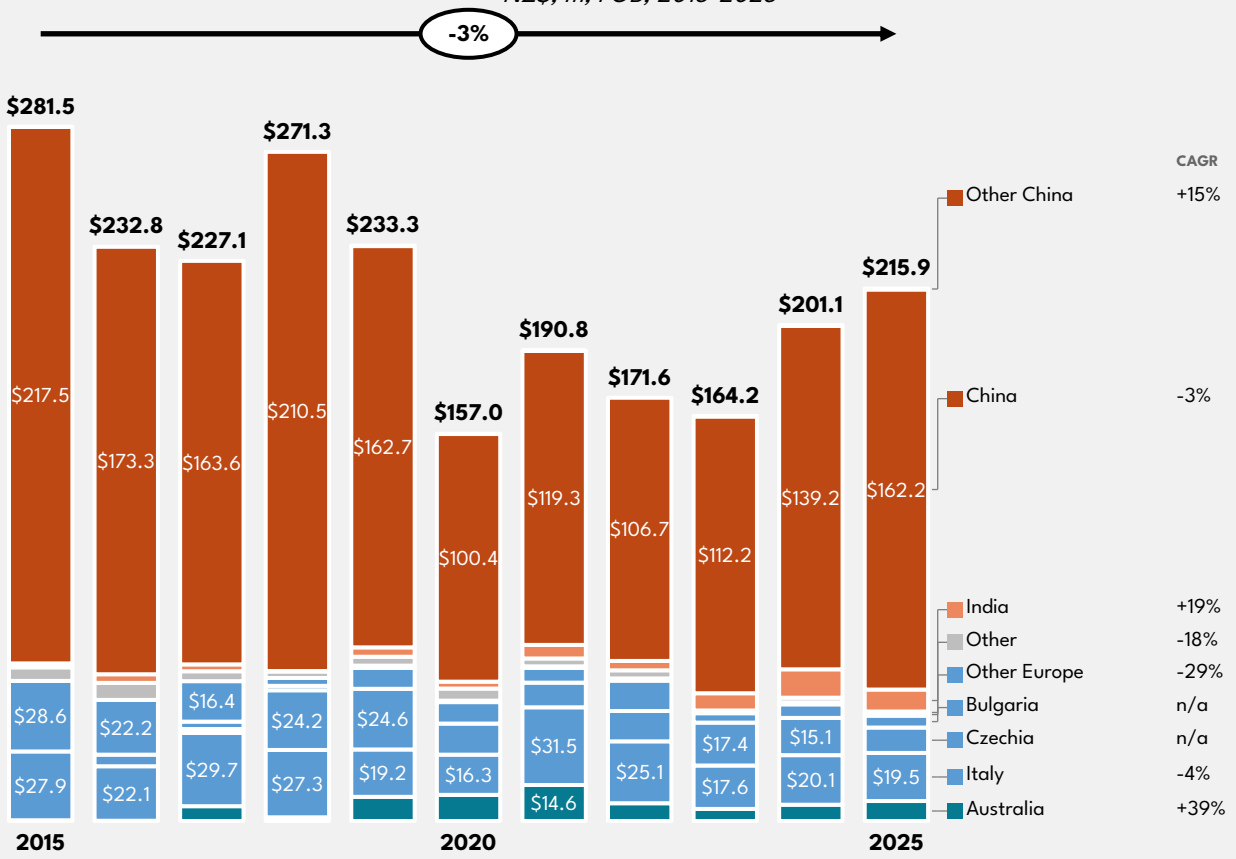


Source: StatisticsNZ (International Trade); Coriolis classification and analysis

Export destinations for greasy shorn wool

EXPORT VALUE BY KEY MARKET AND REGION: GREASY SHORN WOOL (HS6 510111)

NZ$; m; FOB; 2015-2025



COMMENTS/NOTES

Source: StatisticsNZ (International Trade); Coriolis classification and analysis

SOURCES: WOOL

SOURCE	LINK
Encyclopaedia of New Zealand 2015	Sheep Farming https://teara.govt.nz/en/sheep-farming
Encyclopaedia of New Zealand 1966	Wool production https://teara.govt.nz/en/1966/wool-production
NZ History	New Zealand's first sheep released https://nzhistory.govt.nz/first-sheep-released-in-new-zealand Korean War https://nzhistory.govt.nz/war/korean-war/impact
National Library NZ	New Zealand Wool Board https://natlib.govt.nz/records/22377358
Wool Research	Wool Research Organisation of New Zealand https://woolresearch.com/
NZ Government	McKinsey report on wool industry https://www.beehive.govt.nz/release/mckinsey-report-wool-industry
Digital NZ	Supplementary minimum prices: a production incentive? https://digitalnz.org/records/214952

Agenda

#	Topic	Page
1	Wool	5
2	**Skins & hides**	**37**
3	Mohair	49
4	Cashmere	59
5	Alpaca	70
6	Industrial Hemp	81
7	Harakeke	91
8	Forestry Waste-to-Fibre	100
9	Food Waste-to-Fibre	115
10	Textile Waste-to-Fibre	122
11	Domestic textiles & apparel	130

EXECUTIVE SUMMARY: SKINS & HIDES

New Zealand's leather tanning industry followed a classic arc of colonial industrialisation, mid-century peak, and structural decline driven by three converging forces: global footwear offshoring (post-1970s), the shift of chrome tanning capacity to Asia (1990s–2000s), and tightening environmental regulation (RMA 1991 onward) that made domestic tanning economically unviable for all but the highest-quality niches.

New Zealand once had an integrated hide-to-leather-to-footwear value chain; that chain is now almost entirely broken, with the country exporting the vast majority of hides raw or as wet-blue semi-processed product. Environmental compliance costs, particularly around chromium effluent and wastewater, were decisive in accelerating plant closures from the mid-1990s onward, effectively legislating mass-market tanning out of existence. A viable premium niche survives, competing on sustainability credentials, provenance and traceability rather than volume.

The implication is that most value recovery from NZ hides now occurs almost entirely offshore, representing a persistent and likely irreversible loss of in-country processing value.

New Zealand's skins and hides sector remains a large, mature co-product stream embedded in the meat industry, but the domestic leather industry is now "a small shadow of what it once was," with most material exported minimally processed (raw, pickled or wet-blue). This export-led structure is reinforced by trade dynamics and processing gravity offshore (notably China and Italy), and is unlikely to change without deliberate investment in onshore value-add and market development.

Economically, the sector is meaningful at a national level, even if much of the value is captured downstream outside New Zealand. The simplified model developed for this project estimates ~54,000 tonnes processed per year (50,000–60,000t), worth ~NZ$370m and employing ~800 people. Export revenue is estimated at ~NZ$255m (FOB across raw hides, pickled skins, wet-blue and finished leather), with an additional ~NZ$90m representing the farm-gate/co-product value embedded in hide and pelt sales from meat processors, and ~NZ$27m from domestic finished goods and artisan activity. The physical mix is dominated by cattle hides (~45,000t; ~83% of volume), with sheep/lamb pelts (~6,000t) and woolskins (~1,500t) as secondary streams.

Industry structure is concentrated around a small number of large processors, with capability clustered in wet-blue and fellmongery, and limited finished leather capacity. Lowe Corporation is the dominant hide processor with a large wet-blue facility and a business model oriented to largely raw/wet-blue value capture, while Tasman Tanning is described as the only New Zealand tannery producing finished leather at commercial-scale and differentiates on traceability and sustainability credentials. Waitoa (Greenlea/Wilson Hellaby JV) is a major calf and lamb hide processor exporting predominantly to Italy and China, and Progressive Leathers is a leading fellmongery with a modern greenfields plant. Bowron supports an active sheepskin finished goods footprint, while a long tail of artisan and niche tanners exists alongside an ongoing, long-term stream of exits.

The near-term outlook is positive. Two forces support New Zealand supply:

(1) Rising compliance expectations (trade waste regimes, wastewater upgrades and chromium treatment focus).

(2) the need to meet global brand requirements around traceability, restricted substances and verified environmental footprint. .

New Zealand's enabling assets are real but thin: LASRA's industry funded platform and collaboration with BSI/AgResearch.

The New Zealand leather industry is today a small shadow of what it once was; most skins and hides are now exported minimally processed

NEW ZEALAND SKINS & HIDES INDUSTRY TIMELINE

1841-2026

1841 John McVay arrives in Auckland and later founds the first tannery in Auckland.

1863 Coombs founds first tannery in Otago.

Late 1860s A fellmongery is noted operating around Clive, Hawke's Bay.

1867 NZ leather production reaches export surplus

1873 The lower Heathcote, Christchurch industrial strip records 7 wool scours and 5 tanneries.

1875 Coombs & Son rebuild after a major tannery fire, with brick structures and new pits.

1876 Coombs' tannery scale is 30–40 workers and ~300 hides/week plus many other skins.

1878 Coombs & Sons expand again: 30+ new pits, 50+ workers, ~500 hides/week.

1878 Onehunga develops as Auckland's second tanning hub

1881 A large complex is built by Lightband, Allan & Co (the later "Woolston Tanneries" precinct).

1882 First successful frozen meat shipment to Britain leaves NZ, turbocharging meat processing—and therefore hides/skins supply chains.

1888 Astley Leathers founded in Auckland (Panmure)

1900 Chromium sulphate-based tanning, which had emerged in Europe and the US from the 1880s, reached NZ around the turn of the century. Chrome tanning dramatically reduced processing time (days vs. months for vegetable tanning) and produced softer, more versatile leather suited to footwear.

1915 Hawke's Bay Farmers' Freezing Works open at Whakatū (big upstream driver of hides/skins).

1916 Woolston processes ~1,000,000 sheep pelts/year, converts 1,000+ hides/week, and employs ~200.

1928 LASRA (NZ Leather & Shoe Research Association) begins serving the sector (research/technical/training), supporting process and waste-management know-how.

1940s NZ's footwear industry was the primary market for NZ-tanned leather.

1950s Post-war rationalisation saw the first wave of tannery closures, particularly of smaller operations. Closures focused in and around suburban tanneries.

1953 (Whanganui) – Tasman (Tasman Leathers / Tasman Tanning) is founded (later described as an end-to-end processor).

1957 New Zealand Shoe and Leather Fair reflects a still-substantial domestic manufacturing ecosystem.

1959 Woolston tannery closes after receivership, and land/buildings are progressively sold.

1961 Former tannery buildings begin to take on new roles, including light manufacturing and residences.

1981 "Major tanning interests merge": New Zealand Light Leathers merges with Hastings Tannery.

1980s 17 NZ tanneries operating (with only some making high-fashion leathers).

1984 Astley Leathers merges with Mair Group to form Mair Astley (NZX listed).

1986 Mair Astley acquired by Mainzeal and renamed Richina Pacific.

1991 Resource Management Act 1991 creates framework for discharges/odour/consents strongly impacting tanneries and trade waste.

1992 Waitoa Tannery originally established.

1994 Meat processing closures accelerate; multiple works (incl. Tōmoana) closed; Weddel collapsed.

1995 Richina Pacific forms JV w/ Shanghai Leather; chrome tanning technology transferred to China

1998 Remaining Astley Leathers assets sold to new management; vegetable tanning pivot.

2000s NZ hides and skins export mix shifts decisively toward raw and wet-blue product

2003 Progressive Leathers commissions a new greenfields fellmongery at Whakatū, described as the first built for many years.

2005 Astley Leathers Panmure tannery site listed for redevelopment sale

2006 NZ deerskin exports peaked in 2006 at $23 million, up from $16 million in 2002. The dominant processing and finishing of this leather occurred in Italy and the US, with NZ contributing primarily raw or wet-blue product. TR

2008 NZ–China FTA, deepening the commercial logic for exporting raw hides/skins/leather lines.

2019 Global hide oversupply drives NZ leather export prices to record lows.

2020 Waitoa Tannery is acquired by Greenlea Premier Meats + Wilson Hellaby.

2020 Silver Fern Farms formalises hides and skins commercial division.

2024 NZ exports of raw hides/skins & leather total ~US$153.33m, with ~US$57.32m to China.

2025 Councils tighten trade waste regimes (e.g., Whanganui Trade Wastes Bylaw 2025) and processors invest to comply (e.g., Tasman wastewater upgrades driven by stricter standards; chromium noted as a key concern in treatment).

Very limited **skins and hides** research is occurring in New Zealand (relative to dairy or wool); research is primarily industry co-funded

KEY ORGANISATIONS IN NEW ZEALAND RESEARCHING: SKINS & HIDES

Organisation; 2025 or as available

Who?	What?	Situation/State-of-play
LASRA	Independent industry funded research organisation	- Independent research association; members process 100% of NZ hides/deerskins and 85%+ of lamb/sheepskins. - MBIE SSIF-funded: $0.9M p.a. for 7 years (2018–2024) for "Export Quality Hides" science platform. - Now pursuing MBIE Endeavour funding ($1M) for AI/hyperspectral imaging fault detection system in partnership with AgResearch. - IANZ-accredited laboratory (ISO, EN, ASTM standards) that is 'internationally recognised' for leather chemical and physical testing. - Research spans: early-stage fault detection, enzyme-assisted processing, sustainable tanning alternatives (Zeology/zeolite-based chrome-free tanning), LCA environmental footprint. - Runs correspondence courses for leather technology training.
BIOECONOMY SCIENCE INSTITUTE |	Government-owned and funded University	- State-owned agency with major wool and animal products research programmes. - Collaborates with LASRA on: hyperspectral imaging fault detection (Drs Prabakar and Sharifi collaboration), genetic variation in skin traits in New Zealand lambs, LCA modelling for leather (partnering with Toitū Envirocare for Tasman/Silver Fern Farms Net Carbon Zero certification), and collagen biomaterials research.

New Zealand has a large, modern, efficient meat industry with numerous locations processing animals; some sell/export wet-blue directly

PRIMARY KILL ABATTOIRS CREATING SKINS/HIDES AS CO-PRODUCTS

Active; as of late 2025

SECTOR	PRIMARY KILL MEAT PROCESSORS
Cattle 15 firms 45 location	
Sheep 15 firms 35 location	
Deer 5 firms 10 location	
Pigs 6 firms 6 location	
Poultry 6 firms 8 location	

Source: MPI; Coriolis past work and analysis

A limited number of large firms are commercialising **skins and hides**

KEY FIRMS IN NEW ZEALAND COMMERCIALISING: SKINS & HIDES

Commercial firms identified; 2025 or as available

Who?	Situation/State-of-play
CURRENTLY OPERATING	
Lowe Corporation	Dominant processor; controls NI hide supply from most major meat processors. Founded 1964 by Graeme Lowe; Andy Lowe MD. Flagship Graeme Lowe Hastings facility: largest/most technologically advanced wet-blue tannery in Southern Hemisphere; capacity 600,000 hides p.a.; ~50 staff. Acquired Colyer Mair (2001), Te Aroha Skin Processing (2004), Silver Fern Farms NI hide/rendering assets (2014). Italy and China orientation means largely raw/wet-blue value capture. LWG certification provides some premium differentiation. Capacity utilisation tied to NZ beef kill volumes. https://www.lowecorp.co.nz/hides-skins-pelts
TASMAN. LEATHERS OF NEW ZEALAND.	The only NZ tannery producing finished leather at commercial-scale. Founded 1953 as family business on Whanganui River. CEO Neville Dyer; ~20 employees; estimated revenue $11–100M. Supplies RM Williams, Blundstone, Steel Blue, Hestra Gloves, Moore & Giles, Redback. LWG Silver certified; 99% traceability rating (since 2018). PFAS-free; 83% renewable energy. Receives ANZCO Foods' hides. Markets: footwear, upholstery, Net Carbon Zero credentials are a structural differentiator against commodity Asian competition. 20 employees. Owns 75% of NZ Light Leathers. https://www.tastan.co.nz
WAITOA TANNERY	Joint venture established 2020 between Greenlea Premier Meats and Wilson Hellaby (trading as Waitoa). Acquired from Wallace Group. Processes ~600,000 calf hides and ~450,000 lamb hides p.a. across two main sites (Waitoa and Feilding). Majority of leather exported to Italy; balance to China. ~100 staff across all activities at the three sites (including rendering JV with Glendenburg). https://www.waitoatannery.co.nz
BOWRON SHEEPSKINS	Founded 1879 by Yorkshire brothers George and William Bowron. One of NZ's longest-operating tanneries. Introduced the 'Whitan Process' (closed-loop tanning) in late 1990s — a significant environmental innovation. Acquired by Henan Prosper (China) in 2017. Main tannery and HQ remain at Woolston, Christchurch. Products: sheepskin rugs, cushions, bean bags, car seat covers, infant care, decorative products. Sourced from free-range NZ and Australian farms. Has manufacturing operations in Thailand and Vietnam. Also tans cow hides. https://bowron.co.nz
Progressive LEATHERS New Zealand	Established in 2003, Progressive Leathers designed and commissioned a new greenfields plant located in Whakatu, near Hastings on the East Coast of the North Island. This was the first fellmongery constructed in New Zealand for many years. Since then, Progressive Leathers has grown to become one of New Zealand's leading fellmongeries. Employs up to 90 staff in peak season. https://www.pllnz.co.nz/

A small number of secondary or niche firms are commercialising **skins and hides**

SECONDARY/OTHER FIRMS IN NEW ZEALAND COMMERCIALISING: SKINS & HIDES

Commercial firms identified; 2025 or as available

Who?	Situation/State-of-play
untamed	"In their modest Tannery in Southern Hawkes Bay, New Zealand a close knit, highly skilled and enthusiastic Team work to process the fur skins. The very best furriers then construct the UNTAMED creations on offer. Sue & Steve and their Team manage the entire process from raw material procurement, tanning, dying and manufacture." https://www.basicallybush.co.nz/
CLASSIC NEW ZEALAND	"Our people are local, experienced, and deeply connected to what they make. Based in Hawke's Bay, our team has been crafting sheepskins for generations, with skills passed down and refined since our establishment in 1969. Working together under one roof, they oversee every step of the process with care and precision. As the only full-scale sheepskin tannery remaining in New Zealand, we're proud to keep this specialised craft alive locally. It's this close knit team and shared commitment to quality, consistency, and integrity that ensures every sheepskin we produce meets the standards we've upheld for decades." https://classicsheepskins.com/pages/our-story
ANIMAL SKIN TANNING SERVICES	Offers a contract skin tanning service to hunters, farmers and individuals; processes skins ranging from rabbits and possums to sheep, calf, deer, goat, tahr, chamois, pig and cattle. Positioned as a small-scale artisan and hunter-focused service tannery rather than a commercial volume processor. https://animalskintanningservices.co.nz/
	Small operation producing possum clothing and accessories using a natural tanning process. "Envirofur is proud to provide you with some of the best in environmentally friendly possum clothing and accessories" https://envirofur.co.nz/
RECENT EXITS	
SLINKSKINS LTD HAZLETT & SONS GROUP NEW ZEALAND	Receivership 2020. Equipment sold. Slinkskins Ltd, a division of the Hazlett and Sons Group, was a New Zealand owned and operated Southland based tanning company that had been in the business since 1968. Produced high quality skins from New Zealand slink and calfskins. Slinkskins Ltd supplied leading fashion houses and glove makers around the world. https://www.slinkskins.co.nz https://www.stuff.co.nz/business/120082364/southland-tannery-goes-into-receivership-20-jobs-lost https://www.stuff.co.nz/national/122103461/north-island-tannery-owner-buys-equipment-and-machinery-in-southland
South Island Skins	Operates inside former Lean Meats, part of the Chinese-owned BX Foods group, owned by Heilongjiang Binxi Cattle Industry Co Ltd (Binxi). The plant at 7 Redcastle Road processes ovine, goats and bobby calves. This is the same address as South Island Skins Limited on the MPI register. The plant has had operational disruptions and Oamaru Meats stopped all processing after access for its beef to China was suspended. https://www.nzherald.co.nz/the-country/news/oamaru-meats-workers-facing-uncertain-future/3SHG3TA775KISZ3HL7DBEY3LJY/ https://www.nzherald.co.nz/the-country/news/oamaru-meats-ltd-still-shut-down/FQVXGCRAP3VAAZV2G75COMXYKA/

The New Zealand **skins and hides** industry is a large and mature segment of the wider meat industry

NEW ZEALAND CAPABILITIES DRIVEN SUPPLY CHAIN: SKINS & HIDES

SELECT FIRMS



Source: Coriolis

Evidence certainty Data quality/confidence	MED

The New Zealand skins and hides industry was estimated to process ~54,000t (50,000-60,000t) worth ~$370m and employ ~800 people

SIMPLIFIED MODEL OF THE NEW ZEALAND SKINS & HIDES INDUSTRY

Various measures; as available

Species / Product Form	Processing Stage	Units Processed/year	Estimated tonnes	% of volume	Key firms
Cattle hides	Wet-salted / wet-blue	~1.8–2.0m hides	45,000t (40,000-50,000t)	83.3%	Dominant category; Lowe Corp, Tasman, Waitoa
Sheep/lamb pelts	Pickled, without wool	~10m pelts	6,000t (5,000-7,000t)	11.1%	Progressive Leathers, SFF (SI), Alliance
Woolskins (wool-on)	Tanned / dressed	~0.5–1m skins	1,500t (1,000-2,000t)	2.8%	Classic Sheepskins, Bowron
Deerskins	Raw / pickled	~1.2m skins	500t (400-600t)	0.9%	DINZ, Alliance, ANZCO; mostly raw export
Finished cattle leather	Fully tanned	~100–200k hides	750t (500-1,000t)	1.4%	Tasman Tanning only; high-value, low weight
Possum & minor species	Dressed pelts	~1.5–2.5m pelts	300t (200-400t)	0.6%	Basically Bush / Untamed; artisan tanners
TOTAL — All Species			**54,050**	**100%**	

Revenue stream	Processing Stage	Revenue
Exports FOB	Raw hides, pickled skins, wet-blue, finished leather exports	$255m ($240-270m)
Domestic finished goods	Classic Sheepskins, Bowron NZ retail, Basically Bush consumer, Tasman domestic, artisan tanners	$27m ($20-35m)
Meat processor co-product revenue	Hide/pelt sales from meat processors to tanners (embedded in Pool 1 but represents farm-gate value)	$90m ($60-130m)
TOTAL		$372m ($320-435m)

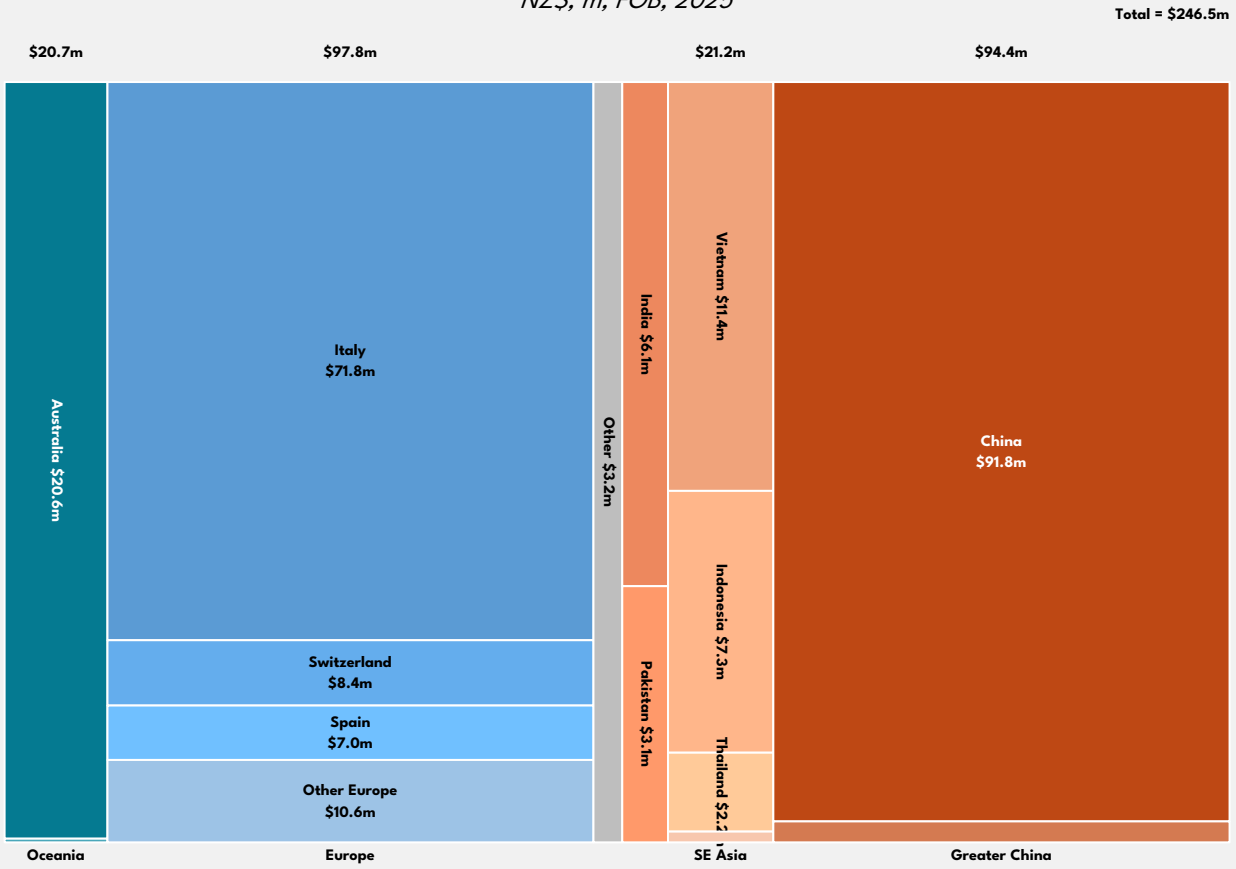
Firm	Employment
Lowe Corporation	300 (250-350)
Waitoa Tannery Ltd	95 (80-110)
Progressive Leathers Ltd	75 (60-90)
Tasman Tanning (Whanganui & South Island)	50 (40-360)
Classic Sheepskins	40 (30-50)
G.L. Bowron & Co.	40 (30-50)
Silver Fern Farms (hides div.)	50 (40-60)
Alliance Group (co-products)	40 (30-50)
AFFCO / ANZCO / Greenlea et al.	65 (50-80)
Other/smaller/LASRA	50 (35-65)
TOTAL	805 (645-965)

Source: Coriolis BioSphere database; Statistics New Zealand; MPI; UN FAOStat database; B+LNZ; Coriolis classification and analysis

China and Italy together take two thirds of New Zealand raw hides and skins exports

MARIMEKKO CHART OF EXPORT DESTINATIONS BY REGION AND COUNTRY: RAW HIDES & SKINS

NZ$; m; FOB; 2025



COMMENTS/NOTES

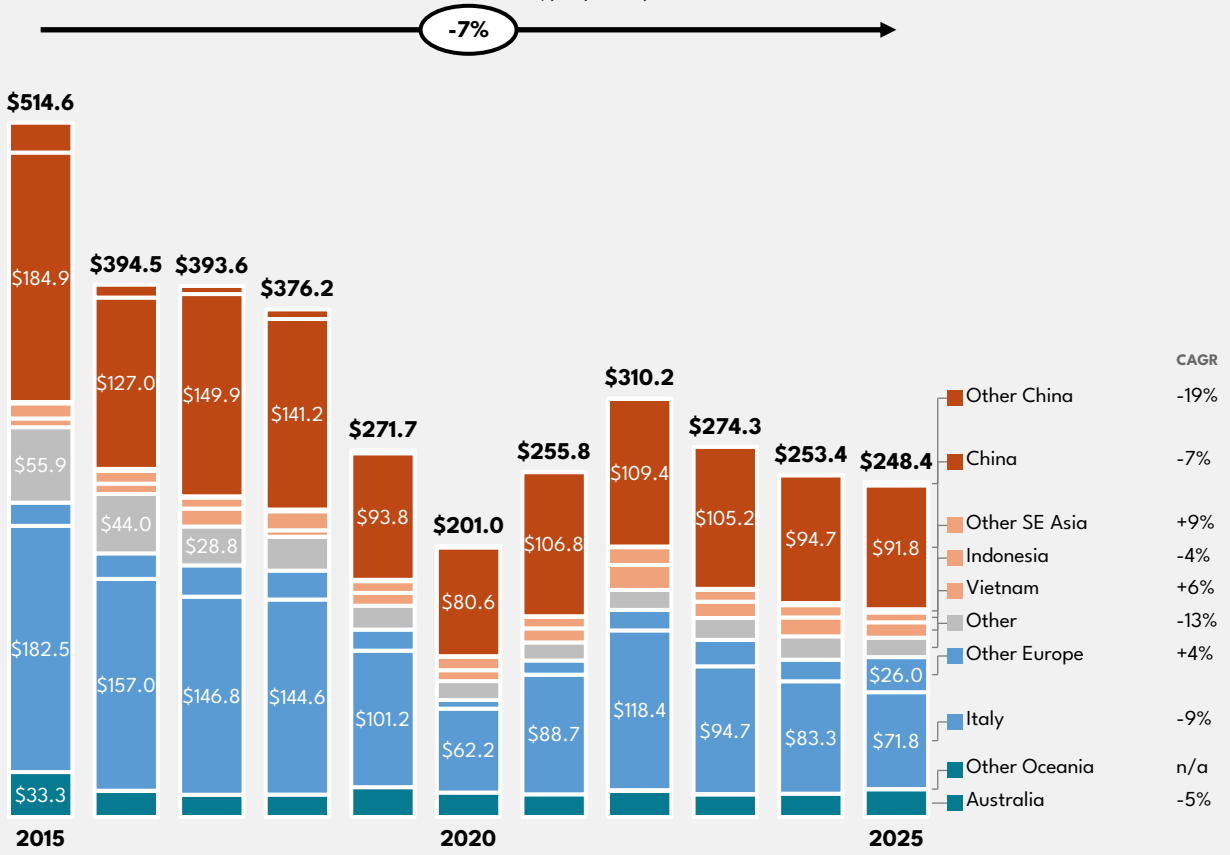
- China is the single largest market at $91.8M (37% of exports), reflecting strong demand from its leather manufacturing industry, making it the critical relationship to protect and grow.
- Italy at $71.8M is the second largest destination, showing that premium European leather goods makers remain major buyers of New Zealand hides despite competition from lower-cost sources.
- Europe overall takes roughly $97.8M (39%), slightly ahead of Greater China's $94.4M, meaning the two regions together account for nearly 80% of all raw hide exports.
- Southeast Asia is a meaningful third bloc at $21.2M, led by Vietnam ($11.4M) and Indonesia ($7.3M), reflecting the region's growing leather processing capacity.
- Australia at $20.6M is the largest single non-manufacturing market, likely reflecting trans-Tasman trade in unprocessed stock rather than finished leather demand.

Source: StatisticsNZ (International Trade); Coriolis classification and analysis

NZ raw hides & skins exports halved from $515m in 2015 to $249m in 2025, led by collapse in Italian demand

EXPORT VALUE BY KEY MARKET AND REGION: RAW HIDES & SKINS

NZ$; m; FOB; 2015-2025



COMMENTS/NOTES

- Total exports fell 52% from $515m (2015) to $249m (2025), with a low of $201m in 2020, reflecting structural decline not just COVID disruption.
- Italy, once the largest market at $183m (2015), dropped 61% to $72m by 2025, signalling a long-term retreat in European leather manufacturing demand.
- China fell from $185m (2015) to $92m (2025), down 50%, remaining the largest single market but no longer the growth engine it once appeared.
- Vietnam grew from $7m to $11m and shows relative resilience, while Indonesia held steady near $7-14m, suggesting SE Asia offers modest but stable demand.
- Australia remains a small, consistent market at $17-33m, while all other markets combined have shrunk, leaving NZ exporters with few alternative destinations to offset major market losses.

Source: StatisticsNZ (International Trade); Coriolis classification and analysis

SOURCES: SKINS & HIDES

SOURCE	LINK
LASRA	https://www.lasra.co.nz
BSI/AgResearch	New Tech Boosts Hide Processing Efficiency https://www.agresearch.co.nz/news/new-tech-boosts-hide-processing-efficiency/
Rural News	Joint venture takes over tannery https://www.ruralnewsgroup.co.nz/rural-news/rural-general-news/joint-venture-takes-over-tannery
Silver Fern Farms	Quality New Zealand Hides & Skins https://silverfernfarms.com/nz/en/our-products/for-commercial-customers/hides-and-skins
Waitoa Tannery	A leading business, rich in history, based in the lush Waikato dairy hub of New Zealand. https://www.waitoatannery.co.nz/about
Waterford Press	Tasman Tanning Co Ltd celebrates 70 years, eyes sustainability in industry https://www.waterfordpress.co.nz/tasman-tanning-co-ltd-celebrates-70-years-eyes-sustainability-in-industry/
The Tannery Boutique Shopping, Restaurants & Bars	Our story: The History of The Tannery and Building https://thetannery.co.nz/about/our-story/
New Zealand Fashion Museum	Designer Leather http://www.nzfashionmuseum.org.nz/designer-leather/
Encyclopaedia of New Zealand	Agricultural processing industries https://teara.govt.nz/en/agricultural-processing-industries Clothing and footwear manufacturing https://teara.govt.nz/en/clothing-and-footwear-manufacturing

Agenda

#	Topic	Page
1	Wool	5
2	Skins & hides	37
3	**Mohair**	**49**
4	Cashmere	59
5	Alpaca	70
6	Industrial Hemp	81
7	Harakeke	91
8	Forestry Waste-to-Fibre	100
9	Food Waste-to-Fibre	115
10	Textile Waste-to-Fibre	122
11	Domestic textiles & apparel	130

EXECUTIVE SUMMARY: MOHAIR

New Zealand mohair is a plausible "small but premium" fibre opportunity, with a clearer pathway to value than to volume. Mohair (from Angora goats) sits in a global market where South Africa is the dominant producer, and current commentary points to international supply tightness that can support attractive pricing and near-term demand pull for credible, high quality fibre from niche origins like New Zealand. At the same time, New Zealand's industry has been cyclical for decades, expanding sharply in the 1980s goat fibre boom and then contracting as prices fell, leaving a structurally small sector today.

The industry remains micro-scale and data is limited and out of date. A simplified model estimates the New Zealand mohair industry to be ~7,500 head producing 20-30t worth $1.0m in 2025 (4.5t and ~NZ$380k of export value).

The available trade data reinforces this "niche not engine" reality, showing mohair fibre export volumes trending down over time rather than building toward a sustained expansion cycle. The sector's economic relevance will be driven by domestic margin and value-add capture (yarns, woven products, branded end-goods), not by raw-fibre tonnage.

Where the New Zealand proposition is strongest is in an emerging, capability-led supply chain anchored by a small number of critical organisations. Mohair Fibres NZ is positioned as the dominant aggregator/broker, pooling fibre nationally (reported as ~6–7 tonnes every six months) into multiple marketable lines, selling stronger lines domestically and exporting finer fibre, while also acting as the main mechanism to attract new entrants in a sector that may already be below "critical mass" for a robust industry ecosystem.

Downstream, Wild Earth Yarns has become a key processor after acquiring Design Spun's equipment in 2025, now described as the sole surviving worsted spinning and dye house operation in New Zealand. Masterweave provides further evidence of exportable value-add, operating as the only specialist mohair weaving facility and exporting a solid share of production, but also highlighting a recurring constraint: New Zealand fibre volumes can be insufficient to meet downstream needs without supplementation (i.e. imports).

The limiting factor is not the existence of goats or demand narratives; it is relative profitability versus other land uses and coordinated scale-up with quality assurance. The historical timeline shows that Angora goats have been present for ~160 years and that industry organisation exists (e.g., producer bodies), but it also shows repeated boom-bust dynamics.

Mohair research does not currently appear to be a focus of the New Zealand science system, implying that industry-led capability building and applied innovation (processing know-how, quality systems, product development) will matter more than expecting a large public R&D push.

Overall, mohair is a credible niche for New Zealand with supportive market conditions and a small set of strong anchor players, but it will only become "meaningful" economically if the sector can grow beyond sub-critical mass and convert fibre into higher-value products at home. The most realistic ambition is a premium, export-facing micro-industry built on aggregation discipline, processing capacity, and repeatable quality, while avoiding repeating past cycle dynamics.

Mohair, produced from Angora goats, is held up as an opportunity for New Zealand; South Africa is the major global producer

"Angora goat, breed of domestic goat originating in ancient times in Asia Minor near the city of Ankara (previously called Angora), Turkey, from which the breed derives its name. The goat's silky coat yields mohair. It was protected by the Turks for centuries for its valuable coat, and it did not become known to Europeans until the mid-16th century. The Western mohair industry developed more than two centuries later. South Africa is the largest mohair producer in the 21st century. Globally, there is a small but growing market for Angora goat meat as well." website

Britannica

"A dire international shortage of mohair fibre spells a huge opportunity for New Zealand farmers. Mohair NZ marketing company representative John Woodward says at its peak in 1989, the worldwide production of mohair reached 24 million kilogrammes. Today, international supply sits just under three million kilogrammes a year." article

FARMERSWEEKLY

"Why Angora Goat Farming?

Strong Markets
An international supply shortage means a high demand for mohair fibre, creating an extraordinary opportunity for anyone with an interest to enter the industry.

Additional Income
Angora goats can offer a lucrative and reliable income stream and are easy to incorporate into lifestyle blocks and existing farms.

Premium Returns
Mohair is highly valued for its softness and durability. It is a world class fibre, and top Angora goats can produce up to 6kg per year, which translates into more money in your bank.

Environmentally Friendly
Angora goats can be farmed in low input systems. They improve pasture quality by providing a chemical free solution to weed control. They are lighter on the land than other stock units, both physically and in terms of CO2 outputs." website

MOHAIR PRODUCERS NEW ZEALAND

Angora goats have been in New Zealand for almost 160 years; the industry has been through multiple cycles of growth and contraction

NEW ZEALAND MOHAIR INDUSTRY TIMELINE

1773-2025

1773 On Cook's second voyage, goats are released in the Marlborough Sounds, helping seed later feral populations.

Late 1700s–1800s Goats repeatedly released around coasts/islands as food for ships and castaways; they spread and contribute to feral herds.

c. 1840s–1860s Utility goats (milk/meat) continue to be introduced and escape/establish feral populations, setting the ecological and husbandry backdrop for later fibre-goat experiments.

1853 Turkey exports Angora goats to Australia.

c. 1867 Angora goats (from Australia?) are introduced by Auckland, Canterbury and Otago acclimatisation societies to pursue "more valuable skins"/fibre.

Late 19th–early 20th century Further Angora introductions and pedigree herds are developed in hopes of a local mohair industry.

1920 Reports of very large goat numbers (e.g., ~30,000 between Lakes Wānaka and Wakatipu) underline the scale of goats in the landscape (including cross-breeding risks for Angoras).

1920s Mohair becomes unfashionable internationally; accounts note many Angoras were released and inter-breeding with feral goats increased.

1929 State Forest Service highlights goats' impact on regenerating forest (pressure that later influences control policies affecting all goat types, including fibre goats).

1937 Government funding is obtained for goat culling (Department of Internal Affairs).

1937–1946 Internal Affairs shooters kill ~43,000 goats.

1946–1947 A further ~73,000 goats are shot; dense infestations are noted in places like Marlborough and Taranaki.

1970 Mohair Producers of New Zealand traces formal industry support/coordination for Angora farmers to this year.

Aug 1971 The incorporated body known as the Mohair Producers Association of New Zealand (Inc.) is recorded under that name (later renamed/restructured).

1977 Wild Animal Control Act: feral goats are legally "wild animals"; releasing goats into the wild becomes an offence—important for protecting fibre genetics from feral mixing.

1977 A New Zealand Mohair Association is formed (reported in retrospective industry accounts), reflecting growing producer organisation during the expansion era.

Late 1970s Mohair is described (in later research looking back) as seen as "the most profitable goat farming enterprise" during the industry's early analytical phase.

1980s Goat fibre boom: rapid expansion of goat farming and fibre enthusiasm (including mohair), with active genetic improvement via imports noted in industry narratives.

1990 At high fibre demand, farm goat numbers are estimated at ~1 million (all goat types), showing the scale of the fibre-led period.

Early 1990s After fibre/goat prices decline, farm goat numbers fall sharply (industry contraction).

2002 Farm goat numbers estimated at ~153,000 (down from the 1990 peak), indicating the post-boom reset.

2007 Te Ara reports ~20,000 Angora goats in NZ; notes mohair production profitability relative to lamb and references the earlier 1980s boom context.

2016/2017 Industry research estimates ~31 tonnes of mohair produced annually, with ~15 tonnes exported

2017 NZ goat industry modelling work highlights the fibre sector's lower value vs dairy/meat but points to upside via improved genetics/"weaving grade" fibre.

2020s Te Ara contextualises NZ as a small share (~1%) of global mohair output, reinforcing a niche, quality-focused positioning rather than volume dominance.

2021 Market demand is described as "very high" and goat are described as "more profitable than sheep".

2024–2025 NZ industry commentary flags international mohair tightness as a potential opportunity for NZ producers.

Source: see sources at end of section

Evidence certainty Data quality/confidence	MED

The New Zealand **mohair** industry was estimated to be ~7,500 head producing 20-30t worth $1.0m in 2025

SIMPLIFIED MODEL OF THE NEW ZEALAND MOHAIR INDUSTRY

Various measures; as available

	Estimated Animal Population		Mohair /goat (kg/goat)		Tonnes produced		$/t $/kg		Value		% exported (value)		Export $ Export t
2007	20,000		-		-		-		-		-		$545,640 40t
2017	9,320	x	3.32	=	31t	x	$21,451.61 $21.45	=	$665,000	x	~50%	=	$249,434 14t
2025	~7,500 (6,000-9,000)		3.32		20-30t		$38,910/t $38.90/kg		$1.0m ($0.8-1.2m)				$380,344 4.5t

Source: Goats and goat farming (2007); The potential of the New Zealand goat industry https://mro.massey.ac.nz/server/api/core/bitstreams/2a451a44-7765-4be8-a396-18f37d6b5763/content (2017); Coriolis classification and analysis

Mohair research does not currently appear to be a focus of the New Zealand science system

KEY ORGANISATIONS IN NEW ZEALAND RESEARCHING: MOHAIR

Organisation; 2025 or as available

Who?	What?	Situation/State-of-play
BSI/AgResearch	Government-owned research organisation	*Historical involvement through various predecessor entities* Published foundational NZ genetic parameter research on Angora goat fleece traits (Nicoll et al., 1989).

A limited number of firms are commercialising **mohair** fibre

KEY FIRMS IN NEW ZEALAND COMMERCIALISING: MOHAIR

Commercial firms identified; 2025 or as available

Who?	Situation/State-of-play
Mohair Fibres NZ	The dominant fibre aggregator for NZ mohair. Collects from farms from Kerikeri in the north to Canterbury in the south, pooling approximately 6-7 tonnes of fibre every six months, making up to 17 lines available to market. Stronger lines are sold domestically; finer, higher-quality lines are exported, usually into South Africa. Founded by John Woodward, now operated by his son Michael and Susie Woodward. John Woodward ran one of the two original fibre warehouses in NZ and established the marketing infrastructure that Mohair Fibres NZ inherited. It controls the primary fibre aggregation and brokerage function. NZ's current production of 20-30 tonnes per year is already below the critical mass threshold that John Woodward identifies as necessary for a proper industry, making the broker's ability to attract new entrants and grow the pool a binding constraint on industry growth. https://www.mohairfibresnz.com/ https://www.farmersweekly.co.nz/news/making-the-most-of-mohair/
Woodward Farms Cowgora Hills	The 170-hectare farm operated by the Woodward family, running 250 Angora goats alongside 300 dairy cows, and serving as the physical warehouse site for Mohair Fibres NZ. Represents the integrated producer-broker model most likely to achieve vertical value capture. https://www.facebook.com/Cowgora.Hills/ https://www.agmatters.nz/case-studies/woodward-family-otorohanga/
Wild Earth Yarns	Wild Earth Yarns has unexpectedly become the third critical player following its 2025 acquisition of Design Spun's equipment. It is now the sole surviving worsted yarn spinning and dye house operation in NZ, making it the processing chokepoint for any ambition to grow domestic value-add in mohair yarns beyond Masterweave's weaving capacity. https://www.wildearthyarns.co.nz/ https://www.ruraldelivery.net.nz/stories/Design-Spun (acquired) https://www.rnz.co.nz/news/country/569162/canterbury-firm-keeps-craft-wool-processing-in-new-zealand
Masterweave Textiles	NZ's only specialist mohair weaving facility, producing approximately 20,000 mohair and alpaca throws and 12,000-15,000 merino scarves per year in a solar-powered Masterton factory; exports approximately 40% of production to Australia, the US, Germany, Netherlands and China; the Windermere branded alpaca throw range is sold through high-end NZ retailers. Masterweave sources alpaca from both Australia and NZ, with NZ volume insufficient to meet needs alone; fibre is spun by a Napier company before arriving at the weaving facility. https://www.masterweavetextiles.com/about https://www.ruraldelivery.net.nz/stories/Masterweave-Textiles https://www.handcraftedmodern.co/makers/masterweave https://www.aa.co.nz/membership/aa-directions/home-living/meet-the-maker-masterweave-throws-and-blankets/
Woolworks Canterbury Wool Scourers Timaru	The upstream scouring anchor for NZ mohair. Wild Earth Yarns directs fibre growers to Canterbury Wool Scours in Washdyke, Timaru as the required scouring step before yarn processing. While wool-optimised, serves as the default scouring facility for mohair destined for domestic processing. https://woolworks.co.nz/ https://www.wildearthyarns.co.nz/pages/processing

The New Zealand **mohair** industry is currently small

NEW ZEALAND CAPABILITIES DRIVEN SUPPLY CHAIN: MOHAIR

SELECT FIRMS

GOVERNMENT-OWNED RESEARCH

UNIVERSITIES

GENETICS SUPPLIERS

Cowgora Hills

Ad Maiora Angoras

Other commercial breeders

MĀORI ORGANISATIONS

FARMERS

Cowgora Hills

Ad Maiora Angoras

Tahamoana Angora Goat Farm

Other farmers

CONSULTANTS/ADVISORS

BROKER/WHOLESALER /AGGREGATOR

Mohair

MOHAIR PACIFIC

PROCESSOR

WOOLWORKS

MASTERWEAVE

WILD EARTH YARNS

INDUSTRY ORGS.

