# Submission

to

# Commerce Commission

on the

## J&P Turner / T&G Fresh Transaction

*Dr Hans Maurer*

21 September 2026

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## INTRODUCTORY SECTION

**<u>The Submitter's Background</u>**

Dr Hans Maurer MRSNZ, CMInstD (Retd), ("the submitter"), emigrated to Aotearoa New Zealand in 1981 as a fruit tree nurseryman. He has also been a soldier, a garden centre manager, a perennial plants nursery owner, an employment officer at the then New Zealand Labour Department, a supermarket plant & flower buyer, head of fresh produce for a major supermarket chain, an Action Learning focused pracademic a strategic adviser to the fresh produce industry; and, co-owner of a business that holds a Ministry for Primary Industries (MPI) appointment as an Independent Verification Agency (IVA) for phytosanitary related audit, inspection and verification plant export pathway.

The submitter was head of produce for Foodtown Supermarkets between 1988-1993, and for Progressive Enterprises ( Foodtown and Countdown Supermarkets) between 1996-1998. In 1989, Foodtown ceased purchasing produce at North Island auctions and commenced its strategic path of purchasing fruit & vegetables directly from growers and packhouses whenever possible. In 1996, the Foodtown and Countdown produce buying operations were combined and the company discontinued purchasing from South Island auctions as well, in favour of direct supply.

The submitter's Doctoral thesis (1999), was entitled "Improving the (New Zealand) Fresh Produce Supply Chain".

In the lead up to the introduction of the *Grocery Industry Competition Act 2023,* the submitter participated in the Commerce Commission's ("Commission") *Retail Grocery Market Study Conference* in October/November 2021 and was the United Fresh representative on MBIE's *Grocery Code of Conduct Advisory Group,* tasked in 2022 with providing direct industry and consumer feedback during the early design and drafting phases of the supermarket code.

On 31 December 2025 the submitter retired from his roles as Research & Strategy Director at The AgriChain Centre; Knowledge Representative on the Executive Committee of United Fresh New Zealand Inc; Chair of the United Fresh Technical Advisory Group; and, as Editor of the fresh produce industry annual data publication *Fresh Facts*.

The submitter also chaired the Information Management & Standards Committee of the International Federation for Produce Standards (IFPS) and represented IFPS as Global Liaison on ISO Committee ISO/TC 347 Data-driven agrifood systems.

**<u>Disclosure Statement</u>**

The submitter has retired from active industry engagement but continues in his role as non-executive director of The AgriChain Centre Ltd, in which he is a shareholder.

This submission is made as a private individual, based on the submitter's decades of industry experience and motivated by the desire to avoid having to observe tactical decisions emerging on future wholesale structures that could backfire from a strategic perspective in the long term.

This is not a paper written for a fee, but an industry-good contribution, providing the submitter's view on the topic at hand.

Both parties involved in the transaction under review are clients of The AgriChain Centre.

Neither the submitter's company nor any party associated with the transaction currently under review have requested this submission.

**<u>Submitter's Summary of Commerce Commission Concerns</u>**

1. **Increased bargaining power over local growers:** The Commission is highly focused on whether removing a major independent wholesaler would leave local fruit and vegetable growers vulnerable. Without enough alternative buyers, the merged company could use its market power to force lower purchase prices, increase commission rates, or offer less favourable contract terms to growers.

2. **Reduced wholesale competition due to close rivalry:** JPT (which owns Fresh Direct) and T&G Fresh currently compete closely with one another across various produce lines, customer segments, and regions. The regulator is concerned that remaining competitors (such as MG Group) or direct-supply channels would not provide enough market constraint to keep wholesale prices competitive.

3. **Disadvantages from vertical integration:** Because T&G Fresh actively grows its own produce (like tomatoes, cucumbers, courgettes, and cherries), the merger would remove JPT's status as the only major wholesaler without its own growing operations. The Commission is evaluating whether the merged entity might prioritise its own homegrown produce or refuse to buy from independent growers who produce competing crops.

## THE SUBMITTER’S POSITION

### <u>Executive Summary</u>

New Zealand’s fresh produce supply chain cannot be meaningfully assessed using traditional, static competition metrics. The sector is structurally defined by perishability, biological volatility, fragmented information flows, and three parallel market channels—traditional wholesale, direct-to-retail, and “pretend direct”—all of which behave as components of a *Complex Adaptive System* (CAS).

Because of these structural realities, the highly granular, predictable data sought by the Commerce Commission simply does not exist. No participant—JPT, T&G Fresh, or independent experts—can supply the empirical certainty required under a conventional substantial-lessening-of-competition test. Relying solely on historical pricing, rigid market shares, or formal barriers to entry will therefore produce an incomplete and potentially misleading assessment.

A more appropriate regulatory lens is a *Dynamic Supply Chain Resilience Framework*. This approach evaluates how wholesalers behave within the wider ecosystem: how they absorb shocks, re-route volumes, provide real-time price discovery, and maintain continuity when environmental or market disruptions occur. It also recognises the declining structural leverage of wholesalers, the increasing concentration of retail power, and the rapid consolidation of the grower base.

Under this dynamic lens, the proposed JPT acquisition strengthens—not weakens—the resilience of the wholesale matrix. It introduces a second wholesaler of consequence, capable of long-term investment, continuity-focused governance, and supporting both small growers and large production estates.

The structural realities of horticulture mean that the empirical certainty sought by the Commission to satisfy its standard evidentiary thresholds simply is not available.

The Commission’s decision should therefore be grounded not in absent data, but in an understanding of behavioural dynamics, adaptive capacity, and the structural realities of New Zealand’s fresh produce CAS. Under this framework, the JPT acquisition represents a stabilising and strategically beneficial development for the entire supply chain.

Consequently, any competition analysis built strictly on standard, static market data to satisfy the "substantial lessening of competition" test will be fundamentally flawed and futile. While the *Grocery Industry Competition Act 2023* regulates grocery retail, it can only act as an indirect consideration here. The core issue that remains is how produce wholesalers interact dynamically within the wider retail and food service supply chains.

**Structural Realities and Data Deficits**

The inability to provide standard economic data baselines, stems from three compounding market characteristics:

- **Inherent Crop Perishability and Volatility**: Fresh produce is highly perishable and must move rapidly from grower to consumer before deteriorating. While some crops allow for storage (e.g., kiwifruit), others must be sold within days (e.g., green leafy vegetables). A crop planted today for harvest in 120 days offers no guarantee of commercial yield; immediate weather events can instantly destroy harvests, rendering prior volume and pricing calculations entirely obsolete.
- **Commoditised, Fluctuation-Driven Pricing:** The product portfolios of **JPT** and **T&G Fresh** consist of fast-moving commodities with no fixed, multi-week wholesale price lists. Instead, spot market prices can fluctuate daily based on market conditions as well as on specific real-time supply shocks and immediate weather impacts.
- **The Data Paradox of Direct Supply:** In direct grower-to-retailer relationships, substantial data is continuously shared regarding demand forecasts and supply anticipation. This data is entirely absent from the traditional wholesale function, because the information is highly fragmented across the market, intensely commercially sensitive, and therefore unlikely to be accessible, present or available to the Commission.

**The Three Parallel Markets**

The Commission's methodology should account for the fact that New Zealand does not feature a single, holistic produce market. Instead, the industry operates across **three parallel sub-markets**, each being driven by different commercial considerations:

- **“Traditional Wholesale” Market:** A channel where an intermediary is involved in concluding physical commercial transactions to move produce from their market facility into retail and foodservice networks.
- **Direct to Retail Market:** A channel where retailers and growers bypass traditional intermediaries via direct commercial arrangements. The operational nature, decision-making, and crop monitoring in this channel vary significantly from traditional wholesale pathways.
- **“Pretend Direct” Market:** A channel where traditional wholesalers steer commercial volumes of fresh produce they are marketing on behalf of growers directly into a distribution centre or to several store locations. However, the commercial transactions related to that produce occurs between wholesaler and retailer.

**Market Distorters**

- **Export Market:** Capable of influencing domestic conditions on a produce category basis. Just as international beef schedules dictate local rump steak prices, what European markets pay for kiwifruit, for example, drives the prices faced by New Zealand consumers on local retail shelves. The degree of influence varies by crop and is not universal across all crops.
- **Grower/Wholesaler into Retail Store Movement:** Prevalent in the supply chains of one of the regulated grocery retailers, where individual stores in certain locations have the flexibility of directing produce directly into their stores, thus bypassing the collective produce distribution centre.
- **Inter-Wholesaler-Trade**: This is an informal self-regulating industry mechanism that is used when a shortage in a structured and regular supply chain occurs, but the produce needed is available for purchase in the wider market, and it is realised that the consumer is best served by avoiding temporary and unexpected supply blockages in any particular supply chain.

## Alternative Lens: Shifting from Discrete Function to Strategic Behaviour

**Historical Loss of Wholesaler Leverage**

To evaluate a potential substantial lessening of competition accurately under the *Commerce Act 1986*, the Commission should view the wholesale sector through a historical lens of declining structural power. Wholesalers no longer hold the absolute dominance they enjoyed during the era of physical produce auctions and regulation, where they acted as mandatory intermediaries for the entire category. Today, wholesalers live at the mercy of upstream growers and downstream retailers, with their market leverage constantly under threat through three distinct evolutionary drivers:

- **Retail Evolution:** The rise of modern supermarket chains shifted power toward retailers. In New Zealand, this evolution reached a turning point as early as May 1989 in the fresh produce supply chain, when a major retailer at the time began bypassing the traditional auction system entirely, moving toward direct grower purchasing agreements and using selected wholesalers only where they perceived genuine operational value.
- **Technological Intermediation:** Historically, a wholesaler's primary asset was a closely guarded supplier book. Today, digital connectivity, ranging from early fax and mobile telephone networks to modern relationship databases, cloud systems, and emerging Artificial Intelligence (AI), allows growers and retailers to connect directly with hyper-efficiency, stripping wholesalers of their role as exclusive information gatekeepers.

- **Legislative Deregulation/Regulation:** Historic regulatory changes dismantled producer boards, fundamentally altering wholesale cash flows. For example, when the Apple and Pear Board controlled both domestic and export crops, selected wholesale agents enjoyed guaranteed sales volume representing roughly 8% of a store's produce department. Conversely, current *Regulations,* for example*,* separate Zespri from the domestic produce market. Zespri operates domestic distribution through approved third-party distributors and registered commercial agents rather than direct corporate logistics, meaning the organisation focuses entirely on export and does not even collect or report domestic data directly, removing another layer of structural certainty from the local market.

**Fluidity of the Supply Chain: The Water Analogy**

Fresh produce behaves like water: water naturally finds the path of least resistance to flow from river systems into the sea. In the modern market, fresh produce will find its way to the consumer, bypassing wholesalers unless a grower or a retailer deems their involvement to be mission-critical.

Therefore, a wholesaler does not succeed based on an absolute, legally protected "right to exist". They succeed solely when the perception of the value they add is deeply embedded on both the supply side (growers) and the demand side (retail). And obviously, unless perception is backed by reality, an individual wholesaler's market share will diminish and at worst, disappear.

The Commission's Statement of Issues correctly identifies a risk of vulnerability of growers under the proposed acquisition. However, this vulnerability must be assessed through the lens of a Complex Adaptive System (CAS). There are indications in the *Statement of Issues* that the Commission is already analysing the produce sector's structural vulnerabilities in a way that aligns closely with how an adaptive network functions.

That approach needs to be commended, though greater focus in this area is necessary.

**Structural Reality: Fresh Produce as a Complex Adaptive System (CAS)**

To accurately assess the competitive landscape of the fresh produce sector, the Commission should look beyond traditional, static models of manufacturing supply chains. The fresh produce supply chain operates as a CAS. It is a highly dynamic, non-linear network driven by living, perishable biological products, seasonal shifts, and volatile environmental inputs.

Meter (2019) cautioned against an overreliance on static indicators when viewing food systems[1].

> *"Researchers often attempt to break down food systems into their component parts for analysis (Folke et al., 2005; Aubin et al., 2013; Koopmans 2017). Yet, this ultimately proves difficult to defend. Folke et al. (2005) argue that the goal of adaptive management should not be to seek 'detailed knowledge of parts of the system, but improved understanding of the dynamics of the whole system' (p. 445) (Chapter 2, this volume). Aubin et al. (2013) caution that static indicators must be combined with more dynamic measures. As he analyses four different approaches to complexity, Koopmans (2017) notes that in certain contexts it is more important to analyse the* ***potential for change*** *in a system, rather than analysing the system itself in meticulous detail".*

True efficiency and resilience in this sector cannot be dictated by top-down corporate mandates. Instead, they must emerge organically through real-time, bottom-up adaptations. When a localized weather event or crop disease disrupts yields, the market requires an ecosystem capable of instantaneous self-organization—specifically through dynamic price discovery and immediate volume re-routing—to prevent product spoilage and market shortages.

**The Wholesale Sector as the System's Vital "Shock Absorber"**

In a healthy, competitive ecosystem, independent wholesalers serve as the critical information hubs and operational shock absorbers within their CAS. Wholesalers maintain the localized feedback loops necessary to:

- **Absorb systemic shocks** by instantly re-routing surplus volumes.
- **Dynamically match** fragmented, fluctuating grower outputs with diverse independent retail demands.
- **Provide real-time price discovery** that accurately reflects true supply and demand, rather than relying on rigid, pre-negotiated corporate pricing frameworks.

**Regulatory Framework Impact: Dynamic Resilience vs. Market Rigidity**

A resilient supply chain requires a dynamic resilience framework—one that continuously senses vulnerabilities, flexibly shifts volumes across multiple channels, and evolves post-disruption. However, the current high concentration of market power within the major retail networks actively suppresses this systemic flexibility:

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[1] https://www.taylorfrancis.com/chapters/oa-edit/10.4324/9780429439896-4/assessing-food-systems-complex-adaptive-systems-ken-meter Accessed 18/9/2026.

- **Enforced Rigidity:** The duopoly's corporate reliance on rigid, highly centralized, and exclusive procurement structures forces an inherently organic system into an artificial, brittle bottleneck.
- **Suppression of Adaptive Ecosystems:** When independent wholesale channels are structurally disadvantaged or starved of volume flexibility, growers lose their ability to adaptively reallocate risk. This reduces the entire network's capacity to absorb agricultural shocks.