MOHAIR PRODUCERS NEW ZEALAND

MAJOR CUSTOMERS

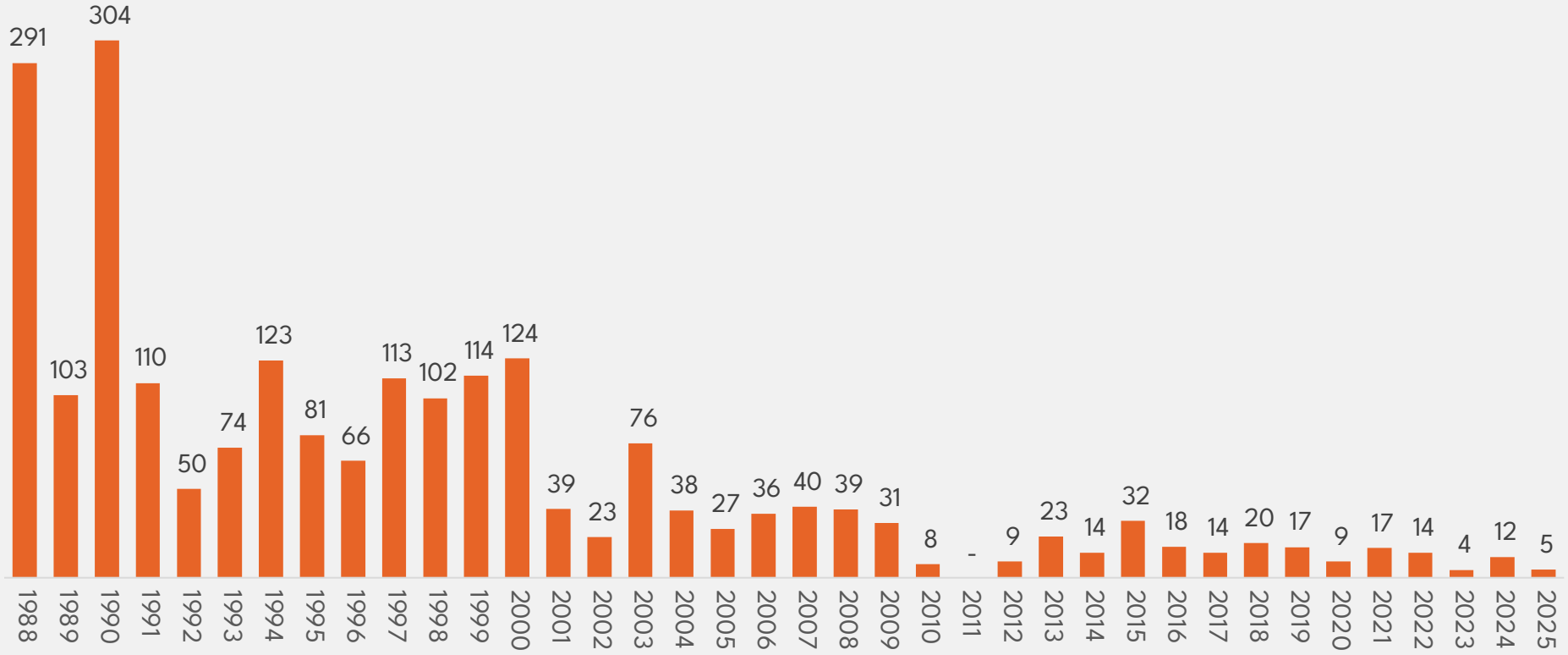
Source: Coriolis

Evidence certainty Data quality/confidence	HIGH

The available trade data shows **mohair** export volumes declining

NEW ZEALAND MOHAIR (HS5102100019/5102190015) EXPORT VOLUME

Tonnes; YE Dec; 1988-2025



Source: Statistics New Zealand (Trade data); Coriolis classification

SOURCES: MOHAIR

SOURCE	LINK
Proceedings of the NZ Society of Animal Production	The potential of the New Zealand goat industry (2017) https://mro.massey.ac.nz/server/api/core/bitstreams/2a451a44-7765-4be8-a396-18f37d6b5763/content
Mohair Producers New Zealand	Industry Body https://mohairproducers.co.nz/
The Encyclopaedia of New Zealand	Goats and goat farming https://teara.govt.nz/en/goats-and-goat-farming/print
Farmers Weekly	Making the most of mohair https://www.farmersweekly.co.nz/news/making-the-most-of-mohair/
	From feral goats to fine mohair: the journey of a pioneering Angora farmer https://www.farmersweekly.co.nz/farm-management/from-feral-goats-to-fine-mohair-the-journey-of-a-pioneering-angora-farmer/
New Zealand Herald	Ōtorohanga farmers' Angora goats and mohair business thriving https://www.nzherald.co.nz/the-country/news/otorohanga-farmers-angora-goats-and-mohair-business-thriving/YWSWFMLOWJEV5K6SUZGTYEDD6I/ Goat sector bouncing back from humiliation of 80s' bubble burst https://www.nzherald.co.nz/business/companies/agribusiness/goat-sector-bouncing-back-from-humiliation-of-80s-bubble-burst/V3DO55ADDTGSCS4DWOJZBLYN7I/
Stuff	Angora goats' mohair potential continues to grow https://www.stuff.co.nz/business/farming/agribusiness/102139849/angora-goats-mohair-potential-continues-to-grow
Rural Delivery	Ian and Dawn Pirani are goat farmers producing fibre from Angora goats https://www.ruraldelivery.net.nz/stories/Pirani-Angora-Goats-2017-04-06-01-20-09Z
Massey University	New Zealand Goat Industry https://landusenz.org.nz/wp-content/uploads/2017/08/NZ_Goat_Industry_Report_to_Federated_Farmers_14_Mar_2017.pdf
British Angora Goat Society	History of Angora Goats https://angoragoats-mohair.org.uk/history-of-angora-goats/
RareBreeds NZ	The Waipu Goat Angora story https://www.rarebreeds.co.nz/waipupro.html
Small Ruminant Research	Exploring the quality of mohair fibre produced and auctioned in Argentina by Angora goat farmer organisations (has global production share data) https://www.sciencedirect.com/science/article/abs/pii/S0921448825001762
Wikipedia	Mohair https://en.wikipedia.org/wiki/Mohair
Encyclopaedia Britannica	Mohair https://www.britannica.com/topic/mohair
StatisticsNZ	Infoshare https://infoshare.stats.govt.nz
RadioNZ	Canterbury firm keeps craft wool processing in New Zealand https://www.rnz.co.nz/news/country/569162/canterbury-firm-keeps-craft-wool-processing-in-new-zealand

Agenda

#	Topic	Page
1	Wool	5
2	Skins & hides	37
3	Mohair	49
4	**Cashmere**	**59**
5	Alpaca	70
6	Industrial Hemp	81
7	Harakeke	91
8	Forestry Waste-to-Fibre	100
9	Food Waste-to-Fibre	115
10	Textile Waste-to-Fibre	122
11	Domestic textiles & apparel	130

EXECUTIVE SUMMARY: CASHMERE

New Zealand's cashmere opportunity is best understood as a premium, traceable niche play rather than a scale commodity play. Globally, cashmere supply is structurally concentrated, with China and Mongolia the dominant producers. This creates a clear "white space" narrative for a differentiated New Zealand offering focused on provenance, animal welfare, and supply chain transparency. At the same time, New Zealand starts from a very small base and will need to win on quality, consistency, and brand-led value capture rather than volume.

The local industry has proven it can mobilise, but it is cyclical and historically sensitive to macro shocks and incentive settings. The timeline shows a rapid "goat fibre" flare-up in the early 1980s, accelerated by diversification pressure and tax incentives, followed by a sharp post-1987 contraction as speculative capital unwound and demand evaporated. The more recent phase is framed as a "renaissance" driven by long-run genetic gains and an attempt to rebuild credible domestic processing and market channels, with pilot garments and partnerships providing proof of concept rather than proof of scale.

On today's numbers, the industry is genuinely small. Industry participants estimated 8,000 cashmere goats in 2024 producing roughly 1.6 tonnes of cashmere, implying an industry value around NZ$0.2m at ~NZ$110–150/kg, with low-to-medium confidence given limited data.

This small base is reinforced by supply chain anecdotes indicating that even a single processor/ market could absorb several tonnes of fibre, which would require an order-of-magnitude increase in herd size versus current levels. In parallel, available trade indicators are not yet signalling a material export engine: raw cashmere export volumes are shown as declining over time, and cashmere apparel export value is low and flat-to-declining in nominal terms.

Where New Zealand is comparatively well-positioned is in building an integrated, capability-led model that converts genetics and processing into repeatable product performance and a defensible premium story. Woolyarns is currently acting as the pivotal processing anchor with a scouring, dehairing and spinning capability on one site.

Commercialisation is similarly concentrated in a few players, with New Zealand Cashmere and its genetics entity supporting the establishment of new herds, Hēpara positioned as a long-running genetic repository, and brands such as Untouched World providing an end-market pathway for "NZ-grown and processed" garments.

New Zealand has a realistic path to a super-premium micro-industry that captures value through traceability, brand partnerships, and technical credibility, while remaining realistic that it will not move global supply curves and should not be judged by volume benchmarks set by China or Mongolia.

Cashmere is being promoted as an opportunity for New Zealand; China and Mongolia are the dominant global producers currently

"Cashmere wool, usually simply known as cashmere, is a fibre obtained from cashmere goats, pashmina goats, and some other breeds of goat. It has been used to make yarn, textiles and clothing for hundreds of years. Cashmere is closely associated with the Kashmir shawl, the word "cashmere" deriving from an anglicization of Kashmir, when the Kashmir shawl reached Europe in the 19th century. Both the soft undercoat and the guard hairs may be used; the softer hair is reserved for textiles, while the coarse guard hair is used for brushes and other non-apparel purposes." wikipedia

WIKIPEDIA

"Luxury cashmere produced here in NZ... New Zealand's fledgling cashmere industry, which has its roots in South Otago, has reached a significant milestone... Production of the first pilot New Zealand-grown cashmere garments is being heralded as a milestone in the country's fledgling cashmere industry... New Zealand Cashmere, formed by Clinton farmers David and Robyn Shaw, announced a partnership with Christchurch-based sustainable lifestyle fashion brand Untouched World and Wellington-based Woolyarns to commercialise a market for New Zealand-grown cashmere. This week, Untouched World is launching a retail store in Wanaka and those first garments will be on display. Mr Shaw described it as a "major milestone" and step in developing the super-premium farming option. It was the culmination of 35 years of breeding and the past three years of research and development... The market New Zealand Cashmere was working with now could handle several tonnes of fibre and probably about 25,000 goats were needed to fill it." article Nov **2018**

Otago Daily Times

"Farmer developing a cashmere supply chain... When South Otago farmer David Shaw reached a crossroads he had to decide to either "give up on goats" or find a market for cashmere. For 18 months, he contacted "anybody and everybody" with links to the industry globally, in a bid to create a complete supply chain for New Zealand cashmere. After calling yarn engineers Woolyarns, he discovered the Wellington firm was importing cashmere from China to spin. On the initial call, Woolyarns offered to take five tonnes of his fibre, which would require the shearing of 25,000 cashmere goats. Fewer than 5000 cashmere goats are being farmed in New Zealand now. He runs about a fifth of the national herd on his sheep and beef farm in Waiwera South, near Clinton — the largest commercial herd in New Zealand. The goats account for about 10% of his stock units. To bridge some of the supply shortfall, he was calling on more sheep and beef farmers to introduce some cashmere goats to their operation." article, Aug **2022**

Otago Daily Times

"China is the largest producer of raw cashmere, with production estimated to be 19,200 metric tonnes (in hair) per year in 2016. Mongolia is second with 8,900 tonnes (in hair) as of 2016, while Afghanistan, Iran, Turkey, Kyrgyzstan and other Central Asian republics produce lesser amounts. The annual world raw production is estimated to be between 15,000 and 20,000 tonnes (13,605 and 18,140 tonnes) (in hair). Pure cashmere, after removing animal grease, dirt and coarse hairs from the fleece, is estimated at 6,500 tonnes (5,895 tonnes)... It is estimated that the average yearly production per goat is 150 grammes (0.33 lb)." wikipedia

WIKIPEDIA

While **cashmere** goat genetics have been in New Zealand for a long time, the industry only took off in the 1970s; the industry is cyclical

NEW ZEALAND CASHMERE INDUSTRY TIMELINE

1773-2025

1773 On Cook's second voyage, goats are released in the Marlborough Sounds, helping seed later feral populations.

Late 1700s–1800s Goats repeatedly released around coasts/islands as food for ships and castaways; they spread and contribute to feral herds.

c. 1840s–1860s Utility goats (milk/meat) continue to be introduced and escape/establish feral populations, setting the ecological and husbandry backdrop for later fibre-goat experiments.

1920 Reports of very large goat numbers (e.g., ~30,000 between Lakes Wānaka and Wakatipu) underline the scale of goats in the landscape (including cross-breeding risks for Angoras).

1929 State Forest Service highlights goats' impact on regenerating forest (pressure that later influences control policies affecting all goat types, including fibre goats).

1937 Government funding is obtained for goat culling (Department of Internal Affairs).

1937–1946 Internal Affairs shooters kill ~43,000 goats.

1946–1947 A further ~73,000 goats are shot; dense infestations are noted in places like Marlborough and Taranaki.

Late 1970s Farmers recognise cashmere fibre on feral goats; a "new commodity" narrative takes off as the 1980s begin.

Early 1980s "Goat fibre" enthusiasm accelerates; the cashmere industry is described as flaring through the early 1980s.

1984 Economic reforms and the removal of many farm supports intensify pressure to diversify; cashmere is framed as a potential lifeline for hill-country systems.

1985 On-the-ground adoption: farmers such as David Shaw (South Otago) start with feral does and begin upgrading genetics; tax incentives are explicitly cited.

1985 Most cashmere exported to Scottish firm Dawson International, with booming prices and fixed-price supply contracts for some farmers.

1986 TVNZ's Country Calendar runs an episode on cashmere (near Taumarunui), describing the shift from "pest" to "hot property" and noting low yields from feral animals.

1986 Genetic improvement: producers introduce cashmere genetics from overseas sources (reported as Australia and Africa in retrospective accounts) to lift fibre weights.

Oct 1987 Stock market crash: demand for cashmere "disappeared" in industry recollections; many participants exit as tax breaks are removed and speculative "city money" unwinds.

Dec 1987 Infrastructure/marketing push: New Zealand Mohair Cashmere Warehouse Company Ltd is registered.

1990 National scale peak (all goat fibre types): Te Ara estimates ~1 million goats on farms at the high point of fibre demand.

Early 1990s Bust/rapid contraction; fibre/goat price declines and steep herd reductions; the industry "ground to a halt".

Feb 1994 The Mohair/Cashmere Warehouse company is reported as dissolved/removed (one marker of the post-boom shakeout).

2002 Post-boom baseline: Te Ara estimates farm goat numbers fell to ~153,000 (from ~1 million in 1990).

Early 2000s "Cashgora" (19–23 micron goat down) was marketed separately but prices became very low and little is now sold, leaving cashmere as the premium focus.

2000s–2010s On-farm breeding improves yields materially: Te Ara reports national averages around ~200 g cashmere/goat (best flocks 300–400 g), up from low feral yields.

2017 New Zealand Cashmere Genetics formed

Jan 2018 "NZ-grown cashmere garments" milestone: New Zealand Cashmere (David & Robyn Shaw) announces a partnership with Untouched World and Woolyarns to commercialise NZ-grown cashmere; pilot garments are showcased.

2022 South Otago farmer David Shaw reportedly trying to develop a partnership with Woolyarns to scour/de-hair domestic goat fibre and the formation of New Zealand Cashmere Genetics, supporting new herds.

2024–2025 "Renaissance" messaging: industry promotion and farm media argue NZ is well-positioned to scale a premium, traceable cashmere niche, leveraging long-run genetic gains and local processing links.

Source: see sources at end of section

Evidence certainty Data quality/confidence	MED

The New Zealand **cashmere** industry was estimated to be 8,000 head producing 1.6t worth of cashmere in 2024

SIMPLIFIED MODEL OF THE NEW ZEALAND CASHMERE INDUSTRY

Various measures; as available

	Estimated Animal Population	Cashmere /goat (kg/goat)	Tonnes produced	$/t $/kg	Value	% exported (value)	Export $ Export t
2022	>5,000	0.2	1t	$130/kg ($110-150/kg) $130,000/t ($110,000-150,000/t)	$0.1m		
2025	8,000	0.2 0.25-0.35 ("target")	1.6t	$130/kg $110-150kg ("depending on micros"	$0.2m		

Source: Farmer developing a cashmere supply chain (Aug 2022); Cashmere goats a profitable soft option (Sep 2024)Coriolis classification and analysis

A very limited amount of **cashmere** research is occurring in New Zealand (relative to dairy or wool); research is primarily industry funded

KEY ORGANISATIONS IN NEW ZEALAND RESEARCHING: CASHMERE

Organisation; 2025 or as available

Who?	What?	Situation/State-of-play
AbacusBio	Private animal genetics and data analytics firm	The dedicated animal genetics and data analytics firm supporting the NZ cashmere breeding programme; developed the Dtreo genetic recording system specifically for cashmere goats, providing the data infrastructure behind NZ Cashmere Genetics' breeding programme and genetic evaluation. https://www.farmersweekly.co.nz/markets/calling-all-farmers-keen-on-cashmere/ https://www.linkedin.com/pulse/new-zealand-cashmere-renaissance-dont-just-follow-sheep-james-wilkes/
BSI/AgResearch	Government-owned research organisation	AgResearch's Lincoln campus specifically focused on wool and skin biology and animal fibres and textiles; GenomNZ laboratory (Invermay, Mosgiel) provides goat parentage analysis, pedigree construction, inbreeding and genomic relationship matrices via genotyping-by-sequencing to facilitate genomic selection in cashmere breeding operations. https://www.agresearch.co.nz/products-and-services/genomnz/
Lincoln University	Government-owned and funded University	Published genetic and genomic research on heritability estimates for cashmere fibre traits including mean fibre diameter, down yield, staple length and curvature; provides the scientific evidence base for breeding programme design and selection index development. https://researcharchive.lincoln.ac.nz/server/api/core/bitstreams/1d7b23cb-18fd-44c4-be80-09d40738b570/content

A limited number of firms are commercialising **cashmere** fibre

KEY FIRMS IN NEW ZEALAND COMMERCIALISING: CASHMERE

Commercial firms identified; 2025 or as available

Who?	Situation/State-of-play
Woolyarns Ltd.	The pivotal processing anchor of the NZ cashmere revival: a multi-million dollar scouring and dehairing plant in Lower Hutt represents a world class facility, predominantly using air, steam and organic detergent to clean fibre, followed by mechanical dehairing to separate fine cashmere from coarse guard hair; the only operation in NZ taking raw fleece through to spun yarn on one site. https://woolyarns.co.nz/
	https://www.nzherald.co.nz/the-country/news/new-zealand-cashmere-could-be-a-world-leader/FI3NBKJCJVFCXIA5RMVMTYZ2FY/ https://www.ruralnewsgroup.co.nz/rural-news/rural-management/cashing-in-on-goat-fibre
New Zealand Cashmere	Founded by David and Robyn Shaw after 35 years of selective breeding; Woolyarns now owns half of NZ Cashmere Genetics, a joint entity that supplies genetics (mostly cashmere bucks) and on-farm technical support to approximately 20 new herds established across New Zealand since the partnership formed.
	https://nzcashmere.com/ https://www.odt.co.nz/rural-life/rural-life-other/farmer-developing-cashmere-supply-chain
Hēpara Cashmere	New Zealand's oldest and largest recorded cashmere flock, founded in 1985 and persisting through the 1987 industry collapse by maintaining single-sire mating, recording and fibre testing; the foundational genetic repository for the modern NZ cashmere revival, having consolidated multiple leading award-winning flocks including Kiwi Cashmere, Cooks Cashmere Breeders, Logan, Woodstock, Silkwood and others.
	https://heparacashmere.co.nz/cashmere-genetics/
Untouched World / Snowy Peak Ltd	B Corp-certified lifestyle brand founded by Peri Drysdale MBE; the designated end-market garment manufacturer and retail outlet for NZ cashmere, producing the first pilot NZ-grown-and-processed cashmere garments and selling through stores in Christchurch, Auckland, Queenstown, and Wanaka. Untouched World developed the Kapua knitwear range using a cashmere-possum-silk blend, with distribution to over 50 countries online. https://www.untouchedworld.com/
	https://www.odt.co.nz/rural-life/rural-life-other/luxury-cashmere-produced-here-nz
Tolaga Bay Cashmere	Vertically integrated producer growing its own breed of cashmere goats on coastal headlands, operating on a small-batch, limited-supply model emphasising traceability and animal welfare; produces 250-450g per goat per year of which approximately 150g meets premium quality specification.
	https://tolagabay.nz/pages/our-cashmere

The New Zealand **cashmere** industry is currently small

NEW ZEALAND CAPABILITIES DRIVEN SUPPLY CHAIN: CASHMERE

SELECT FIRMS

GOVERNMENT-OWNED RESEARCH

BIOECONOMY SCIENCE INSTITUTE

UNIVERSITIES

LINCOLN UNIVERSITY

GENETICS SUPPLIERS

NEW ZEALAND CASHMERE

HĒPARA CASHMERE

Other commercial breeders

MĀORI ORGANISATIONS

FARMERS

NEW ZEALAND CASHMERE

HĒPARA CASHMERE

TOLAGA BAY CASHMERE

CONSULTANTS/ADVISORS

AbacusBio

PROCESSORS

WOOLYARNS

TOLAGA BAY CASHMERE

MAJOR CUSTOMERS

untouched world

INDUSTRY ORGS.

Source: Coriolis

Evidence certainty Data quality/confidence	HIGH

The available trade data shows raw **cashmere** export volumes declining

NEW ZEALAND CASHMERE (HS5102100001/5102110000/5105310000) EXPORT VOLUME

Tonnes; YE Dec; 1988-2025



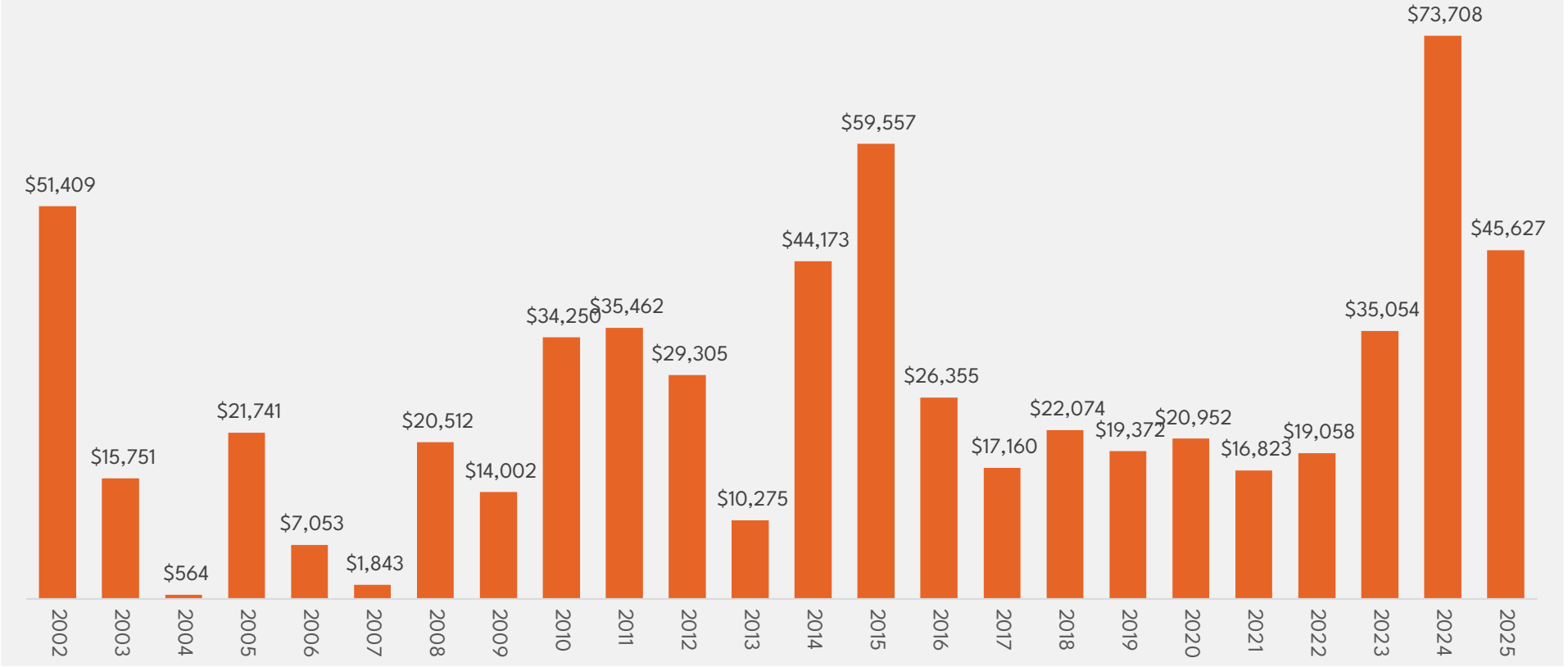
Source: Statistics New Zealand (Trade data); Coriolis classification

Evidence certainty Data quality/confidence	HIGH

The available trade data shows **cashmere** apparel export value low and flat-to-declining (before inflation)

NEW ZEALAND CASHMERE APPAREL (HS611012) EXPORT VALUE

NZ$; YE Dec; 2002-2025



Source: Statistics New Zealand (Trade data); Coriolis classification

SOURCES: CASHMERE

SOURCE	LINK
Proceedings of the New Zealand Society of Animal Production	The potential of the New Zealand goat industry (2017) https://mro.massey.ac.nz/server/api/core/bitstreams/2a451a44-7765-4be8-a396-18f37d6b5763/content
The Encyclopaedia of New Zealand	Goats and goat farming https://teara.govt.nz/en/goats-and-goat-farming/print
Otago Daily Times	Farmer developing a cashmere supply chain https://www.odt.co.nz/rural-life/rural-life-other/farmer-developing-cashmere-supply chain
	Luxury cashmere produced here in NZ https://www.odt.co.nz/rural-life/rural-life-other/luxury-cashmere-produced-here-nz
NZ Herald	New Zealand cashmere could be a world leader https://www.nzherald.co.nz/the-country/news/new-zealand-cashmere-could-be-a-world-leader/FI3NBKJCJVFCXIA5RMVMTYZ2FY/ In An Age Of Greenwashing, Sustainable Leader Peri Drysdale Of Untouched World Keeps It Real https://www.nzherald.co.nz/viva/fashion/in-an-age-of-greenwashing-sustainable-leader-peri-drysdale-of-untouched-world-keeps-it-real/STOOUGYODJGNNMKRUUO7YRG3HQ/
Rural News	Cashing in on goat fibre https://www.ruralnewsgroup.co.nz/rural-news/rural-management/cashing-in-on-goat fibre
Farmers Weekly	Calling all farmers keen on cashmere https://www.farmersweekly.co.nz/markets/calling-all-farmers-keen-on-cashmere/ Cashmere goats a profitable soft option https://www.farmersweekly.co.nz/farm-management/cashmere-goats-a-profitable-soft-option/
LinkedIn	The New Zealand Cashmere Renaissance: Don't just follow the sheep, follow the market. https://www.linkedin.com/pulse/new-zealand-cashmere-renaissance-dont-just-follow-sheep-james-wilkes/
CopyPress	Was Cashmere a comet? https://www.copypress.co.nz/wp-content/uploads/2025/05/WasCashmereAComet_GB.pdf
Wikipedia	Cashmere wool https://en.wikipedia.org/wiki/Cashmere_wool Cashmere goat https://en.wikipedia.org/wiki/Cashmere_goat
Encyclopaedia Britannica	Cashmere https://www.britannica.com/topic/cashmere
StatisticsNZ	Infoshare https://infoshare.stats.govt.nz

Agenda

#	Topic	Page
1	Wool	5
2	Skins & hides	37
3	Mohair	49
4	Cashmere	59
5	**Alpaca**	**70**
6	Industrial Hemp	81
7	Harakeke	91
8	Forestry Waste-to-Fibre	100
9	Food Waste-to-Fibre	115
10	Textile Waste-to-Fibre	122
11	Domestic textiles & apparel	130

EXECUTIVE SUMMARY: ALPACAS

New Zealand's alpaca fibre industry has the ingredients of a differentiated, provenance-led niche, but it remains structurally small and fragmented, with value today driven as much by breeding and lifestyle block economics as by scalable fibre markets.

Alpaca are a South American camelid kept in New Zealand on small farms, supported by an established breed society and registry infrastructure, but the sector is still transitioning from a predominantly breeding-led model toward a more commercial farming and fibre-led model.

The supply base is modest and is not yet on a growth trajectory consistent with a material export industry. Statistics New Zealand data shows 8,364 alpaca/llama animals in 2023, with broader data suggesting animal numbers are flat-to-declining over time. Given typical fibre clips of ~3–5 kg per animal every 1–2 years, a simplified model implies ~33 tonnes of fibre and an industry value around ~NZ$0.5m, with low-to-medium confidence due to patchy data. Estimates of larger animal number exist, but with no sources or support.

This modest size is consistent with a micro-industry where domestic artisan demand can absorb most production and where step-change growth would require coordinated herd expansion and market development rather than incremental gains.

Capability is the more positive story: New Zealand does have functioning collection, processing, and product pathways, but they are thinly distributed across a small set of actors. Pacific Alpacas appears to be the key fibre aggregator, as it claims to collect from 900+ farms, representing approximately 93% of New Zealand alpaca fleece production. Pacific claims it has collected and sold over 50t of fibre over six years of operation (or 8t/year, implying only a ~9yt/year industry; much smaller than our, perhaps generous, model). Pacific manages sorting/classing fibre and selling into domestic and international channels, with scouring handled through an established industrial facility in Timaru (Woolworks).

Small-scale vertical integration also exists (e.g., breeders producing yarns and retail products), and there are downstream textile capabilities such as specialty weaving and a woollen mill that can handle alpaca/merino processing and dyed sliver.

Alpacas have been in New Zealand for over 160 years and the New Zealand Government was instrumental in their arrival and the early development of the industry. However, alpaca research is not currently a focus of the New Zealand science system, with the foundational domestic fibre science programmes occurring prior to 2000.

Overall, alpaca fibre in New Zealand is credible as a premium micro-industry anchored in collection, processing and craft-to-luxury product channels, but it is not yet a scaled fibre export category.

The most realistic path to growth is deliberate consolidation around a few aggregators and processors, clearer quality standards and branding, and selective partnerships with downstream textile manufacturers and premium retailers—building a tighter, more investable system rather than a broad-based expansion narrative. Supply needs to be led by demand, not vice versa.

Alpaca are a South American species with about ~4,000 animals in New Zealand, primarily on lifestyle blocks

"The alpaca (Lama pacos) is a domesticated species of South American camelid. Traditionally, alpacas were kept in herds that grazed on the level heights of the Andes of Southern Peru, Western Bolivia, Ecuador, and Northern Chile. More recently, alpacas may be found on farms and ranches worldwide, with thousands of animals born and raised annually. Alpacas are especially popular in North America, Europe, and Australia." wikipedia

WIKIPEDIA

"There are currently about 4,000 registered alpacas in NZ. As the alpaca is still quite rare, coupled with their slow breeding rate, this makes them quite a valuable (bloodstock) animal. A registered breeding female can be purchased from NZ$5,000 to a five figure price for top show quality stock. Stud males can fetch similar sums - up to well over NZ$100,000. Young males and wethers average at around NZ$1,000." article

AlpacaSeller.com
MATCHING BUYERS & SELLERS ACROSS THE WORLD

"Alpaca are superb animals to farm as they are intelligent, easy to handle and very hardy. They also possess a very appealing and calming presence. Compared with most other livestock they need little routine maintenance. They are not dangerous and are often handled by children. For this reason they make an excellent choice of livestock for lifestyle block owners. They do not get footrot or flystrike [lack of lanolin] commonly associated with sheep farming. There is no need for crutching, tail docking, or dipping. No dehorning either." website

surico ALPACA

"Llamas and alpacas should be shorn every one to two years, and they produce 3–5 kilogrammes of fibre. They are shorn in late spring, either standing or lying down and restrained in a rope harness to keep them as still as possible. They are shorn with electric clippers or a normal sheep-shearing handpiece. Alpaca and llama fleeces are soft, silky and very warm. Garments made from the fibre keep their shape and won't pill. Alpaca fleece is softer than Merino wool and has higher tensile strength, resulting in more durable garments. White fibre can be easily dyed, but natural colours are the most popular. In the high plains of Chile, alpacas produce a very fine fibre; whereas in the lusher pastures of New Zealand their fibre is coarser and less valuable. Llama fibre is generally slightly more coarse than alpaca fibre, and comes in a wide range of types and colours. The fibre from a young alpaca's first shearing is the finest and brings the highest price. Virtually all fibre is sold on the domestic craft market." article

TE ARA
The Encyclopedia of New Zealand

"We believe that we could already beat a point of inflexion in an exponential growth pattern which could see as many as 600,000 alpaca in New Zealand by 2030. For the alpaca industry in the future we need markets for fibre, live animals, pelts and meat. This has to be the focus of our efforts but already there are people with vision who are leading the way. The New Zealand alpaca industry is in a state of transition from being predominantly a breeding industry to a farming one. I predict that in the years to come, more and more farmers will switch to alpaca as a viable farm animal which gives good returns. This is a very exciting time to be in alpaca because we are starting to see people really farming them, rather than just breeding them." article

L&L
LIFE & LEISURE OUR WAY

Alpacas have been in New Zealand for over 160 years

NEW ZEALAND ALPACA & LLAMA INDUSTRY TIMELINE

1773-2025

1865 First 10 alpacas are imported by the Wellington Provincial Government.

1865 First llamas are imported by Barnard Rhodes; subsequent small shipments follow but remain rare for decades.

1869 W. B. Rhodes acquires alpacas from the Wellington Provincial Government and keeps them at Banks Peninsula (Purau); they prove difficult to shear/handle (including spitting).

1878 Additional alpacas imported to Oamaru but fail to breed.

Late 1800s–mid 1900s Llamas are largely confined to zoos and game parks rather farms.

Mid-1980s "The craze for goat farming in the mid-1980s was surpassed by the effort that went into the introduction of camelids – alpacas (Lama pacos) and llamas (Lama glama) from Chile.".

A major push to introduce farmable camelids begins (alpacas + llamas) from Chile; investors fund environmental impact work and import protocols.

Mid-1980s A Chile shipment arrives by air in Wellington and is transferred to Somes Island Quarantine Station in Wellington Harbour.

1986 Alpaca & Llama Association of New Zealand (ALANZ) is incorporated (later becomes alpaca-only).

1986 Imports halted due to a severe foot-and-mouth disease outbreak in Chile, then the only exporting country.

Late 1980s Ian Nelson had the status of alpaca legally changed from a "zoo animal" to "livestock".

1989 AgResearch (then MAF Technology) imported a herd of 100 alpacas from Chile and farmed them at the Tara Hills High Country Research Station, Omarama and a private property at Lowburn.

Early 2000s >6,000 alpacas in New Zealand by the early 2000s.

2001 The incorporated body transitions from "Alpaca & Llama Association..." to Alpaca Association New Zealand (AANZ) (alpaca-only organisation).

1997 MAF finalises a disease risk analysis for importing llamas/alpacas (focused on USA/Canada/Australia; explicitly excluding South America).

2005 Import Health Standard pathway in place for alpacas/llamas from the USA.

2006 Import Health Standard pathway in place for alpacas/llamas from Australia.

2000s–2010s Alpacas/llamas are widely kept on small lifestyle farms; typical fibre clip is reported at ~3–5 kg every 1–2 years; animal health risks like facial eczema/ryegrass staggers noted.

2009 "Virtually all fibre is sold on the domestic craft market.".

2018 MPI issues/updates detailed guidance for importing alpacas/llamas (testing, treatments, isolation, welfare conditions).

2020s The national breed society continues operating as AANZ (registry/show infrastructure), reflecting an established breeder network post-2001 split.

Source: see sources at end of section.

The New Zealand alpaca and llama industry had 8,364 animals in 2023

SIMPLIFIED MODEL OF THE NEW ZEALAND ALPACA INDUSTRY

Various measures; as available

	Estimated Animal Population	Fibre /animal (kg/head)	Tonnes produced	$/t $/kg	Value	% exported (value)	Export $ Export t
1990	1,607 (Alpacas)						
1996	305 (Alpacas)						
2014	15,804 (Alpacas & Llamas)						
2023	8,364 (Alpacas & Llamas)	3-5	33t	~$15/kg ($3-20/kg) 15,000/t ($3,000-20,000/t)	$0.5m		

Source: see sources at end of section; Coriolis classification and analysis

Alpaca research does not currently appear to be a focus of the New Zealand science system

KEY ORGANISATIONS IN NEW ZEALAND RESEARCHING: ALPACA

Organisation; 2025 or as available

Who?	What?	Situation/State-of-play
BSI/AgResearch	Government-owned research organisation	*Historical involvement through various predecessor entities* MAF Technology (now part of AgResearch, now NZ Bioeconomy Science Institute) imported a herd of 100 alpacas from Chile in 1989, farming them at the Tara Hills High Country Research Station, Omarama and a nearby private property at Lowburn; the foundational NZ alpaca fibre science programme running from 1989-1994 established production benchmarks, heritability estimates and seasonal fibre growth patterns that remain the primary NZ scientific reference. https://www.sciencedirect.com/science/article/abs/pii/S0921448800001279

A limited number of firms are commercialising **alpaca** fibre

KEY FIRMS IN NEW ZEALAND COMMERCIALISING: ALPACA

Commercial firms identified; 2025 or as available

Who?	Situation/State-of-play
Silverstream Alpaca Stud	Alpaca stud farm in NZ with genetics sourced from NZ, Australia, the USA and Peru; established in 2000; has won over 70 supreme champion titles and over 300 age group championships at the National Alpaca Show; has exported over 700 alpacas to the EU, UK, Taiwan, Australia and Japan since 2007. Alpaca Stud Export protocols in place for the EU (including Scandinavia), Taiwan, Hong Kong, Japan, USA and Australia; provides quarantine and export facilitation services https://www.alpacastud.co.nz/
Pacific Alpacas	The largest alpaca fibre collector in New Zealand, sourcing from over 900 alpaca farms and studs, representing approximately 93% of NZ alpaca fleece production; collects, sorts, classes, processes and manufactures fibre into finished alpaca products for domestic and international buyers; has collected and sold over 50t of fibre over six years of operation. All fibre sent to Pacific Alpacas is scoured at Canterbury Wool Scourers in Timaru.
Flagstaff Alpacas	Breeder. Also producer of 100% NZ alpaca yarns in various blends, all processed at the Bruce Woollen Mill (Milton); operates a farm shop and online retail; represents the model of vertically integrated small-scale producer connecting genetics, fibre and finished yarn. https://www.flagstaffalpacas.co.nz/
WoolWorks Canterbury Wool Scourers Timaru	WoolWorks is the world's largest wool scourer, based in Timaru, South Canterbury; recently replaced its coal boiler with an electric boiler in a significant decarbonisation initiative. It is the primary scouring facility for Pacific Alpacas' NZ fibre pool. IWTO Its wool-optimised equipment represents a processing compromise for alpaca fibre, which has different moisture, lanolin-free and dehairing characteristics. https://woolworks.co.nz/
Ashford Handicrafts Milton Woollen Mill 'Bruce Wollen Mill'	Ashford acquired a stake in the 117-year-old Milton Woollen Mill in December 2011; the mill processes NZ-grown alpaca and merino, scouring, carding, gilling and combing fibre into sliver using Oeko-Tex compliant dyes; produces alpaca/merino blends sold globally to hand spinners and fibre artists through the Ashford distribution network. https://www.ashford.co.nz/woollen-mill/
Masterweave Textiles	NZ's only specialist mohair weaving facility, producing approximately 20,000 mohair and alpaca throws and 12,000-15,000 merino scarves per year in a solar-powered Masterton factory; exports approximately 40% of production to Australia, the US, Germany, Netherlands and China; the Windermere branded alpaca throw range is sold through high-end NZ retailers. Masterweave sources alpaca from both Australia and NZ, with NZ volume insufficient to meet needs alone; fibre is spun by a Napier company before arriving at the weaving facility. https://www.masterweavetextiles.com/about https://www.ruraldelivery.net.nz/stories/Masterweave-Textiles https://www.aa.co.nz/membership/aa-directions/home-living/meet-the-maker-masterweave-throws-and-blankets/
Wild Earth Yarns	https://www.wildearthyarns.co.nz/
Creative Fibre	List of small-scale New Zealand alpaca fibre suppliers: https://www.creativefibre.org.nz/directory/categories/alpaca

The New Zealand **alpaca** industry is currently small

NEW ZEALAND CAPABILITIES DRIVEN SUPPLY CHAIN: ALPACA

SELECT FIRMS

GOVERNMENT-OWNED RESEARCH

UNIVERSITIES

GENETICS SUPPLIERS

Silverstream Alpaca Stud – A New Breed Of Investment

Bruce Farm Alpaca Stud

Gem Alpaca Stud, Fairlie, NZ

Flagstaff Alpacas

Other breeders

CONSULTANTS/ADVISORS

FARMERS

Styx River Farm

Minflordd cottage and alpaca farm

Moonacre Yarn and Craft Boutique

Nevalea Alpacas

SILVERHILL ALPACAS

Te Korito Alpacas

ESTABLO ALPACAS

SHAMARRA ALPACAS AKAROA, NEW ZEALAND

Wild Wool Gallery NEW ZEALAND MADE

Other farmers

BROKER/WHOLESALER /AGGREGATOR

Pacific Alpacas®

Kiwi-Paca

PROCESSOR

WOOLWORKS

ashford WHEELS & LOOMS

MASTERWEAVE

WILD EARTH YARNS

INDUSTRY ORGS.

ALPACA ASSOCIATION NEW ZEALAND

MAJOR CUSTOMERS

Source: Coriolis

In researching the sector, we came across numerous firms with non-functional websites

SELECT ALPACA OPERATORS WITH WEBSITES THAT ARE CURRENTLY DOWN (STATUS UNCLEAR)

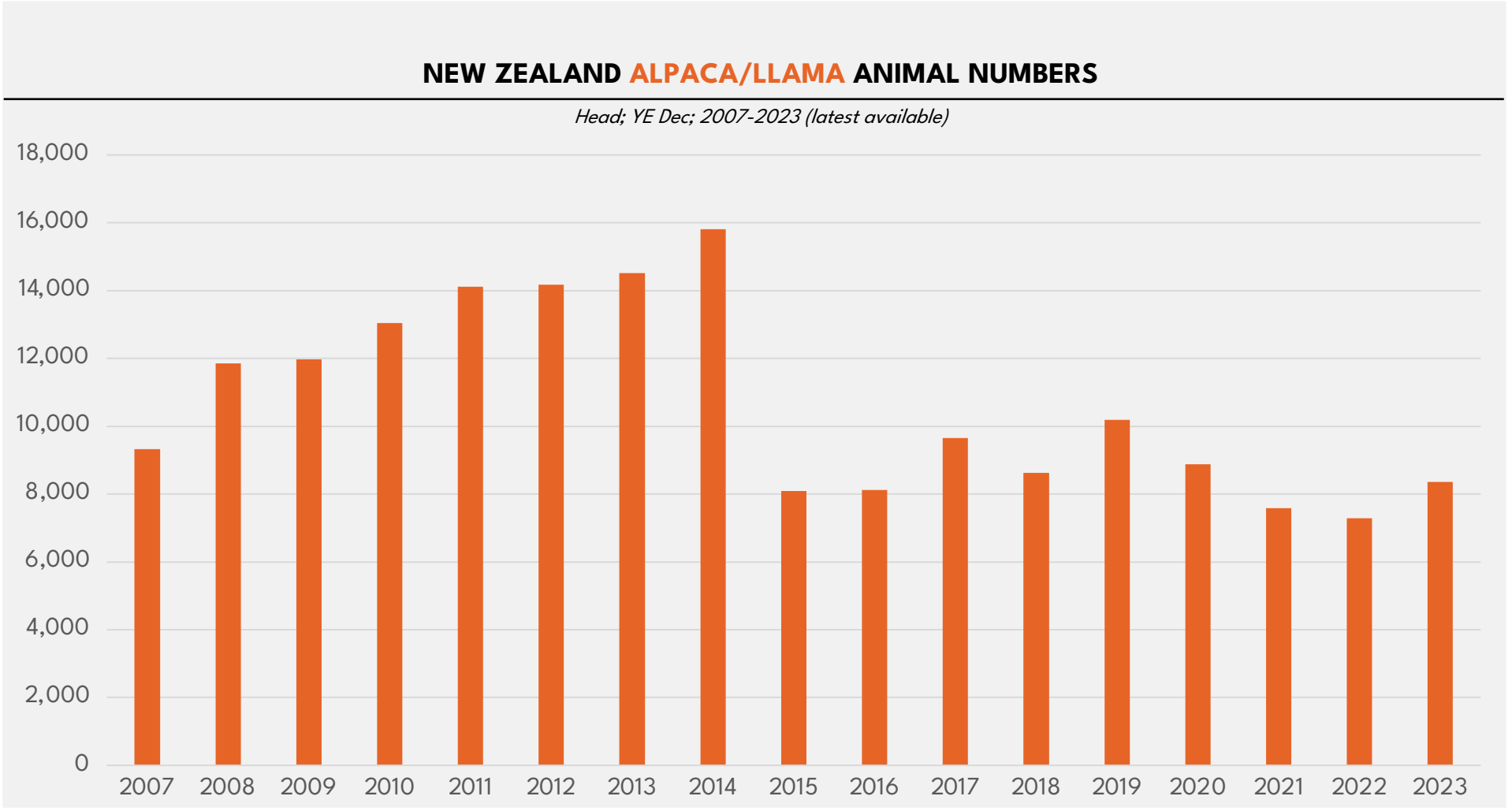
Non-functioning; as of early March 2026

Operator	Broken Website
Alpaca Farm Tours	https://alpacafarmtours.co.nz/
Cornerstone Stud	https://www.cornerstonestud.co.nz/
Warwickz Farm	https://www.warwickzfarm.com/
Coroglen Alpacas	https://coroglenlodge.co.nz/
Hill Country Alpacas	https://hillcountryalpacas.weebly.com/
Perfect Alpaca Farm	https://www.perfectalpacafarm.com/
Revelation NZ Alpaca Stud	https://revelationalpacas.nz/
Altnaharra Alpacas, Nelson	https://www.altnaharraalpacas.com/
Honeyfields Alpaca Farm	https://www.honeyfields.co.nz/
Kepler Mountain View Alpacas	https://www.kmv.co.nz/
Otaio Bridge Alpacas	https://www.otaiobridgealpacas.co.nz/
Sacred Coast Suri (Falcon's Rise Alpaca Farm)	https://sacredcoastsuri.co.nz/web/
Warwickz Farm	https://www.warwickzfarm.com/
Windermere Alpacas & Llamas	https://alpacafarmtours.co.nz/

Source: Links on https://pacificalpacas.com/visit-a-farm/

Evidence certainty Data quality/confidence	MED

The available data shows the combined number of alpaca/llama animals in New Zealand are flat-to-declining



Source: Statistics New Zealand (agriculture data); Coriolis modelling, extrapolation and classification

SOURCES: ALPACA

SOURCE	LINK
Silverstream Alpaca	A History Of Alpaca Imports Into New Zealand https://www.silverstreamalpaca.com/post/a-history-of-alpaca-imports-into-new-zealand
Rarebreeds NZ	Alpacas: A Minority Breed of South American Origin https://www.rarebreeds.co.nz/alpaca.html Llamas: A Rare Breed of South American Origin https://www.rarebreeds.co.nz/llama.html
The Encyclopaedia of New Zealand	Exotic farm animals: Alpacas and llamas https://teara.govt.nz/en/exotic-farm-animals/page-2 https://teara.govt.nz/en/photograph/18702/importing-alpacas
Life & Leisure	Learn the basics: alpaca farming in New Zealand https://ourwayoflife.co.nz/learn-basics-alpaca-farming-new-zealand/
Alpaca Association New Zealand Incorporated	About Us https://alpaca.org.nz/about-us/
AlpacaSeller	https://www.alpacaseller.com/info/nzinfo.php
Surico ALpaca	Farming Alpaca in New Zealand https://www.surico.co.nz/info/about-alpaca/farming-alpaca/
Pacific Alpacas	Our products ("Pacific Alpacas has been doing New Zealand alpaca fibre collection for the past 6 years, selling over 50,000 kgs in that time!") https://pacificalpacas.com/
Small Ruminant Research	Production performance, repeatability and heritability estimates for live weight, fleece weight and fibre characteristics of alpacas in New Zealand (2000) https://www.sciencedirect.com/science/article/abs/pii/S0921448800001279
International Grassland Conference	Alpaca Fibre Production, Fibre Growth Seasonality and Fibre Characteristics Variation in a Cool-Temperate Environment of New Zealand (1993) https://uknowledge.uky.edu/igc/1993/session41/4/
StatisticsNZ	Infoshare https://infoshare.stats.govt.nz

Agenda

#	Topic	Page
1	Wool	5
2	Skins & hides	37
3	Mohair	49
4	Cashmere	59
5	Alpaca	70
6	**Industrial Hemp**	**81**
7	Harakeke	91
8	Forestry Waste-to-Fibre	100
9	Food Waste-to-Fibre	115
10	Textile Waste-to-Fibre	122
11	Domestic textiles & apparel	130

EXECUTIVE SUMMARY: INDUSTRIAL HEMP

New Zealand's industrial hemp sector has credible capability and some recent investment momentum, but the current reality is still that of a small, fragmented, and compliance-heavy industry. The fact base points to a sector that remains constrained by regulatory burden, limited processing depth, and weak alignment between licensed potential and realised production. On current evidence, hemp in New Zealand is best understood as an emerging value-chain play: the opportunity is not in commodity cultivation, but in capturing more value through integrated processing, differentiated downstream products, and tighter control of supply chains.

The sector remains small and appears to have contracted in recent years. The industry model in suggests value has fallen materially since 2020/21, with licensed hectares still well above actual planted or harvested area. That gap matters because it signals that grower participation, processor utilisation, and end-market demand are not yet consistently working together. In practical terms, New Zealand does not yet have an industrial hemp industry operating at scale; it has a small number of firms and initiatives trying to assemble one.

What is improving is the quality of the processing base. The sector now has a clear set of anchor players across the chain, including NZ Natural Fibres, Hemp Farm, Rubisco, and Venture Taranaki, alongside seed, food, and hempcrete-focused firms. This is a more credible industrial base than New Zealand had even a few years ago, but it is still narrow and highly dependent on a small number of actors.

The most tangible recent progress has been in processing and ecosystem investment, not broad-based farm expansion.

- Rubisco's recent ownership and land transaction, followed by its reported Ashburton expansion and capital raise, signals that some investors see a real opportunity in scaling fibre processing and downstream materials.
- Venture Taranaki's Branching Out programme and new pilot processing unit show a parallel model in which public and philanthropic capital is being used to build regional capability, test markets, and create early demand in construction.

These developments are important because they move the sector beyond advocacy and trials into physical assets, operating capability, and initial commercial orders.

The economics also appear clearer than before. The emerging picture is that the business case is unlikely to stack up on a single-output basis. New Zealand sources increasingly point to the importance of coproducts, full-plant utilisation, and local processing pathways that can monetise multiple revenue streams from the same crop. That makes hemp less a simple farming opportunity and more a systems business requiring coordination across cultivation, processing, product development, and end-market creation.

The near-term outlook is improved, but still measured. Cabinet agreement to overhaul industrial hemp rules is a meaningful positive, because the current regime has imposed disproportionate cost and friction on an industry that is still trying to establish itself. Even so, the sector today remains early, thinly capitalised, and operationally fragile. The clearest conclusion is that New Zealand has the beginnings of a viable industrial hemp value chain, but not yet a scaled industry: progress is real, investment is emerging, and the capability base is improving, but the sector is still in build-out rather than take-off mode.

For hemp, one further issue to note is the regulations for building products. It is not as simple as producing hemp fibre and then hempcrete or hemp insulation; the product needs to be approved by the appropriate authorities, including district councils. This adds a layer of complexity and expense.

Industrial Hemp is an arable crop primarily produced in China and France

"**Can I grow industrial hemp in New Zealand?** Yes, but you need a licence from the Ministry of Health, you must have a secure site, more than 5 km from a school, the growing area should not be visible from the street. Two responsible people must sign the application, and Police checks will be carried out on these responsible people. You can only grow certain cultivars with less than 0.35% THC. The Director-General of Health determines which varieties of Cannabis sativa can be cultivated.

How can I get a licence? In order to grow, trade in, or process industrial hemp as an agricultural crop, an individual, or company needs to be licenced under the Misuse of Drugs (Industrial Hemp) regulation 2006 Misuse of Drugs Industrial Hemp Regulations 2006. You will need to fill in an application from the Ministry of Health website. The Director-General of Health determines which varieties of Cannabis sativa can be cultivated.

How Much does a licence cost? A licence is issued for a period of one year. A general licence is $511.11 including GST. This allows for the cultivation, processing, possession and supply of low-THC cannabis varieties approved by the Director-General of Health. A research and breeding licence is issued only if the applicant holds a general licence and is an additional $153.33 including GST. It allows for the cultivation and processing of approved and non-approved varieties." website

NZHIA Food. Fibre. Health.

"Hemp production has grown strongly in recent years but remains dominated in volume by the three largest producers – Canada, China and the EU (France, Netherlands). A number of other jurisdictions (notably the USA) are expected to become major suppliers in the future." report

sapere

"Hemp is a versatile horticultural crop with promising growth potential. Around the world, hemp seeds and oils are processed into food products, supplements, oils, cosmetics and animal feeds; hemp stalks and fibre into textiles, clothing, rope, papers and building materials; and hemp flowers and leaves into health products. The global hemp industry is projected to grow significantly, with estimates ranging from US $16.8 billion to US $64.8 billion by 2030. In 2020, New Zealand's hemp sector was estimated to be worth $3-5 million, primarily serving the domestic fibre and food market. Analysis commissioned by MPI estimated that the sector could grow to approximately $30 million by 2030, and the sector's own growth estimates are even more ambitious, projecting that broad regulatory reform could lead to revenues of $2 billion by 2030." Cabinet Paper

Ministry for Regulation
Te Manatū Waeture

Hemp has been in New Zealand for ~150 years

NEW ZEALAND HEMP INDUSTRY TIMELINE

1840-early 2026

1840s–late 1800s Hemp in medicines, not farming: Cannabis-derived products circulate mainly via imported patent medicines; it is not grown intensively as a crop in NZ.

1880s–1890s Suzanne Aubert grows hemp medicinally at Jerusalem (Whanganui River) for remedies.

1895 Cannabis exempt from customs duty as a medicinal herb product category.

Early 1900s Hemp seed oil is described as a common ingredient in imported patent medicines prescribed for assorted ailments.

c. 1914–1918 WWI-era stigma forms: Around WWI, hemp/cannabis becomes stigmatised as a moral/physical danger in official thinking.

1925 International controls extend to "Indian hemp/cannabis".

1927 Dangerous Drugs Act brings cannabis under strict control: Cannabis is added to the "dangerous drugs" list; import/manufacture require licences; purchase requires prescription.

1933 Poisons Act tightens controls on cannabis asthma treatments.

Late 1940s Prescribing scrutiny rises.

1941 DSIR hemp fibre trial (1 hectare): DSIR plants 1 hectare of hemp and processes fibre into rope.

c. 1944–1945 Ministry of Agriculture trial at Foxton (4 hectares): Toward the end of WWII the Ministry plants 4 hectares at Foxton.

1948 Hemp trials cease soon after officials recognised cannabis' narcotic properties.

1955 NZ agrees to end cannabis imports (WHO request).

Late 1950s–early 1960s First notable recreational cannabis use: significant use among beat/jazz circles in Auckland/Wellington.

Late 1960s Cannabis use and cultivation draw much more attention: late-1960s escalation in attention and use.

1965 Narcotics Act era aligns NZ drug law to UN convention framework.

1970s Shift from import to local illicit cultivation.

1975 Misuse of Drugs Act 1975 passed.

1990s Large-scale police eradication operations: annual recovery operations in the 1990s often seized 200,000+ plants.

Late 1990s Industrial hemp lobby becomes visible: "small but vocal" push for non-narcotic industrial hemp.

2001 Annette King announces trial industrial hemp cultivation will be allowed under strict guidelines.

2001 Medsafe issue 11 Licences to grow industrial hemp and 1 licence to deal industrial hemp.

2006 Industrial hemp cultivation permitted under licence: Misuse of Drugs (Industrial Hemp) Regulations 2006 establish the licencing regime for growing/trading/processing industrial hemp.

2007 Midland seeds open day, showing the progress made with hemp seed crops.

2018 Hemp seed food pathway widened: Amendment regulations allow NZ to adopt relevant Food Standards Code provisions and permit possession/trade/import/export of low-THC hemp seed food products (and hulled hemp seeds).

2018-2020 Misuse of Drugs (Medicinal Cannabis) Amendment Act 2018 creates the framework; the Medicinal Cannabis Scheme comes into effect.

2020 Cannabis legalisation referendum fails: Final official results: No 50.7% vs Yes 48.4%.

2022 Venture Taranaki develop "Branching Out Blueprint: Hemp Fibre for Construction"

2024 Inside Out LLC (USA) acquires 50% of Rubisco; firm acquires 21.33ha in Ashburton via JV with Carrfields

2025 Rubisco relocates its hemp decortication operation from Christchurch to Ashburton as part of a $20-30m expansion

2025/2026 Cabinet agrees to overhaul industrial hemp rules: The Ministry for Regulation records Cabinet agreement (Nov 2025) to overhaul industrial hemp regulations; Ministry of Health notes implementation work following a Dec 2025 ministerial announcement and updates its industrial hemp framework page in Jan 2026.

Feb 2026 Venture Taranaki opens a hemp fibre processing unit; Ashford pilot hemp processing unit can handle about 90 hectares of hemp per year, enough fibre for 45+ hempcrete homes

Source: see sources at end of section

The New Zealand **industrial hemp** industry has been shrinking not growing

SIMPLIFIED MODEL OF THE NEW ZEALAND INDUSTRIAL HEMP INDUSTRY

Various measures; as available

	Licence Holders	Area	Tonnes/hectare	Tonnes produced	$/t $/kg	Value	% exported (value)	Export $ Export t
2017/18	~40							
2019/20	243	4,053 (Licenced)						
2020/21						$4m		
2023/24		686 (Licenced) 180 (Actual)	Seed/grain 0.9 t/ha (0-2 t/ha) Fibre biomass 10 t/ha (8-12 t/ha) Bast fibre 3 t/ha	Fibre biomass 1,800t Bast fibre 540t				
2024/25	59					$1m		

Source: Coriolis classification and analysis

A number of firms are commercialising **industrial hemp**

KEY FIRMS IN NEW ZEALAND COMMERCIALISING: INDUSTRIAL HEMP

Commercial firms identified; 2025 or as available

Who?	Situation/State-of-play
NZ Natural Fibres Holdings (NZNF)	The only vertically integrated hemp fibre company in NZ controlling seed-to-processed-fibre. NZNF (Carrfields 70%/Zealandia Hemp 30% JV) received $1.34 million from MPI's Sustainable Food and Fibre Futures fund (Dec 2001), with a further $2 million contributed by the company, for a 5-year R&D programme to develop hemp growing, processing and marketing capability. Its decortication plant in Christchurch (opened late 2021) is NZ's primary commercial fibre processing facility. https://www.carrfields.co.nz/new-zealand-natural-fibres/ https://www.mpi.govt.nz/news/media-releases/funding-of-hemp-fibre-innovation-set-to-propel-new-zealand-on-to-world-stage
Hemp Farm	Pioneer processor with the first NZ-developed decortication machine. Innovation milestones include installation of a fibre line for hemp fibre extraction, a de-huller machine for hemp heart production, and a hemp Protein Mill for plant-based protein. Hemp Farm Has a grower group harvesting 53+ hectares. Closely partnered with NZNF on the Canterbury fibre processing infrastructure. https://hempfarm.co.nz/
Carrfields	The largest single grower footprint in NZ's hemp sector. Carrfields in Christchurch were historically growing 1,000 hectares of hemp a year across 100 farms, and had teamed up with Hemp Farm NZ to invest in machinery to process hemp, enabling harvest, fibre extraction, and use of fibre for geotextiles. Northland This is NZ's most significant contracted cultivation operation.
Rubisco	Natural-fibre materials company developing hemp-, wool-, and hemp-wool composite products for construction, interior, textile, and industrial end uses. Distinctive in New Zealand for linking upstream hemp fibre processing with downstream materials innovation, including the wool-hemp composite segment. The business is now in expansion mode, with a reported $20-30m investment, as it builds larger-scale processing capability. NZNF is a shareholder. https://rubisco.co.nz/
The Brothers Green Mainland Hemp	A seed processing and hemp manufacturing company based in Culverden in the heart of the Hurunui, producing oil, protein powder, and hemp seeds using state-of-the-art equipment, connecting paddock to plate for New Zealand consumers. Closely linked to The Brothers Green consumer-facing hemp food brand anchored to Mainland Hemp's Canterbury processing. Represents the downstream commercial realisation of NZ-grown hemp seed. https://thebrothersgreen.co/
Midlands	Midlands provides bulk supply of premium Hemp Seed for Sowing for planting. They also process hemp to produce a variety of premium Hemp Seed Products available in Bulk, Private Label or Retail Ready Brands. https://www.midlandsnz.com/health-oils-superfoods/categories/hemp-oils-foods
Kohu Hemp	Developer of "HempKrete," a unique hempcrete formula made from locally sourced hemp hurd and hydrated lime, adaptable to NZ's eco-climates for new builds and retrofits. https://kohuhemp.nz/elementor-23/hempkrete/
Geobind / Doug Sturrock	A Callaghan Innovation-funded development of a market-ready hempcrete product for NZ, developed through R&D funding with support from Northland Inc, using locally grown hemp hurds sourced from Carrfields and Hemp Farm NZ. https://www.geobind.co.nz/ https://www.northlandnz.com/business/business-stories/geobind/
Venture Taranaki	Regional economic development agency leading Taranaki's hemp fibre ecosystem build-out through the Branching Out programme, spanning crop trials, grower engagement, pilot processing, construction-market development, and value-chain formation. Distinctive in New Zealand for taking a paddock-to-product approach to hemp fibre commercialisation, with the Taranaki Hemp Hub now moving from proof-of-concept into early commercial delivery. https://www.venture.org.nz/news/the-taranaki-hemp-hub-begins-2026-with-first-hemp-fibre-orders-and-advanced-construction-training/

The New Zealand **industrial hemp** industry is currently small

NEW ZEALAND CAPABILITIES DRIVEN SUPPLY CHAIN: INDUSTRIAL HEMP

SELECT FIRMS

GOVERNMENT-OWNED RESEARCH

BIOECONOMY SCIENCE INSTITUTE

UNIVERSITIES

THE UNIVERSITY OF WAIKATO
Te Whare Wānanga o Waikato

Waipapa Taumata Rau University of Auckland

FARMERS

HEMP FARM

Carrfields

MIDLANDS

About ~56 other farmers (often in partnership with firms)

IMPORTED HEMP MATERIALS

Imported hemp enters the country to supply domestic industry.

GENETICS SUPPLIERS

MIDLANDS

Other genetics suppliers

PROCESSORS

NEW ZEALAND natural fibres

MIDLANDS

The Brothers Green

Numerous other smaller processors (using both domestics and imported raw materials)

BROKERS/WHOLESALERS

NZHB

MATERIALS/ CONSTRUCTION

KOHU HEMP

rubisco

Hemp Central
HEMP FIBRE PROCESSING

Numerous other smaller processors

DEVELOPMENT SUPPORT

NZ Product Accelerator

KEY CUSTOMERS

Numerous customers, none dominant

INDUSTRY ORGS.

FAR

NZHIA Food. Fibre. Health.

HBANZ
Hemp Building Association NZ

Source: Coriolis

The New Zealand **industrial hemp** industry has recently attracted investment

EXAMPLES OF RECENT INVESTMENT IN INDUSTRIAL HEMP PROCESSING IN NEW ZEALAND

2023-2025

FIRM	INVESTMENT DETAILS
rubisco	In December 2024, Land Information New Zealand's Overseas Investment Office recorded consent for Inside Out LLC to acquire 50% of Rubisco Limited, alongside a joint venture with Carrfields Food & Fibre Investments to acquire land at the Ashburton Business Estate. The LINZ material identifies the land transaction consideration as $8.5 million, and the assessment report snippet says the overseas investor was buying half the company and land for a planned fibre hub. https://www.linz.govt.nz/our-work/overseas-investment-regulation/decisions/2024-12/202400122
	In January 2026, Rural News reported that Rubisco was relocating its core hemp fibre processing facility to Ashburton as part of a $20-30m expansion, and that the company had begun a capital raise to fund additional processing equipment and expansion into textiles, biocomposites, geotextiles, and other fibre products. Rubisco itself then said, after the December 2025 hemp regulatory reforms, that it would continue expanding its fibre processing capability, deepen grower partnerships, and accelerate product innovation. https://www.ruralnewsgroup.co.nz/rural-news/rural-agribusiness/rubisco-hemp-fibre-processing-ashburton-expansion
venture TARANAKI Te Puna Umanga	Venture Taranaki's Branching Out programme. Venture Taranaki said in its funding announcement that it would receive $975,000 from MPI's Sustainable Food and Fibre Futures Fund for Phase Two of Branching Out. The related reporting says that funding was intended to commercialise food-and-fibre opportunities and test venture viability over the following three years. Venture later described the programme as also being funded alongside contributions from Toi Foundation, LA Alexander Trust, and AGMARDT, plus in-kind support from industry and research partners. https://www.venture.org.nz/news/branching-out-enters-phase-3-what-weve-learned-and-whats-next/
	That public investment has now translated into a physical processing asset. In February 2026, Venture Taranaki said it had established the region's first hemp fibre processing unit as part of the Taranaki Hemp Hub, with the Ashford pilot unit capable of processing around 90 hectares of hemp annually, and said it had also received its first fibre orders as the project moved from proof-of-concept into commercial delivery. Venture explicitly frames this as building "scalable, replicable and investable models" for future land use and value-chain development. https://www.venture.org.nz/news/the-taranaki-hemp-hub-begins-2026-with-first-hemp-fibre-orders-and-advanced-construction-training/

Developing a strong business case for **industrial hemp** requires success in coproducts

EXAMPLES OF RECENT INVESTMENT IN INDUSTRIAL HEMP PROCESSING IN NEW ZEALAND

2023-2025

SUPPLIER	CONCLUSIONS
perrin ag	The Perrin Ag / NZAGRC 2023 report on expanding hemp production says New Zealand currently lacks a secondary market for hemp, and compares that gap to meat rendering, explicitly noting that without rendering, the meat industry would not be sustainable or potentially viable. It then says that if hemp seed fails food-grade standards, farmers currently have no way to recover costs, which makes risk "extremely high." Economically it is saying that "coproducts are essential" and that the industry is much more fragile without fallback or secondary revenue streams. https://www.nzagrc.org.nz/assets/Alt-land-use-analysis/PerrinAg_Hemp-report.pdf
sapere	The MPI-commissioned 2021 market report, Facilitating growth in the New Zealand hemp industry. It says hemp growth for seed depends on the presence of local processors who can turn those seeds into value-add products, and it recommends more work on the economics of post-farm-gate processing of different hemp products. That implies the farmgate crop alone is not the full business case; viability depends on downstream conversion into multiple higher-value outputs. https://www.mpi.govt.nz/dmsdocument/48136/direct
RURAL NEWS	In coverage of the 2025 Canterbury industry visit, the visit showcased the potential for "full-plant utilisation" of industrial hemp across fibre, nutrition, and health/wellness. "Full-plant utilisation" is essentially coproduct logic in plain English: the economics improve when more of the plant is monetised across several end markets. https://www.ruralnewsgroup.co.nz/rural-news/rural-general-news/new-zealand-hemp-canterbury-reform

SOURCES: HEMP

SOURCE	LINK
New Zealand Hemp Industries Association	NZ Hemp Industry Milestones https://nzhia.com/resources/nz-hemp-industry-milestones/
New Zealand Government	Trial cultivation of industrial hemp https://www.beehive.govt.nz/node/10382 Industrial hemp regulations to be reviewed https://www.beehive.govt.nz/release/industrial-hemp-regulations-be-reviewed
New Zealand Legislation	Misuse of Drugs (Industrial Hemp) Amendment Regulations 2018 https://www.legislation.govt.nz/regulation/public/2018/0217/latest/whole.html
The Encyclopaedia of New Zealand	Drugs https://teara.govt.nz/en/drugs Hemp https://teara.govt.nz/en/hops-tobacco-and-hemp/page-3
Ministry of Health	Industrial hemp https://www.health.govt.nz/regulation-legislation/industrial-hemp
Ministry for Primary Industries	Global Hemp Markets https://www.mpi.govt.nz/dmsdocument/35142/direct Funding of hemp fibre innovation set to propel New Zealand on to world stage https://www.mpi.govt.nz/news/media-releases/funding-of-hemp-fibre-innovation-set-to-propel-new-zealand-on-to-world-stage
Wikipedia	Hemp https://en.wikipedia.org/wiki/Hemp
Ministry for Regulation	Addressing unnecessary regulatory burden on the hemp sector https://www.regulation.govt.nz/assets/Publication-Documents/R001335-Information-Release-Addressing-unnecessary-regulatory-burden-on-the-hemp-sector.pdf Industrial Hemp (iHemp): We're making it easier for the industrial hemp industry to grow https://www.regulation.govt.nz/our-work/what-weve-done/industrial-hemp-ihemp/
NZHIA	NZ Hemp Export Driven Investor Report Full: https://nzhia.com/wp-content/uploads/2020/09/FULL-REPORT-final-55.pdf Snapshot: https://nzhia.com/wp-content/uploads/2020/09/Snapshopt-final-5.pdf
Carrfield NZ	CP Wool and Hemp NZ create new natural fibre company with global ambitions https://www.carrfields.co.nz/new-zealand-natural-fibres/
Venture Taranaki	Branching Out Blueprint: Hemp Fibre for Construction https://www.venture.org.nz/assets/Uploads/Hemp-Blueprint-Final-v2.pdf
Sapere	Facilitating growth in the New Zealand Hemp Industry https://www.mpi.govt.nz/dmsdocument/48136/direct
Rural News	NZ hemp industry calls for urgent reforms following Canterbury visit by politicians and stakeholders https://www.ruralnewsgroup.co.nz/rural-news/rural-general-news/new-zealand-hemp-canterbury-reform
Perrin Ag	Potentially Hemp: An analysis into the opportunity for the commercial expansion of hemp production in New Zealand https://www.nzagrc.org.nz/assets/Alt-land-use-analysis/PerrinAg_Hemp-report.pdf
StatisticsNZ	Infoshare https://infoshare.stats.govt.nz

Agenda

#	Topic	Page
1	Wool	5
2	Skins & hides	37
3	Mohair	49
4	Cashmere	59
5	Alpaca	70
6	Industrial Hemp	81
7	**Harakeke**	**91**
8	Forestry Waste-to-Fibre	100
9	Food Waste-to-Fibre	115
10	Textile Waste-to-Fibre	122
11	Domestic textiles & apparel	130

EXECUTIVE SUMMARY: HARAKEKE

Harakeke (Phormium tenax and Phormium cookianum) is a distinctive native New Zealand fibre with deep provenance and prior industrial relevance, but its modern re-emergence is best though of as rebuilding a value chain to contemporary specifications rather than reviving a legacy commodity.

The high-level logic is sound: global demand for renewable, lower-carbon materials is strengthening, and harakeke has differentiated attributes that can matter in composites and technical applications where strength-to-weight, bio-based credentials, and provenance matter. New Zealand also has a solid science base across fibre extraction and performance, hybrid composites, membranes and adjacent bio-products, supported by established research institutions and cultivar collections.

The commercial reality, however, is that harakeke remains venture-stage. Coriolis estimate the industry has ~NZ$0.5m in fibre revenue in 2025 (with very wide uncertainty and explicitly low confidence due to limited data), and implied production of ~175 tonnes of dry fibre from ~100 hectares carries similarly large error bars.

This means harakeke is unlikely to compete near-term as a bulk input and is better positioned initially in higher-value niches where customers will accept supply immaturity in exchange for verified performance and sustainability benefits.

Encouragingly, early momentum is visible in KiwiFibre Innovations' push to industrialise harakeke composites, including commissioning a Christchurch factory (2023) and completing what may be the first commercial harvest in over 50 years.

Smaller adjacent activity exists (e.g., cosmetics concepts using muka/gel), while some earlier commercialisation attempts appear to have stalled, consistent with the capital and integration burden typical of all emerging fibres.

The key constraint is execution in the "middle" of the chain: reliably converting variable biological feedstock into specification-grade fibre and repeatable downstream product performance. Historical precedent is instructive: the prior flax industry cycled through booms and closures driven by quality inconsistency, processing limits, disease pressures, demand shocks, and later competition from synthetics, and modern harakeke will face analogous risks if standardisation and quality systems are not built early.

A pragmatic pathway is to focus on (1) performance composites (including hybrids) where New Zealand research depth and early commercial positioning are strongest, and (2) select specialty bio-based products where functionality and provenance can support margins, subject to disciplined substantiation and regulatory pathways.

Done well, with governance and partnership models that reflect harakeke's cultural context, the opportunity is real. But it will be won through operational discipline rather than narrative alone.

Harakeke is an iconic New Zealand plant that was once an important industry

"New Zealand flax is one of the country's most distinctive native plants. It has sword-shaped leaves 1–3 metres long that grow in a fan shape. In spring, birds – particularly tūī – flock to feed on the nectar of its tube-like flowers, which bloom on stems up to 4.5 metres long. By carrying pollen from plant to plant, the birds help flax to produce seeds in long pods.

New Zealand flax is not a true flax like linen flax (Linum usitatissimum), but related to the day lily. It belongs to the Hemerocallidaceae family and the Phormium genus. It grows naturally only in New Zealand and Norfolk Island – no other country has produced a plant quite like it. There are two confirmed species in New Zealand: Phormium tenax and Phormium cookianum. The more common Phormium tenax is also known as harakeke or swamp flax. It has broad, stiff leaves, red flowers and upright, curving seed pods. Phormium tenax grows on lowland swamps throughout New Zealand. Phormium cookianum, also known as whaririki or mountain flax, grows on coastal cliffs and mountain slopes. It has softer, shorter leaves than Phormium tenax, and greenish flowers, often with yellow or orange tones. The seed pods droop and are twisted.

Although it was once widespread, drainage of swamps and clearing of vegetation meant that by the late 20th century there were only small remnants of New Zealand flax." article

"Phormium tenax (commonly known as "harakeke" or "native flax") has played an important part in the history of Aotearoa/New Zealand, for inside the long green leaves of this plant there lies a strong white fibre, suitable for the manufacture of cordage and textiles.

The Māori people utilised this fibre for hundreds of years, extracting it from the leaf with a mussel shell and preparing it for weaving or plaiting by a slow and laborious process of scraping, washing and beating.

Europeans were quick to appreciate the commercial possibilities of phormium fibre and between the 1820s and the 1860s a considerable trade in hand-dressed fibre was carried on between Māori and European. Most of the fibre produced in this period was exported to rope makers in Australia and Britain but after 1840 a small cordage industry was established in New Zealand and several rope makers began to produce ropes and twines for the local market and for export." article

Harakeke has been semi-cultivated in New Zealand for hundreds of years; the industry has been through multiple cycles of growth and contraction

NEW ZEALAND HARAKEKE INDUSTRY TIMELINE

~1250-2025

~1250-1300 Māori settle New Zealand and discover, name and begin to use harakeke.

1772–73 Botanists Johann & Georg Forster (Cook's 2nd voyage) name New Zealand flax Phormium tenax ("strong basket-fibre plant").

Late 1700s European visitors recognise flax fibre for rope/rigging; Māori demonstrate dressing (stripping fibre) and trade flax goods with ships.

Māori began to barter processed flax for muskets and other European goods.

1820s Māori tribes scale-up flax production using slave labour as a trans-Tasman flax fibre trade with Australia develops.

Early 1830s Trade peaks as coastal trading stations operate widely; fibre can be re-exported to Britain at profit.

1831 A tonne of flax fibre sold in Sydney for £13–£22 could fetch £27–£44 in Britain.

1830s Trade declines due to warfare disruptions, inconsistent quality/volume, and limits of hand stripping.

1860s New Zealand Wars disrupt Māori-dominated manual production; inventors trial mechanical stripping methods.

1860s A beating-drum stripper design emerges as best; machine output (250 kg/day) dwarfs hand stripping (1 kg/day).

1870 Industry scale: 161 mills nationwide employing 1,766 workers; Manawatū becomes the main region, with Māori often cutting flax on contract.

1888–1891 Mill work conditions ("the wash") documented in Manawatū; harsh, wet labour contributes to worker turnover and grievance.

Late 1800s Labour organisation: flaxmill employees form unions; future Labour figures are noted as having worked in the industry.

After 1890 Manawatū's largest mills are built; the region supplies major processing/marketing hubs.

1890s A market-driven revival/boom occurs when "New Zealand hemp" prices rise internationally (linkedin local histories to overseas fibre supply disruptions).

1901 Export quality control: the flaxmillers' push for compulsory grading succeeds; legislation prohibits export of ungraded fibre ("New Zealand hemp").

1901–1918 Export peak era: flax fibre reaches almost 5% of principal export value at times (but cycles through booms and closures).

By 1910 Stripper technology improves to around 1.27 tonnes/day per machine.

Early 1900s Yellow leaf disease emerges as a major production constraint; various remedies tried with mixed success.

1920s Industry enters decline, driven by disease pressures and reduced demand.

1930s Great Depression pushes the export industry toward collapse; the sector is "saved" via a pivot to domestic manufacturing (woolpacks, underfelt, floor coverings, upholstery, binder twine).

1936 Government restricts imports of woolpacks made from Indian jute, supporting local flax-based manufacture.

1939 Government buys Moutoa Swamp near Shannon as an experimental flax plantation.

1939–45 State support continues as flax products supply farmers and the military; post-war subsidies/import restrictions keep the industry viable for decades.

1970s Removal of government protection plus competition from synthetic fibres accelerates contraction.

1985 The last flax manufacturing plant closes, ending the long industrial era.

2000s Renewed interest as "natural/renewable" materials trend: flax used in paper, craft/floristry, and skincare gel products (e.g., Living Nature).

2003 Sustainable Farming Fund launches an overview project to consolidate research and promote environmental/commercial uses of flax.

2000s Scion investigates flax fibre composites; Industrial Research and Rangi Te Kanawa explore softening fibre for clothing; Muka Ltd seeks a patent for a mechanical stripping device.

2006 Muka Limited seeks a patent for a mechanical stripping device for production-scale extraction of muka (harakeke fibre)

2023 KiwiFibre completed what may be the first commercial harakeke harvest in over 50 years

Source: see sources at end of section

There is no New Zealand **harakeke** industry data; Coriolis estimate a $0.5m harakeke fibre industry (with a very wide margin of error)

SIMPLIFIED MODEL OF THE NEW ZEALAND HARAKEKE INDUSTRY

Various measures; as available

	Estimated Area (ha)	Yield (t/ha/year)	Tonnes produced	$/t	Value
2025	100ha (20-500ha)	Green Leaf 17.5t/ha/yr 10-25t/ha Dry Fibre 10% 1.75t/ha/yr (1-2.5t/ha/yr)	175t (20-1,250t)	$3,000t ($2,000-4,000)	$0.5m ($0.04m-5m)

Source: Coriolis estimates, modelling and analysis

Harakeke research is primarily occurring inside BSI and a handful of universities and is being driven by government funding

KEY ORGANISATIONS IN NEW ZEALAND RESEARCHING: HARAKEKE

Organisation; 2025 or as available

Who?	What?	Situation/State-of-play
BSI/Scion	Government-owned research organisation	Biomaterials Engineering unit, investigating strength and performance improvement of harakeke fibre in combination with other natural fibres including hemp, wood, and synthetic glass fibre for building materials, furniture, and packaging applications.
BSI/AgResearch	Government-owned research organisation	Conducted fibre processing research including animal feed applications from leaf residue after stripping, and was a core member of the BPN biotech joint venture that produced the harakeke fibre surfboard.
BSI/Plant&Food	Government-owned research organisation	Third partner in the BPN joint venture between AgResearch, Crop & Food Research, and Scion, focused on biomaterials development using renewable natural materials in place of petrochemicals.
BSI/Callaghan	Government-owned research organisation	Stephen Tauwhare's Harakeke Project at Industrial Research Limited investigated pia harakeke (gel) properties for cosmetics and wound-healing applications; that research programme now sits within BSI.
BSI/Landcare Research	Government-owned research organisation	Kaitiaki of the National New Zealand Flax Collection (300+ plants, 50 traditional weaving cultivars), used by scientists and weavers alike; a Nationally Significant Database and Collection funded by MBIE's Strategic Science Investment Fund.
University of Waikato	Government-owned and funded University	Professor Kim Pickering leads the Composites Research Group in the School of Engineering, with extensive published research on extracting and using harakeke fibres to make strong, lightweight composite materials, including hybridisation with hemp and wood fibres.
Victoria University of Wellington	Government-owned and funded University	PhD student Jaye Barclay leading research on harakeke membranes for water purification, part of the MacDiarmid Institute's Pūtaiao Māori Research Programme, with the cross-section of harakeke leaves observed to mirror the structure of synthetic polymeric membranes.
University of Otago	Government-owned and funded University	Microscopy-based harakeke research, with the Dunedin Botanic Garden holding a harakeke collection held as taonga for Kāi Tahu iwi; textile science research under Prof. Raechel Laing and Dr. Debra Carr on fibre structure and properties.
University of Canterbury	Government-owned and funded University	Industrial product design faculty provided the platform for Ben Scales and William Murrell's founding research that led directly to KiwiFibre Innovations; the University challenged students to create products from composting waste streams.
Lincoln University	Government-owned and funded University	Home of the National New Zealand Flax Collection's physical site and associated agronomy research on cultivar performance across growing sites throughout New Zealand.
AUT Future Fibres Lab	Government-owned and funded University	Investigating the potential uses of New Zealand plant fibres like harakeke (NZ flax) and industrial hemp as high-tech materials to substitute non-renewable resources

A very limited number of firms have been identified trying to commercialised **harakeke** fibre

KEY FIRMS IN NEW ZEALAND COMMERCIALISING: HARAKEKE

Commercial firms identified; 2025 or as available

Who?	Situation/State-of-play
KiwiFibre Innovations	Founders Ben Scales and William Murrell (Ngāi Tahu) raised $1.5 million to develop KiwiComp, a harakeke-based composite that directly substitutes for fibreglass and carbon-fibre; opened a Christchurch factory in 2023, completed what may be the first commercial harakeke harvest in over 50 years, reached the finals of the Kiwibank NZ Innovator of the Year 2025 awards, and appeared on the Forbes Asia 100 to Watch List in 2024. https://www.kiwifibre.com/
	On The Up: KiwiFibre duo turning harakeke waste into carbon-fibre alternative https://www.nzherald.co.nz/business/companies/manufacturing/on-the-up-kiwi-duo-turning-harakeke-waste-into-carbon-fibre-alternative/R6YFABPAHNAOFP5ML6D5AGU7SM/ Christchurch company harnessing the power of harakeke https://www.odt.co.nz/star-news/star-christchurch/christchurch-company-harnessing-power-harakeke
Moka Fibre	Sharee Wilkinson's venture producing false eyelashes from muka flax fibre and a lash glue from pia harakeke (flax gel) and keratin from New Zealand sheep wool; won the Northland Inc "The Pick 2024" supreme emerging business award. Currently raising money via PledgeMe. https://www.facebook.com/mokalashes/ https://pledgeme.co.nz/projects/7955-moka-fibre-needs-your-help-to-patent-moka-eyelash-glue
	Safe, natural beauty product wins Northland emerging business competition https://www.nzherald.co.nz/northern-advocate/news/safe-natural-beauty-product-wins-northland-emerging-business-competition/TPFB5WX2JFGIREPJLDRHCRORYA/
Muka Limited Out of business	In 2006 sought a patent for a mechanical stripping device for production-scale extraction of muka (harakeke fibre), representing an early commercialisation attempt for muka processing machinery. (https://teara.govt.nz/en/flax-and-flax-working/print). Removed from company register (https://www.companyhub.nz/companyDetails.cfm?nzbn=9429036746569)

The New Zealand **harakeke** industry is in the early stages of development

NEW ZEALAND CAPABILITIES DRIVEN SUPPLY CHAIN: HARAKEKE

SELECT FIRMS

GOVERNMENT-OWNED RESEARCH

- BIOECONOMY SCIENCE INSTITUTE

UNIVERSITIES

- The University of Waikato – Te Whare Wānanga o Waikato
- UC University of Canterbury – Te Whare Wānanga o Waitaha
- University of Otago – Ōtākou Whakaihu Waka
- Victoria University of Wellington – Te Herenga Waka
- Lincoln University
- AUT

GENETICS SUPPLIERS

- Bioeconomy Science Institute – Manaaki Whenua – Landcare Research Group
- HARAKEKE – The Rene Orchiston Collection
- BIOTENAX

Numerous commercial nurseries

MĀORI ORGANISATIONS

- Ngāti Ruapani Ki Uta | Ki Tai

EARLY-STAGE VENTURES

- KiwiFibre
- Moka Fibre

CONSULTANTS/ADVISORS

- FAR SKY
- BIOTENAX

LARGE-SCALE PROCESSORS

MAJOR GLOBAL CUSTOMERS

INDUSTRY ORGS.

- Te Hononga Hapori Harakeke – The Harakeke Community Alliance

Source: Coriolis

SOURCES: HARAKEKE

SOURCE	LINK
The Encyclopaedia of New Zealand	Flax and flax working https://teara.govt.nz/en/flax-and-flax-working Māori weaving and tukutuku – te raranga me te whatu https://teara.govt.nz/en/maori-weaving-and-tukutuku-te-raranga-me-te-whatu Rongoā – medicinal use of plants - Common medicinal plants https://teara.govt.nz/en/rongoa-medicinal-use-of-plants/page-3
BSI/Landcare Research	Te Kohinga Harakeke o Aotearoa – National New Zealand Flax Collection https://www.landcareresearch.co.nz/tools-and-resources/collections/new-zealand-flax-collections
Tech Innovation NZ	The New Zealand Flaxmilling Industry https://www.techhistory.co.nz/ontheland/flax_milling.html
Statistics New Zealand	New Zealand Official Yearbook https://www.stats.govt.nz/indicators-and-snapshots/digitised-collections/yearbook-collection-18932012/
University of Otago	Mechanising Fibre Production: The New Zealand FlaxMill Project https://ourarchive.otago.ac.nz/esploro/outputs/graduate/Mechanising-Fibre-Production-The-New-Zealand/9926478459201891
University of Canterbury	New Zealand Flax (Phormium tenax) Reinforced Eco-Composites https://www.researchgate.net/profile/Mark-Staiger/publication/267716652_New_Zealand_Flax_Phormium_tenax_Reinforced_Eco-Composites/links/548f5b340cf225bf66a8004c/New-Zealand-Flax-Phormium-tenax-Reinforced-Eco-Composites.pdf Five minutes with Kim Pickering https://www.engineeringnz.org/news-insights/five-minutes-kim-pickering/
University of Waikato	The potential of harakeke fibre as reinforcement in polymer matrix composites including modelling of long harakeke fibre composite strength https://researchcommons.waikato.ac.nz/server/api/core/bitstreams/19e5d30f-ee7c-4a05-a996-deb03b9f16fd/content
Victoria University of Wellington	Weaving Mātauranga Māori with contemporary science to create sustainable materials for water purification https://www.macdiarmid.ac.nz/news-and-events/news/annual-reports-pages/weaving-matauranga-maori-with-contemporary-science-to-create-sustainable-materials-for-water-purification-annual-report-2023/
Scoop News	Kiwi Scientists Build Surfboard Using Native Flax https://www.scoop.co.nz/stories/SC0806/S00008/kiwi-scientists-build-surfboard-using-native-flax.htm
Science Learning Hub /former IRI material	The Harakeke Project at Industrial Research https://www.sciencelearn.org.nz/resources/1985-the-harakeke-project-at-industrial-research Harakeke gel https://www.sciencelearn.org.nz/videos/1189-harakeke-gel
Otago Daily Times	Christchurch company harnessing the power of harakeke https://www.odt.co.nz/star-news/star-christchurch/christchurch-company-harnessing-power-harakeke
Lincoln Agritech	Research to produce sustainable plant-sourced fibres https://lincolnagritech.co.nz/research-to-produce-sustainable-plant-sourced-fibres/
AUT	Future Fibres Lab https://s2m2.aut.ac.nz/our-research/future-fibres-lab

Agenda

#	Topic	Page
1	Wool	5
2	Skins & hides	37
3	Mohair	49
4	Cashmere	59
5	Alpaca	70
6	Industrial Hemp	81
7	Harakeke	91
8	**Forestry Waste-to-Fibre**	**100**
9	Food Waste-to-Fibre	115
10	Textile Waste-to-Fibre	122
11	Domestic textiles & apparel	130

EXECUTIVE SUMMARY: FORESTRY-TO-FIBRE

New Zealand's forestry-to-fibre opportunity is conceptually attractive but currently more concept that commercial activity. The idea sits in a gap between a large, mature forestry system and an extremely early-stage fibre innovation concept that no one globally has proven.