**Shifting the Commission's Assessment Framework**

Because wholesalers do not drive separate strategies of their own but rather adapt to the efficiencies demanded by retailers and the biological realities of crop production, the Commission should not evaluate this merger using standard, static market shares.

The submitter proposes that the Commission pivot its methodology away from a purely quantitative data-centric model toward a **Dynamic Supply Chain Resilience Framework**.

A dynamic resilience framework is best understood as a structured, adaptive system that helps an organisation or infrastructure network anticipate, absorb, respond to, and learn from disruptions, continuously adjusting as conditions evolve. When applied to regulatory assessment of commercial acquisitions, this perspective complements traditional static financial analyses, which primarily capture historical performance and fixed structural metrics.

Evaluating an acquisition through a regulator's lens using both approaches enables a more comprehensive judgement: static financial tools reveal balance-sheet strength and market concentration, while a dynamic resilience framework exposes how the combined entity would cope with emerging stressors such as supply-chain volatility, climate-related shocks, cyber-risk escalation, or rapid shifts in competitive conditions.

| Standard Commission Lens (Static) | Proposed Alternative Lens (Dynamic & Behavioural) |
|---|---|
| **Historical Pricing Data:** Attempting to analyse past wholesale price records to determine market power. | **Real-Time Price Discovery:** Assessing who controls the daily pricing mechanism typically, and when environmental shocks disrupt crop yields. |
| **Static Market Shares:** Calculating rigid volume percentages of traditional wholesale vs. direct retail supply. | **Channel Fluidity ("Water Flow"):** Measuring how easily growers can divert volume between wholesale, direct retail, and export channels if one pathway is blocked. |
| **Formal Barriers to Entry:** Evaluating capital costs and regulatory hurdles for new wholesale market entrants. | **Value Perception & Infrastructure:** Evaluating control over critical, immediate infrastructure (e.g., ripening rooms, cold-chain logistics) that growers and retailers cannot easily replicate. |

**<u>Rationale</u>**

Of particular importance to this discussion are the following considerations:

- The reasons for T&G Fresh having come onto the market.
- The continuing decrease of grower numbers.
- The possible scenarios if the JPT application is not approved.

**The reasons for T&G Fresh having come onto the market**

T&G Fresh is a subsidiary of T&G Global. The majority shareholder of T&G Global is the Munich based BayWa AG. It is in financial trouble which is well enough documented elsewhere. A major restructure and divestment programme was instigated by BayWa creditors. T&G Fresh was therefore placed on the market and sold, subject to Commerce Commission approval, to JPT.

The primary interest of BayWa was always the New Zealand premium apple export business. The domestic fresh produce was of considerably less interest; initially, as well as ever since. This is reflected in some strategically interesting decision making with regards to regional market closures and outsourcing and disposing of services typically associated with degrees of significant competitive advantage for substantial fresh produce wholesale markets, e.g. full direct control of their own banana supply chain.

**Decline in Grower Numbers**

The following paragraphs were sourced from an industry paper entitled "Horticulture New Zealand 75 Years On" (Maurer 2025).

> *"In 2006/2007, Te Ara, the New Zealand Encyclopaedia made an effort to capture accurate grower statistics from the various industry sectors that constitute the fresh produce industry, and came up with an approximate total of 8,100 + fruit and vegetable growers. 3,000+ of these growers were kiwifruit growers; 700+ grew apples; 900 growers were growing process vegetables; 400 growers produced glasshouse tomatoes.*
>
> *The Horticulture New Zealand Annual 2025 Report acknowledges a total of 4,200+ growers across it affiliated product groups. 2,800 of these are kiwifruit growers.*
>
> *Given that our exports have expanded significantly since 1948, the year Hudson role with Department of Agriculture came to an end, and our population has more than doubled since (from appr. 1.85 million in 1948 to app. 5.3 million in 2025), these 1,400 growers who are not kiwifruit growers cannot possibly be operating as one-man units. One hint about what might be going on comes in a 2023 report entitled "Pukekohe SVGA ICMP Stocktake + Gap Analysis Report". It suggests that in 2010, there were about 3,200 vegetable growers in New Zealand, who on average managed 16 ha of market gardens. The equivalent in 2020 had grower*

*numbers drop to below one thousand, but the average land holding managed by each of these growers had risen to 57 ha, representing a more than threefold increase compared to 2010."*

The complete paper is attached as an Appendix, as it contains background information about the wider state of New Zealand's horticulture and produce industries that provides a degree of context .

**The possible scenarios if the JPT application is not approved**

Several options come to mind, including:

- An alternative purchaser who is in a better position to gain Commerce Commission approval will be sought.
- The parcel of assets offered to JPT will be unbundled and sold piecemeal.
- Alternative buyers are not found and BayWa ownership will continue with the minimum investment needed to generate cashflow and minimise loss.
- BayWa walks.

There is no need to provide an in-depth analysis here but there are six factors that the submitter would like the Commission to take into account it its decision making process.

1. The regulated supermarket sector has been in a state of heightened sensitivity in the past four years, with the Commerce Commission and Government having played no small part in this.
2. The announcement by various political parties in recent weeks on how they would proceed post-election with addressing what they believe is necessary in terms of regulatory actions in the grocery sector does nothing to settle matters down.
3. It also does nothing to whet the appetite of potential alternatives to JPT, as purchasers of the T&G Fresh parcel already offered to JPT, or potentially piecemeal parts of the parcel.
4. Because perishable fresh-produce businesses operate within structurally fragile, multi-risk supply chains and already exhibit high volatility in returns, the additional rigidity and cost-pressure of leveraged buyout financing is inappropriate: it amplifies downside risk, undermines supply-chain resilience, and conflicts with the operational requirements of safe, reliable fresh-produce trade.
5. Because perishable fresh-produce businesses naturally generate volatile, seasonally driven and thin-margin earnings, the pressure of quarterly, semi-annual, and annual public reporting in listed companies encourages short-termism and earnings smoothing rather than investment in resilience. This structural tension makes publicly listed ownership poorly suited to sectors where biological risk, supply-chain robustness, and long-term grower relationships are more important than meeting near-term market expectations.

6. Because complex fresh-produce wholesale operations depend on long-term grower relationships, patient investment in cold-chain and logistics, and a strategic focus on continuity rather than short-term extraction, they are best owned by grower cooperatives or multi-generational family businesses. These ownership forms embed long-horizon incentives and relational governance that align with the biological, logistical, and market risks inherent in perishable produce.

What the New Zealand produce industry requires is a baseline level of stability in the wholesale produce market. This stability is vital to ensure that growers maintain guaranteed market access and those retailers using wholesale services can rely on consistent product availability.

Because changes in the wholesale sector are fundamentally driven by external retail innovations and upstream supply shifts, evaluating this merger under the *Commerce Act 1986* requires an understanding of behavioural supply chain dynamics, not absent and unavailable data.