New Zealand has abundant forest and scrub cover (42.6% of land area) and a sizeable plantation base (7.8% of land area), yet the system is still primarily optimised for logs and traditional wood products. Plantation area peaked around 2003 and has been broadly flat-to-down since, while harvesting volumes grew over the long-term but are expected to stabilise and then decline as planting decisions from ~30 years ago flow through the age-class profile.

For ~35 years, incremental wood volume growth has largely been exported as whole logs, with domestic further processing demand flat since ~1990 and declining in the last five years, an outcome that suggests that the business case for downstream domestic manufacturing does not stack up.

This matters because forestry-to-fibre economics typically require either very large-scale (to compete with incumbent regenerated cellulose supply chains) or tight integration into existing mills and energy systems to reduce cost and carbon intensity. New Zealand's current system routes most value through sawmilling, panels, pulp/paper, and exports, with significant residue and by-product streams that are not fully recovered.

Globally, forestry-to-fibre is on the cutting edge, led by Scandinavian players moving from pilot to early commercialisation. Examples include Spinnova/Suzano's commercial-scale facility (1,000 tpa) and TreeToTextile's strategic backing and ownership change (majority stake acquired by Lenzing in 2026), reminding that scale-up remains hard and timelines can slip. The implication for New Zealand is that "wait and copy" is a viable strategy in this case, as these technologies are still shaking out, but it risks leaving New Zealand as a feedstock exporter.

New Zealand's most credible pathway is continued government funding for R&D rather than a deep bench of commercial firms.

Lincoln Agritech has an $8.3m, five-year MBIE Endeavour programme explicitly targeting regenerated cellulose fibres for textiles from New Zealand plant resources, including radiata pine alongside native species, supported by Scion, AgResearch and other partners and informed by mātauranga Māori.

BSI/Scion's distributed manufacturing concept is similarly pragmatic: roughly 4 million tonnes of residue remains in forests annually, and the economic model may favour smaller regional processing nodes over a single mega-plant.

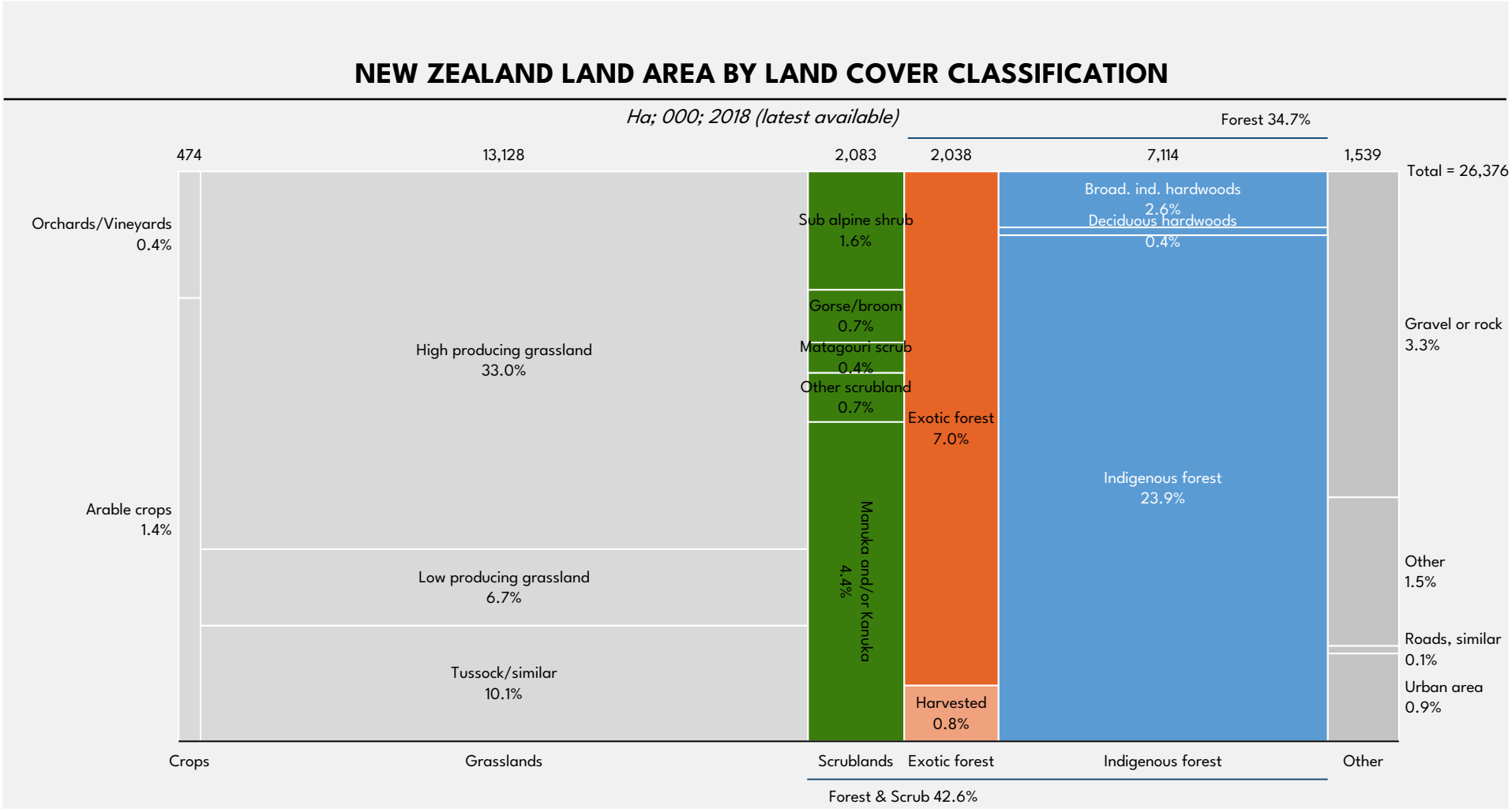
The major infrastructure signal is the $63m BSI/Scion Rotorua biofactory under construction, intended as a commercial-scale facility converting low-value wood and other wastes into higher-value ingredients; however, its current orientation is biochemicals/bioplastics rather than textile fibre, which has materially tighter purity and filament consistency requirements.

Overall, forestry-to-fibre in New Zealand is best characterised as an interesting idea being developed in Scandinavia at 1,000t scale, rather than a scaled industry today. The country has a strong forestry capability base and meaningful residue streams, but low investment and high demand have been pulling the system toward export logs and conventional products rather than next generation fibres. The realistic near-term ambition is to de-risk a radiata-slash-to-cellulose-fibre pathway through applied R&D, pilots and partnerships, while building the preconditions for scale: feedstock logistics, integration with existing assets, and identified anchor customers willing to co-develop specifications. If those pieces come together, New Zealand can move up the value chain from exporting logs toward capturing premium value in advanced biomaterials; if not, forestry-to-fibre will remain a promising narrative without an investable industrial system behind it.

For forestry, one further issue to note is the impact of electricity prices on processing. There is a lack of growth in wood processing. The concern circa 2000 was the coming 'wall of wood' in New Zealand and how it would be handled. In the event, the extra production was shipped offshore as logs and the domestic processing industry did not expand. This history is useful to note here.

Evidence certainty Data quality/confidence	HIGH

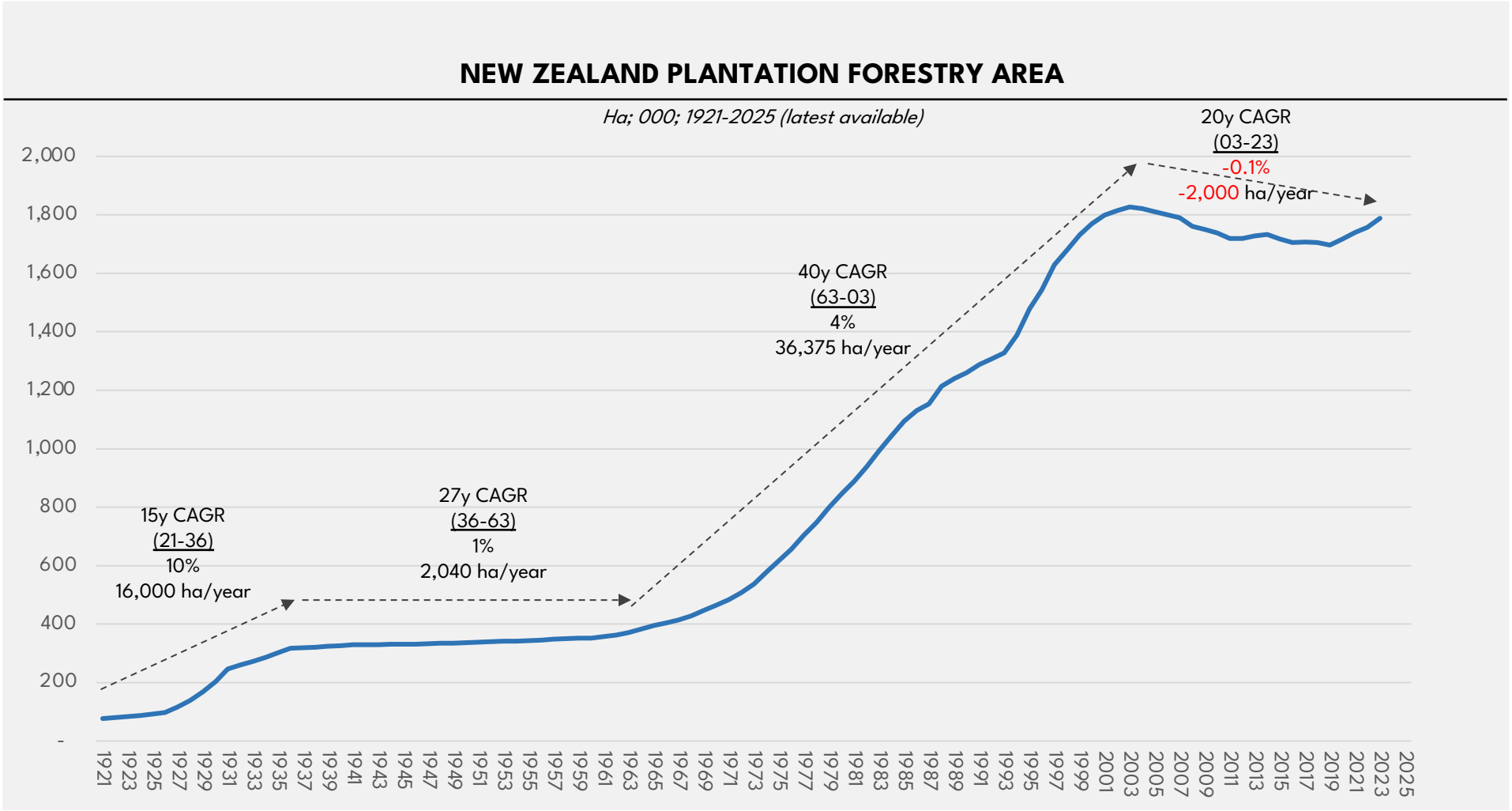
About a third of New Zealand is covered in forest or 42.6% including scrublands; 7.8% in exotic forests



Source: MftE/StatsNZ New Zealand Land Cover DataBase (LCDB5); Coriolis analysis

Evidence certainty
Data quality/confidence
HIGH

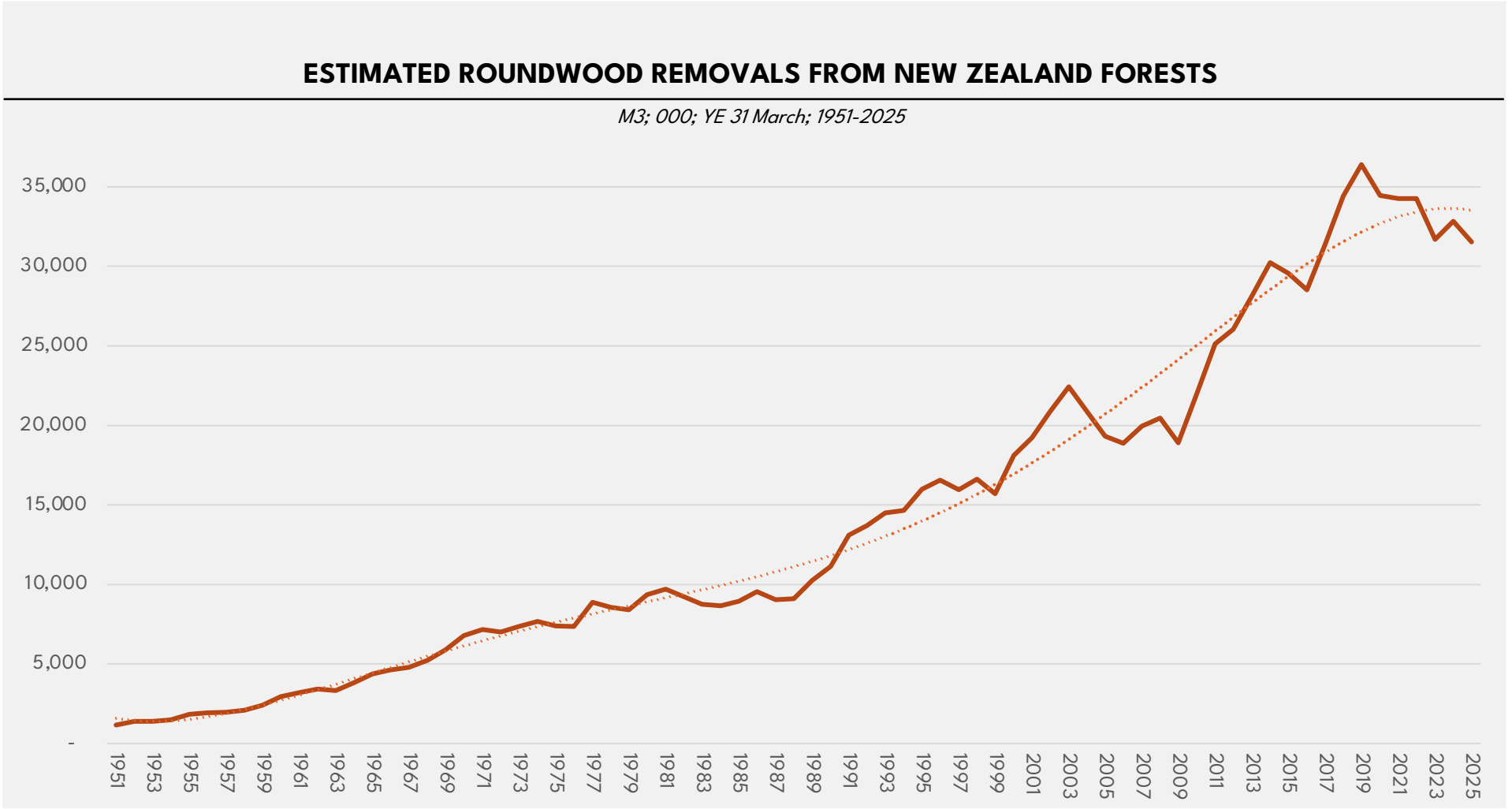
Total New Zealand plantation forestry area peaked in 2003 and has generally drifted sideways-to-down since then; recovery last three years



Source: MPI; NZFOA; Coriolis analysis

Evidence certainty Data quality/confidence	HIGH

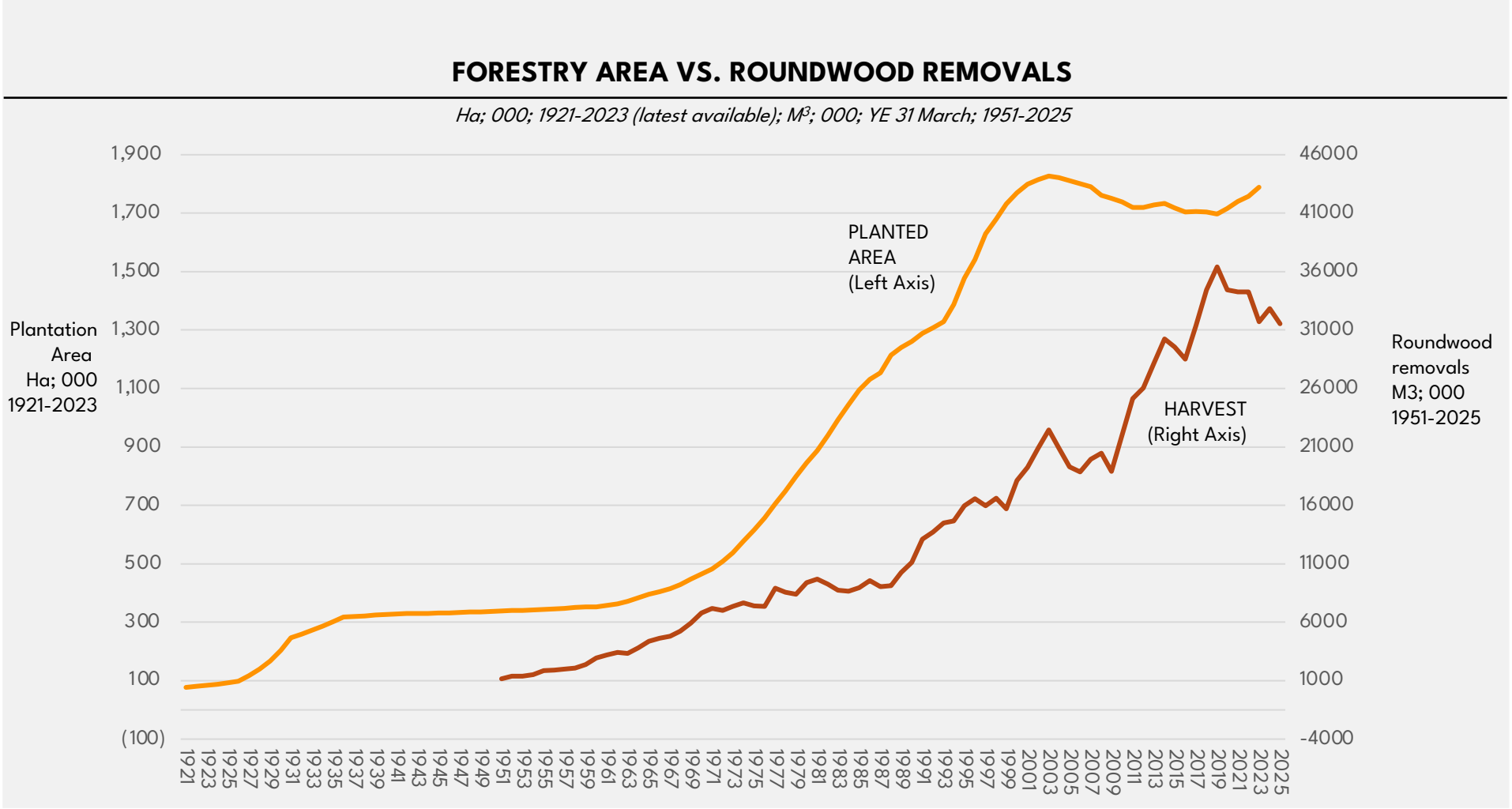
New Zealand has seen long-term growth in harvested volumes of wood



Source: MPI; NZFOA; Coriolis analysis

Evidence certainty Data quality/confidence	HIGH

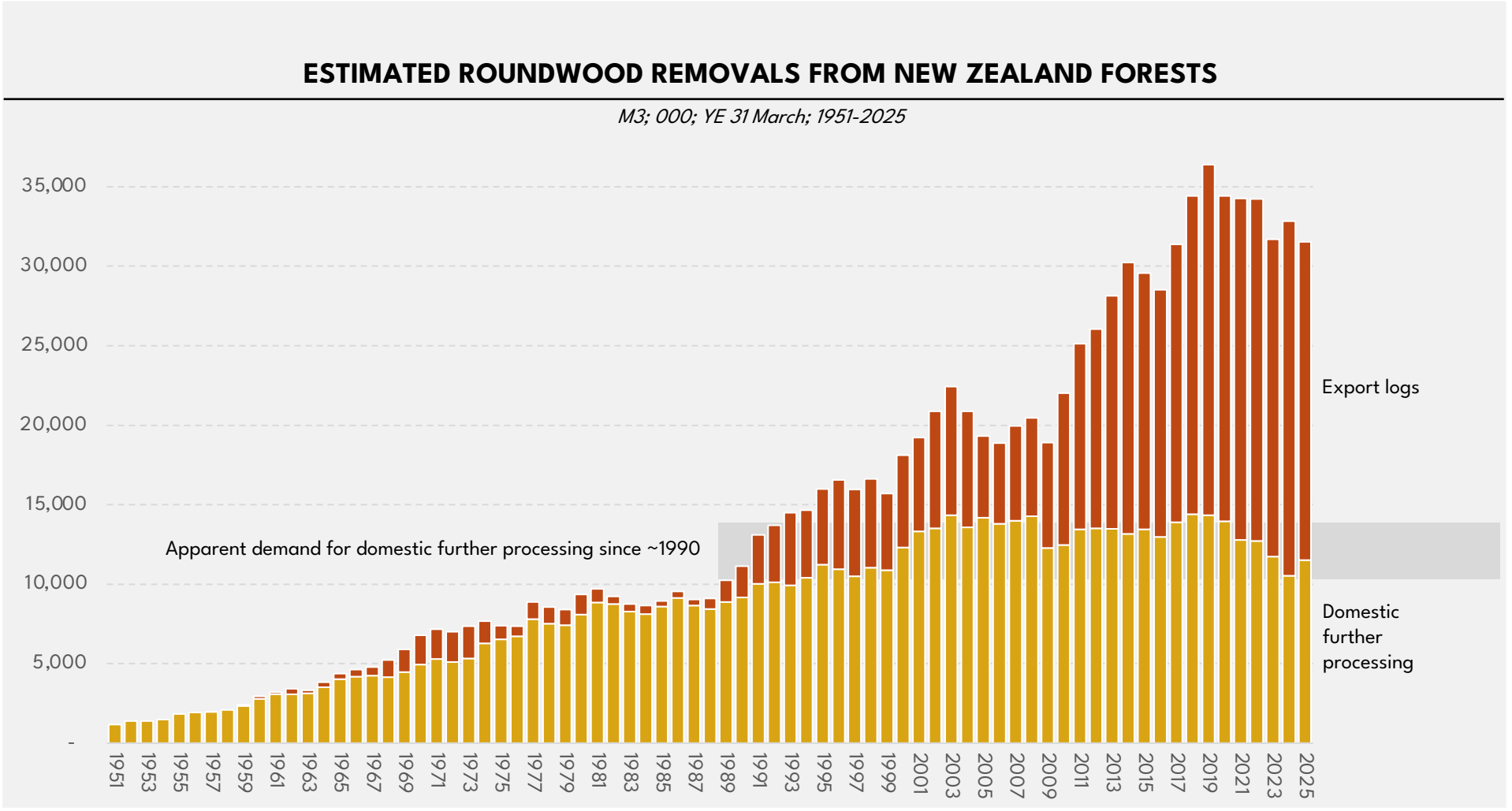
However, planting decisions made ~30 years ago mean that future harvest volumes will stabilise and then begin to decline



Source: MPI; NZFOA; Coriolis analysis

Evidence certainty
Data quality/confidence
HIGH

For ~35 years, all volume growth has gone to export markets as whole logs; investment in domestic processing is not happening



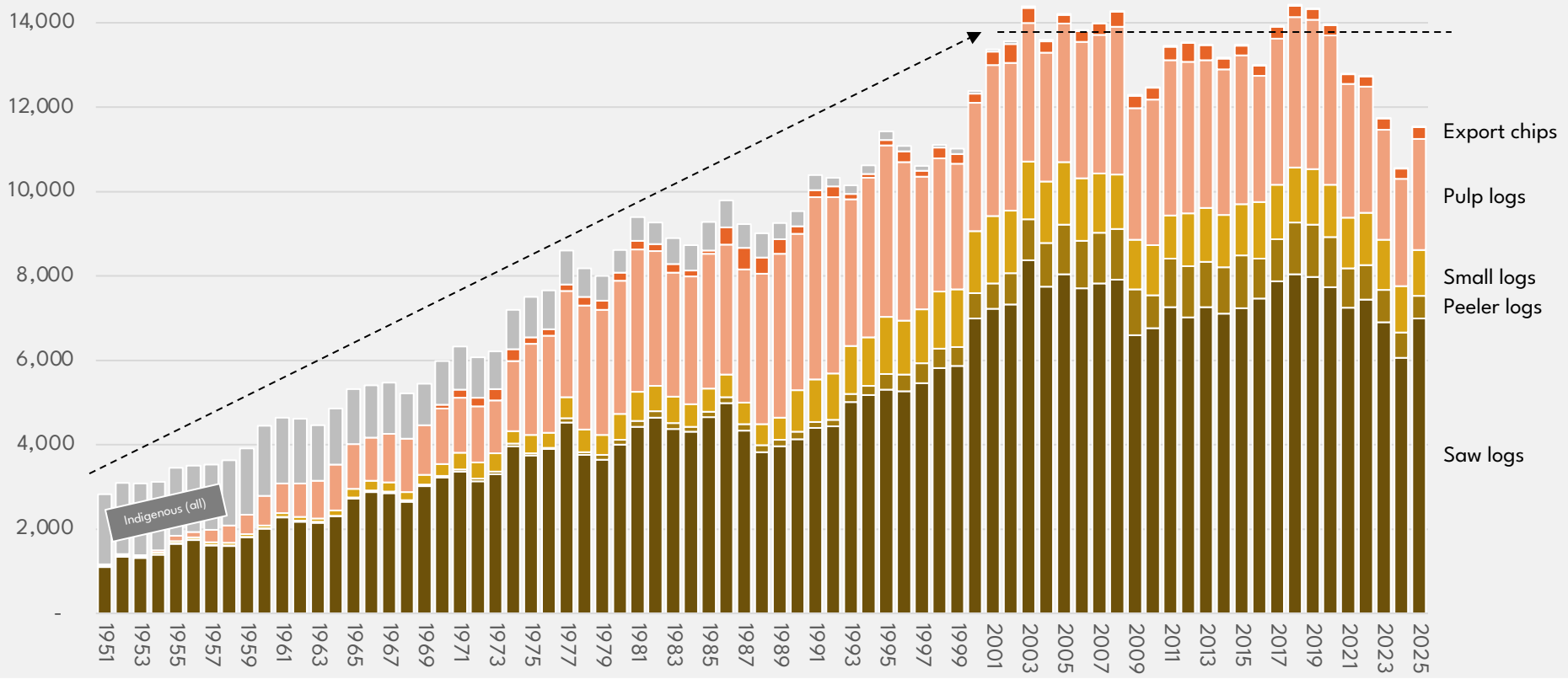
Source: MPI; NZFOA; Coriolis analysis

Evidence certainty Data quality/confidence	HIGH

New Zealand wood volumes into processing were broadly flat for twenty years, but have declined in the last five years

ROUNDWOOD VOLUME REMOVED FOR PROCESSING IN NEW ZEALAND BY TYPE (EXCLUDES EXPORT LOGS)

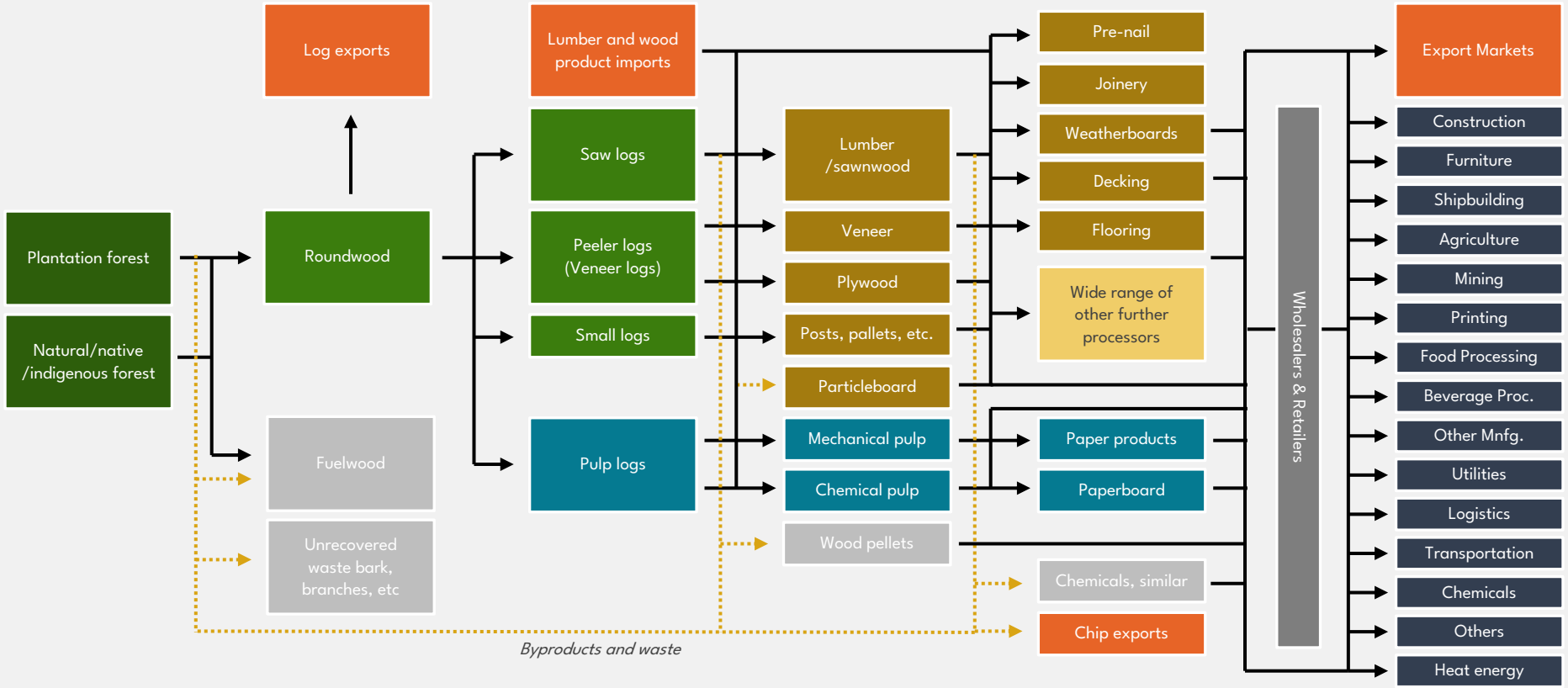
Cubic metres; 000; 1951-2025 (all available data)



Source: Te Uru Rākau (New Zealand Forest Service); MAF; MPI; NZFOA; Coriolis analysis

The New Zealand wood products industry makes a huge range of outputs, primarily from a single major input (pinus radiata)

MODEL OF MATERIAL FLOWS IN THE NEW ZEALAND WOOD/WOOD PRODUCTS INDUSTRY



The New Zealand plantation forestry industry has solid capabilities across its existing wood product focused supply chain

NEW ZEALAND CAPABILITIES DRIVEN SUPPLY CHAIN: PLANTATION FORESTRY

SELECT FIRMS

TREE GENETICS

PFOLSEN, ArborGen, PROSEED

VEHICLES/MACHINERY

TERRA CAT, JOHN DEERE, ALPINE, Sumitomo, KOMATSU, MADILL, DOOSAN, Tigercat, Vermeer, HYUNDAI

FORESTRY SUPPLIES

LOGGERS, Timbersaws, TERRAIN, GOLDPINE, FORESTRY SUPPLIERS, FARM SOURCE, Farmlands, PGG Wrightson

FERTILISER

Ballance, ravensdown

LAND IN FORESTRY

1.7m hectares

LANDOWNERS

3,100 forestry enterprises
3,600 forestry units

PEOPLE IN FORESTRY

~ 4,100 forestry
~3,700 logging
~ 5,500 sawmilling
~33,000 processing

GROWER ORGANISATIONS

FOREST OWNERS ASSOCIATION, woodco WOOD COUNCIL OF NZ INC, FARM FORESTRY NEW ZEALAND, FEDERATED FARMERS OF NEW ZEALAND

FORESTRY OWNERS/MANAGERS

KAINGAROA TIMBERLANDS, Rayonier matariki Forests, Manulife Investment Management, ERNSLAW ONE LIMITED, TASMAN PINE FORESTS LTD, One Forty One, SUMMIT FORESTS, JNL JUKEN NEW ZEALAND LTD, PAN PAC FOREST PRODUCTS LTD, Forest Enterprises, PORT BLAKELY, ARATU FORESTS LIMITED, crown forestry, Roger Dickie NEW ZEALAND, FMNZ, NGĀI TAHU Farming, GFP GLOBAL FOREST PARTNERS LP, WENITA FOREST PRODUCTS, LAKE TAUPO forest trust, LAKE ROTOAIRA FOREST TRUST

MANAGERS/CONSULTANTS

PFOLSEN, FOREST360 GROWING YOUR FUTURE, JOHN TURKINGTON LIMITED, PF Growth, Forest Management GROUP, N.Z. FOREST MANAGERS

LOG TRADERS & EXPORTERS (60%)

PACIFIC FOREST PRODUCTS NZ LTD, TPT, Aowhanui Wood, FORTUNA, TENCO, CHINA FORESTRY GROUP NEW ZEALAND

DOMESTIC WOOD PROCESSING (40%)

JNL JUKEN NEW ZEALAND LTD, CarterHoltHarvey Woodproducts New Zealand, NelsonPine LVL, OJI Oji Fibre Solutions, RED STAG TIMBER, TIMPACK, DAIKEN new zealand limited, Norske Skog Tasman, Westco Lumber Limited, PAN PAC FOREST PRODUCTS LTD, KiwiLumber, PINEPAC GROUP, claymark, essity, Fletcher Building, Sorbent, Laminex NEW ZEALAND

SHIPPING

SWIRE SHIPPING, NYK BULK & PROJECTS, GRIEG STAR, THORNICO, Pacific Basin, MUR, GEARBULK, YANG MING, OLDENDORFF, COSCO SHIPPING, WL

LOGISTICS

HARVEST LOGISTICS EFFICIENT RELIABLE EASY, LOG LOGISTICS

INDUSTRY ORGS.

NZTIF, wpma

Source: Coriolis

Converting **forestry waste-to-fibre** is on the global cutting edge with Scandinavian firms in early-stage development and commercialisation

KEY GLOBAL PLAYERS IN CONVERTING FORESTRY WASTE-TO-FIBRE

As of early 2026

FIRM	DETAILS OF CURRENT ACTIVITIES
SPINNOVA® Spinnova Woodspin / Suzano Finland	Spinnova is the furthest ahead commercially. In May 2023, Spinnova and Suzano opened their first commercial-scale facility producing 1,000 tonnes of wood-based fibre annually from responsibly-grown eucalyptus wood, with plans to scale to one million tonnes annual capacity by 2033. The process has a 74% smaller life cycle carbon footprint and uses 99.5% less water compared to conventional cotton production. Brand partners include Adidas, H&M, Marimekko, and JACK&JONES. However, scale-up has hit friction and Spinnova and Suzano postponed the pre-engineering stage for their next wood-based fibre facility beyond the previously anticipated timeline of late 2024. https://https://www.textileworld.com/textile-world/fiber-world/2023/05/woodspin-ramps-up-production-of-sustainable-wood-based-spinnova-fibre-at-new-zero-emission-factory/ https://spinnovagroup.com/releases/binding-agreements-signed-spinnova-buys-all-woodspin-and-suzano-finland-shares-and-secures-exclusivity-rights-on-wood-based-fibre/
TreeToTextile TreeToTextile Sweden	TtT is backed by H&M Group, IKEA, Stora Enso, and since 2025, Lenzing AG. The company transforms dissolving pulp into pure cellulose fibres with a natural dry hand-feel, semi-dull lustre, and high drapeability, using minimal chemicals, water, and energy. TreeToTextile Lenzing AG acquired a majority stake in TreeToTextile in February 2026. Tracxn This is a significant signal of institutional validation. https://treetotextile.com/ https://tracxn.com/d/companies/treetotextile/__Cf5XOXUTaetUOrgdutDdqlpGQNV5c4iWSPbOHp0U2Sg
Kuura® Metsä / Kuura Finland	The most interesting because it is co-located with an existing bioproduct mill. Kuura is produced from softwood pulp sourced from certified Finnish forests, and the planned commercial mill would be integrated into an existing bioproduct mill so the process can use renewable energy and various closed cycles. Pre-engineering for the commercial mill started in February 2025, with a construction decision expected by end of 2026. https://www.metsagroup.com/news-and-publications/news/2024/metsa-group-to-launch-a-pre-study-for-a-kuura-textile-fibre-mill--the-new-mill-would-increase-the-refinement-of-pulp-in-finland/ https://www.kuura.io/metsa-groups-kuura-textile-fibre-shows-competitive-greenhouse-gas-emission-level/
IONCELL Ioncell, Finland	A spin-off from Aalto University and the University of Helsinki. Uses ionic liquid solvents to dissolve cellulose from wood, recycled newspapers, or textile waste and wet-spin it into high-tenacity filament. Still at pilot/demonstration scale at Otaniemi. The technology is widely regarded as producing the highest-strength regenerated cellulose fibre of any emerging process. https://ioncell.fi/

A limited amount of **forestry-to-fibre** research is occurring in New Zealand (relative to dairy or wool); research is government funded

KEY ORGANISATIONS IN NEW ZEALAND RESEARCHING: FORESTRY-TO-FIBRE

Organisation; 2025 or as available

Who?	What?	Situation/State-of-play
LINCOLN AGRITECH LINCOLN UNIVERSITY	Government-owned and funded University	Lincoln Agritech was awarded $8.3 million from the MBIE Endeavour Fund for a five-year research programme to develop novel cellulose fibres regenerated from New Zealand plant resources for textile use. The consortium explicitly includes radiata pine as a target species alongside harakeke and tōtara. Research collaborators including the Ferrier Research Institute, Scion, and AgResearch are working in partnership with Minginui Nursery Ltd to combine expertise in cellulose sourcing, cellulose chemistry, fibre spinning, and textile performance, informed by mātauranga Māori. The programme explicitly aims to divert current streams of lower value or waste cellulose material and foster the development of high-end textiles made by New Zealand designers. https://lincolnagritech.co.nz/our-science/the-issues/natural-materials/novel-cellulose-fibres-from-native-plants/ Early results are promising. The team successfully created films from tī kōuka leaves and whole tawa wood. Tawa shows particular promise, with a higher molecular weight than wood pulp from radiata pine, meaning its cellulose is good quality and will produce strong materials. The fact that radiata pine is used as a benchmark comparison suggests active characterisation work is underway on NZ plantation species. Lincoln Agritech also has unique fibre wet-spinning capability developed through a wool research partnership, which underpins the technical credibility of their cellulose fibre ambitions. This consortium holds the most relevant NZ-based capability for developing a radiata pine slash-to-fibre pathway. https://lincolnagritech.co.nz/research-to-produce-sustainable-plant-sourced-fibres/
BIOECONOMY SCIENCE INSTITUTE	Government-owned research organisation	BSI/Scion's distributed manufacturing programme articulated the feedstock case clearly: around 4 million tonnes of residue remains in NZ forests each year, and new technology is making it possible to create mini manufacturing facilities that use a range of biomaterials including forestry slash to make wood products, biofuels and chemicals. The programme explicitly frames the economic model around regional distributed processing rather than a single large facility. https://www.scionresearch.com/science/bio-based-products-and-technologies/distributed-manufacturing The major structural news is the $63 million biofactory now being built on the Rotorua campus of the Bioeconomy Science Institute. The biofactory will be a commercial-scale facility that will transform low-value wood, food waste and animal products into high-value ingredients, and is charged with two main research aims: identifying opportunities in wood fibre, pulp, biopolymer, packaging and biochemical industries, and increasing NZ's energy security through the use of forest and waste biomass for bioenergy. https://www.thepost.co.nz/business/360823483/rotorua-biofactory-opens-way-potential-50-billion-economic-gain Separately, Scion has been working on fibre processing, testing and material development for textile reuse, including exploring options for NZ's first textile fibre recycling pilot plant with potential applications in the built environment and roading. This is textile waste rather than forestry waste, but the processing chemistry overlaps significantly. https://www.scionresearch.com/about-us/about-scion/corporate-publications/annual-reports/2021-annual-report/delivering/clothes-to-roads-usedfully-textile-recycling

Only one government agency is attempting to process **forestry-to-fibre** currently in New Zealand

KEY FIRMS IN NEW ZEALAND COMMERCIALISING: FORESTRY-TO-FIBRE

Commercial firms identified; 2025 or as available

Who?	Situation/State-of-play
Bioeconomy Science Institute SCION GROUP	A $63 million biofactory now being built on the Rotorua campus of the Bioeconomy Science Institute. This commercial-scale facility will transform low-value wood, food waste and animal products into high-value ingredients, and is charged with two main research aims: identifying opportunities in wood fibre, pulp, biopolymer, packaging and biochemical industries, and increasing NZ's energy security through the use of forest and waste biomass for bioenergy.
	https://www.thepost.co.nz/business/360823483/rotorua-biofactory-opens-way-potential-50-billion-economic-gain

The Rotorua biofactory is oriented toward biochemicals and bioplastics, not textiles. Textile fibre is a more demanding end product in terms of cellulose purity and consistent filament properties. The biofactory infrastructure is relevant but not directly targeted at the fibre-for-apparel opportunity.

The New Zealand **forestry-to-fibre** industry is currently conceptual

NEW ZEALAND CAPABILITIES DRIVEN SUPPLY CHAIN: FORESTRY-TO-FIBRE

SELECT FIRMS

EXISTING NEW ZEALAND FORESTRY INDUSTRY

GOVERNMENT-OWNED RESEARCH

- Bioeconomy Science Institute, SCION GROUP

UNIVERSITIES

- LINCOLN AGRITECH
- LINCOLN UNIVERSITY

PROCESSORS

- Bioeconomy Science Institute, SCION GROUP

MAJOR CUSTOMERS

INDUSTRY ORGS.