By adopting this alternative, dynamic lens, the Commission should be able to better evaluate how approving the JPT acquisition will contribute to further stabilise and futureproof the delicate equilibrium New Zealand's fresh produce wholesale structure. A further consideration is the positive contribution the acquisition would make towards the national produce wholesale structure's ability to meaningfully participate in addressing some of the food security related challenges the country is collectively beginning to understand better.

**An Earlier Industry Assessment**

In an earlier industry assessment (Maurer, 2020), an analysis was included, suggesting that the work of strategic thinkers not connected to the fresh produce industry should be examined as industry decides how to deal with the challenges ahead[2].

Six of these well-known thinkers and educators are Ronald Coase, Reginald Revans, Kenichi Ohmae, Barry Nalebuff , Adam Brandenburger and Peter Drucker. The seventh is the Roman orator and multi-talent Marcus Tullius Cicero who had a profound influence on the way the submitter views relationships in general, and business relationships in particular.

The introduction to that specific part of the assessment and the section on Ronald Coase are reproduced here for its relevance to the JPT application.

> ***Introduction to Rethinking our Industry Mechanisms***
>
> *The demise of the auction system, the increase in leverage enjoyed by the global supermarket companies and the rationalisation of the produce supply chain along its entire length have been major contributors towards this lack of balance, as have increased consumer information demands, changing shopper behaviour and the technological advances of the last twenty years.*
>
> *Will it be possible to establish a fair and sustainable future pricing framework in a consistent fashion through harnessing the insights and technological advances we have available today?*
>
> *I would like to think that the answer is "yes".*
>
> *But rather than aiming to incrementally replace ineffective manual systems with equally ineffective electronic ones, I believe we need to look outside the industry for more radical answers.*
>
> *The price setting mechanisms of today are not sustainable and are out of balance. Supply channels are no longer offering the degree of visibility needed in order to generate a realistic wholesale price range across the aggregated demand by product or category. Will it be possible to establish a fair and sustainable future pricing framework in a consistent fashion through harnessing the insights and technological advances we have available today?*
>
> *The world has moved on and the produce auction is no longer the place where produce prices are established. The produce trade continues to expand and increase in complexity, and prices are set on a daily, weekly and monthly basis in some cases by private treaty or negotiation.*

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[2] Maurer, H. 2020. Fair and Sustainable Produce Prices. Realistic Goal or Unattainable Pipe Dream ? E-book.

*I have over the years read plenty of management texts and literature drawn from a broader spectrum. There are seven thinkers and writers who have left a particularly lasting impression upon me and I believe the answers we need to seek within the fresh produce industry can be gained through combining the learnings available from studying and understanding what these thinkers were trying to tell us and apply these to the challenges of tomorrow's fresh produce industry.*

***RONALD COASE – The Nature of Firms & Transaction Costs***

*Ronald Coase, winner of the Nobel Prize in Economics in 1991, asserted that production is organised in firms when the transaction cost of coordinating production through the market under imperfect information conditions is greater than within the firm. In his ground-breaking 1937 article "The Nature of the Firm" he also refers to economist D. H. Robertson, who discussed "islands of conscious power in this ocean of unconscious cooperation like lumps of butter coagulating in a pail of buttermilk."*

*Coase's reference to Robertson occurred within a broader examination of the role planning plays within economic systems. Of particular interest to Coase was the way production occurs. Coase (1937) states that "outside the firm, price movements direct production". In relation to Robertson's buttermilk analogy, Coase asked why these islands of conscious power exist "if the standard economic argument states that coordination is carried out by the price mechanism?"*

*In other words, why do we need firms or companies if the markets are efficient?*

*Having asked the question, Coase then tries to answer it by introducing the role of the "entrepreneur who directs production in firms."*

*When Coase wrote this in 1937, he could not have anticipated the emergence of the Internet which, using Robertson's buttermilk analogy, has not only increased the amount of buttermilk and the corresponding coagulating lumps of butter in the pail, but is also responsible for the fact that both pail and contents have become totally unpredictable, as has the rate of coagulation.*

*In discussing the "costs of negotiating and concluding a separate contract for each exchange transaction which takes place in a market", Coase makes specific reference to "produce exchanges as an example of markets where a technique is devised to minimise…contract costs" and sums up by stating, "The main reason why it is profitable to establish a firm is to lower transaction costs".*

*Coase had recognised this some years prior to his death in 2013. He maintained that whilst physics had evolved beyond Isaac Newton and biology past Darwin's assertions, economics was still stuck in a market efficiency mindset as per the* *theories advanced by Adam Smith. Coase was calling for change and specifically, a more practice focused economics orientation.*

*As early as 1937 Coase had reached the conclusion that "the fact of uncertainty means people have to forecast future wants[3]."*

The entire produce market is a highly charged maelstrom of various levels of uncertainties constantly competing with each other. Structured and disciplined wholesalers with degrees of critical mass, the ability to look beyond today's market sales results, the willingness to do so and the sufficient level of skill and competence to get that right, are a necessary organisational counterweight to the natural dynamics of a perishable, multi-category produce market in perpetual motion. The proposed JPT acquisition has the potential for the entire market to generate forecasted future wants in a more timely and more accurate manner.

[3] Coase, R., 1937. The Nature of the Firm. Economica. New Series. Volum4, Issue 16.

## CONCLUDING COMMENTS

The consolidation of the grower base is continuing. The coming of age of advantaged technology within the horticultural production sector will accelerate the changes to the form, shape, depth , structure and size of what we can expect future growing entities to look like. The wholesalers of today and beyond, need to be structurally diverse to the extent that they are able support the diminishing number of smaller growers as well as those growers managing substantial production estates but continue to see value in partnering with a suitably resourced wholesale firm.

This submitter considers the above articulated Factor 6 (p.10) to be a key consideration. Here it is again:

> **Because complex fresh-produce wholesale operations depend on long-term grower relationships, patient investment in cold-chain and logistics, and a strategic focus on continuity rather than short-term extraction, they are best owned by grower cooperatives or multi-generational family businesses. These ownership forms embed long-horizon incentives and relational governance that align with the biological, logistical, and market risks inherent in perishable produce.**

The grower cooperative option already exists, complete with a global high value brand strategic co-invested banana partner. Fresh Direct on its own has lacked the muscle to grow into the family owned equivalent, of the cooperatively grower owned wholesaler. T&G Global's focus has not been felt strongly on the domestic market for the last ten years.

The perishable, volatile nature of fresh produce means that preventing the independent wholesale channel to rationalise for the good of the entire fresh produce supply chain matrix, structurally compromises the dynamic resilience of the entire supply chain ecosystem, representing a greater risk than allowing the acquisition to go ahead.

Turners & Growers started operations in 1921. The institutional memory of what has been learned since then in the fresh produce wholesale business did not survive in T&G Global or T&G Fresh, but has been passed down through the generations within the Turner family, with that knowledge journey surviving and continuing within the Fresh Direct culture.

The entire fresh produce strategic supply landscape can't but benefit from, quoting Robertson (in Coase, 1937), "*islands of conscious power*" called Turner, being in the position to make a strengthened contribution towards efforts to generate and maintain a more competitive and adaptable wholesale produce environment in the years to come.

Approving the JPT acquisition would provide the fresh produce wholesale market matrix with a second wholesaler of consequence, with the required long-term vision needed.

## APPENDIX

**Southern Hemisphere Spring 2025**

**Horticulture in New Zealand – 75 Years on**

**Reflections based on J.P. Hudson's 1950-51 paper "Horticulture in New Zealand"**

**Author:** Dr Hans Maurer MRSNZ, CMInstD (rtd.) drhmaurer@gmail.com

### INTRODUCTION

In 1945, a discharged British army major and bomb disposal expert by the name of John Pilkington (J.P.) Hudson[i] arrived in Wellington, New Zealand, to take up a position with the then Department of Agriculture. Today, we call this government department the Ministry for Primary Industries.

J.P. Hudson spent three years in New Zealand. He returned to the United Kingdom in 1948. One of his specific tasks at the New Zealand Department of Agriculture was to work on the transportability of Actinidia chinensis[ii] fruit, then known to a limited audience as the Chinese gooseberry. Today, this fruit is known world-wide as kiwifruit.

Upon his return to the UK, J.P. Hudson took up an appointment as a lecturer in horticulture at Nottingham University.[iii] Professor J.P. Hudson CBE, MBE, GM, B.Sc., N.D.H. died in 2007, after a distinguished academic horticultural career at both Nottingham and Bristol Universities.[iv]

**Legacy to New Zealand**

In 1950, J.P. Hudson wrote an article with the deceptively simple title "Horticulture in New Zealand".[v] I found the article whilst searching for suitable references for an entirely different project, namely Fresh Facts 2025, New Zealand's annual fresh fruit & vegetable Industry pocket data almanac.

I read J.P. Hudson's article with rapidly growing interest, as I soon realized that I was holding the virtual equivalent of an old-fashioned time capsule in my hand, giving me a rare opportunity to gain deep insights into how Horticulture in New Zealand presented itself, a few years before my birth, to a then industry expert.

Hudson wrote his paper in a conversational style, pointing out that he was providing *"personal impressions gained after spending three years on the staff of the New Zealand Department of Agriculture during which time there was ample opportunity of seeing a great variety of holdings, meeting many growers and getting to know practically everyone in the Dominion who was concerned in any way with horticultural education."* (Hudson, J.P. p.41).

**Methodology**

Hudson's paper was structured into four main sections, these being the Environment (1), Commercial Horticulture (2), Home Gardening (3), and Horticultural Education (4). Three of these main sections contains several subsections, ranging from Climate and Countryside (1), Fruitgrowing, Market Gardening, Nursery & Glasshouse Work, Cut Flowers, Tobacco and Size of Holdings (2) to School Gardening, Home Gardeners, Professional Horticulturists, and Training for Advisory Service (4).

I have followed Hudson's structure in my analysis of his paper presented here but have not necessarily commented in-depth on every aspect of the points he has made.

All text in this document displayed in *Italics* and quotation marks represents direct quotes from Hudson's paper, shown with just the relevant page number(s).

I have added my own observations to the various sections as I am discussing Hudson's paper. I am also providing some closing comments, looking at Horticulture in New Zealand from a strategic perspective and through a future focused lens.

## DISCUSSION

### The New Zealand Environment

<u>Climate</u>

Hudson started his observations by providing his readers with some latitude-related observations about New Zealand – which he regularly referred to as "*the Dominion*" throughout his paper.

*"Actually New Zealand straddles the same range of latitudes as Spain and the southern half of France and Wellington is on the same latitude as Naples in Italy"* (p.42).

He continued with an explanation about the mild New Zealand winters, linking these to the Dominion's oceanic climate and "*distance to the nearest landmass*"(p.42).

Hudson further observed *that "freak hailstorms sometimes wreak havoc to glasshouses, whilst occasional violent gales, which may occur in most districts in the Dominion, make it necessary to provide shelter belts around commercial plantations. Almost every year one district or another suffers from prolonged dry weather that reduces the yields where crops cannot be irrigated"* (p.42).

Freak hailstorms, violent gales, the need for shelterbelts, prolonged dry weather and reduced yields due to the lack of irrigation are all phenomena and consequences growers producing fruit and vegetables in in 2025 are only too familiar with.

Hudson's concluding comment on climate is no longer entirely accurate in 2025 – 75 years on.

*"However, despite these hazards the climate of general New Zealand is generally kind both to grower and his crops and does not impose any undue hazard on commercial horticulture."* (p.42).

Growers, wholesalers, retailers, in fact the entire supply chain from seed merchant to consumer are very much aware of several very "*undue hazard[s]*" that regularly inflicts themselves upon commercial horticulture.

I am talking about cyclones, floods and atmospheric rivers. The former were already defined events 75 years ago, i.e.; nobody would have needed to explain to Hudson what a cyclone or a flood were. The "atmospheric river"[vi] concept has only emerged in our vocabulary in more recent years but is obviously a "relative" of cyclones and floods.

All this begs these questions:

Why are cyclones and floods missing from Hudson's meticulous list of climate related hazards for New Zealand commercial horticulture in his 1950 paper? Did he simply overlook to include those? I do not think so.

Did Hudson only describe phenomena or events that he had actually experienced in his three-year stint in New Zealand, ignoring possible evidence from reliable third party sources ? I, for one, did not gain this impression when reading his paper.

What other conclusions does this suggest? Perhaps that cyclones and floods were not as intensely or frequently on the horizon of climate scientists in 1950, as they are in 2025?

Which would get us to the climate change topic, wouldn't it?

<u>The Countryside</u>

Having stated at the outset that "*there are few countries where an Englishman can so soon feel at home* [as in New Zealand]", Hudson discusses the "*wonderful*" but often "*inaccessible scenery*" of the "*Dominion's mountainous backbone*" (p.43).

Hudson also recognized that *"nearly a third of the dominion has been brought into cultivation from the wild in a hundred years by the prodigious efforts of the pioneer settlers. That could only have been accomplished by a technique of wholesale burning of the natural forest*"(p.43).

That led Hudson to the observation that "*the result of that system…has been to leave a scene of great desolation over much of the higher country, where fallen timber still lies uselessly rotting on the hillsides and soil erosion is causing a great deal of concern*"(p.43).

Well, neither hillside soil erosion nor timber lying around in a rotting state have gone away. Soil erosion was one of the reasons the countryside was peppered with Pinus radiata plantations, and the rotting timber lying around on hillsides typically consists of Pinus radiata waste generated at the time of harvesting. We call it "slash" today and it is a major contributing factor of North Island East Coast rivers breaching their banks as the timber waste makes it way down the hillsides in an un-called for fashion, courtesy of heavy rain and soil erosion.

**Commercial Horticulture**

Hudson's first sentence in this section of his paper allows today's reader to recognize his appreciation for the fresh produce supply chain decades before the phrase 'supply chain' first entered our vocabulary in the 1970s.[vii]

*"Few countries of the same size grow such a wide range of horticultural crops as New Zealand, where the greengrocer's shop is a delight to visitors from overseas"* (p.44).

A very elegant way, indeed, of combining the efforts taken by growers and retailers alike.

However, Hudson was not very enthusiastic about New Zealand's future as an "*exporter of horticultural produce",* with the exception of "*apples and pears to Britain"* and "*a few less import items such as the export of tulip bulbs and nursery stock, to other countries in the Southern hemisphere for which there is still room for expansion"* (p.44).