- WIDE WOOD INDUSTRY DEVELOPMENT AND EDUCATION TRUST

Source: Coriolis

SOURCES: FORESTRY-TO-FIBRE

SOURCE	LINK
GLOBAL	
TexFash	Out of the Woods: Nordic Countries Take the Lead with a Range of Innovative Fibres https://texfash.com/special/out-of-the-woods-nordic-countries-take-the-lead-with-a-range-of-innovative-fibres
TextileWorld	Woodspin Ramps Up Production Of Sustainable, Wood-Based SPINNOVA® Fibre At New Zero-Emission Factory https://www.textileworld.com/textile-world/fiber-world/2023/05/woodspin-ramps-up-production-of-sustainable-wood-based-spinnova-fibre-at-new-zero-emission-factory/
JustStyle	Spinnova and Suzano's wood-based fibre plant faces delay https://www.just-style.com/news/spinnova-suzano-fibre-plant/
TreeToTextile	Welcome to the future of fibres https://treetotextile.com/
Metsä Group	Metsä Group to launch a pre-study for a Kuura textile fibre mill – the new mill would increase the refinement of pulp in Finland https://www.metsagroup.com/news-and-publications/news/2024/metsa-group-to-launch-a-pre-study-for-a-kuura-textile-fibre-mill--the-new-mill-would-increase-the-refinement-of-pulp-in-finland/
Kuura	Metsä Group's Kuura textile fibre shows competitive greenhouse gas emission level https://www.kuura.io/metsa-groups-kuura-textile-fibre-shows-competitive-greenhouse-gas-emission-level/
NEW ZEALAND	
Bioeconomy Innovations 2025	Event Summary https://innovatek.co.nz/event/bioeconomy-innovations-2025/
RadioNZ	Rotorua biofactory for new fuels, proteins https://www.rnz.co.nz/national/programmes/ninetonoon/audio/2019009853/rotorua-biofactory-for-new-fuels-proteins
Lincoln University Lincoln Agritech	Novel cellulose fibres from native plants https://lincolnagritech.co.nz/our-science/the-issues/natural-materials/novel-cellulose-fibres-from-native-plants/
IRANZ	Lincoln Ag project to create textile fibres from NZ plants https://www.iranz.org.nz/news/2021/lincoln_ag_textile_fibres_endeavour
The Post	Rotorua biofactory opens the way for a potential $50 billion economic gain https://www.thepost.co.nz/business/360823483/rotorua-biofactory-opens-way-potential-50-billion-economic-gain
Planetfood News	Rotorua Biofactory Bets on $50 Billion Future https://www.planetfood.news/post/rotorua-biofactory-bets-on-50-billion-future
LinkedIn	https://www.linkedin.com/posts/bioeconomy-innovations-2025_rotorua-biofactory-opens-the-way-for-a-potential-activity-7378252884477620224-s8PC/
Residues2Revenues	Residues & bioeconomy events delivers new innovation https://innovatek.co.nz/residues-bioeconomy-events-delivers-new-innovation/
WIDE Trust	Empowering the Next Generation of Forestry and Bioeconomy Leaders https://www.widetrust.org.nz/success-stories/empowering-the-next generation-offorestry-and-bioeconomy-leaders

Agenda

#	Topic	Page
1	Wool	5
2	Skins & hides	37
3	Mohair	49
4	Cashmere	59
5	Alpaca	70
6	Industrial Hemp	81
7	Harakeke	91
8	Forestry Waste-to-Fibre	100
9	**Food Waste-to-Fibre**	**115**
10	Textile Waste-to-Fibre	122
11	Domestic textiles & apparel	130

EXECUTIVE SUMMARY: FOOD-TO-FIBRE

New Zealand's food waste-to-fibre opportunity is compelling as a circular-economy story, but it is still early-stage and best viewed as a portfolio of experiments rather than an investable, scaled industry today.

Globally, the concept is on the cutting edge, with multiple venture-backed examples converting agricultural and food processing residues into fibres, yarns and leather-like materials, but the track record is mixed: even high-profile concepts can fail at scale, as illustrated by Piñatex/Ananas Anam entering insolvency processes in 2025 despite adoption by major brands. This is a useful reality check for New Zealand; technical feasibility and brand traction do not automatically translate into resilient production economics or investable scale-up.

In New Zealand, activity is real but narrow, concentrated in government funded research and a small number of government funded commercial ventures. The government-funded Bioresource Processing Alliance (BPA) is positioned as the primary bridge between industry and the Bioeconomy Science Institute (BSI) capability set (AgResearch, Callaghan Innovation, Plant & Food Research and Scion), with MBIE funding covering most eligible research costs; in practise, this structure is doing much of the heavy lifting for early de-risking and concept validation.

BAI/Scion-led work is exploring a broad set of feedstocks (e.g., blueberry pomace, avocado stones, cabbage leaves and hemp fibre) for moulded fibre packaging applications, explicitly described as "early days" with the next stage requiring deep industry engagement to define performance requirements. The breadth of feedstocks is a strength, but the pathway to repeatable specifications and commercial timelines is not yet defined.

Commercialisation signals are promising but still prototype-weighted.

KiwiLeather Innovations is targeting a large, well-defined waste stream (50,000+ tonnes of rejected kiwifruit annually) to produce a plastic-free, plant-based leather alternative, supported by BPA, AGMARDT and BSI/Callaghan Innovation and validated through BSI/Scion. The venture is described as late prototype/early commercial and is aiming at demanding end-markets such as automotive interiors and furniture, but scale-up and unit economics are explicitly not yet resolved.

AgriSea's Paeroa facility represents the strongest "scaled" proof point in the section: a Māori-owned business commissioning what is described as the world's first commercial seaweed nanocellulose biorefinery (Oct 2025), converting seaweed waste into nanocellulose hydrogel with broad applications (including packaging) and measurable technical differentiation.

Today, the domestic food-to-fibre industry is currently small, with only a couple of firms, plus active government research, and that overall research intensity is limited relative to sectors like dairy or wool.

The pragmatic path forward is therefore to focus on applications with clearer pull-through economics, specifically packaging materials and selected high-value biomaterials, while building the enabling system, particularly feedstock aggregation, standards, regulatory pathways, and anchor customers.

Converting **food waste-to-fibre** is on the global cutting edge with multiple firms in early-stage development and commercialisation

SELECT GLOBAL LEADERS IN CONVERTING FOOD WASTE-TO-FIBRE AT COMMERCIAL-SCALE

As of early 2026

FIRM	DETAILS OF CURRENT ACTIVITIES
ANANAS ANAM UK/Spain	The most prominent example, extracting fibre from pineapple leaves. Piñatex was used by over 1,000 brands worldwide including Hugo Boss, H&M and the Hilton. Despite that traction, Ananas Anam entered pre-insolvency proceedings in Spain in July 2025 and administration in the UK in August 2025, after failed rescue attempts by Fresh Del Monte and Compagnie Fruitière, and is now proceeding to liquidation. https://www.ananas-anam.com/about-us/ https://www.modaes.com/global/companies/what-happened-to-pinatex-the-spanish-promise-of-the-next-gen
ORANGE FIBER Italy	Orange Fibre uses patented technology to produce textile-grade cellulose yarn from citrus juice processing waste, with collaborations including Ferragamo and a co-development with Lenzing's TENCEL brand. Still operating as of early 2025. https://orangefiber.it/ https://circulareconomyforfood.eu/en/orange-fiber-en/
VEGEA Italy	Vegea produces a plant-based leather-like product from grape marc (skins, stalks and seeds from wine production), positioning it as a 100% recyclable and renewable textile. https://www.vegeacompany.com/ https://foodtank.com/news/2022/08/companies-turning-food-waste-into-fashion-statements/
BANANATEX® Swiss/Philippines	Developed by Swiss brand QWSTION in collaboration with Taiwanese yarn specialists and Philippine cooperatives, using banana plants cultivated in the Philippines. https://bananatex.info/ https://impakter.com/when-food-waste-becomes-fashion-emerging-innovations/
appleskin USA	Converts pulp from cider and applesauce production into durable leather-like material, with line extensions into LemonSkin (citrus waste) and BarleySkin (brewer's grains). https://www.appleskin.com/ https://knowingfabric.com/apple-leather-ecofriendly-alternative-to-leather/
SINGTEX® Taiwan	Dries and processes used coffee grounds into breathable, moisture-wicking yarns used in activewear and accessories. https://www.singtex.com/ https://textilevaluechain.in/from-cup-to-cloth-understanding-the-journey-of-coffee-ground-fabric
CIRCULAR SYSTEMS™ USA	Transforms six food crop wastes including oil-seed hemp, pineapple leaves, banana tree, cane bagasse and rice straws into natural fibre products. https://circularsystems.com/ https://foodtank.com/news/2022/08/companies-turning-food-waste-into-fashion-statements/

A limited amount of **food-to-fibre** research is occurring in New Zealand (relative to dairy or wool); research is government funded

KEY ORGANISATIONS IN NEW ZEALAND RESEARCHING: FOOD-TO-FIBRE

Organisation; 2025 or as available

Who?	What?	Situation/State-of-play
BIOECONOMY SCIENCE INSTITUTE	Government-owned and funded University	Scion researchers, funded by the BPA, are working across a broad range of NZ agricultural waste streams including blueberry pomace, avocado stones, cabbage outer leaves, and hemp fibre, exploring whether incorporating these byproducts into moulded fibre trays can improve strength and moisture resistance as an alternative to plastic packaging. This work is explicitly framed as early-stage, with the team leader describing the project as "early days" and indicating that the next stage will involve deep industry engagement to define performance requirements. The feedstock breadth is a strength; the commercial timeline is not yet defined. https://www.rnz.co.nz/news/country/564242/nz-researchers-work-to-turn-agricultural-waste-into-packaging
Bioresource Processing Alliance	Government funded research fund	The Bioresource Processing Alliance (BPA) is New Zealand's primary science-to-commercialisation bridge for food waste valorisation, connecting businesses with the combined capabilities of BSI (AgResearch, Callaghan Innovation, Plant & Food Research, and Scion), with MBIE funding covering the majority of qualifying research costs. In the food-to-fibre space specifically, its most visible projects include KiwiLeather Innovations (kiwifruit waste to vegan leather, validated at Scion), Scion's moulded fibre packaging programme (incorporating blueberry pomace, avocado stones, cabbage leaves, and hemp fibre into plastic alternatives), the Baking Industry Research Trust's bread-waste-to-thermoplastic-polymer programme, and the AgriSea seaweed nanocellulose biorefinery in Paeroa, which opened in October 2025 as the world's first commercial facility of its kind. https://bioresourceprocessing.co.nz/

Two firms and a government agency are attempting to process **food-to-fibre** currently in New Zealand

KEY FIRMS IN NEW ZEALAND COMMERCIALISING: FOOD-TO-FIBRE

Commercial firms identified; 2025 or as available

Who?	Situation/State-of-play
Bioeconomy Science Institute SCION GROUP	A $63 million biofactory now being built on the Rotorua campus of the Bioeconomy Science Institute. This commercial-scale facility will transform low-value wood, food waste and animal products into high-value ingredients, and is charged with two main research aims: identifying opportunities in wood fibre, pulp, biopolymer, packaging and biochemical industries, and increasing NZ's energy security through the use of forest and waste biomass for bioenergy. https://www.thepost.co.nz/business/360823483/rotorua-biofactory-opens-way-potential-50-billion-economic-gain
KiwiLeather Innovations.	Founded by Shelley Houston in Papamoa, KiwiLeather Innovations targets the 50,000+ tonnes of kiwifruit rejected in NZ each year, developing a plastic-free, plant-based leather alternative from waste and sub-grade fruit. The venture has received support from the BPA, a grant from AGMARDT, and backing from Callaghan Innovation, progressing from a home kitchen to validation work at Scion's biomaterials research institute. LinkedIn The resulting product is described as over 90% plant and bio-based, completely plastic-free. The company is at late prototype / early commercial stage, targeting automotive interiors and furniture sectors. The scale-up and unit economics questions have not yet been resolved. https://www.kiwileatherinnovations.com/ https://www.nzherald.co.nz/the-country/news/kiwifruit-waste-turned-into-leather-alternative-by-kiwileather-innovations/IPJDNPG6MJFS5OIKUOTGCQMUF4/
AgriSea NEW ZEALAND	AgriSea opened the world's first commercial seaweed nanocellulose biorefinery at its Paeroa business park in October 2025, supported by the BPA and the Bioeconomy Science Institute, converting seaweed waste from its existing biostimulant production into nanocellulose hydrogel. The facility can produce up to 1,600 kg of nanocellulose hydrogel per week, with applications spanning medical wound dressings, drug delivery, agricultural soil amendment, cosmetics, adhesives, electronics, and biodegradable packaging. AgriSea's seaweed cellulose chains are reportedly up to four times wider and longer than plant-based equivalents, giving the resulting hydrogel twice the thermal conductivity of conventional nanocellulose, which is a genuine materials science differentiation. The global nanocellulose market is projected at USD $1.5-3.4 billion by 2032. This is a Māori-owned family business that evolved a 30-year biostimulant operation into a world-leading materials platform. https://agrisea.co.nz/ https://innovatek.co.nz/new-biorefinery-will-create-global-impact-using-seaweed/ https://bioresourceprocessing.co.nz/latest-news/agrisea-opens-the-worlds-first-commercial-seaweed-nanocellulose-biorefinery/

The New Zealand **food-to-fibre** industry is currently small

NEW ZEALAND CAPABILITIES DRIVEN SUPPLY CHAIN: FOOD-TO-FIBRE

SELECT FIRMS



Source: Coriolis

SOURCES: FOOD-TO-FIBRE

SOURCE	LINK
GLOBAL	
Foodtank	12 Companies Turning Food Waste Into Fashion Statements https://foodtank.com/news/2022/08/companies-turning-food-waste-into-fashion-statements/
Modaes	The Rise and Fall of Piñatex: What Happened to Spain's Next-Gen Fashion Darling? https://www.modaes.com/global/companies/what-happened-to-pinatex-the-spanish-promise-of-the-next-gen
Impakter	When Food Waste Becomes Fashion: Emerging Innovations https://impakter.com/when-food-waste-becomes-fashion-emerging-innovations/
Textile Value Chain	From Cup to Cloth: Understanding the Journey of Coffee Ground Fabric https://textilevaluechain.in/from-cup-to-cloth-understanding-the-journey-of-coffee-ground-fabric
Sustainability	Coffee Grounds and Plastic Waste Become New High-Performance Sustainable Fibre https://news.sustainability-directory.com/fashion/coffee-grounds-and-plastic-waste-become-new-high-performance-sustainable-fiber/
Knowing Fabric	Apple Leather (AppleSkin™): A Viable Eco-Alternative to Leather? https://knowingfabric.com/apple-leather-ecofriendly-alternative-to-leather/
NEW ZEALAND	
NZ Herald	Kiwifruit waste turned into leather alternative by KiwiLeather Innovations https://www.nzherald.co.nz/the-country/news/kiwifruit-waste-turned-into-leather-alternative-by-kiwileather-innovations/IPJDNPG6MJFS5OIKUOTGCOMUF4/
Bioeconomy Innovations 2025	Event Summary https://innovatek.co.nz/event/bioeconomy-innovations-2025/
RadioNZ	Rotorua biofactory for new fuels, proteins https://www.rnz.co.nz/national/programmes/ninetonoon/audio/2019009853/rotorua-biofactory-for-new-fuels-proteins NZ researchers work to turn agricultural waste into packaging https://www.rnz.co.nz/news/country/564242/nz-researchers-work-to-turn-agricultural-waste-into-packaging
BSI/Scion	Turning blueberry byproducts into sustainable solutions https://www.scionresearch.com/news-and-events/news/2025-news-and-media-releases/turning-blueberry-byproducts-into-sustainable-solutions
The Post	Rotorua biofactory opens the way for a potential $50 billion economic gain https://www.thepost.co.nz/business/360823483/rotorua-biofactory-opens-way-potential-50-billion-economic-gain
Planetfood News	Rotorua Biofactory Bets on $50 Billion Future https://www.planetfood.news/post/rotorua-biofactory-bets-on-50-billion-future
LinkedIn	https://www.linkedin.com/posts/bioeconomy-innovations-2025_rotorua-biofactory-opens-the-way-for-a-potential-activity-7378252884477620224-s8PC/
Residues2Revenues	Residues & bioeconomy events delivers new innovation https://innovatek.co.nz/residues-bioeconomy-events-delivers-new-innovation/
WIDE Trust	Empowering the Next Generation of Forestry and Bioeconomy Leaders https://www.widetrust.org.nz/success-stories/empowering-the-next generation-offorestry-and-bioeconomy-leaders

Agenda

#	Topic	Page
1	Wool	5
2	Skins & hides	37
3	Mohair	49
4	Cashmere	59
5	Alpaca	70
6	Industrial Hemp	81
7	Harakeke	91
8	Forestry Waste-to-Fibre	100
9	Food Waste-to-Fibre	115
10	**Textile Waste-to-Fibre**	**122**
11	Domestic textiles & apparel	130

EXECUTIVE SUMMARY: TEXTILE-WASTE-TO-NEW-FIBRE

New Zealand's textile-waste-to-new-fibre opportunity is important because it links decarbonisation, landfill diversion, and resilience in textile supply, but the domestic industry is currently small and structurally incomplete. In practise, New Zealand has meaningful activity in collection and mechanical down-cycling (e.g., into wadding, underlays, felts, insulation and acoustic products), plus some pilot demonstrations of extracting feedstocks from textiles, but it does not yet have a commercial chemical recycling plant capable of regenerating cotton, wool, or synthetics back into textile-grade fibre. Without fibre-to-fibre capacity, most diversion pathways remain "value leakage" into lower-margin applications rather than true circularity in apparel materials.

The global context underscores both urgency and realism. Global startups are moving from pilot to scale with large planned capacities and substantial offtake already secured, across both cellulosic (cotton-rich) and polyester recycling routes. Examples cited include Infinited Fibre (Finland) building a 30,000 tpa plant with future production largely sold, Evrnu (USA) planning an 18,000 tpa facility due 2026, and large-scale polyester initiatives targeting millions of tonnes annually backed by major brands and investors.

Domestically, capability is strongest in applied fibre science and pragmatic reuse pathways. BSI is the only fibre science institution, with outputs relevant to waste-to-fibre and circularity positioning (e.g., keratin-based binders from keratin-rich wastes, evidence on wool biodegradability, and closed-loop concepts). BSI/Scion's work with Usedfully progressed from desktop assessment to pilot-scale trials using textile-derived cellulose as a roading additive. However, relative to sectors like dairy or even wool, research effort in textile waste-to-fibre is limited and primarily government funded.

Commercially, New Zealand has a functioning recycling layer. There is no New Zealand textile waste-to-fibre industry data; Coriolis estimate an $11m mechanical recycling industry.

Terra Lana was an early mover in insulation and eco-textiles from recycled wool, operating a closed-loop model and citing weekly diversion of waste wool and PET bottles, while other processors handle substantial volumes mechanically (e.g., ~5,000 kg/day of textile waste into wadding/felts/underlays and acoustic products) and are exploring chemical pathways such as converting cotton into powdered cellulose and polyester into PET pellets.

Usedfully is an ambitious systems-level initiative, focused on reuse programmes, rebuilding onshore manufacturing capability, and coordinating stakeholders and government.

There is no commercial-scale conversion of waste textiles to new 'virgin fibre' via chemical processes.

The pragmatic near-term conclusion is that New Zealand can credibly expand textile diversion and value recovery. However, circular "textile-to-textile" fibre regeneration will require a step-change in industrial capability, capital, and feedstock logistics.

Converting **textile waste-to-fibre** is on the global cutting edge with multiple firms in early-stage development and commercialisation

SELECT GLOBAL LEADERS IN CONVERTING TEXTILE WASTE-TO-FIBRE AT COMMERCIAL-SCALE

As of early 2026

FIRM	DETAILS OF CURRENT ACTIVITIES
Finland	Building a commercial plant with 30,000 metric tonne annual capacity -- enough fibre for approximately 100 million T-shirts -- with most future production capacity already sold, targeting 500,000 metric tonnes by 2030. Their Infinna fibre looks and feels like cotton. https://infinitedfiber.com/ https://hmfoundation.com/2025/04/03/how-textile-to-textile-recycling-went-from-vision-to-future-standard/
USA	Takes cotton-rich waste from the manufacturing process and discarded consumer items to make lyocell fibre; first commercial facility is due for completion in 2026 at 18,000 metric tonnes annually. https://www.evrnu.com/ https://hmfoundation.com/2025/04/03/how-textile-to-textile-recycling-went-from-vision-to-future-standard/
Austria	Lenzing is a century-old Austrian industrial company and one of the world's largest producers of wood-based cellulosic fibres, best known for its TENCEL and Ecocell brands. It occupies a position at the intersection of forestry biomaterials and textile manufacturing, increasingly leveraging its dissolving pulp expertise to incorporate post-consumer cotton waste into regenerated fibre production through its Refibra technology (rolled out in 2017), a cellulosic fibre made from 100% cotton waste, currently selling to 30 clothing retailers including Patagonia and Levi Strauss. https://www.lenzing.com/about-us/history/ https://cen.acs.org/environment/green-chemistry/Transforming-textiles/100/i11
Sweden	Scaling textile-to-textile polyester recycling, backed by TPG Rise, Volvo, and H&M Group through a USD 600 million offtake agreement, targeting 3 million metric tonnes of circular polyester annually by 2032. https://www.syre.com/ https://hmfoundation.com/2025/04/03/how-textile-to-textile-recycling-went-from-vision-to-future-standard/
USA	Has scaled chemical recycling technology for polyester to commercial implementation, securing partnerships with Inditex, Arc'teryx, Reformation, and Ganni, with a target of diverting 4,500 metric tonnes of textile waste in 2025. https://www.ambercycle.com/ https://hmfoundation.com/2025/04/03/how-textile-to-textile-recycling-went-from-vision-to-future-standard/
USA	Patented hydrothermal technology separates and recovers both polyester and cotton from blended fabrics, which make up 77% of the global textile market; planning a first full-scale facility in Saint-Avold, France, with capacity to recycle 60,000 metric tonnes annually scaling to 300,000 metric tonnes by 2030. https://circ.earth/our-technology/ https://hmfoundation.com/2025/04/03/how-textile-to-textile-recycling-went-from-vision-to-future-standard/
Turkey	Has commenced operations, targeting 200,000 metric tonnes annual recycling capacity by 2025, with plans to scale to 1 million metric tonnes by 2030. https://reandup.com/about-us/ https://hmfoundation.com/2025/04/03/how-textile-to-textile-recycling-went-from-vision-to-future-standard/

A limited amount of **textile waste-to-fibre** research is occurring in New Zealand (relative to dairy or wool); research is government funded

KEY ORGANISATIONS IN NEW ZEALAND RESEARCHING: TEXTILE-WASTE–TO-FIBRE

Organisation; 2025 or as available

Who?	What?	Situation/State-of-play
BIOECONOMY SCIENCE INSTITUTE	Government-owned and funded University	BSI/AgResearch is the anchor institution. Its former Wool Research Organisation of NZ (WRONZ/Canesis) lineage gives it decades of accumulated fibre science. Key research outputs directly relevant to waste-to-fibre include: - Developed Keratinite, a natural binder made from keratin-rich waste streams including feathers, animal hair and wool, as a potential replacement for formaldehyde-based resins in particleboards, winning the Sustainability Award at the Food, Fibre and Agritech Challenge 2023. - https://www.agresearch.co.nz/our-research/bioproducts/ - Demonstrated that shredded post-consumer wool carpet can be used as a fertiliser and soil conditioner, a closed-loop grass-wool-carpet-grass cycle, with elevated nitrogen (19%), sulphur (19%) and magnesium (7%) in grass grown on carpet-fertilised plots. - https://www.sciencedirect.com/science/article/abs/pii/S0921344906002114. - Proved wool fibres are 100% biodegradable when buried in soil and when submerged in water, in contrast to synthetic fibres which show little or no biodegradation under the same conditions, providing a foundation for differentiating NZ wool waste as an environmentally superior feedstock. - https://www.researchgate.net/publication/280004761_The_Biodegradability_of_Wool_Enables_Wool-to-Grass-to-Wool_Closed-Loop_Recycling. - BSI/AgResearch and BSI/Scion collaborated (funded by SSIF and Australian Wool Innovation) on marine biodegradation studies comparing wool to synthetic alternatives, producing internationally referenced data supporting wool's circularity credentials. - https://www.agresearch.co.nz/our-research/research-underscores-the-environmental-advantages-of-wool/ BSI/Scion - Scion began working with Usedfully (through The Formary) in 2017, starting with a desktop study of potential applications for waste textile fibre in NZ, then progressing to pilot-scale trials of using textile fibre cellulose as a roading additive, estimating that diverting NZ's textile waste from landfills could reduce greenhouse gas emissions by 400,000 tonnes CO2e per year. - https://www.scionresearch.com/about-us/about-scion/corporate-publications/annual-reports/2021-annual-report/delivering/clothes-to-roads-usedfully-textile-recycling.

New Zealand has a range of firms recycling textiles, but no commercial ventures turning textile waste into new fibres

KEY FIRMS IN NEW ZEALAND COMMERCIALISING: TEXTILE-WASTE–TO-FIBRE

Commercial firms identified; 2025 or as available

Who?	Situation/State-of-play
TEXTILE WASTE RECYCLING	
TERRA LANA	Founded in 1999, Terra Lana pioneered the commercialisation of insulation and eco-textiles from recycled wool, building on the original WRONZ/AgResearch science base. The company operates a closed-loop manufacturing model, saving approximately 5,000 kg of waste wool and 2,000 kg of PET plastic bottles from landfill each week. Their DAGMAT product (2023) uses dag wool, a genuinely low-value agricultural waste stream, for landscaping applications. https://www.terralana.co.nz/about/
TEXTILE PRODUCTS	Processes on average 5,000 kg of textile waste per day, approximately 1,190 tonnes per year, recycling wool, viscose, cotton and other materials into wadding, underlays, felts and acoustic products. In 2024, their Retex operation alone prevented an estimated 57,834 tonnes of CO2 equivalent. https://textile.co.nz/recycling-sustainability/
WORKWEAR RECYCLED	Operates mechanically and is actively pursuing chemical recycling pathways. The company is consolidating cotton material in the South Island to enable upcycling to cellulose for industrial use including further textile production, paper manufacturing and pharmaceuticals, while also conducting R&D into transforming cotton to powdered cellulose and polyester into PET pellets. https://workwearrecycled.co.nz/recycle/
ImpacTex TEXTILE RECYCLING	Developed a New Zealand-specific material from end-of-life textiles with applications in acoustic panelling, packaging and signage -- a downgrade from apparel fibre but a genuine commercial diversion pathway. https://impactex.nz/
USEDFULLY	Represents NZ's most ambitious systems-level initiative. Usedfully operates a Textile Reuse Programme focused on looping used textile resources back into commercial production, rebuilding manufacturing capability onshore, and working across the value chain with stakeholders and government to create jobs while reducing carbon emissions. https://www.theformary.com/about-us/ https://www.textilereuse.com/get-involved/ https://www.usedfully.com/
TEXTILE WASTE TO CHEMICALS/NEW FIBRES	
None	NZ has no commercial chemical recycling plant capable of regenerating cotton, wool or synthetic waste back to textile-grade fibre. Pilot projects have successfully extracted raw PET from polyester uniforms and extruded cellulose from cotton fibre for use as a road mix additive, but scaling these into commercial textile fibre production has not occurred. https://thespinoff.co.nz/society/12-05-2021/theres-a-global-avalanche-of-used-clothing-and-nz-needs-to-do-more-to-save-it-from-landfill

The New Zealand **textile waste-to-fibre** industry is currently small

NEW ZEALAND CAPABILITIES DRIVEN SUPPLY CHAIN: TEXTILE-WASTE–TO-FIBRE

SELECT FIRMS



Source: Coriolis

Evidence certainty Data quality/confidence	LOW

There is no New Zealand **textile waste-to-fibre** industry data; Coriolis estimate an $11m mechanical recycling industry

SIMPLIFIED MODEL OF THE NEW ZEALAND TEXTILE-WASTE–TO-FIBRE INDUSTRY

Various measures; as available

	Estimated Textile Waste (Tonnes)	Major Textile Recyclers	Estimated tonnes mechanically recycled	$/t	Value
2025	Over 220,000	Terra Lana Textile Products Workwear Recycled ImpacTec Others	2,100t (1,500-2,700t)	$0 Recovery cost is negative (e.g. transport)	Input $0 Output $11m ($8-14m)

Source: Coriolis estimates, modelling and analysis

SOURCES: TEXTILE-WASTE-TO-NEW-FIBRE

SOURCE	LINK
GLOBAL	
TextileWorld	Fiber-to-Fiber Textile Recycling https://www.textileworld.com/textile-world/features/2023/09/fiber-to-fiber-textile-recycling/ Textile Recycling Roundup 2025 https://www.textileworld.com/textile-world/fiber-world/2025/06/textile-recycling-roundup-2025/
C&EN	Transforming textiles https://cen.acs.org/environment/green-chemistry/Transforming-textiles/100/i11
BSI/Scion	Clothes to roads: Usedfully textile recycling https://www.scionresearch.com/about-us/about-scion/corporate-publications/annual-reports/2021-annual-report/delivering/clothes-to-roads-usedfully-textile-recycling
Fast Company	Renewcell's bankruptcy was a shock to circular fashion. Now, the textile recycler is getting a second chance. https://www.fastcompany.com/91137110/renewcells-bankruptcy-was-a-shock-to-circular-fashion-now-the-textile-recycler-is-getting-a-second-chance
Forbes	What We Can Learn From Renewcell's Financial Struggles https://www.forbes.com/sites/brookerobertsislam/2024/02/27/what-we-can-learn-from-renewcells-financial-struggles/
Fashion Dive	Renewcell exec on what led to bankruptcy, what's next https://www.fashiondive.com/news/renewcell-bankruptcy-whats-next/711629/
NEW ZEALAND	
Resources, Conservation and Recycling	Closed-loop wool carpet recycling https://www.sciencedirect.com/science/article/abs/pii/S0921344906002114
ResearchGate	The Biodegradability of Wool Enables Wool-to-Grass-to-Wool, Closed-Loop Recycling https://www.researchgate.net/publication/280004761_The_Biodegradability_of_Wool_Enables_Wool-to-Grass-to-Wool_Closed-Loop_Recycling
EcoTextile News	NZ report suggests way to textile circularity https://www.ecotextile.com/2020120840887/news/materials-production-news/nz-report-suggests-way-to-textile-circularity/
Mindful Fashion	Textile end of use pathways in New Zealand https://tr-mindful21-craft3-prod.s3.amazonaws.com/MFNZ-Textile-end-of-use-pathways-in-NZ.docx-2.pdf?mtime=20240324205432&focal=none
Sustainable Business Network	From waste to worth: How ImpacTex is tackling the textile problem https://sustainable.org.nz/learn/news-insights/from-waste-to-worth-how-impactex-is-tackling-the-textile-problem/
Press release	NZ's Fashion And Textile Industry Fast-track Decarbonisation https://www.scoop.co.nz/stories/BU2203/S00459/nzs-fashion-and-textile-industry-fast-track-decarbonisation.htm

Agenda

#	Topic	Page
1	Wool	5
2	Skins & hides	37
3	Mohair	49
4	Cashmere	59
5	Alpaca	70
6	Industrial Hemp	81
7	Harakeke	91
8	Forestry Waste-to-Fibre	100
9	Food Waste-to-Fibre	115
10	Textile Waste-to-Fibre	122
11	**Domestic textiles & apparel**	**130**

EXECUTIVE SUMMARY: TEXTILE & APPAREL MANUFACTURING

New Zealand's textile and apparel manufacturing sector remains economically meaningful, but it is structurally smaller, more specialised, and less labour-intensive than its historical peak. The long-run story is a shift from a protected, mass-market domestic manufacturing base (employment rising from ~15,000 in 1900 to >45,000 by 1980) to a post-1980 structural contraction driven by trade liberalisation, import competition, and offshoring of labour-intensive production, with total employment now ~7,400 in 2025.

As a result, the estimated/modelled domestic use of New Zealand wool is trending down

Within that smaller base, the industry has "hollowed out" most severely in downstream, labour-intensive segments. Clothing manufacturing employment fell from ~8,700 in 2000 to ~1,650 in 2025, and footwear from ~900 to ~45, effectively eliminating footwear as a scaled manufacturing category and leaving apparel largely as niche production.

In contrast, some sub-sectors have proved more resilient where specialisation, technical capability, or shorter-run contract manufacturing is viable: cut-and-sewn textile products declined but stabilised after 2010 (~2,500 to ~1,950), pointing to survival in industrial sewing, technical textiles, and local responsiveness rather than price-led mass apparel.

Upstream and midstream textile capability has also consolidated materially over the last 25 years, with employment across wool scouring, natural textiles, synthetic fibre textiles, and leather/fur dressing falling from ~5,660 (2000) to ~1,830 (2025). The sector is rationalising rather than facing temporary cycles, driven by mergers and plant consolidation in wool scouring and repeated closures in textiles, while some reinvestment is occurring in selected niches (e.g., yarn plant rebuild/expansion).

Despite the contraction, the industry still has scale in revenue terms and retains relevant manufacturing capability. The simplified industry model estimates 2025 textile, apparel and footwear manufacturing sector revenue of ~NZ$1.85b, comprising ~NZ$1.42b in textiles and ~NZ$430m in apparel and footwear, across ~1,317 enterprises and ~1,353 activity units. While the sector is no longer a mass employer, it remains a sizable manufacturer, reflecting a mix of capital-intensive textiles (including carpet) and higher-value, lower-volume specialised production.

However, the value of New Zealand's textile and apparel have been trending down.

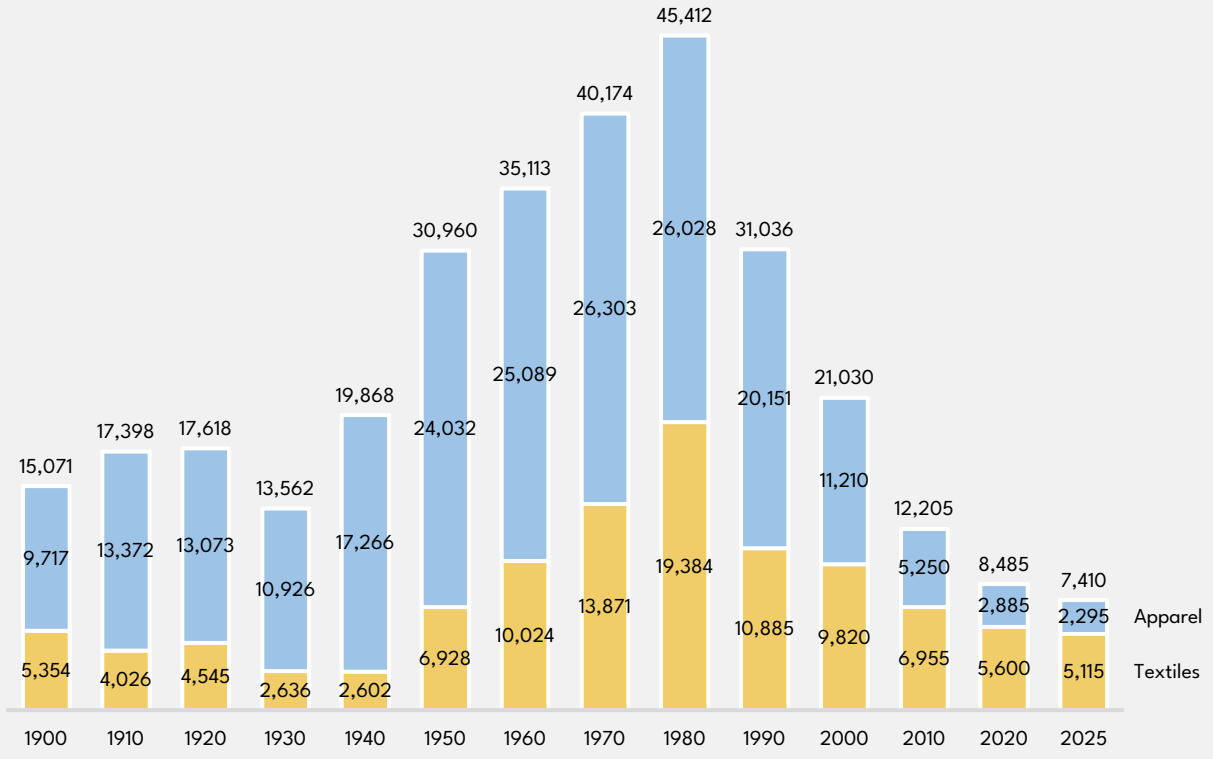
The realistic opportunity for New Zealand is therefore not to "rebuild the 1970s industry," but to strengthen a modern, niche ecosystem that competes on responsiveness, design, technical performance, and verified provenance.

Evidence certainty Data quality/confidence	HIGH

New Zealand **textile and apparel manufacturing** grew through around 1980, then shrank sharply

TOTAL EMPLOYMENT IN THE NEW ZEALAND TEXTILE & APPAREL MANUFACTURING INDUSTRY IN NEW ZEALAND

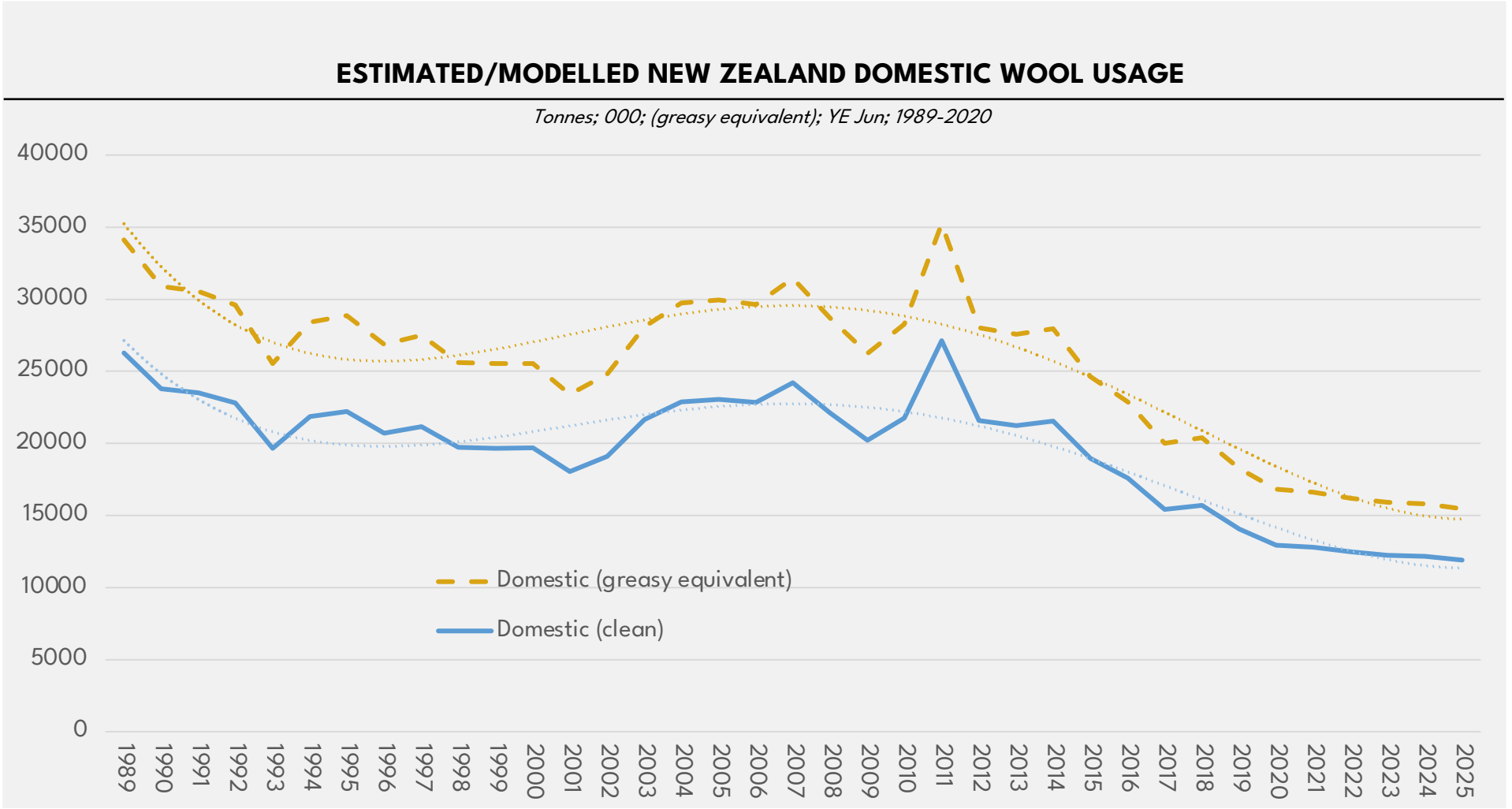
Headcount; 1900-2025



COMMENTS/NOTES

- From 1900 to 1980, employment in New Zealand's textiles and apparel manufacturing sector grew strongly overall, rising from about 15,000 to more than 45,000. This reflects the growth of a protected domestic manufacturing base serving the local market.
- Apparel was the larger employer for most of the period and was especially important in mid-20th-century factory employment. Textiles also expanded, but tended to be somewhat less labour-intensive and more exposed to mechanisation over time.
- The major turning point came after 1980, when sector employment fell sharply and persistently. This was a structural decline rather than a normal business-cycle downturn, with total employment dropping to about 7,400 by 2025.
- The biggest drivers were trade liberalisation, rising import competition, and the global shift of labour-intensive manufacturing to lower-cost countries, especially in Asia. Apparel was hit hardest because clothing assembly is easier to offshore than more specialised textile production.
- The wider story is a shift from large-scale domestic mass manufacturing to a much smaller niche sector. Surviving firms are more likely to compete through specialisation, design, quality, technical capability, and short-run local production rather than low-cost volume manufacturing.