After these general observations, the Commercial Horticulture section separated into several distinct segments.

Fruit Growing

Hudson started this section with the observation that *"peaches, apricots, Japanese plums and quinces are not normally planted by commercial growers here".* However, he noted the *"important plantings of citrus, mainly lemons and New Zealand grapefruit"*, as well as the presence of "*cape gooseberries…*; *tree tomatoes…*; *Feijoas…*; *Passion fruits…*; *and, most interesting of all from the horticultural point of view, the Chinese gooseberry (Actinidia chinensis Planch.)"* (all p.44).

There followed a discussion about the Chinese gooseberry. He sketched the behaviour of the fruit as observed since its arrival in New Zealand "*more then thirty years ago as a decorative plant"* and informed his readers that *"in the warmer districts…several bushels[viii] of fruit are often picked annually from each female vine from the third year after it is propagated…"* (p.45).

Hudson described the fruit as being *"about the size of an egg, though sometimes more sausage-shaped, with a tough brown skin studded with short stiff hairs"* (p.45).

Hudson's detailed interest in kiwifruit does not come as surprise, once one realizes that the future potential of the kiwifruit trade appears to have been one of the reasons for arrival in New Zealand. The following comment can be found in a Hudson family web-blog. *"He worked in the Department of Agriculture at Wellington and in this period he initiated experiments on the transportation of a new fruit to the UK, the Chinese gooseberry, later known as the kiwi fruit"*.[ix]

Raspberries are also discussed in some detail, particularly the fact that in New Zealand *"few stocks are infected with the degenerative virus diseases and seem likely to remain uninfected because of the absence of the aphid species which are the only know vectors of raspberry viruses."* Hudson's enthusiasm for virus-free raspberries extended to such depth that he *suggested "to use New Zealand, with the co-operation of the Department of Agriculture, as a museum for new raspberry varieties, where stock can be kept virus-free until required again in Britain"* (p.45).

The kiwifruit industry has come a long way since Hudson's early involvement in packaging and shipping trials. Zespri is one of the few produce brands in the world with instant glob recognition, and a financial success profile to visit. Fruit no longer look like sausages and the Kowi Gold variety is just about hairless. Kiwifruit growers not only earn an income from tending, harvesting and marketing their fruit, but the regulated environment kiwifruit production and marketing operates in, also generates income from license sales.

Hudson had already drawn a connection between tobacco returns and diminishing raspberry vine plantings. In the years following the publication of Hudson's paper, raspberry production dwindled until it was a shadow of its former self. It was rare to find raspberries on the supermarket shelves in the major cities, in part also driven by the additional complexities of the new supermarket initiated direct supply chains which proved too demanding for raspberries for many years. In more recent years, this situation has started to change. Berryfruit, including raspberries, are a rapidly growing fresh produce category, and modern cool chain technology, as well fit for purpose production, packing and transport facilities & services are driving a raspberry revival.

<u>Market Gardening</u>

Hudson observed that "*a great deal of the Dominion's market gardening is done by Chinese growers, who are highly skilled at that type of work*". He also noted that the consequences of the "*rapidly expanded acreage of vegetables to meet the needs of the American forces stationed in New Zealand and the Pacific*" was still being felt five years after the end of the War in the Pacific (all p.46).

The expansion of acreage Hudson referred to, had "*partly been in the hands of European arable farmers*" who had apparently not been growing vegetables commercially before the war but "*turned to vegetable production at short notice*", as well as the New Zealand

Government, "*which successfully started a number of large market gardens as an emergency measure*" (all p.46).

The large influx of US troops into New Zealand, their evolving forward deployment into the Pacific region to wrestle islands and atolls from Japanese control, and the need to feed these troops had clearly upset the supply and demand equilibrium of vegetables. This was not helped by the fact that the US Army had strictly compartmentalized all information related to the development of the first atom bombs. This strategy had been so successful that the part of the US Army charged with conducting the conventional war in the Pacific, assumed the end of hostilities would not be reached before 1947, i.e.; an additional two years longer than the war ultimately lasted[x].

Hudson then commented on greengrocers. He held New Zealand greengrocers in high regard. In his view they dominated the trade and he compared their product care and merchandise skills very favourably to those of their UK counterparts. Nevertheless, he also expressed concerns about the shelf life of New Zealand vegetables, suggesting that too much washing and trimming might be detrimental: *"Vegetables are cleaned, washed or trimmed, as the case may be, more than is usually the case in Britain, greatly enhancing their appearance in the shop (though possibly not their keeping qualities after being purchased)"* (p.46).

There is no separate retail category in Hudson's paper. That should not come as a surprise. Greengrocers and fruiterers were at the time Hudson penned his observation, the only plausible retail channel to the consumer. The first deserving retail entity of the description "supermarket" did not emerge until 1958, when Chinese greengrocer Tom Ah Chee and his business partners opened their inaugural Foodtown supermarket in South Auckland's Otahuhu.

<u>Nursery and Glasshouse Work</u>

The nursery industry receives a brief mention in despatches before Hudson moves on to under glass production. Here he advises that the glasshouse industry *"amounts to a total of only 80 acres, specialises in tomatoes and grapes, the only too food crops grown regularly under glass in New Zealand"* (p.46). He comments on the tomato production methodologies and he observes as follows: "*Very heavy yields of tomatoes are obtained in some districts, but it is rare to find growers planting any other crop in succession to tomatoes*" (p.46). Grapes do not get another mention, but Hudson does offer an observation on our glasshouse construction, which is using *"a great deal more timber...than in Britain"* (p.47).

New Zealand glasshouse grape production sits below the margin of error these days. Table grapes consumed by New Zealanders are imported all year around and, dependent upon the time of year, the grapes come from California, Chile and Australia respectively, The most recent New Zealand Agricultural Census (2022) showed that 666 hectares of glasshouse tomatoes were under production.

Cut Flowers

The cut flower industry is dealt with in three sentences. Hudson observed that our "*relatively undeveloped*" cut flower industry "*received a tremendous fillip during the occupation of the American forces*" (p.47). Assuming Hudson was not suggesting that the American soldiers, sailors and marines were busy buying bunches of flowers for each other, this comment alludes to the tremendous social changes that came about temporarily. between 1942-1945, as a result of New Zealand being one of the key staging posts in the Pacific Theatre of War.

The New Zealand cut flower industry is stagnating at best. It experienced a solid growth phase following the arrival of Dutch flower growers here in the 1950s and 1960s, as well as the short-lived Cymbidium orchid stem export boom in the 1980s and early 1990s. Since then, the industry has slowly but surely been in decline.[xi]

Tobacco

Hudson linked the success of the tobacco industry *"almost"* located exclusively *"in one small district in the Nelson province"* with *the "virtual disappearance of raspberries from what used to be the main raspberry-growing district in New Zealand since tobacco has proved to be a more attractive cash crop"*, and states that *"the three thousand acres at present grown provide a living for upwards of a thousand separate growers."* He saw the tobacco industry as being *a "small-scale activity"*, that was nevertheless capable of *"producing over three-quarters of the Dominion's home requirements"* (all p.47).

By 1965, grower numbers were down to 500+. The last New Zealand commercial tobacco crop was planted in 1995. Demand had slumped and the market was oversupplied. Remaining growers were assisted into alternative crops by government agencies[xii].

Size of Holdings

Hudson observed that the "*majority of commercial fruit farms, nurseries and market gardens are one-man units run by the owner and his family with only seasonal help at picking time.*" He goes on to discuss the *"acute shortage (and high cost) of hired labour"*, as well as the *"long-term policy of successive governments to get as many men as possible on their own holdings"*, linked to war veterans being *"encouraged by various forms of land grants, mortgages, loans and so on"* (all p.47).

One-man units are not as prevalent anymore as they were when Hudson wrote his paper.

In 2006/2007, Te Ara, the New Zealand Encyclopaedia[xiii,xiv] made an effort to capture accurate grower statistics from the various industry sectors that constitute the fresh produce industry, and came up with an approximate total of 8,100 + fruit and vegetable growers. 3,000+ of these growers were kiwifruit growers; 700+ grew apples; 900 growers were growing process vegetables; 400 growers produced glasshouse tomatoes.

The Horticulture New Zealand Annual 2025 Report acknowledges a total of 4,200+ growers across it affiliated product groups. 2,800 of these are kiwifruit growers.[xv]

Given that our exports have expanded significantly since 1948, the year Hudson role with Department of Agriculture came to an end, and our population has more than doubled since (from appr. 1.85 million in 1948 to app. 5.3 million in 2025), these 1,400 growers who are not kiwifruit growers cannot possibly be operating as one-man units. One hint about what might be going on comes in a 2023 report entitled "Pukekohe SVGA ICMP Stocktake + Gap Analysis Report".[xvi] It suggests that in 2010, there were about 3,200 vegetable growers in New Zealand, who on average managed 16 ha of market gardens. The equivalent 2020 had grower numbers drop to below one thousand, but the average land holding managed by one of these growers had risen to 57 ha, representing a more than threefold increase compared to 2010.

**Home Gardening**

A short section on home gardening allowed Hudson to introduce what appears to be his favourite topic - Horticultural Education. He set the scene in his Home Gardening section by discussing the *"dearth..."* of *"reliable literature written in the Dominion by horticulturists with experience of local conditions,"* but recognised that *"the gap is gradually being filled by various monthly magazines and a steady trickle of gardening books published in New Zealand"* (all p.48).

Hudson raised his concerns about the lack of suitable literature suitable for home gardeners, within the context of *"the universal 5- day 40-hour working week"*, which he claims, *"is leaving many New Zealanders with a surplus of time and energy."* He is also of the view that *"no better outlet can be found for some of this spare time and energy than tending a garden"* (all p.48).

**Horticultural Education**

Having read Hudson's paper to the point where he started sharing his thoughts on Horticultural Education, it becomes patently obvious that Hudson was very passionate about this topic. He opened his discourse with:

*"As will have been gathered from the preceeding paragraphs, horticultural education is not only important to those who earn their living in horticulture, but it has a direct impact on the lives of most people in the Dominion, from the youngest to the oldest and whether living in town or country"* (p.48).

Then Hudson took the reader through his thoughts as they applied to Education related to school gardening, home gardeners, professional horticulturists, and finishing with a section on "*Training for Advisory Service*" (p.51).

Hudson started his comments on school gardening with the prediction *that "all New Zealand children will some day have homes of their own with at least an eighth of an acre of garden, and an interest in gardening, aroused at school, is likely to bear rich fruits later in life. School gardening is designed to be part of the general education of the child, and is not in any sense vocational training"* (p.48).

Statistics New Zealand is in the habit of releasing key demographic data at 5-year intervals. We therefore have no firm picture of what homeownership statistics would tell us right now, as 2025 draws to a close. But we do have the agency's report released in 2020, entitled "Housing in Aotearoa: 2020". It does not make pretty reading.

At the time of the report Radio New Zealand reported on its findings.[xvii] These included that "Homeownership hit its peak in the 1990s when 73.8 percent of people owned their own home." The reported figure "as of 2018, "has fallen across all ages down to 64.5 percent".

An eight of an acre equates to ~ 505 square meters, a realistic garden size, at a time when Kiwis were pursuing their 'quarter acre dream'. But these times have long gone. Our sections are shrinking. The New Zealand Herald reported in 2018 that "The land that new houses are being built on in Auckland now have a median size of less than 500sq m - signalling the end of the quarter-acre dream[xviii]."

That prediction of Hudson's ended up being somewhat off the mark.

After a brief discussion of the merits of horticulture education being added to the correspondence school curriculum, Hudson concluded that *"the greatest brake on the development of school gardening is still the lack of teachers with the necessary training to teach this subject"* (p.49).

Well, someone must have taken Hudson serious at the time, because forty years ago, the Horticulture and Agriculture Teachers Association (HATA) was established. HATA is "dedicated to promoting and improving the teaching and learning of Agricultural and Horticultural Science in New Zealand schools[xix]."

Sadly, I have to admit that I had been unaware of HATA's existence until I started my research for this paper. I wonder who else did not know this before reading these lines?

For focus related reasons, I will not discuss at any length what Hudson had to say about the Education needs of home gardeners, other than sharing this direct quote:

*"New Zealand can be a true gardener's paradise, and as many of the failures are due to misdirected zeal rather than indifference, there is a very real need for horticultural education of the home gardener"* (p.49).

Hudson commences his extensive comments on professional horticulturists and their education needs by starting in 19th century Britain, *"where superb grounds were entrusted to head gardeners who were probably the finest horticultural craftsmen the word has ever seen. Moreover, many of them were men of great character as well as masters of craftsmanship, imprinting their stamps on the personalities of those whom they trained. The life was hard, the hours of work were long and the pay was poor, but great attention was paid to the training of promising youths"* (p.50).

Hudson then observed that *"several depressions and two world wars had shattered"* (p.50), the large hereditary and personal fortunes which had, in essence, underwritten horticultural education in Britain; and, that these sources could no longer be relied upon to fund horticultural education.

In the meantime though, Hudson stated, *"young men well- trained in the fundamentals of garden craft passed from these establishment to places all over the world, including New Zealand, taking with them enthusiasm, energy, knowledge and skill"* (p.50).

He then returned his attention to New Zealand, starting with the *"founding in 1927 of the National Diploma in Horticulture (N.Z.) by the Royal New Zealand Institute of Horticulture",* which he saw as *"an important step in putting horticultural education on a national basis and also in providing a worth-while professional qualification"* (p.50).

"*Lincoln and Massey Agriculture colleges*" (p.50) are acknowledged by Hudson as having *"founded horticultural departments towards the end of the recent war"* (p.50), and offering two-year College Diplomas. Hudson also advises that *"steps have very recently been taken"* (p.50), to start a four-year degree course, with the possibility of achieving a Master's degree through adding a fifth year of college attendance. Hudson also points out that both Massey and Lincoln are constituent colleges of the University of New Zealand.

<u>Training for Advisory Service</u>

Here Hudson provided a fascinating insider's view of how his employer, the Department of Agriculture, today's Ministry for Primary Industries, went about recruiting and retaining its advisory service staff.