Estimated/modelled domestic use of New Zealand wool is trending down



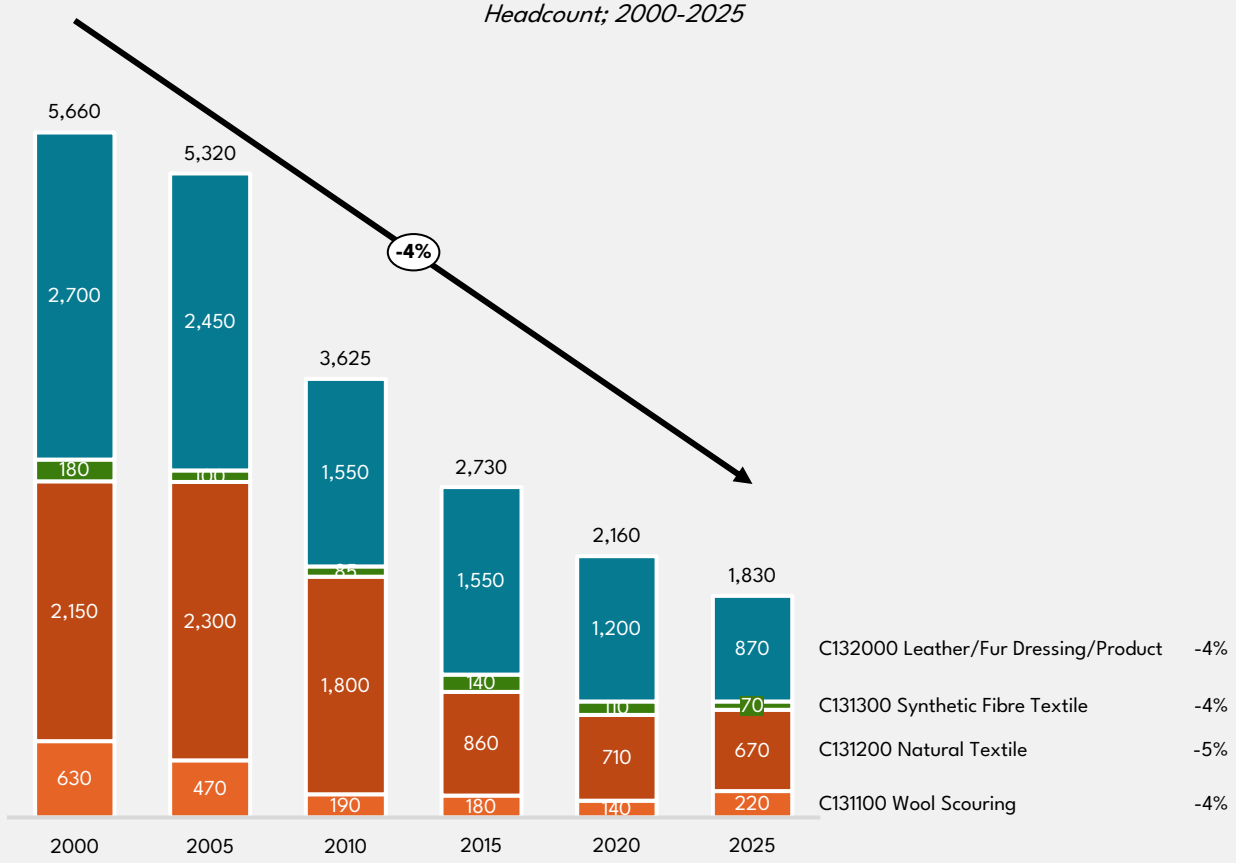
Note: Assumes 77% clean to greasy yield; Source: UN FAOStat; Coriolis classification, modelling and analysis

Evidence certainty Data quality/confidence	HIGH

Breaking out wool scouring and primary textiles shows declining employment over the last 25 years

NEW ZEALAND WOOL SCOURING AND PRIMARY TEXTILES EMPLOYMENT BY ANZSIC

Headcount; 2000-2025



COMMENTS/NOTES

- Across these four industries, employment fell from 5,660 in 2000 to 1,830 in 2025, a decline of about two-thirds. The broad pattern is persistent contraction, with the steepest losses in natural textiles and leather/fur products, which points to long-run rationalisation rather than a short cyclical setback.
- Wool scouring shows classic consolidation: employment fell from 630 in 2000 to 140 in 2020, before a small rebound to 220 in 2025. A key driver was industry merger and plant rationalisation, with Cavalier Wool's acquisition of Wool Services International's scouring assets in 2011, leaving a single domestic scourer and explicitly recognising cost-saving consolidation as the rationale.
- Natural textile manufacturing appears to have been hit by repeated factory closures and shrinking domestic scale. Notable examples include Lane Walker Rudkin closing its Christchurch textiles division in 2008 and shifting activity to Otara, and Godfrey Hirst closing the Canterbury Spinners plant in Bromley in 2011 with ~195 jobs lost.
- Leather and fur dressing/products also contracted heavily, from 2,700 workers in 2000 to 870 in 2025, reflecting both closures and weaker export economics.
- The long-term direction is down, but some firms are reinvesting in niche domestic capability. Bremworth is rebuilding and expanding its Napier yarn plant after Cyclone Gabrielle, while Godfrey Hirst's proposed acquisition of Bremworth shows that consolidation pressure remains a live issue

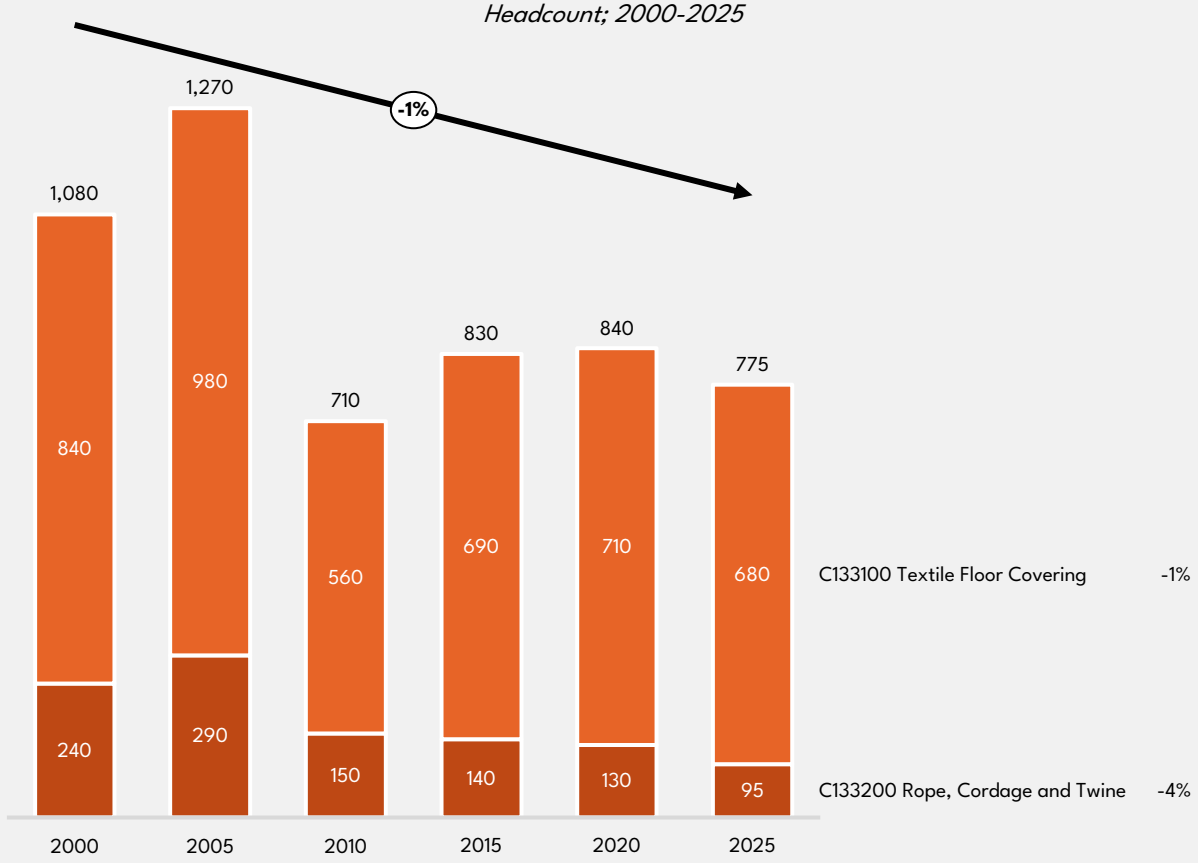
Source: StatisticsNZ (BDS); Coriolis classification and analysis

Evidence certainty Data quality/confidence	HIGH

Carpet and ‘cordage’ has seen declining employment over the last 25 years

NEW ZEALAND CARPET AND CORDAGE EMPLOYMENT BY ANZSIC

Headcount; 2000-2025



COMMENTS/NOTES

- Textile floor coverings were relatively resilient compared with other textile sub-sectors, but still materially smaller than in 2000. Employment fell from 840 in 2000 to 680 in 2025, with a sharp drop by 2010 and then a broadly flat trend thereafter, suggesting a smaller but surviving domestic carpet base rather than outright collapse
- The carpet industry looks more like consolidation than disappearance. StatsNZ business demography data points to fewer large plants and a shift toward leaner, more specialised operations.
- Major shocks came from plant damage and restructuring rather than just import pressure alone. Godfrey Hirst’s Canterbury Spinners operation in Bromley closed after the 2011 Christchurch earthquake, with ~195 jobs lost, and in 2013 Godfrey Hirst also moved to cut jobs at Dannevirke as it struggled against overseas competition and the loss of Christchurch capacity.
- More recently, carpet manufacturing has remained active but under heavy ownership and scale pressure. Bremworth has been rebuilding and expanding its Napier yarn plant after Cyclone Gabrielle, reopening capacity and adding jobs, but in 2025 Mohawk-owned Godfrey Hirst moved to acquire Bremworth, a deal the Commerce Commission flagged for possible competition concerns because it would concentrate much of New Zealand carpet manufacturing under one owner.
- Rope, cordage and twine is a much smaller and steadily declining niche industry. Employment fell from 240 in 2000 to 95 in 2025. Donaghys remains the standout established domestic manufacturer

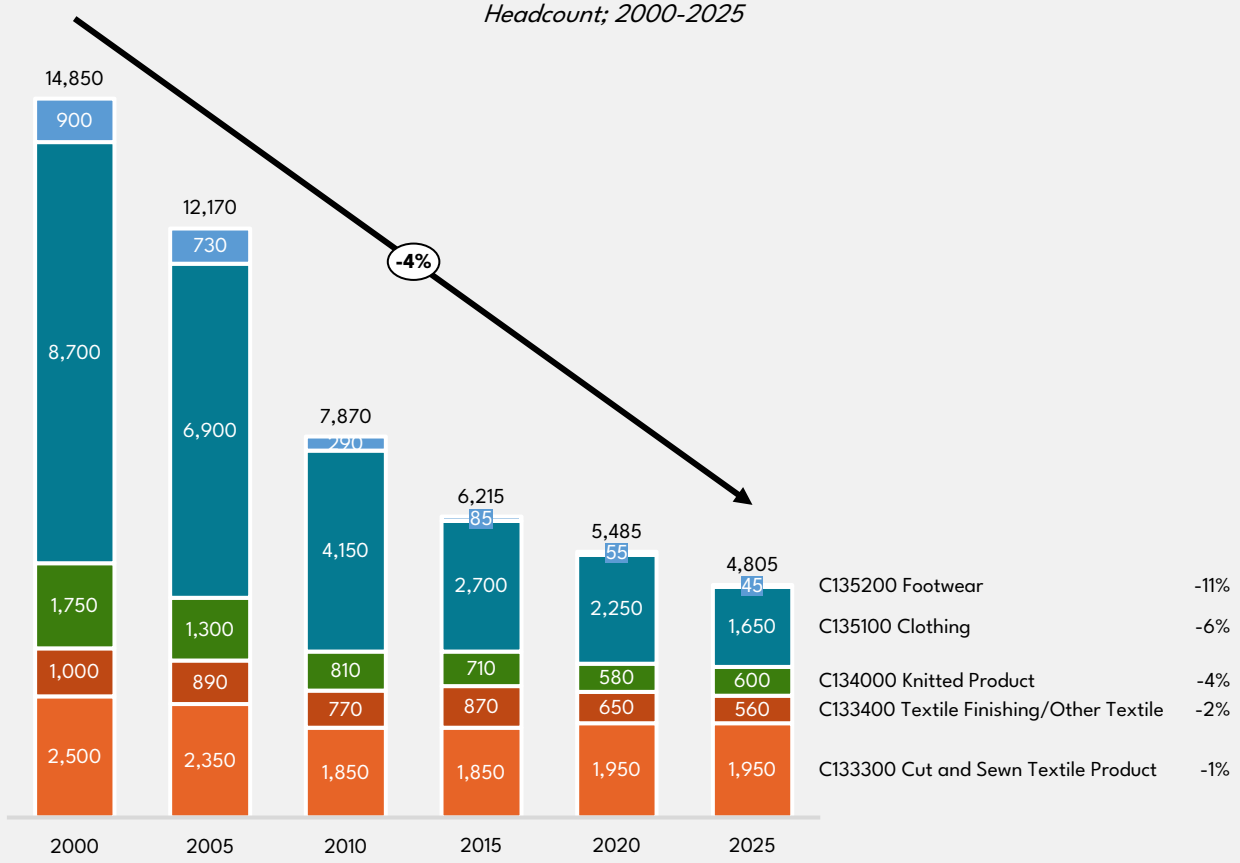
Source: StatisticsNZ (BDS); Coriolis classification and analysis

Evidence certainty Data quality/confidence	HIGH

Downstream textile and apparel manufacturing shrank sharply, with clothing and footwear hit hardest; a smaller niche sector survives

NEW ZEALAND FINISHED TEXTILE, FOOTWEAR AND APPAREL MANUFACTURING EMPLOYMENT BY ANZSIC

Headcount; 2000-2025



COMMENTS/NOTES

- This part of the chain shows a broad collapse in labour-intensive downstream manufacturing, especially clothing and footwear. Clothing employment fell from 8,700 in 2000 to 1,650 in 2025, while footwear dropped from 900 to just 45, making these by far the hardest-hit segments.
- Cut-and-sewn textile products were much more resilient than clothing, but still much smaller than in 2000. Employment fell from 2,500 to 1,950, then largely stabilised after 2010, which suggests survival in specialised, shorter-run, contract and technical sewing work rather than mass-market apparel production.
- Textile finishing/other textiles and knitted products both show long-run contraction, consistent with shrinking local supply chains around apparel. Textile finishing/other textiles declined from 1,000 to 560, and knitted products from 1,750 to 600, which fits repeated reports of fabric, knitting, and related intermediate capabilities being hollowed out as garment production moved offshore.
- The main drivers were import competition, offshoring, and the loss of scale in domestic manufacturing ecosystems. Concrete examples include Lane Walker Rudkin closing its Christchurch textiles division in 2008, and Charles Parsons shutting its fashion textiles arm in 2018, both reflecting how hard it had become to sustain local upstream and downstream capacity at New Zealand scale.
- There are still survivors, but they are niche and much smaller than the old industry base. Cactus Outdoor's acquisition of Albion left it operating 'one of New Zealand's largest remaining clothing factories (RNZ), at around 100 staff, while footwear appears to have narrowed to a handful of specialist makers such as McKinlays and newer design-led players like Orba rather than a broad manufacturing sector

Source: StatisticsNZ (BDS); Coriolis classification and analysis

The New Zealand **textile and apparel manufacturing** industry employed 7,410 people and created revenue of NZ$1.85b in 2025

SIMPLIFIED MODEL OF THE NEW ZEALAND TEXTILE & APPAREL MANUFACTURING INDUSTRY

As of 2025

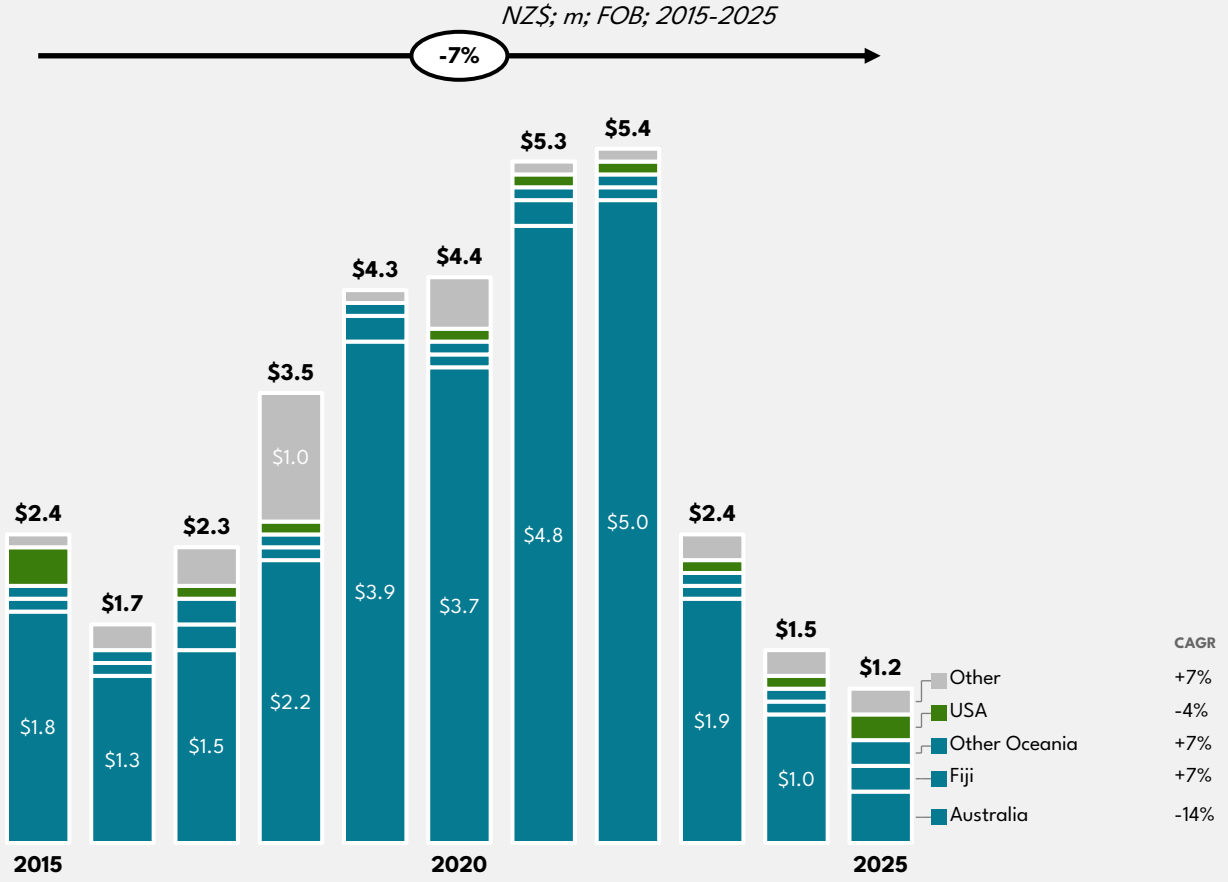
	# of enterprises # of activity units	# of employees	Estimated sector revenue (2025)
Textiles (C131100-C134000)	804 792	5,115	$1,420m ($1,400-1,500m)
Apparel and footwear (C135100-C135200)	513 561	2,295	$430m ($400-450m)
TOTAL	Enterprises 1,317 Activity units 1,353	7,410	$1,850, ($1,800-1,950m)

Source: StatisticsNZ (BDS); Coriolis classification, estimates, modelling and analysis

NZ yarn exports collapsed from $5.4M peak in 2022 to just $1.1M in 2025, driven by near-total loss of Australian market

EXPORT VALUE BY KEY MARKET AND REGION: YARNS

NZ$; m; FOB; 2015-2025



COMMENTS/NOTES

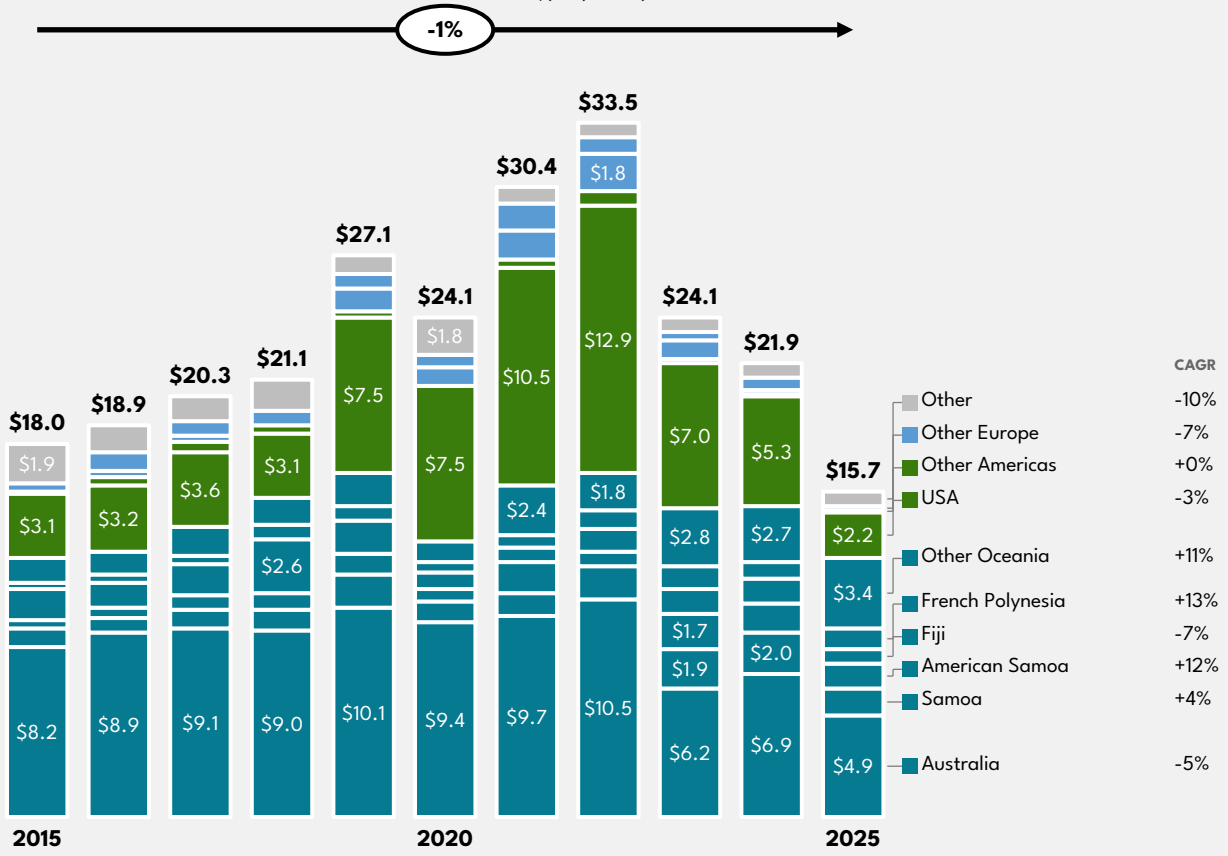
- Total yarn exports peaked at $5.4M in 2022 but have fallen 80% to $1.1M by 2025, a dramatic reversal signalling serious structural or competitive issues in this segment.
- Australia dominated exports throughout, reaching $5.0M in 2022, but has collapsed to just $0.4M in 2025 - effectively disappearing as a market and explaining almost all of the total decline.
- The 2019-2022 growth period saw exports more than double from $4.3M to $5.4M, suggesting NZ yarns were competitive in Australia before some fundamental shift occurred post-2022.
- Fiji and Other Oceania have remained small but stable at around $0.2M each in 2025, providing a minimal but consistent base when Australian volumes have evaporated.
- USA and Other markets remain negligible at $0.2M each in 2025, highlighting that NZ has failed to diversify yarn export destinations beyond Australia, leaving the segment highly exposed.

Source: StatisticsNZ (International Trade); Coriolis classification and analysis

Synthetic yarn & staple fibre exports surged to $33.6M in 2022 but have since collapsed to a decade low of $15.9M

EXPORT VALUE BY KEY MARKET AND REGION: SYNTHETIC YARNS & STAPLE FIBRES

NZ$; m; FOB; 2015-2025



COMMENTS/NOTES

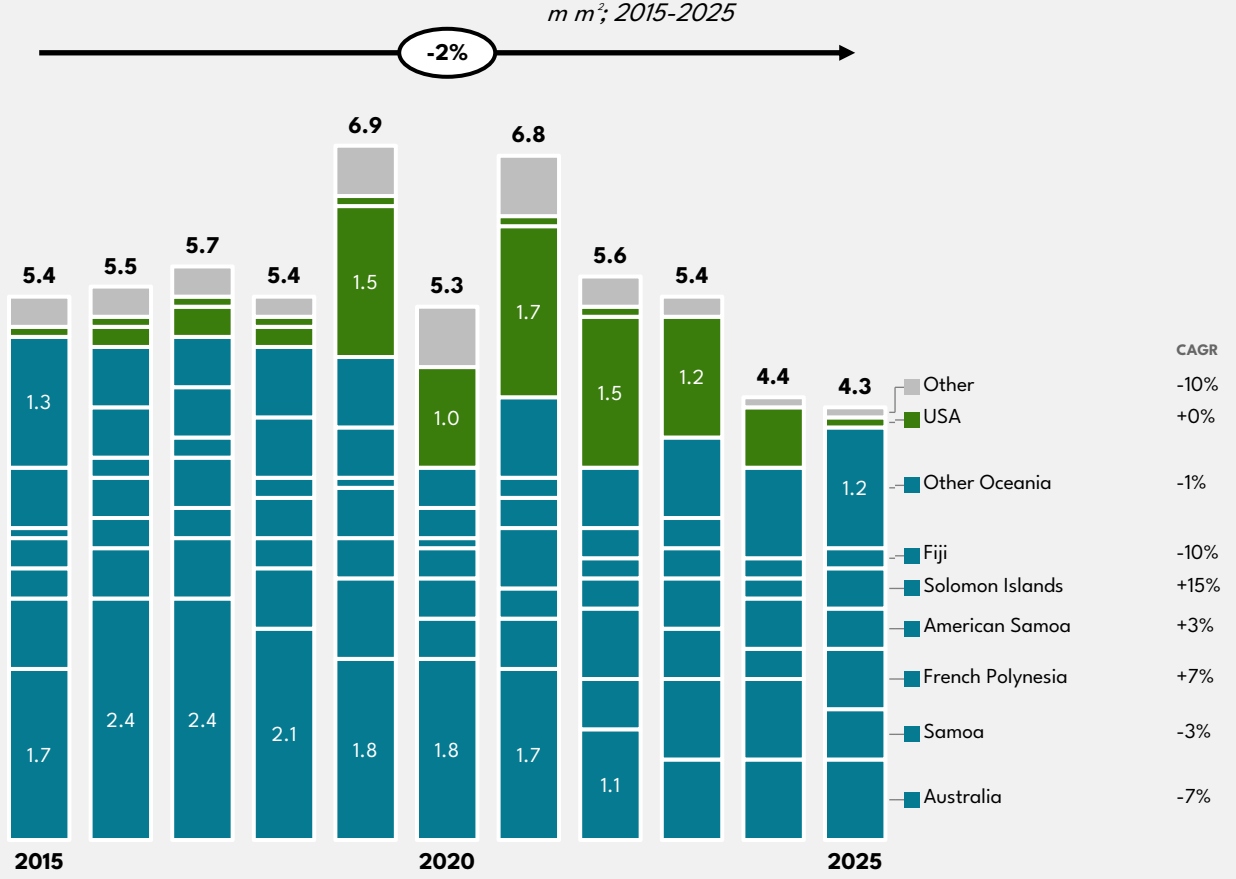
- Total exports peaked at $33.6M in 2022 then fell sharply to $15.9M in 2025, the lowest in the 11-year period, signalling serious structural demand weakness.
- Australia, the largest market, dropped from a $10.5M peak in 2022 to just $4.9M in 2025, cutting its share of exports and removing the segment's anchor market.
- The USA surged from $3.1M in 2015 to $12.9M in 2022 but crashed to $2.2M in 2025, suggesting a temporary demand spike rather than lasting market development.
- Pacific markets including Samoa, American Samoa and French Polynesia have shown relative resilience, providing a stable but small combined base of around $3.5M.
- Other Oceania is the one bright spot, growing from $1.2M in 2015 to $3.4M in 2025, partially offsetting losses elsewhere and worth further development focus.

Source: StatisticsNZ (International Trade); Coriolis classification and analysis

NZ woven fabric exports have halved since 2019 peak, with Australia's collapse driving the decline

EXPORT VOLUME BY KEY MARKET AND REGION (m m²): WOVEN FABRICS

m m²; 2015-2025



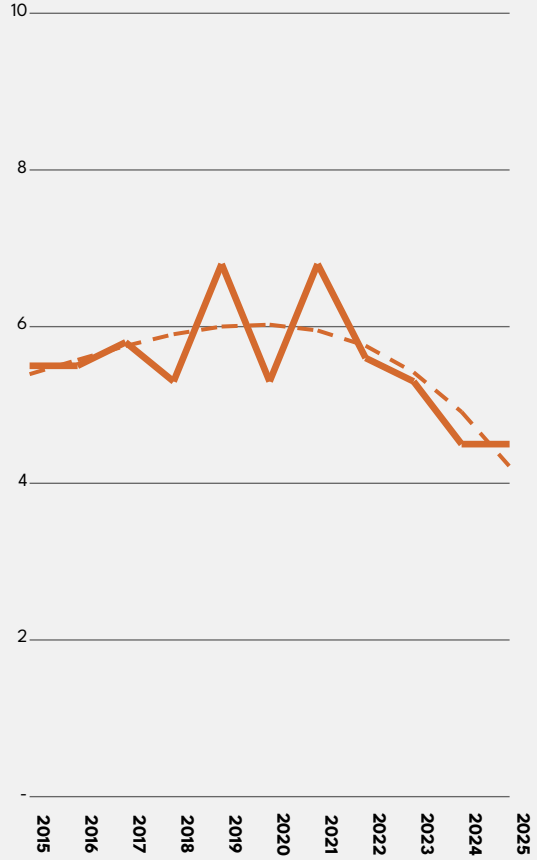
COMMENTS/NOTES

Source: StatisticsNZ (International Trade); Coriolis classification and analysis

Volume, price, and value trends for woven fabrics exports

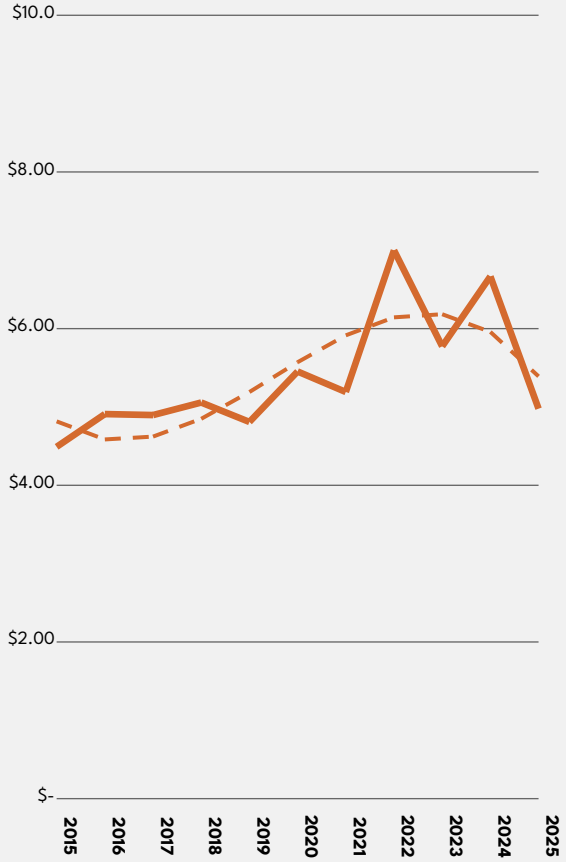
NZ EXPORT VOLUME

m m²; 2015-2025



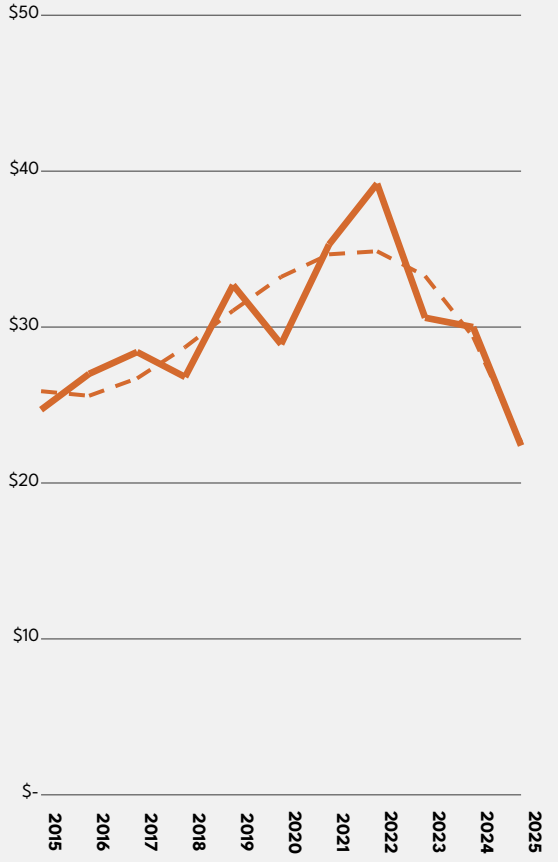
NZ AVERAGE EXPORT PRICE

NZ$/m²; 2015-2025



NZ EXPORT VALUE

NZ$; m; 2015-2025

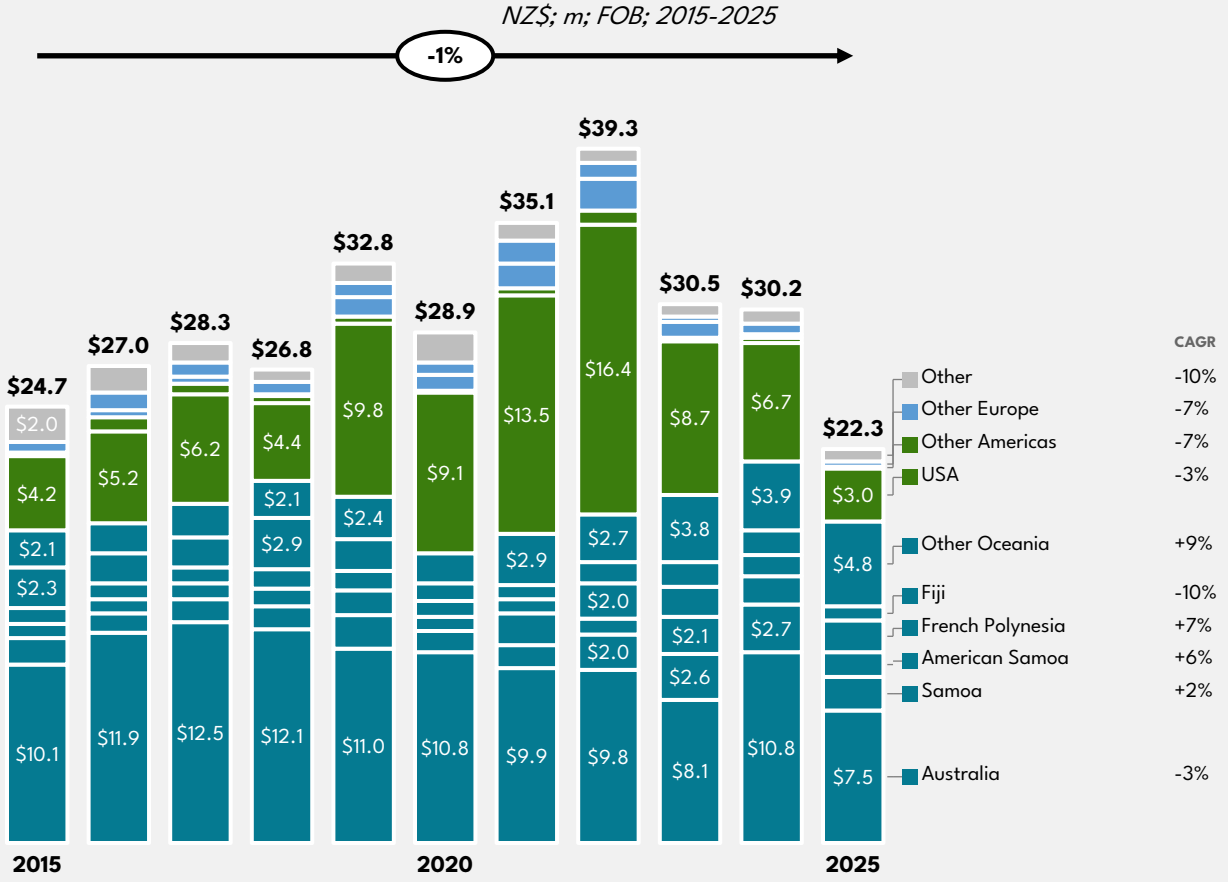


Source: StatisticsNZ (International Trade); Coriolis classification and analysis

Woven fabric exports peaked at $39M in 2022 but have collapsed to $22M in 2025, the lowest in a decade

EXPORT VALUE BY KEY MARKET AND REGION: WOVEN FABRICS

NZ$; m; FOB; 2015-2025



COMMENTS/NOTES

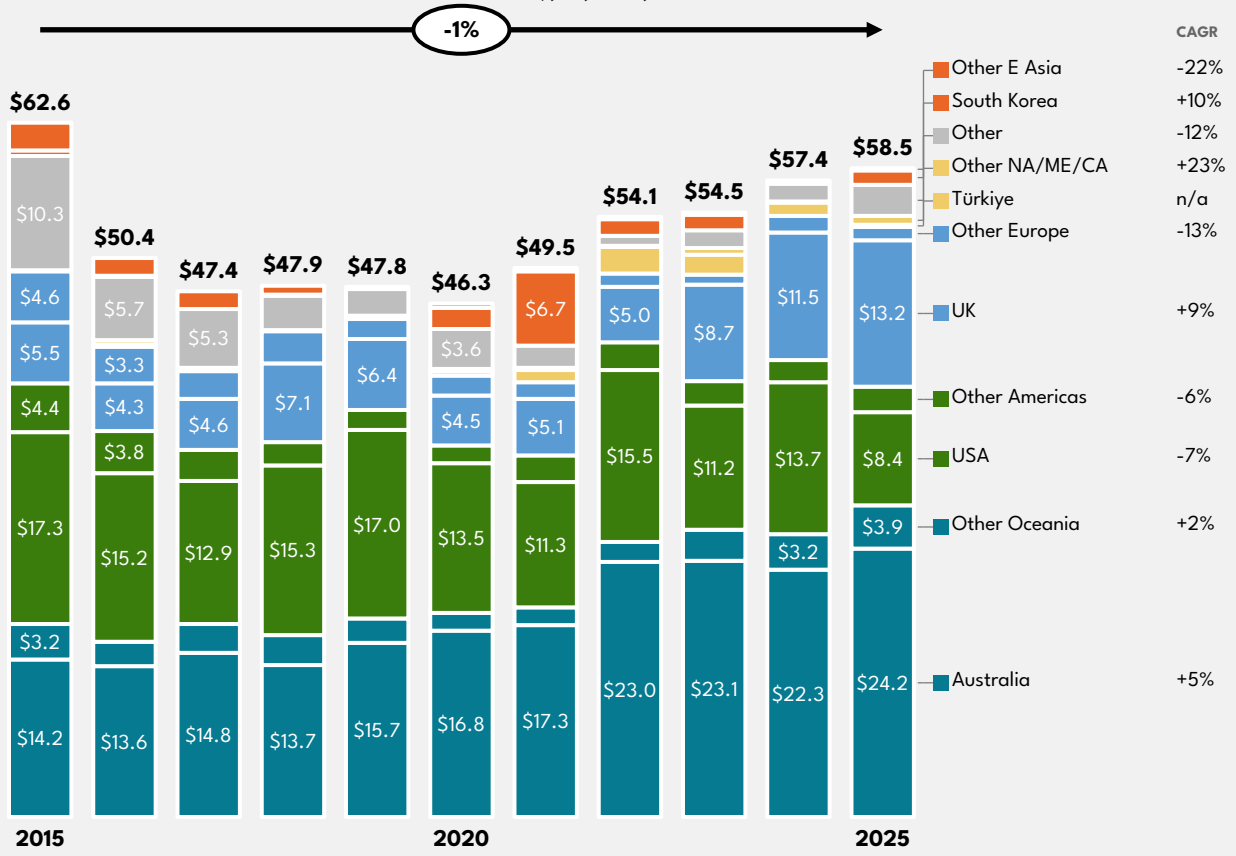
- Total exports hit a record $39.2M in 2022 but fell sharply to $22.4M in 2025, a 43% decline in three years, signalling serious structural weakness in the sector.
- USA was the largest growth driver, surging from $4.2M (2015) to $16.4M (2022), but has since crashed to $3.0M in 2025, nearly eliminating a key market.
- Australia remains the largest single market but has also declined, falling from a $12.5M peak in 2017 to just $7.5M in 2025, reducing its share of a shrinking total.
- Pacific Island markets (Samoa, American Samoa, French Polynesia, Fiji) are small but relatively stable, collectively holding around $6M, offering modest resilience.
- Other Oceania is a rare bright spot, growing from $2.1M in 2015 to $4.8M in 2025, suggesting untapped regional opportunities worth pursuing as traditional markets weaken.

Source: StatisticsNZ (International Trade); Coriolis classification and analysis

Technical and knitted fabric exports recovering to record highs, led by Australia and UK offsetting US decline

EXPORT VALUE BY KEY MARKET AND REGION: TECHNICAL & KNITTED FABRICS (CHAPTERS 56/59/60)

NZ$; m; FOB; 2015-2025



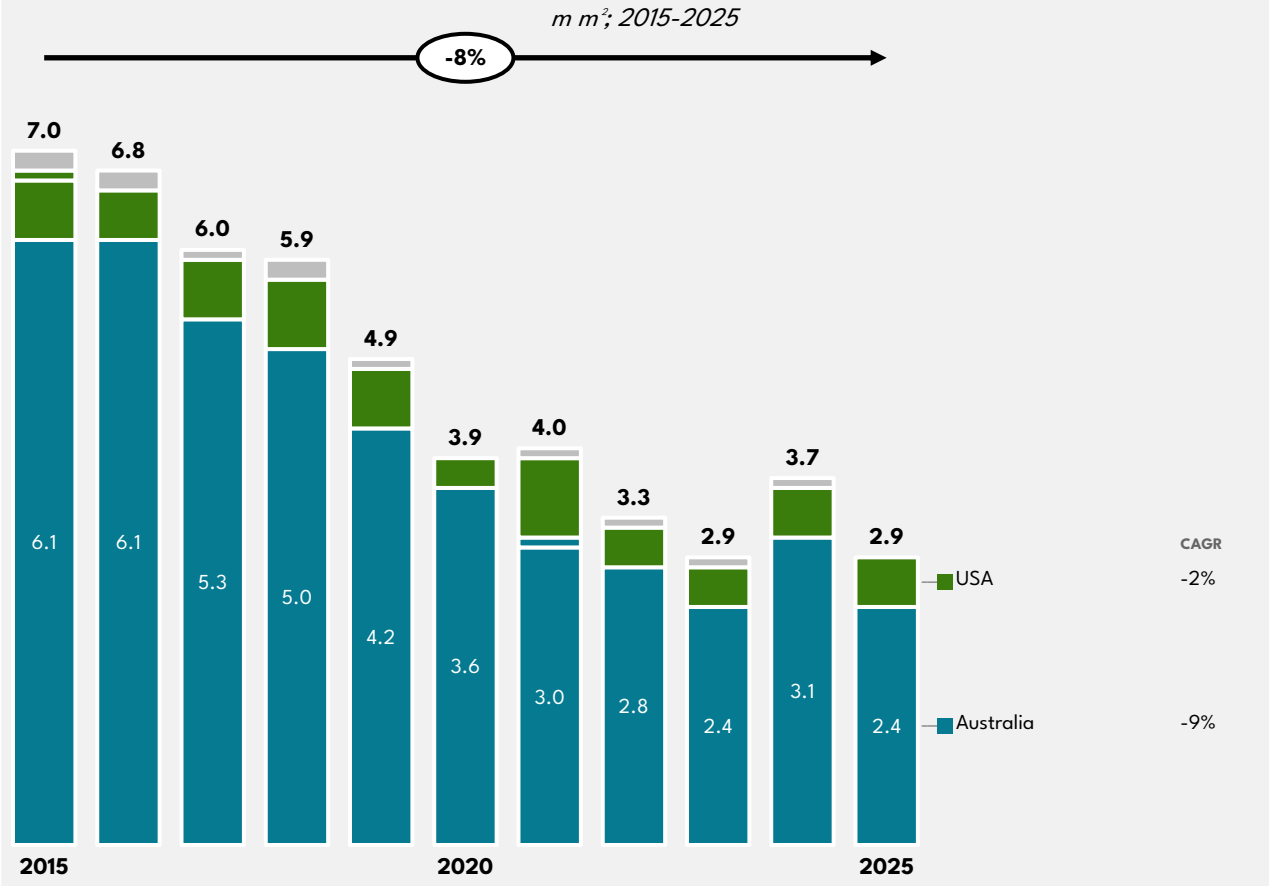
COMMENTS/NOTES

- Total exports grew to NZ$58.4M in 2025, recovering from a 2020 low of NZ$46.2M, with the segment now at its highest level in the 11-year series.
- Australia is the dominant and growing market, rising from NZ$14.2M in 2015 to NZ$24.2M in 2025, now representing 41% of all exports.
- UK has emerged as a major growth market, surging from NZ$4.3M in 2016 to NZ$13.2M in 2025, now the second-largest destination.
- USA has declined sharply from NZ$17.3M in 2015 to NZ$8.4M in 2025, falling from the largest to third-largest market and representing a significant structural shift.
- All other markets remain small and flat, with South Korea showing volatility and no sustained growth, highlighting reliance on just two markets.