He explained that *"on the advisory side the Horticulture Division of the Department of Agriculture, mainly concerned at its inception with the inspection of apples for export and the policing of regulations, has been turning its attention more and more to the provision of extension services"* (p.51).

Hudson continued with this insight; *"Until recently many district officers in the Division were saddled with the triple role of policeman, tax collector and teacher which they* *acquitted with astonishing tact and patience, but the instructional and inspectional duties are now being separated and the whole service vigorously overhauled"* (p.51).

Horticulture Advisory Officers also represented an administrative problem, according to Hudson.

*"Until the recent inception of the degree courses just referred to, there was no degree in horticulture in New Zealand. It was however necessary for officers recruited into the Horticulture Division to have degrees of some sort if their salary scales were to be on the same basis as those of officers in the agricultural branches of the Department, who, since 1913, have been able to take an agricultural degree in New Zealand"* (p.51).

Hudson then set out how future advisory officers would be trained, pending the establishment of the degree courses in horticulture:

*"A recruiting campaign in the secondary schools, designed to interest boys of school leaving age in horticulture, ensures that a number of boys each year applied for entry into the Horticulture Division. A few of these were handpicked and appointed for six years as cadets, during which time their living expenses were to be subsidised by the Department. For the first three years they studied at the University for an ordinary science degree (B.Sc.), taking chemistry and botany as the main subjects"* (p.51).

*"After graduating, each cadet spent three years doing practical work on commercial holdings selected by the Division, working normally, one year on a fruit farm, one year on a nursery and one on a market garden."* At the end of *"his six years' training the cadet takes his place on the staff of the Division as an Instructor. This scheme presented a new departure in horticultural education"* (p.51).

Hudson concludes his narrative on training of future Department of Agriculture staff by stating the training system will work once the new horticultural degrees at Massey and Lincoln Colleges are fully functional:

*"Cadets will in future be expected to study for a horticultural degree. They will still be recruited to the division immediately after leaving school and will go straight to University to take the Intermediate Course. Following this, cadets will spend one year working on a selected commercial holding and will then return to University to complete their final degree course, leaving one further year of practical experience to be gaining after graduation and before joining the staff of the Division as Instructors or Inspectors"* (pp.51-52).

Matters have certainly changed in this area. By the 1980s, Hudson's Department of Agriculture had become the Ministry for Agriculture and Fisheries (MAF). What then happened is summarised in a 2021 MPI technical paper as follows:

"Reforms of the 1980s disbanded the Advisory Services Division and with it, a clear pathway into advisory roles. Over time career pathways have become less clear-cut and more varied[xx]."

Is there some re-thinking going on in this space?

**Hudson's Conclusion**

Hudson's concluding comments are entirely focused on the topic of horticultural education. He expressed the view that,

*"...the last two decades the former system of horticultural education, with its fine tradition of personal training and its main emphasis on craftsmanship and the arts of horticulture, has become to some extent outmoded. Yet the new system, based on the so-called scientific horticulture, is still only in the formative stage, although it is growing in experience and value with every year that passes"* (p.52).

Hudson moves on to consolidate his views on the "*...great responsibility* [that] *rests on professional horticulturists and others concerned with the future of horticulture",* as he forecasts *"that the plans made now,* are likely to have *"far reaching effects on the standard of horticultural thought and work for generations to come"* (all p.52).

The sentence that stands out like a beacon in the dark in Hudson's conclusion is this one:

*"Horticulture in all its phases, has a part to play in the future welfare and prosperity of New Zealand"* (p.52).

I could not have put it better myself.

**SUMMARY COMMENTS**

John Pilkington Hudson afforded me the opportunity to view the New Zealand horticultural scene through his lens, which, naturally, was focused and influenced, from both angle and perspective, through his own experiences and preferences.

I have attempted to provide a 2025 view on some of the issues raised by Hudson in the above Discussion section. Naturally, that did occur from my perspective, which clearly differs from Hudson in some areas.

Where we do not differ though, is in our jointly held view that *"Horticulture in all its phases, has a part to play in the future welfare and prosperity of New Zealand"* (p.52).

Hudson wrote this statement 75 years ago, five years after the end of World War II, and after three years of having an intense interest in the horticultural affairs of "the Dominion of New Zealand", as he referred to Aotearoa New Zealand.

For my part, I am in absolute concurrence with Hudson, based on my engagement with our horticultural industry over the last 45 years.

During this time, I have witnessed the rise and regulation of the kiwifruit industry, the deregulation of the pipfruit industry, the removal of agricultural subsidies, the deregulation of banana, citrus, grapes and pineapples imports, the demise of the milkman, beer and wine becoming main supermarket staples, and the produce auction system fading into insignificance and coming to an end, following the supermarkets' pursuit of strengthening direct relationships with fruit & vegetable growers. This latter development occurred in part, due to the leverage the corporate retailers were able to develop through degrees of critical mass, and in part, through the genuine recognition that consumers were demanding more information about what they were eating, and greater assurance that what they were eating was safe.

All these changes came with concepts such as trickle irrigation, mechanised harvesting, Reuseable Produce Crates, Controlled Atmosphere storage, computerisation, category management, distribution centres, planograms and supply chain management, to name a few.

All that remains to be asked now is : Where are we heading in the next 75 years?

Who knows for sure, but there are some indications. These include that standards will increase in importance; artificial intelligence has started to produce operational concepts that are now being introduced; supply chain management has evolved into value chain management; and quantum computing is likely to turbocharge anything we touch that requires a process.

So how can we prepare for the future, given that we will never be able to accurately predict it?

Well, Hudson's mantra - *"Horticulture in all its phases, has a part to play in the future welfare and prosperity of New Zealand"* – clearly has to be the starting point.

Why?

- Because one of the significant outputs of commercial horticulture are fruits and vegetables and we need those to survive. We cannot just live on meat alone, and I surely do not need to make the case for this here.

- As horticultural outputs leave orchards, market gardens, and packhouses, they turn into produce that is sold as fruits and vegetables in supermarket produce departments, at greengrocers and fruiterers stores, at farmers markets and on the side of the roads.

- Aotearoa New Zealand punches above its weight in agricultural and horticultural exports and our country's prosperity does to a large degree depend upon the intergenerational success as a primary industries exporter.
- But as a nation, we cannot just live on kiwifruit and apples alone either. We need the entire range of fruits and vegetables being available to us, albeit on seasonal cycles if year round supply is no longer an option due to circumstance.

I am convinced that we do understand that horticulture has a part to play in our country's welfare and prosperity.

But are there enough members of the next generations educated to the point that we can reduce the mistakes we make when we build houses on the best horticultural land we have, for example; or when legislation starts interfering with crop rotation practices that are instrumental to producing safe and nutritionally sound vegetable crops and are contributing to country's food security needs?

I believe our focus and investment in years to come needs to exponentially grow in the horticultural education segment because that where our intellectual and best practice future grunt will need to emerge from.

There are four words in Hudson's mantra which are easily overlooked; "… *in all its phases..*"

We can only achieve success in **all horticultural phases** if we stop majoring in minors, start working together in unlocking value out of supply chains and find ways by which formal education and on the job based training are better aligned and integrated, leveraging of each other, rather than wasting valuable energy through being constantly at loggerheads.

## Endnotes

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