Source: StatisticsNZ (International Trade); Coriolis classification and analysis

Processed textiles and carpets exports have fallen sharply from 7.1 m^2 m in 2015 to 3.0 in 2025

EXPORT VOLUME BY KEY MARKET AND REGION (m m^2): PROCESSED TEXTILES & CARPETS



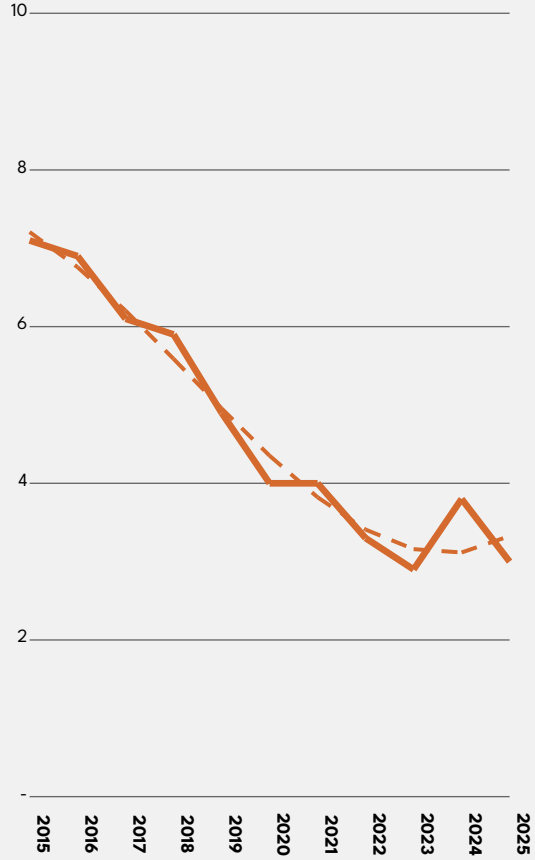
COMMENTS/NOTES

Source: StatisticsNZ (International Trade); Coriolis classification and analysis

Volume, price, and value trends for processed textiles & carpets exports

NZ EXPORT VOLUME

m m²; 2015-2025



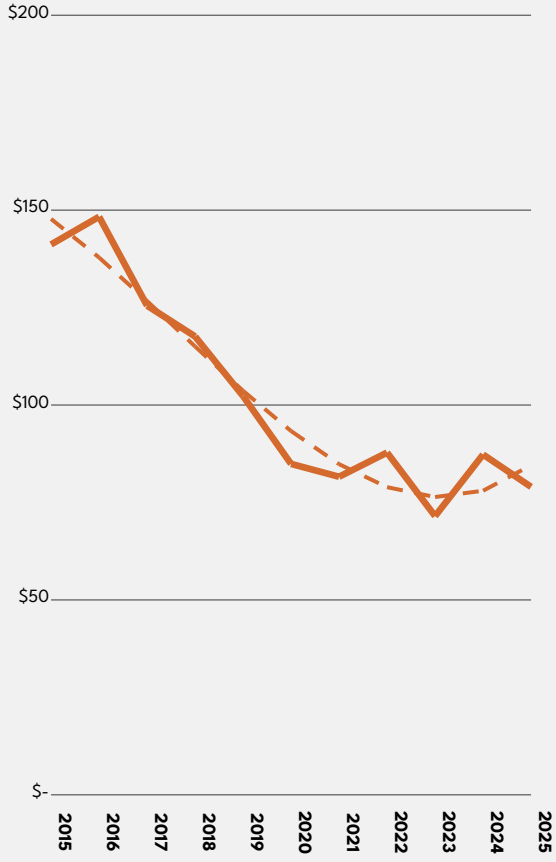
NZ AVERAGE EXPORT PRICE

NZ$/m²; 2015-2025



NZ EXPORT VALUE

NZ$; m; 2015-2025

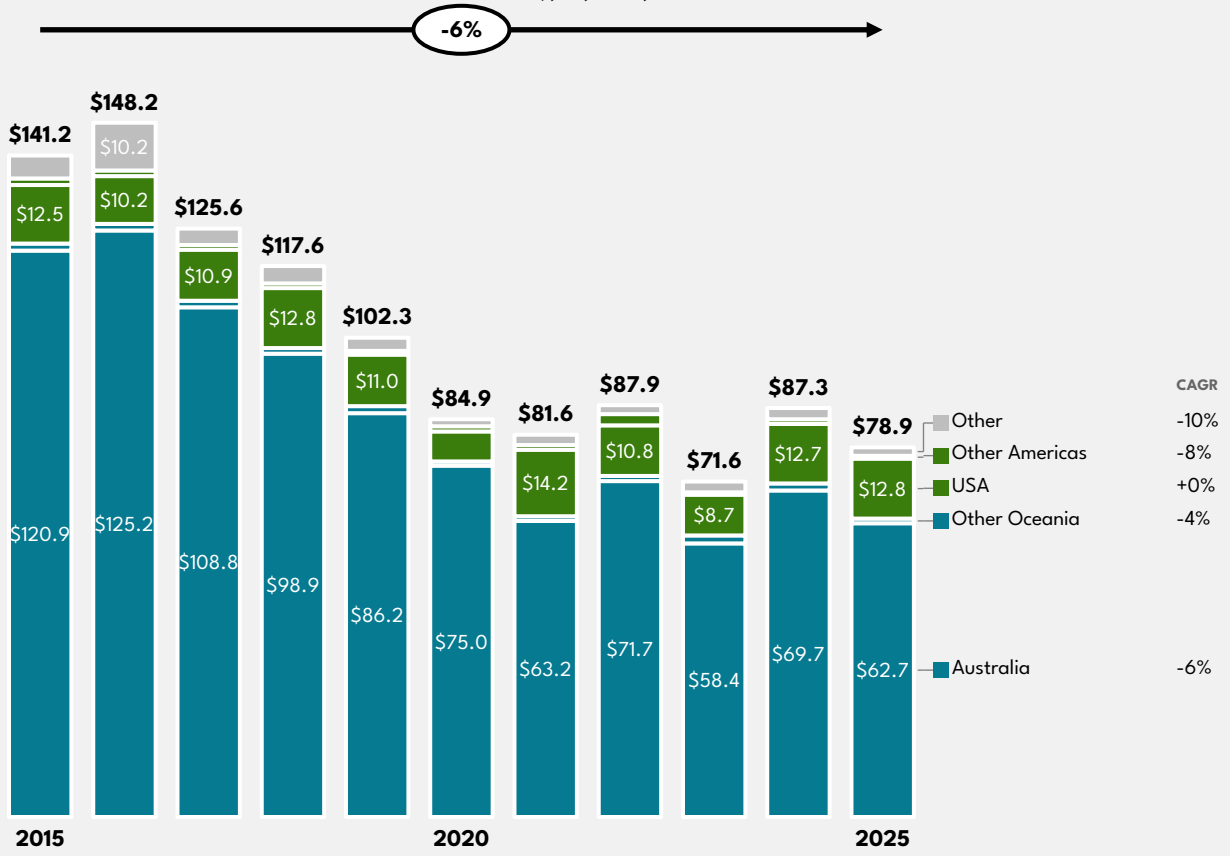


Source: StatisticsNZ (International Trade); Coriolis classification and analysis

NZ processed textiles & carpet exports have halved since 2015, with Australia driving the long-run decline

EXPORT VALUE BY KEY MARKET AND REGION: PROCESSED TEXTILES & CARPETS

NZ$; m; FOB; 2015-2025



COMMENTS/NOTES

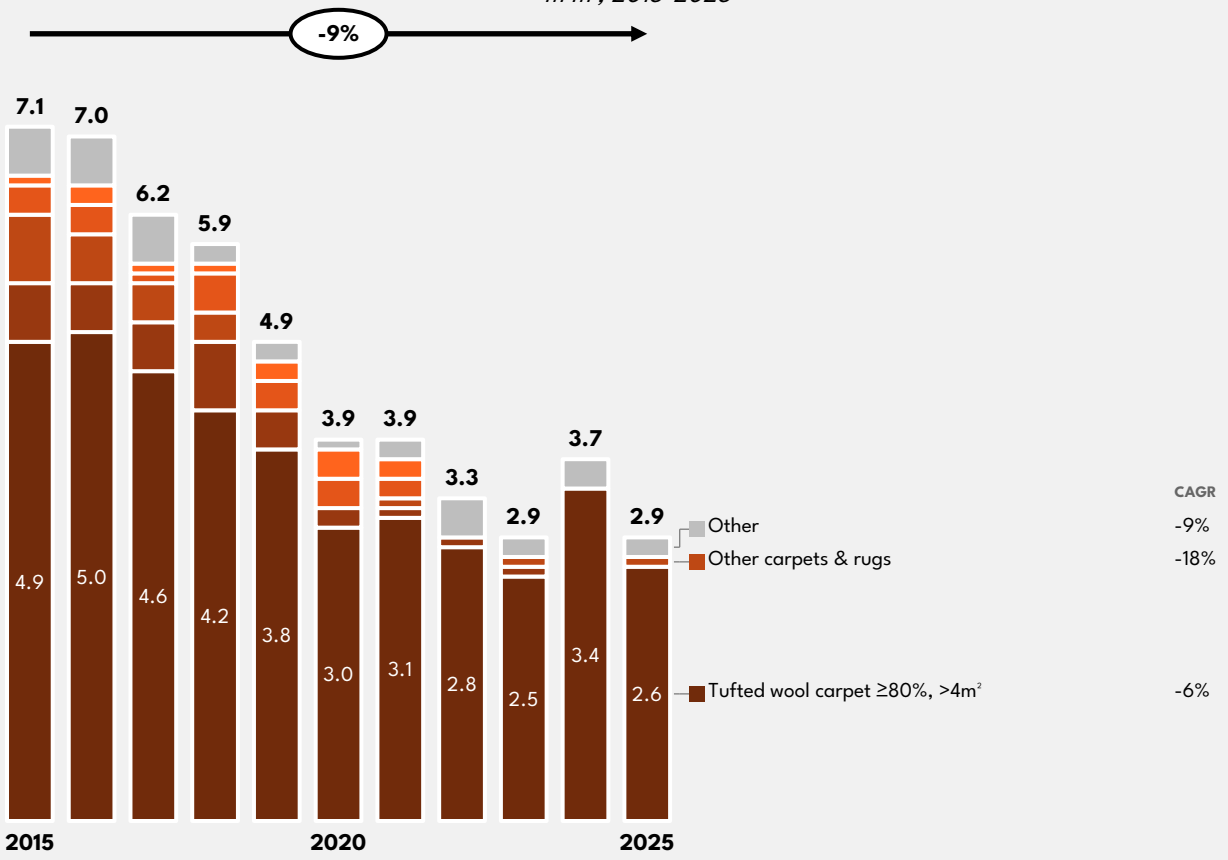
- Total exports fell from $141M in 2015 to $79M in 2025, a 44% decline, signalling serious structural erosion in this sector.
- Australia dominates but is shrinking fast, dropping from $121M to $63M over the decade, losing half its value and pulling the total down with it.
- The USA is the brightest spot, holding relatively steady at $13M in 2025 versus $13M in 2015, showing resilience where Australia has not.
- A brief recovery in 2022 ($88M total) and 2024 ($87M) suggests occasional demand spikes but no sustained turnaround.
- Other Americas and Other Oceania remain marginal at under $2M each, offering little diversification buffer against Australia's structural decline.

Source: StatisticsNZ (International Trade); Coriolis classification and analysis

NZ processed textile and carpet exports have halved since 2015, with wool carpet dominance masking near-total category collapse

TOP 5 EXPORT HS CODES (m m²): PROCESSED TEXTILES & CARPETS

m m²; 2015-2025



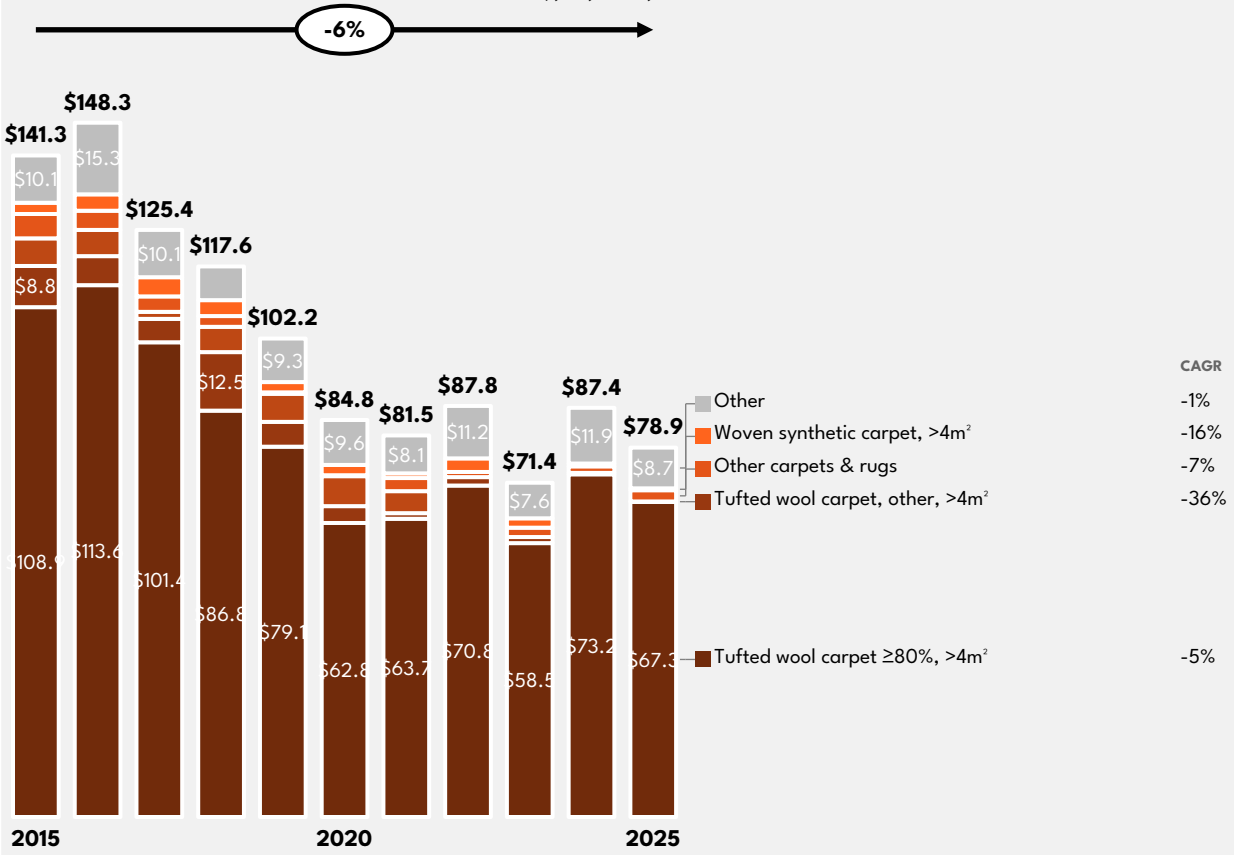
COMMENTS/NOTES

Source: StatisticsNZ (International Trade); Coriolis classification and analysis

NZ processed textile and carpet exports have fallen 44% since 2015, driven by declining premium wool carpet volumes

TOP 5 EXPORT HS CODES (NZ$m, FOB): PROCESSED TEXTILES & CARPETS

NZ$; m; FOB; 2015-2025



COMMENTS/NOTES

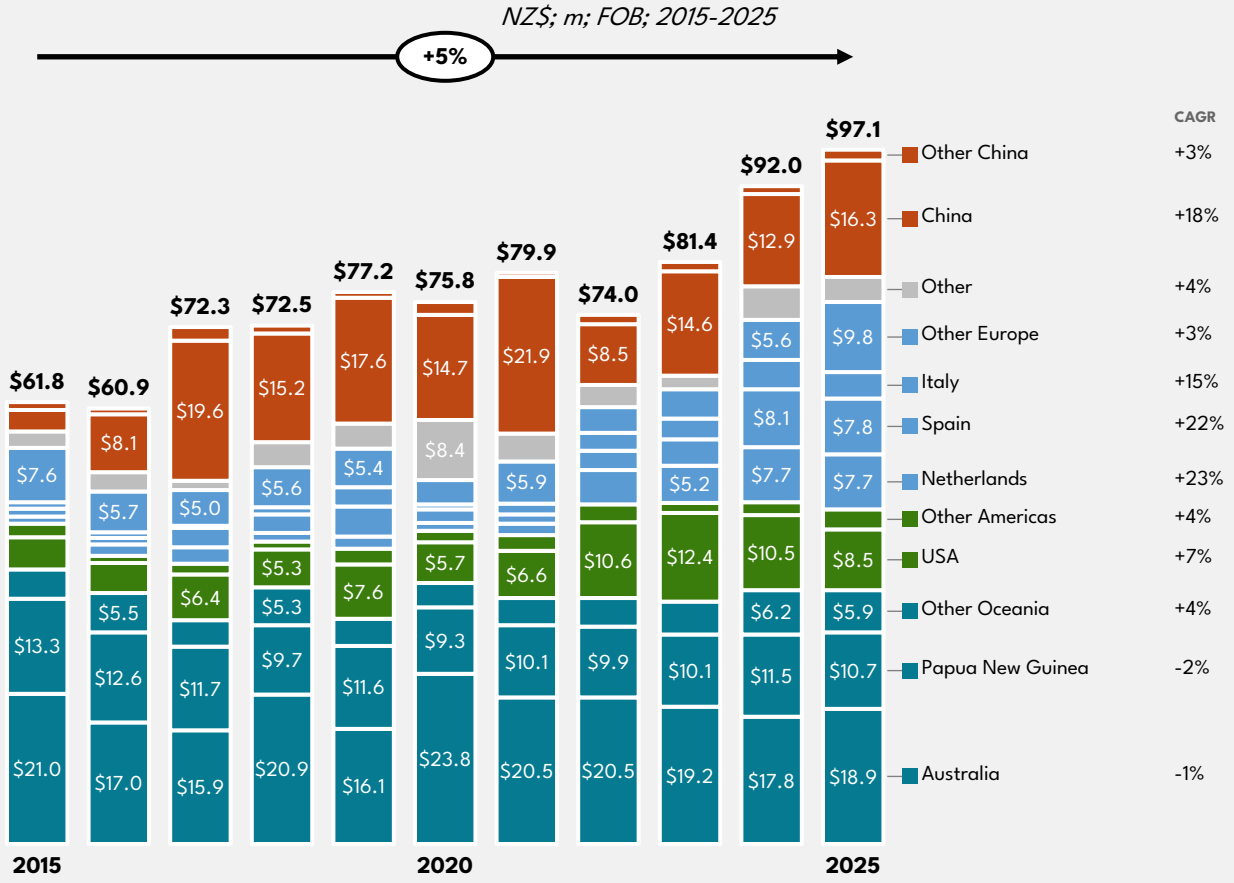
- Total exports collapsed from $141m in 2015 to $79m in 2025, a $62m decline, with no sustained recovery despite brief rebounds in 2016 and 2022.
- Tufted wool carpet (≥80% wool, >4m²) dominates the segment at 85% of 2025 exports ($67m) but has fallen 38% from its $109m peak in 2015.
- Secondary wool carpet lines have virtually disappeared, dropping from $8.8m in 2015 to just $0.1m in 2025, signalling loss of product range competitiveness.
- Tufted synthetic carpet exports ceased entirely after 2021, removing a $6m category and narrowing NZ's export offering further.
- The "Other" category remains volatile ($8-15m range), suggesting fragmented minor product lines unable to offset structural decline in core wool carpets.

Source: StatisticsNZ (International Trade); Coriolis classification and analysis

Made-up textile article exports surged 57% from $62M in 2015 to $97M in 2025, led by European growth

EXPORT VALUE BY KEY MARKET AND REGION: MADE-UP TEXTILE ARTICLES (CHAPTER 63)

NZ$; m; FOB; 2015-2025



COMMENTS/NOTES

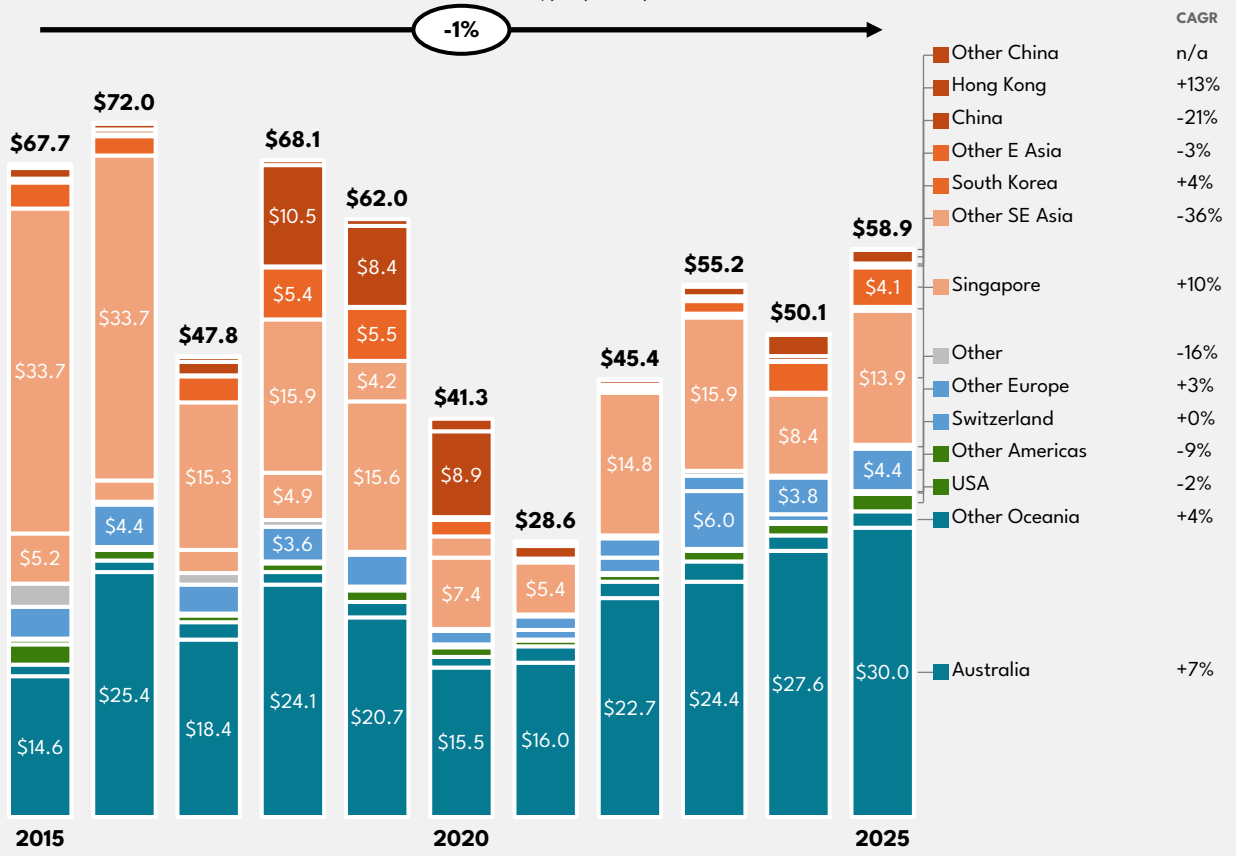
- Total exports grew from $62M (2015) to $97M (2025), with strong momentum in the last two years reaching $92M and $97M, signalling rising global demand.
- Australia remains the largest market at $19M (2025) but has softened from a $24M peak in 2020, suggesting maturation and limited near-term upside.
- Europe is the standout growth story: Netherlands rose from $1M to $7.7M, Spain from $1.1M to $7.8M, and Italy doubled, collectively now rivalling Australia.
- China is volatile but significant, swinging from $3M (2015) to $22M (2021) and settling at $16M (2025), requiring careful monitoring given unpredictable demand patterns.
- USA grew strongly from $4.5M to a $12M peak in 2023 before easing to $8.5M, indicating opportunity but also sensitivity to market conditions.

Source: StatisticsNZ (International Trade); Coriolis classification and analysis

NZ leather & fur goods exports recovering to $59M in 2025, led by Australia and Singapore after a sharp COVID dip

EXPORT VALUE BY KEY MARKET AND REGION: LEATHER & FUR GOODS

NZ$; m; FOB; 2015-2025



COMMENTS/NOTES

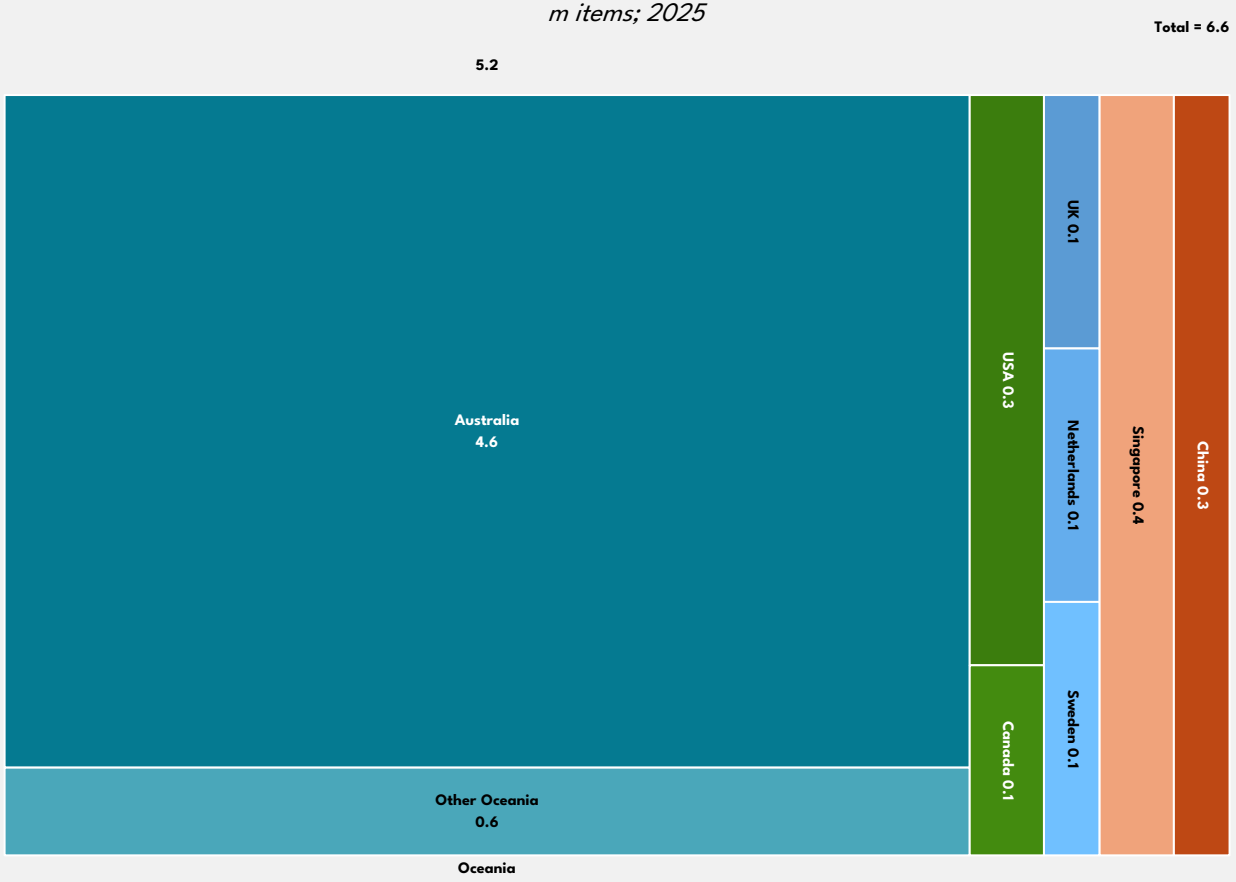
- Australia dominates exports at $30M in 2025, nearly double the 2020 low of $16M, confirming it as the anchor market for NZ leather and fur goods.
- Singapore is volatile but significant, swinging between $2M and $16M; its $14M in 2025 makes it the second-largest market despite unpredictable demand.
- Total exports collapsed to $29M in 2021, the segment's lowest point, but have since nearly doubled to $59M in 2025, signalling a strong post-COVID recovery.
- Other SE Asia has effectively exited as a market, falling from $34M in 2015-16 to near zero, a structural shift that has permanently reshaped the export mix.
- Switzerland spiked to $6M in 2023 then collapsed to $0.1M in 2025, suggesting a one-off transaction rather than a genuine market opportunity.

Source: StatisticsNZ (International Trade); Coriolis classification and analysis

Australia dominates New Zealand apparel exports, accounting for the vast majority of overseas sales

MARIMEKKO CHART OF EXPORT DESTINATIONS BY REGION AND COUNTRY: APPAREL

m items; 2025



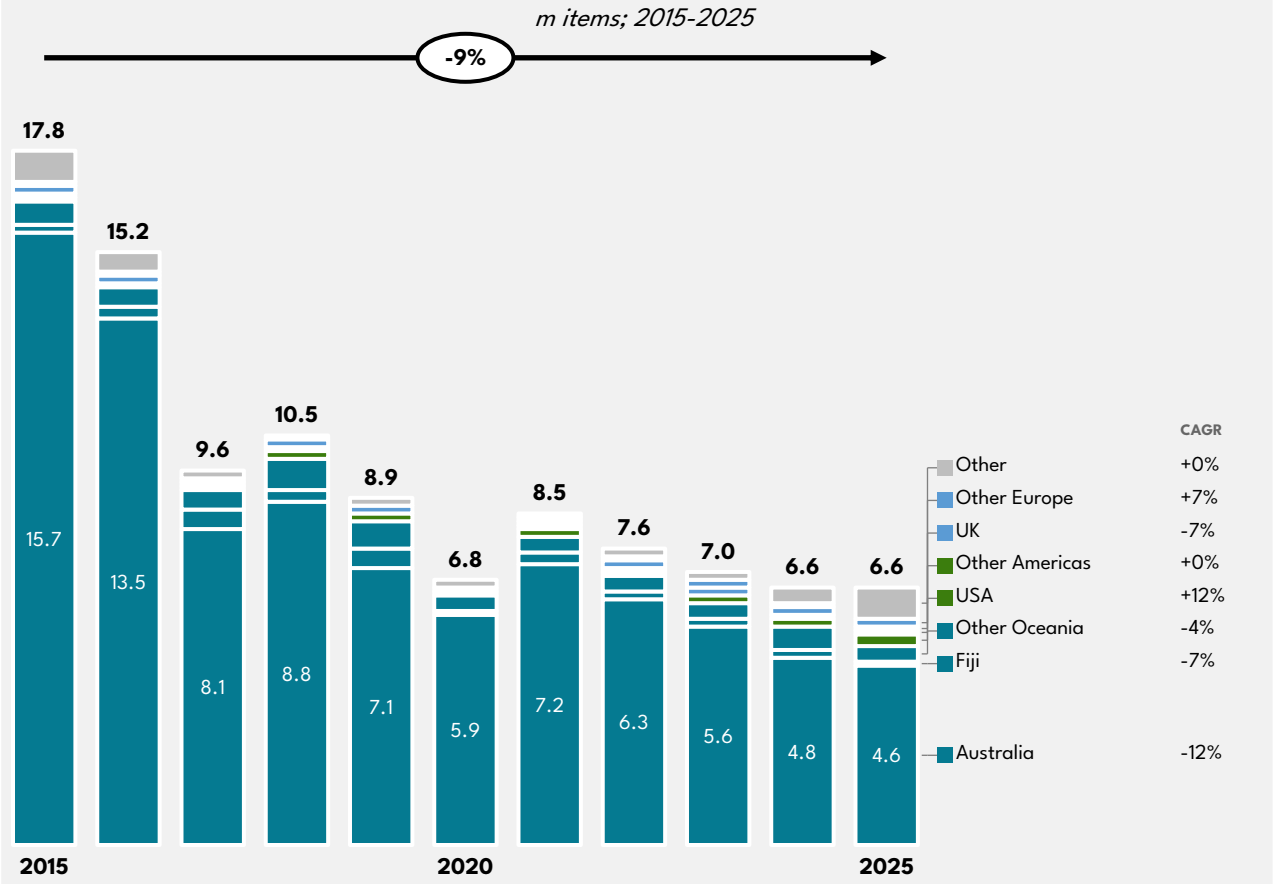
COMMENTS/NOTES

- Australia is by far the largest market for NZ apparel exports at 4.6 m units, dwarfing all other destinations combined and reflecting deep trans-Tasman retail and trade ties.
- Other Oceania contributes 0.6, making the broader Oceania region overwhelmingly dominant and signalling heavy geographic concentration risk for NZ apparel exporters.
- Singapore (0.4) is the standout Asian market, outperforming much larger economies like Japan, China mainland, and South Korea, suggesting niche premium positioning works there.
- China, USA and Canada each register only 0.3 or 0.1, indicating NZ apparel has very limited penetration in the world's largest apparel consuming markets.
- Europe, the Middle East, Africa and the Indian Subcontinent are all effectively zero, highlighting vast untapped potential but also the scale of the market development challenge ahead.

Source: StatisticsNZ (International Trade); Coriolis classification and analysis

NZ apparel exports have collapsed 63% since 2015, falling from 17.8 m items to 6.6 m, with Australia driving most of the decline

EXPORT VOLUME BY KEY MARKET AND REGION (m items): APPAREL



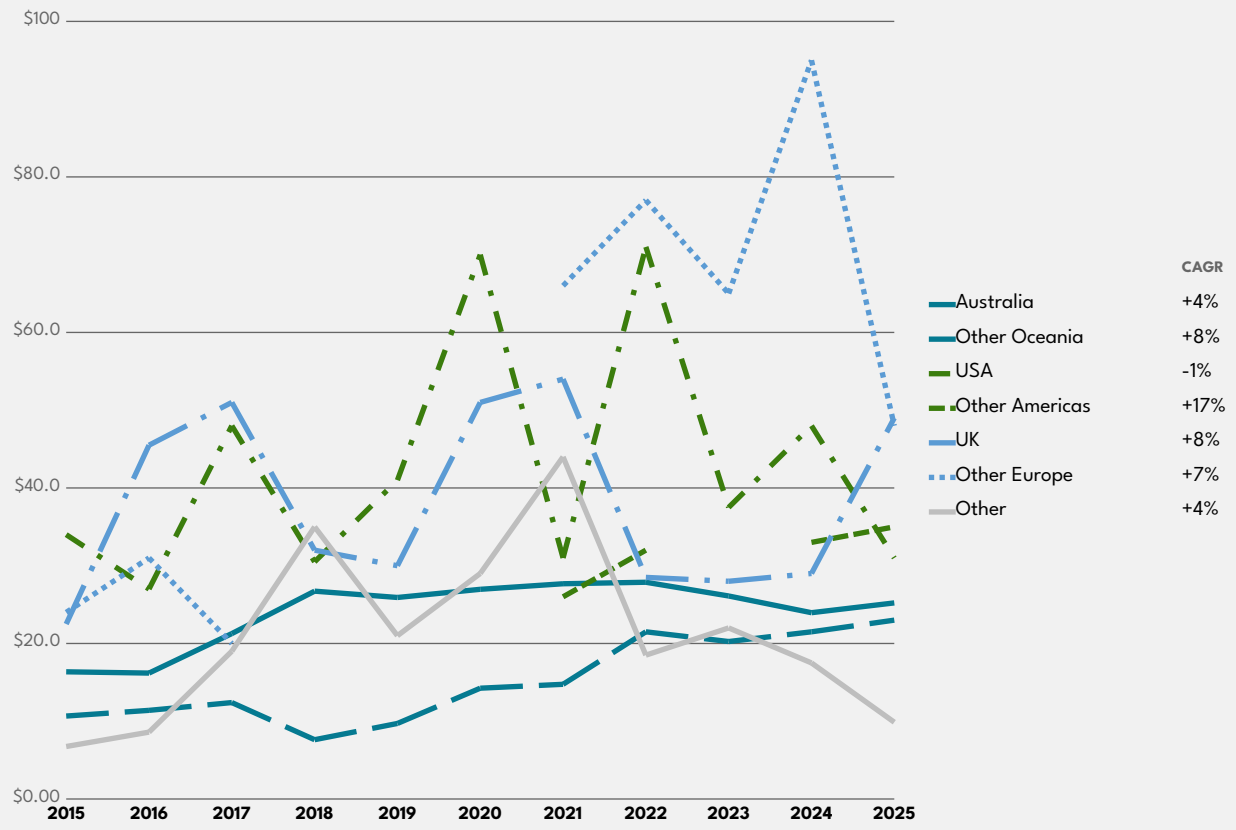
COMMENTS/NOTES

Source: StatisticsNZ (International Trade); Coriolis classification and analysis

European markets pay premium prices for NZ apparel but Oceania delivers the most consistent export growth

AVERAGE EXPORT PRICE BY KEY MARKET; SEGMENT: APPAREL

NZ$/item; 2015-2025



COMMENTS/NOTES

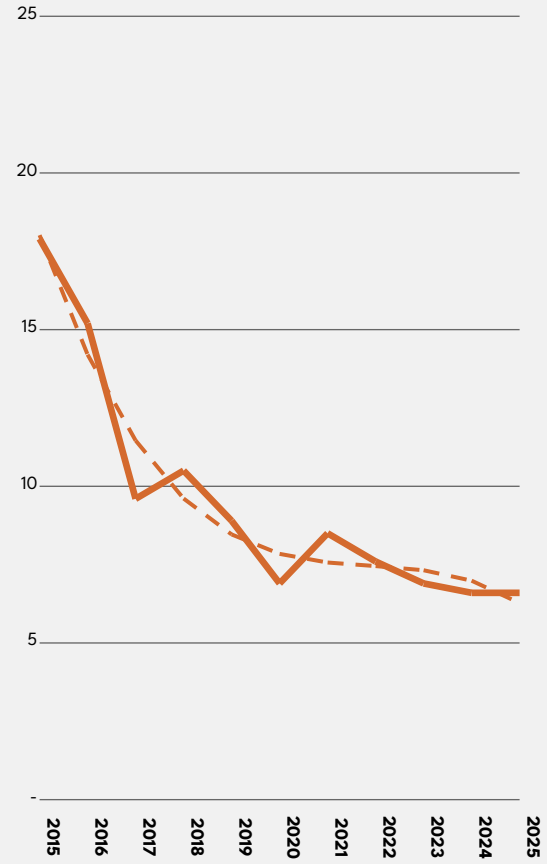
- Other Europe commands the highest unit prices, peaking at NZ$95/unit in 2024 before falling to $48 in 2025, signalling strong but volatile demand for premium NZ apparel in continental markets.
- The UK consistently returns high prices ($29-$54/unit), with 2025 recovering to $49 after a dip, making it a reliable premium destination worth protecting.
- The USA is the most volatile market, swinging between $31 and $71/unit across the decade, suggesting inconsistent product mix or buyer concentration risk.
- Australia remains the most stable market, holding $24-$28/unit since 2018, providing a reliable baseline but limited upside growth in unit value.
- Other Oceania has nearly doubled from $10.70 to $23/unit since 2015, showing steady premiumisation and making it one of the strongest improvement stories in the portfolio.

Source: StatisticsNZ (International Trade); Coriolis classification and analysis

Volume, price, and value trends for apparel exports

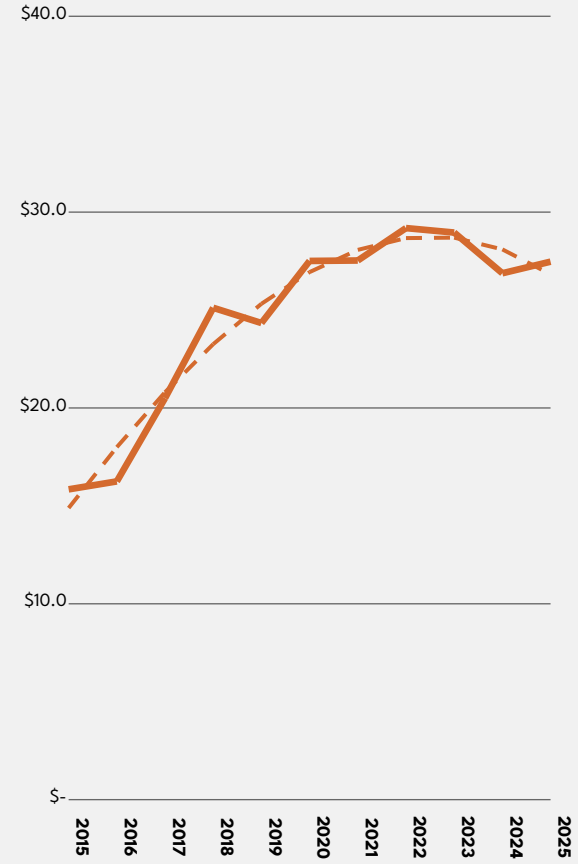
NZ EXPORT VOLUME

m items; 2015-2025



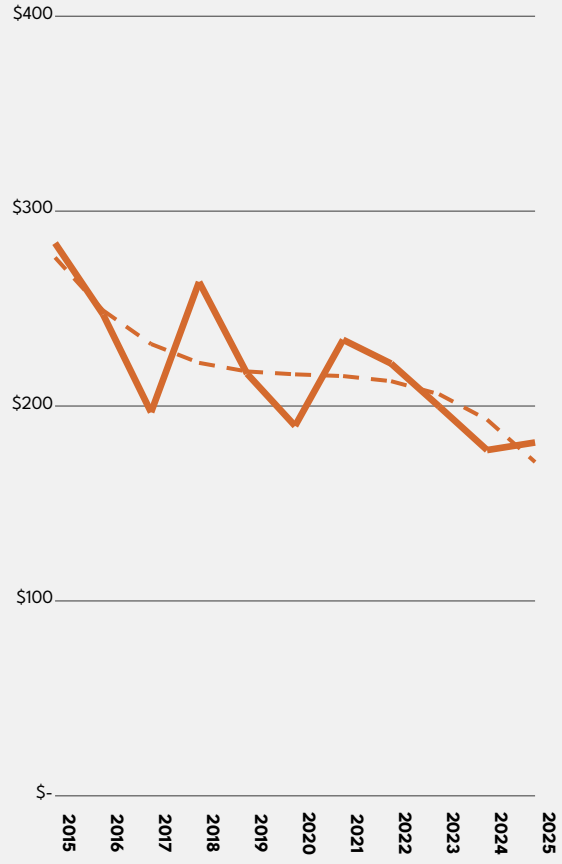
NZ AVERAGE EXPORT PRICE

NZ$/item; 2015-2025



NZ EXPORT VALUE

NZ$; m; 2015-2025

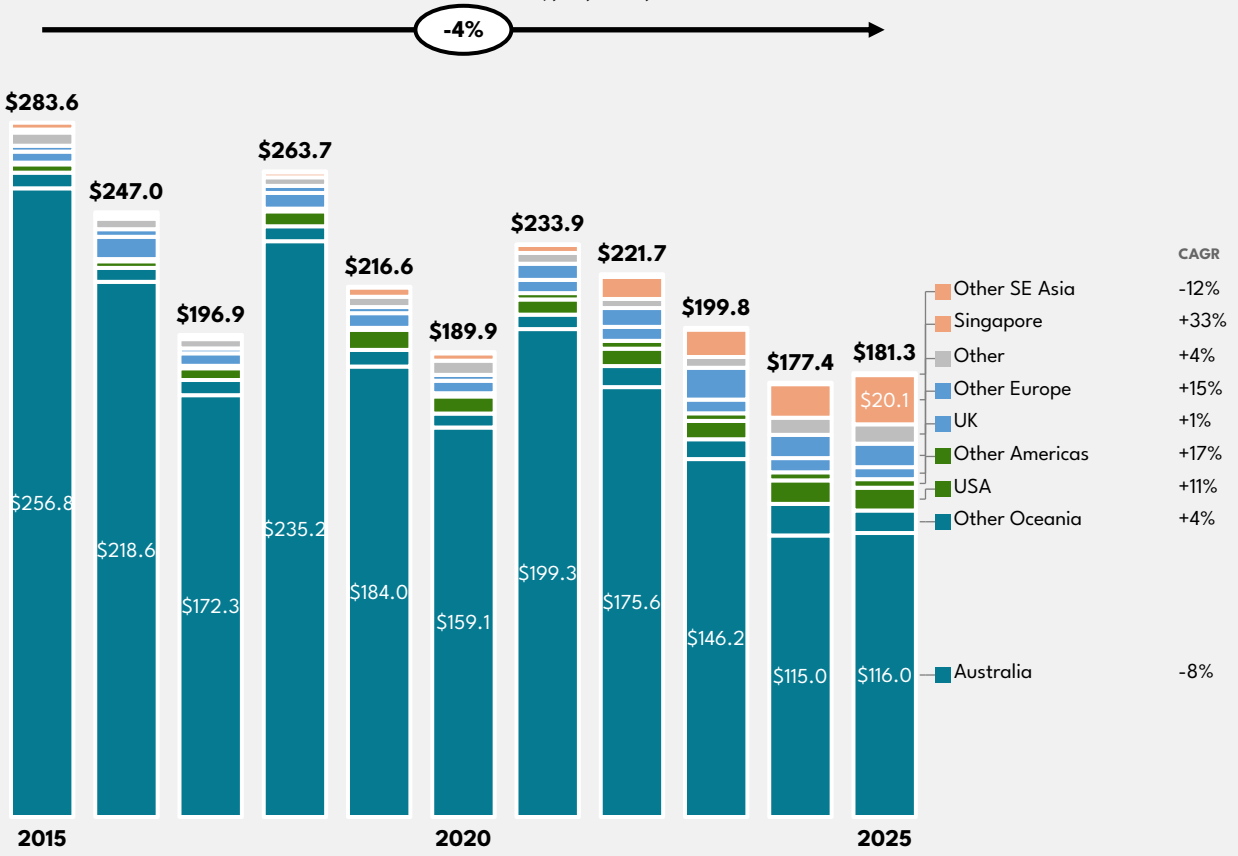


Source: StatisticsNZ (International Trade); Coriolis classification and analysis

NZ apparel exports have halved since 2015, with Australia's steep decline only partially offset by Singapore's rise

EXPORT VALUE BY KEY MARKET AND REGION: APPAREL

NZ$; m; FOB; 2015-2025



COMMENTS/NOTES

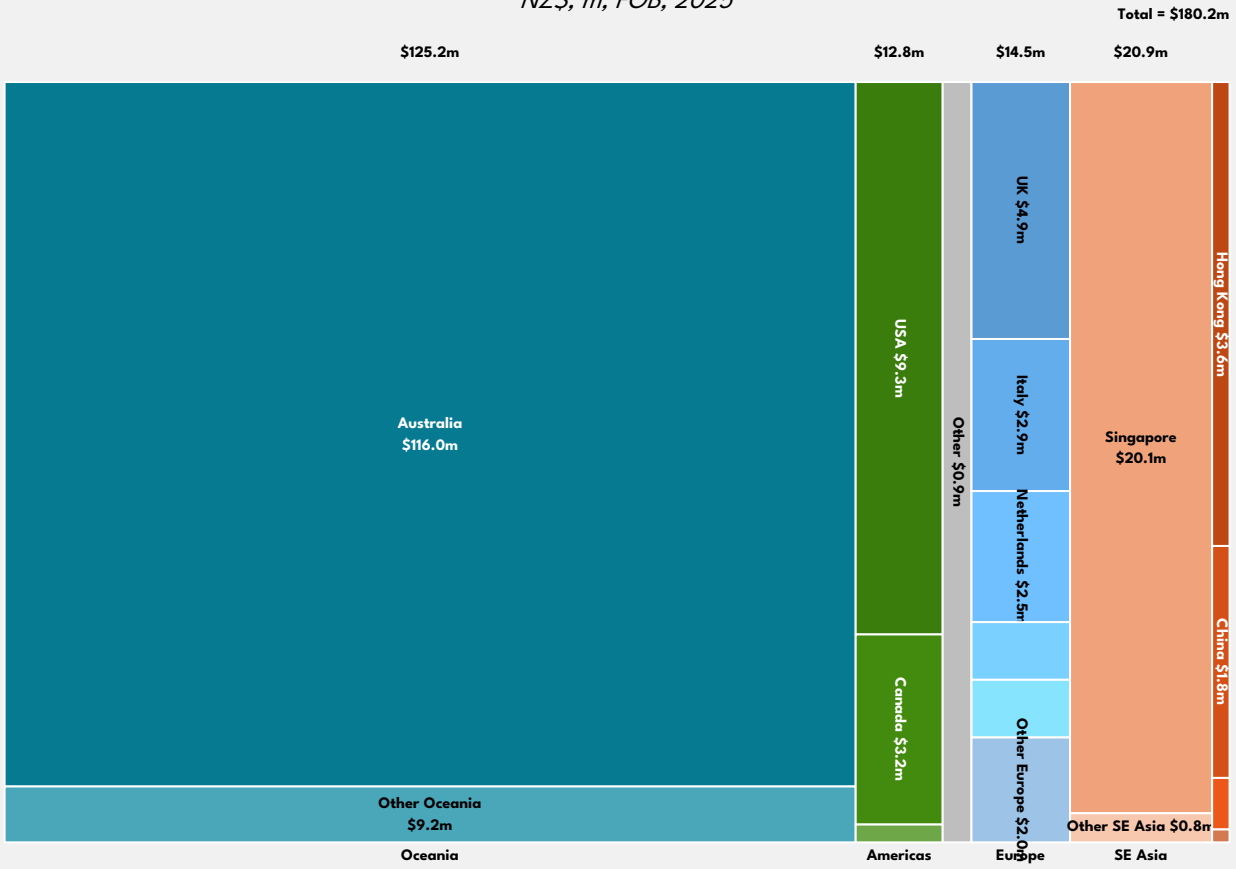
- Total apparel exports fell from $284M in 2015 to $181M in 2025, a 36% decline, signalling sustained structural weakness in NZ's apparel export base.
- Australia dominates but is collapsing: down from $257M to $116M over the decade, losing $141M in value and dragging overall totals down despite gains elsewhere.
- Singapore is the standout growth market, surging from $1.2M in 2015 to $20.1M in 2025, now NZ's second-largest apparel destination and a rare bright spot.
- Other Europe has grown from $2.4M to $9.6M, and Other Oceania from $6.4M to $9.2M, suggesting modest but meaningful diversification into new markets.
- The USA has grown slowly from $3.4M to $9.3M, offering a mid-tier opportunity that remains underdeveloped relative to the size of that market.

Source: StatisticsNZ (International Trade); Coriolis classification and analysis

Australia dominates NZ apparel exports, with Singapore the only significant Asian market

MARIMEKKO CHART OF EXPORT DESTINATIONS BY REGION AND COUNTRY: APPAREL

NZ$; m; FOB; 2025



COMMENTS/NOTES

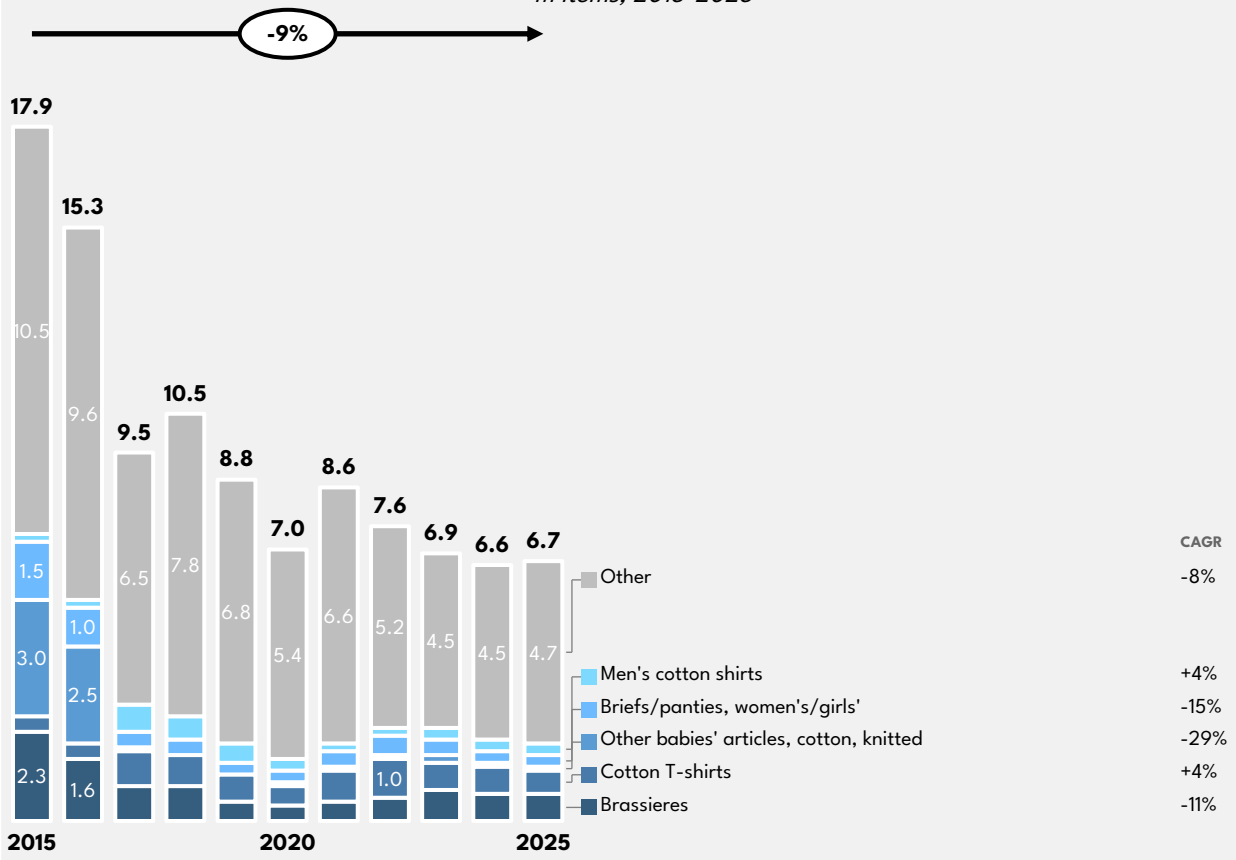
- Australia is overwhelmingly the largest market at NZ$116m, accounting for roughly three-quarters of all apparel exports — proximity and shared culture drive this concentration.
- Singapore is a distant but notable second at NZ$20.1m, suggesting NZ apparel has found a foothold in premium Asian retail, likely through travel retail or luxury positioning.
- The Americas (US$9.3m, Canada $3.2m) and Europe (UK $4.9m, Italy $2.9m, Netherlands $2.5m) show moderate diversification, but volumes remain small relative to Australia.
- Gulf markets (UAE $0.4m, Qatar $0.3m, Kuwait $0.2m) are minimal, indicating little penetration of high-spending Middle Eastern consumers despite their appetite for premium goods.
- Africa and the Indian Subcontinent show zero or negligible exports, representing either untapped opportunity or markets where NZ apparel lacks competitive positioning.

Source: StatisticsNZ (International Trade); Coriolis classification and analysis

NZ apparel exports have collapsed 63% from 17.9 m items in 2015 to 6.6 m in 2025, with no recovery in sight

TOP 5 EXPORT HS CODES (m items): APPAREL

m items; 2015-2025



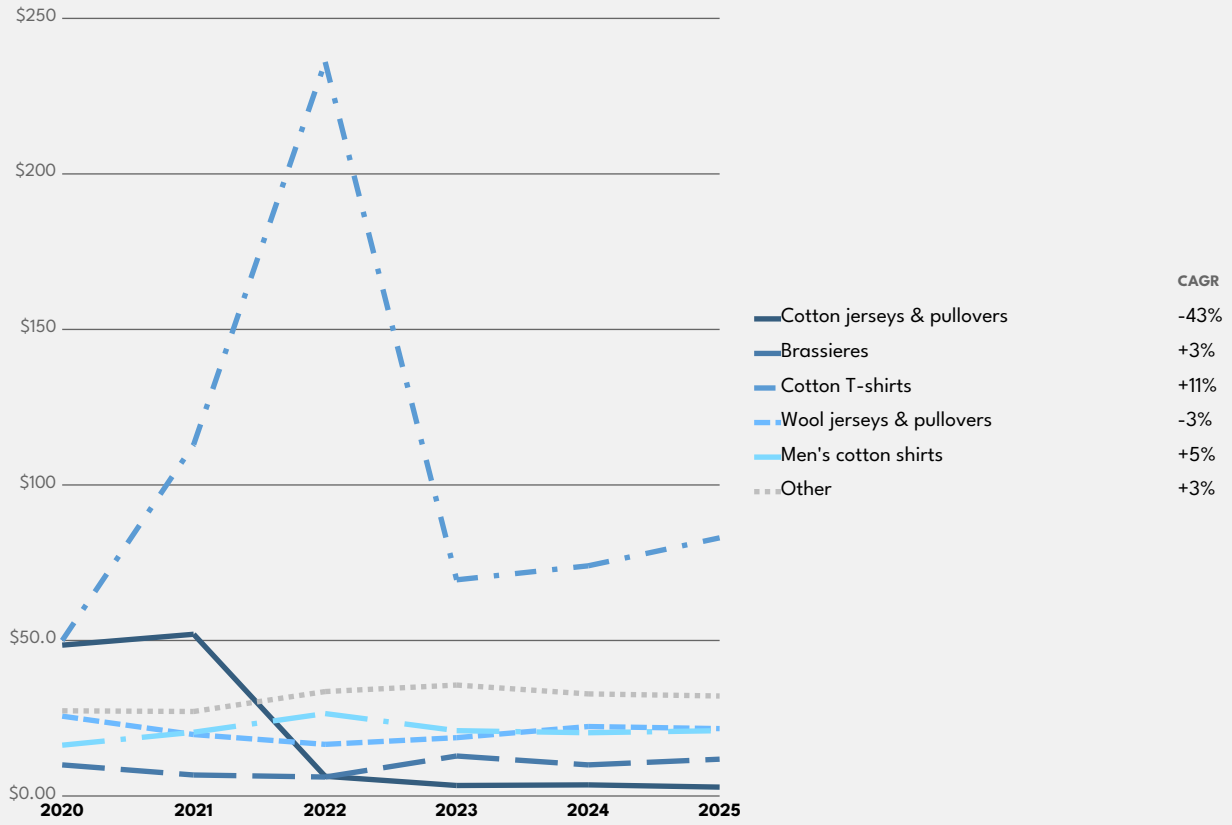
COMMENTS/NOTES

Source: StatisticsNZ (International Trade); Coriolis classification and analysis

Cotton apparel export unit values show extreme volatility while wool and brassieres hold relatively stable pricing

AVERAGE EXPORT PRICE BY TOP HS CODES; SEGMENT: APPAREL

NZ$/item; 2020-2025



COMMENTS/NOTES

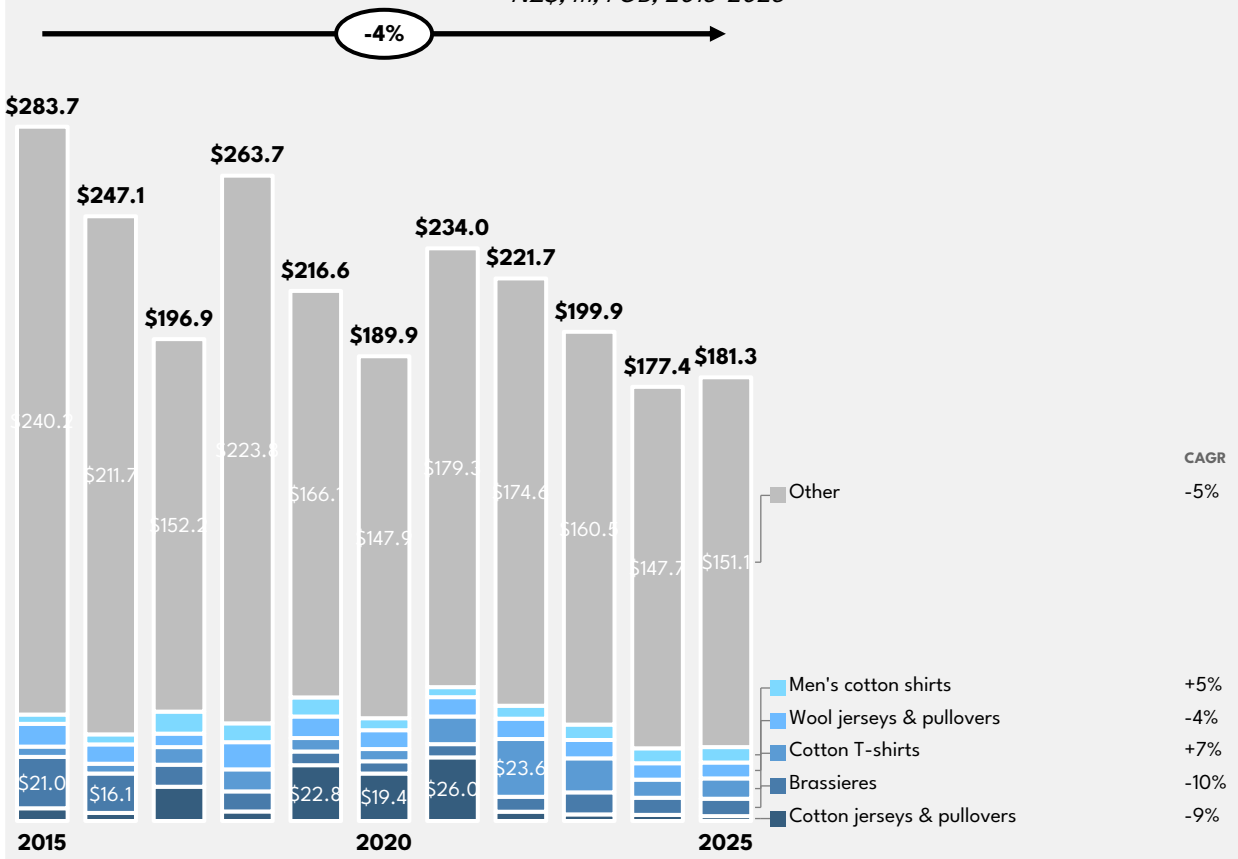
- Cotton jerseys & pullovers suffered a near-total collapse in unit value, falling from NZ$52/unit in 2021 to just NZ$2.90 in 2025, suggesting a fundamental shift in the mix or quality of product being exported.
- Cotton T-shirts hit a remarkable NZ$236/unit in 2022 before retreating sharply to NZ$70-83/unit in 2023-2025, indicating a short-lived premium pricing event that has since normalised.
- Wool jerseys & pullovers maintained the most consistent unit values across the period at NZ$17-26/unit, reflecting stable demand for New Zealand's premium wool product offshore.
- Men's cotton shirts held steady at NZ$20-27/unit throughout 2020-2025, suggesting a mature, stable export category without the volatility seen in other cotton products.
- Brassieres recovered from a low of NZ$6.10/unit in 2022 to NZ$11.80 in 2025, now the second-highest unit value category, signalling improving mix or market positioning.

Source: StatisticsNZ (International Trade); Coriolis classification and analysis

NZ apparel exports fell 36% from 2015 to 2024, with no category showing sustained growth

TOP 5 EXPORT HS CODES (NZ$m, FOB): APPAREL

NZ$; m; FOB; 2015-2025



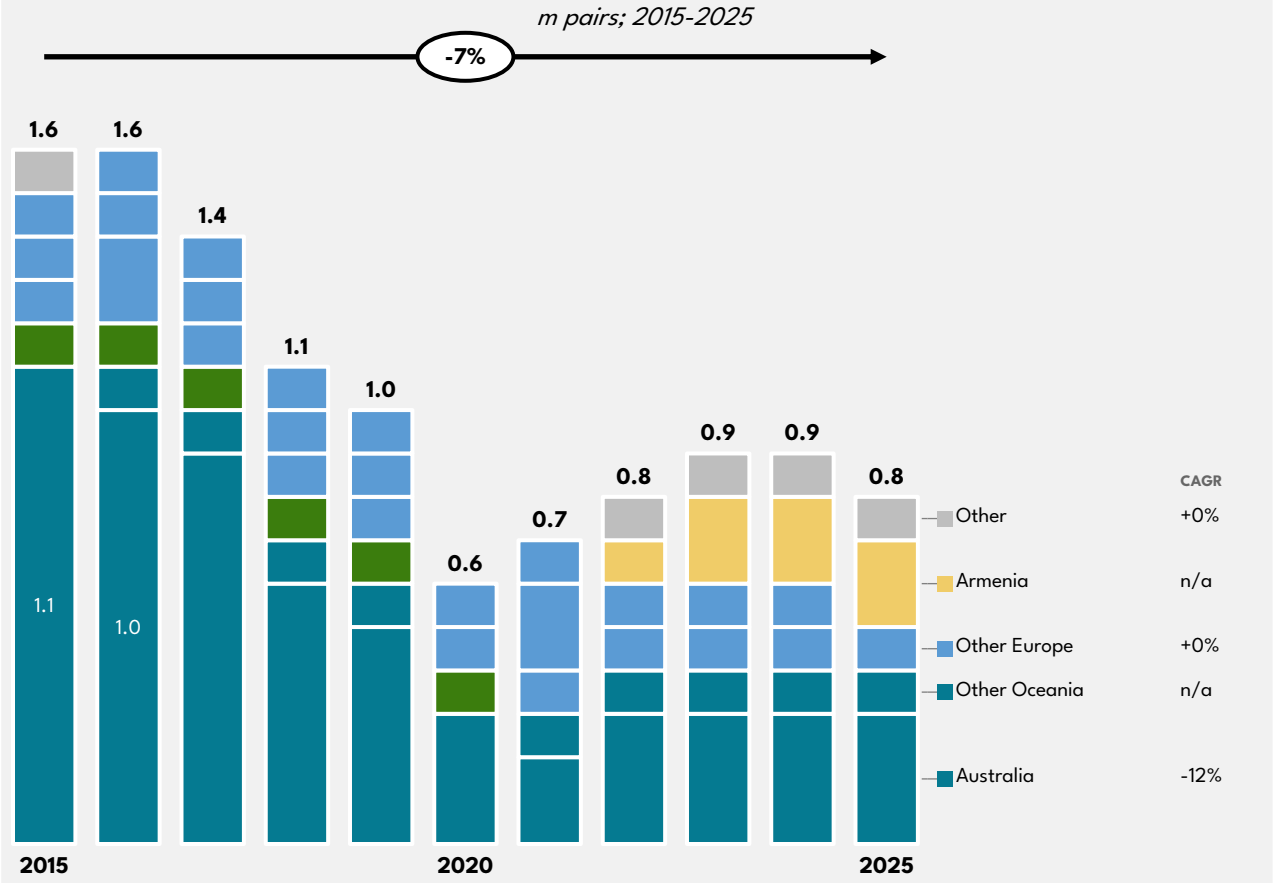
COMMENTS/NOTES

- Total apparel exports dropped from NZ$284M in 2015 to NZ$177M in 2024, a 37% decline, recovering only marginally to $181M in 2025, signalling structural contraction.
- Cotton jerseys spiked to $26M in 2021 then collapsed to $2.5M by 2024, suggesting a one-off demand surge rather than durable market position.
- Cotton T-shirts peaked at $24M in 2022 but fell sharply to $7.4M in 2024, indicating volatile demand and likely intense competition from lower-cost suppliers.
- Wool jerseys and pullovers are the most consistent performer, holding $6-11M across the decade, reflecting a stable niche but limited growth potential.
- "Other" apparel dominates at 83% of exports but has shrunk from $240M to $148M, meaning the decline is broad-based, not confined to specific product categories.

Source: StatisticsNZ (International Trade); Coriolis classification and analysis

NZ footwear exports have halved since 2015, with Australia's decline driving the fall but Armenia emerging as new market

EXPORT VOLUME BY KEY MARKET AND REGION (m pairs): FOOTWEAR



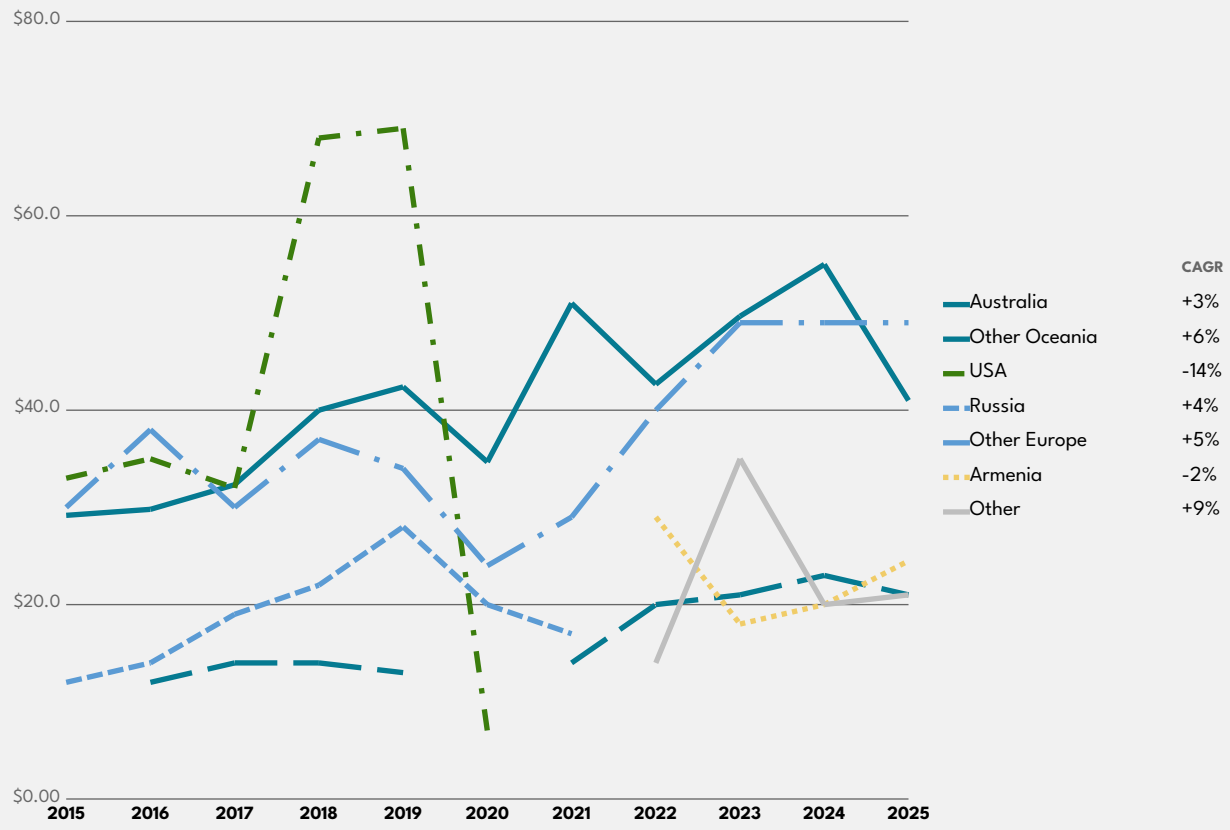
COMMENTS/NOTES

Source: StatisticsNZ (International Trade); Coriolis classification and analysis

Australia dominates NZ footwear exports but average prices are volatile and key markets like the US have been lost

AVERAGE EXPORT PRICE BY KEY MARKET; SEGMENT: FOOTWEAR

NZ$/pair; 2015-2025



COMMENTS/NOTES

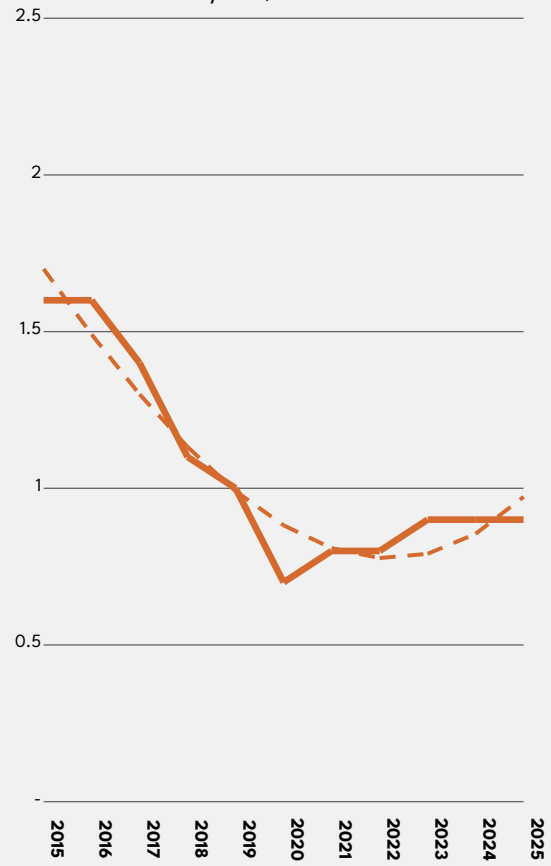
- Australia is the dominant export market, consistently ranked #1, but prices fluctuate sharply - peaking at $55.00/pair in 2024 before dropping to $41.00 in 2025, signalling pricing instability.
- The US was a significant market at $68-69/pair in 2018-19 but collapsed to zero by 2021, representing a major lost opportunity that has not been recovered.
- Russia reached $28/pair in 2019 but dropped to zero by 2022, likely reflecting sanctions and trade disruption following the Ukraine invasion.
- Armenia emerged as a new market from 2022 at $29/pair, stabilising around $20-24/pair - a modest but meaningful diversification into a new region.
- Other Europe has shown resilience, recovering from a low of $24/pair in 2020 to a steady $49/pair in 2023-2025, making it a reliable secondary market worth developing further.

Source: StatisticsNZ (International Trade); Coriolis classification and analysis

Volume, price, and value trends for footwear exports

NZ EXPORT VOLUME

m pairs; 2015-2025



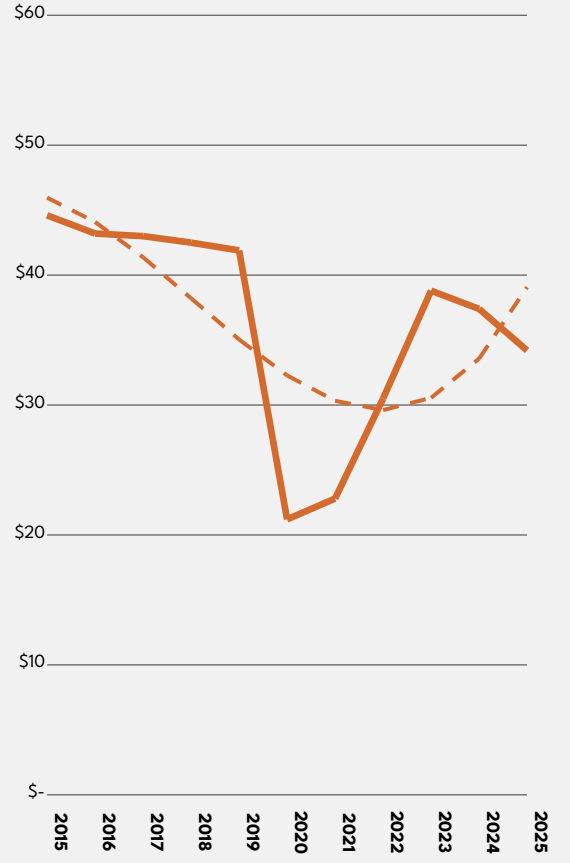
NZ AVERAGE EXPORT PRICE

NZ$/pair; 2015-2025



NZ EXPORT VALUE

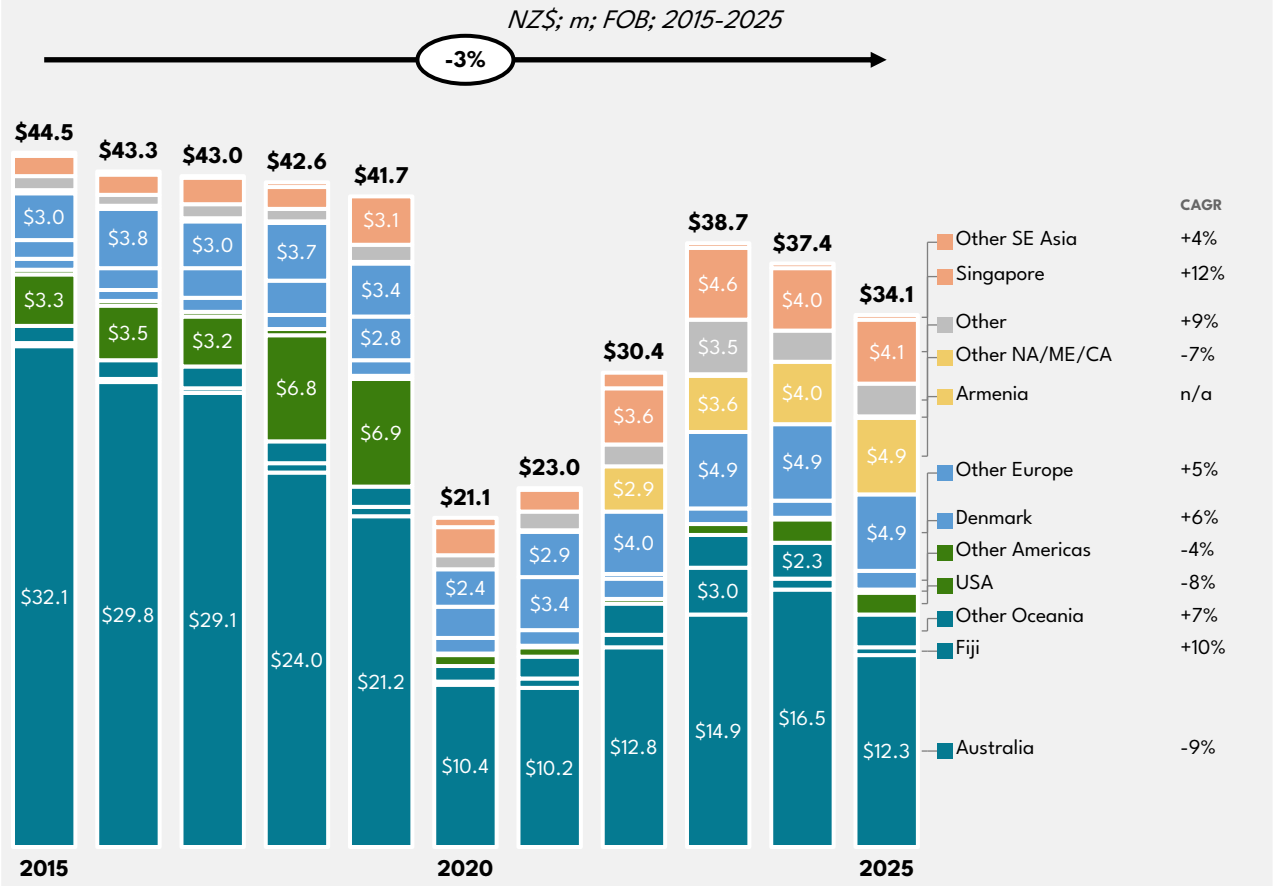
NZ$; m; 2015-2025



Source: StatisticsNZ (International Trade); Coriolis classification and analysis

NZ footwear exports nearly halved from $44.6M in 2015 to $34.2M in 2025, with Australia's decline driving most of the loss

EXPORT VALUE BY KEY MARKET AND REGION: FOOTWEAR



COMMENTS/NOTES

- Australia dominated but collapsed: fell from $32.1M (72% of exports) in 2015 to $12.3M in 2025, a 62% drop, leaving NZ footwear exports structurally exposed to one market's retreat.
- COVID crushed exports in 2020 to just $21.2M, but recovery was incomplete; 2025 at $34.2M remains well below pre-pandemic levels, suggesting permanent demand loss in key markets.
- Armenia emerged from zero to $4.9M by 2025, becoming the third-largest market, signalling an unexpected new trade relationship worth monitoring and building on.
- Singapore grew from $1.3M to $4.1M over the decade, showing consistent demand in SE Asia and offering a platform for broader regional expansion.
- Russia reached $3.4M in 2021 then fell to zero by 2023 following sanctions, removing a meaningful growth market and highlighting geopolitical risk in export strategy.

Source: StatisticsNZ (International Trade); Coriolis classification and analysis

APPENDIX – TECHNICAL DETAILS

The ANZSIC system gives the following definitions...

ANZSIC NAME	DEFINITION	EXCLUSIONS/REFERENCES
C131100 Wool Scouring	This class consists of units mainly engaged in scouring, carbonising, carding or combing of wool or in manufacturing unspun wool tops.	Units mainly engaged in manufacturing fellmongered or slipe wool are included in Class 1320 Leather Tanning, Fur Dressing and Leather Product Manufacturing.
C131200 Natural Textile Manufacturing	This class consists of units mainly engaged in spinning yarns or weaving fabrics wholly or predominantly made of natural fibres such as cotton or wool. Also included are units mainly engaged in manufacturing yarns or woven fabrics wholly or predominantly made from flax or silk.	Units mainly engaged in • ginning cotton are included in Class 0521 Cotton Ginning; • manufacturing textile furnishings or curtains from fabrics manufactured at the same unit are included in Class 1333 Cut and Sewn Textile Product Manufacturing; and manufacturing textile floor coverings are included in Class 1331 Textile Floor Covering Manufacturing.
C131300 Synthetic Textile Manufacturing	This class consists of units mainly engaged in spinning yarns or weaving fabrics wholly or predominately made of synthetic fibres.	Units mainly engaged in • manufacturing synthetic or artificial fibres (including tow and staple) are included in Class 1829 Other Basic Polymer Manufacturing; • manufacturing textile furnishings or curtains from fabrics manufactured at the same unit are included in Class 1333 Cut and Sewn Textile Product Manufacturing; and • manufacturing textile floor coverings are included in Class 1331 Textile Floor Covering Manufacturing.
C132000 Leather Tanning, Fur Dressing and Leather Product Manufacturing	This class consists of units mainly engaged in the production of fellmongered wool, pelt or slipe wool; and in tanning, currying, dressing, finishing, dyeing, embossing or japanning leather, animal skins or fur. Units mainly engaged in manufacturing products (except clothing and footwear) such as suitcases, handbags, wallets, saddlery or harnesses of leather or leather substitutes are also included.	Units mainly engaged in • manufacturing textile or canvas bags for packaging are included in Class 1333 Cut and Sewn Textile Product Manufacturing; • manufacturing leather belts or gloves, or fur or leather clothing are included in Class 1351 Clothing Manufacturing; and • manufacturing leather footwear are included in Class 1352 Footwear Manufacturing.
C133100 Textile Floor Covering Manufacturing	This class consists of units mainly engaged in manufacturing carpets, rugs or other textile floor coverings from natural or synthetic fibres, using weaving and tufting processes. This class also includes units mainly engaged in manufacturing mats or matting of jute or twisted rags.	Units mainly engaged in manufacturing rubber floor coverings or underlays are included in Class 1920 Natural Rubber Product Manufacturing.
C133200 Rope, Cordage and Twine Manufacturing	This class consists of units mainly engaged in manufacturing rope, cordage, twine, net or related products from natural or synthetic fibres.	Units mainly engaged in • manufacturing tyre cord yarns or fabrics of synthetic fibres are included in Class 1313 Synthetic Textile Manufacturing; • manufacturing tyre cord yarns or fabrics of cotton are included in Class 1312 NaturalTextile Manufacturing; and • manufacturing wire ropes or cables are included in Class 2291 Spring and Wire Product Manufacturing.

The ANZSIC system gives the following definitions... continued

ANZSIC NAME	DEFINITION	EXCLUSIONS/REFERENCES
C133300 Cut and Sewn Textile Product Manufacturing	This class consists of units mainly engaged in manufacturing textile products (except apparel) from natural or synthetic fabric, primarily by cutting and sewing. Also included are units mainly engaged in manufacturing cut and sewn textile products from fabrics woven at the same unit.	Units mainly engaged in • manufacturing canvas suitcases, trunks or similar containers, or sheepskin seat covers are included in Class 1320 Leather Tanning, Fur Dressing and Leather Product Manufacturing; • manufacturing electric blankets are included in Class 2449 Other Domestic Appliance Manufacturing; • manufacturing seat belts are included in Class 2319 Other Motor Vehicle Parts Manufacturing; • manufacturing rubber pillows or cushions are included in Class 1920 Natural Rubber Product Manufacturing; and • installing curtains are included in Class 3239 Other Building Installation Services
C134000 Knitted Product Manufacturing	This class consists of units mainly engaged in manufacturing knitted or crocheted fabrics or knitted clothing, including hosiery, cardigans, jackets, pullovers or similar garments.	Units mainly engaged in manufacturing clothing of woven or other fabrics (except knitted) are included in Class 1351 Clothing Manufacturing.
C133400 Textile Finishing and Other Textile Product Manufacturing	This class consists of units mainly engaged in finishing textile products, using processes such as automated embroidery, bleaching, dyeing, printing (except screen printing) or pleating on a fee or commission basis. This class also includes units mainly engaged in manufacturing felt, felt products (except clothing) or other textile products not elsewhere classified.	Units mainly engaged in • screen printing and heat transfer onto clothing or fabric are included in Class 1611 Printing; and • manufacturing felt clothing are included in Class 1351 Clothing Manufacturing.
C135100 Clothing Manufacturing	This class consists of units mainly engaged in manufacturing clothing (except knitted clothing). Included are units manufacturing outerwear, underwear, sleepwear, infant clothing, headwear, fur or leather clothing and clothing accessories. This class also includes units mainly engaged in providing clothing trade services such as hem stitching, basque knitting or buttonholing.	Units mainly engaged in • manufacturing hosiery, knitted clothing, knitted cardigans or pullovers, or other knitted clothing are included in Class 1340 Knitted Product Manufacturing; • manufacturing bicycle helmets are included in Class 1913 Polymer Foam Product Manufacturing; • manufacturing rubber gloves are included in Class 1920 Natural Rubber Product Manufacturing; • and manufacturing leather handbags are included in Class 1320 Leather Tanning, Fur Dressing and Leather Product Manufacturing.
C135200 Footwear Manufacturing	This class consists of units mainly engaged in manufacturing footwear or footwear components such as uppers and upper parts, and outer and inner soles and heels.	Units mainly engaged in manufacturing orthopaedic extension footwear are included in Class 2412 Medical and Surgical Equipment Manufacturing

The ANZSIC system gives the following 'activities' as part of the defined and measured code

C131100 Wool Scouring

- Lanolin manufacturing
- Noil, wool, manufacturing
- Scoured wool manufacturing
- Slag wool manufacturing
- Tops, unspun wool, manufacturing
- Wool grease manufacturing
- Wool wax manufacturing
- Wool, carded or combed, manufacturing

C131200 Natural Textile Manufacturing

- Cotton sewing thread manufacturing
- Tow manufacturing (from flax, hemp or jute)
- Tyre cord yarn or fabric, cotton, manufacturing
- Woven fabric, cotton, manufacturing
- Woven fabric, woollen or worsted wool, manufacturing
- Yarn, cotton, flax or silk, manufacturing
- Yarn, woollen, manufacturing

C131300 Synthetic Textile Manufacturing

- Fabric, woven, manufacturing (elastic or elastomeric)
- Fabric, woven, manufacturing (predominantly of synthetic fibre)
- Fibreglass fabric manufacturing
- Lacing, woven, manufacturing
- Tyre cord yarn or fabric, synthetic fibre, manufacturing
- Yarn, elastic or elastomeric, manufacturing
- Yarn, synthetic fibre, manufacturing

C133200 Rope, Cordage and Twine Manufacturing

- Cable manufacturing (from natural or synthetic fibres)
- Cord manufacturing (except wire rope or tyre cord)
- Cordage manufacturing
- Fish net manufacturing
- Net manufacturing n.e.c.
- Netting, textile, manufacturing
- Rope manufacturing (except wire rope)
- String manufacturing
- Twine manufacturing

C133400 Textile Finishing and Other Textile Product Manufacturing

- Badge, woven, manufacturing
- Binding, textile, manufacturing
- Embroidered apparel manufacturing
- Embroidered fabric manufacturing
- Felt manufacturing
- Label, printed cloth, manufacturing
- Label, woven cloth, manufacturing
- Textile dyeing
- Textile fabric coating
- Textile printing (except screen printing)
- Textile product manufacturing n.e.c.
- Underfelt manufacturing

C134000 Knitted Product Manufacturing

- Clothing, knitted, manufacturing
- Crocheted fabric manufacturing
- Custom knitting of pullovers or cardigans
- Hosiery manufacturing
- Jacket, knitted, manufacturing
- Jersey, knitted, manufacturing
- Knitted fabric manufacturing
- Panty hose manufacturing
- Sock manufacturing
- Stocking manufacturing
- Tights manufacturing

C133100 Textile Floor Covering Manufacturing

- Carpet manufacturing
- Carpet tile manufacturing
- Floor covering, textile, manufacturing n.e.c.
- Floor rug, textile, manufacturing
- Hard fibre floor covering manufacturing (including sisal, coir and grass mat manufacturing)
- Jute matting manufacturing

C135200 Footwear Manufacturing

- Boot manufacturing
- Footwear component manufacturing
- Footwear manufacturing (including safety or protective footwear)
- Orthopaedic shoe manufacturing (excluding orthopaedic extension footwear)
- Sandal manufacturing
- Shoe manufacturing
- Slipper manufacturing

C132000 Leather Tanning, Fur Dressing and Leather Product Manufacturing

- Bag, leather or leather substitute, manufacturing
- Bleaching and currying fur
- Currying hides
- Embossing hides and skins
- Fellmongery operation
- Finishing hides and skins
- Fur rug manufacturing
- Fur skin dressing or dyeing
- Handbag manufacturing (including metal mesh handbags)
- Harness manufacturing
- Japanning hides and skins
- Leather or leather substitute goods manufacturing n.e.c.
- Leather packing, industrial, manufacturing
- Machine belting, leather or leather substitute, manufacturing
- Pelt finishing and tanning
- Pulling sheep and lamb skin
- Saddle manufacturing
- Scraping fur and pelt
- Seat cover, sheepskin, manufacturing
- Slipe wool manufacturing
- Suitcase manufacturing (including canvas)
- Tanning hides and skins
- Toy, leather, manufacturing
- Wallet manufacturing (including metal mesh wallets)

C133300 Cut and Sewn Textile Product Manufacturing

- Animal blanket/cover manufacturing
- Awning, textile, manufacturing
- Bag or sack, textile or canvas, manufacturing (for packaging)
- Bed linen manufacturing
- Blind, textile, manufacturing (including plastic coated)
- Canvas goods manufacturing n.e.c.
- Cotton textile furnishing manufacturing
- Curtain manufacturing
- Cushion manufacturing (except rubber)
- Flag or banner, manufacturing
- Hose, canvas, manufacturing
- Life jacket manufacturing
- Motor vehicle cover manufacturing
- Parachute manufacturing
- Pillow manufacturing (except rubber)
- Sail manufacturing
- Seat cover, textile, manufacturing (except sheepskin)
- Sleeping bag manufacturing
- Soft furnishing manufacturing
- Synthetic fibre textile furnishing manufacturing
- Tent manufacturing (except oxygen tents or toy tents)
- Textile furnishing manufacturing n.e.c.
- Woollen textile furnishing manufacturing

C135100 Clothing Manufacturing

- Belt manufacturing (for clothing)
- Clothing accessory manufacturing n.e.c.
- Clothing manufacturing n.e.c.
- Clothing, fur, manufacturing
- Clothing, knitted fabric, manufacturing
- Clothing, leather, manufacturing
- Clothing, plastic or rubber, manufacturing
- Glove manufacturing (except rubber)
- Handkerchief manufacturing
- Hat and cap manufacturing
- Headwear manufacturing
- Helmet, fabric or leather, manufacturing
- Infants' clothing manufacturing
- Jeans manufacturing
- Laces manufacturing
- Men's and boys' wear manufacturing
- Outerwear manufacturing
- Sleepwear manufacturing
- Swimwear manufacturing
- Tie manufacturing
- Underwear manufacturing
- Uniform manufacturing
- Waterproof clothing manufacturing
- Wetsuit manufacturing
- Women's and girls' wear manufacturing
- Workwear manufacturing

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