



APPENDIX

Industry Statistics – Performance and Production by Cultivar, Region and Markets

| | 2020/21 | 2019/20 | 2018/19 | 2017/18 | 2016/17 | 2015/16 | 2014/15 | 2013/14 |
|--|---------|---------|---------|---------|---------|---------|---------|---------|
|--|---------|---------|---------|---------|---------|---------|---------|---------|

Distribution to growers/suppliers

| | | | | | | | | |
|---|--------------|-------|-------|-------|------|------|------|------|
| Fruit and service payments (excl loyalty premium) | 13.72 | 12.94 | 11.52 | 11.53 | 9.21 | 9.27 | 9.57 | 9.02 |
| Loyalty premium | 0.39 | 0.31 | 0.30 | 0.27 | 0.25 | 0.24 | 0.24 | 0.24 |
| Total payments per tray | 14.11 | 13.25 | 11.83 | 11.80 | 9.46 | 9.51 | 9.81 | 9.26 |

Crop Volumes (000's)

| | | | | | | | | |
|---|----------------|---------|---------|---------|---------|---------|--------|--------|
| Trays submitted (gross) | 160,977 | 150,341 | 157,715 | 125,822 | 148,902 | 123,763 | 97,304 | 87,725 |
| Trays supplied | 159,649 | 148,134 | 154,058 | 124,433 | 145,871 | 120,145 | 95,683 | 86,510 |
| Trays sold | 158,077 | 145,223 | 148,843 | 123,246 | 137,748 | 117,094 | 95,187 | 86,094 |
| Trays sold as a percentage of trays supplied | 99.0% | 98.0% | 96.6% | 99.0% | 94.4% | 97.5% | 99.5% | 99.5% |

General Statistics

| | | | | | | | | |
|---|----------------|---------|--------|--------|--------|--------|--------|--------|
| Production per hectare (trays submitted) | 12,072 | 11,650 | 12,373 | 9,913 | 11,838 | 10,157 | 8,662 | 8,016 |
| Producing hectares | 13,334 | 12,905 | 12,747 | 12,692 | 12,578 | 12,185 | 11,233 | 10,944 |
| Orchard Gate Return per hectare (average) | 123,041 | 107,142 | 96,033 | 79,361 | 68,868 | 60,758 | 57,369 | 49,385 |
| Number of producers | 2,813 | 2,792 | 2,756 | 2,405 | 2,435 | 2,156 | 2,540 | 2,350 |
| Average number of trays supplied per producer | 56,754 | 53,057 | 55,899 | 51,739 | 59,906 | 47,752 | 37,670 | 36,813 |

Number of Orchards Registered

| | | | | | | | | |
|----------------------|--------------|-------|-------|-------|-------|-------|-------|-------|
| 0 – 2 hectares | 734 | 738 | 717 | 774 | 791 | 807 | 834 | 802 |
| 2 – 5 hectares | 1,544 | 1,540 | 1,575 | 1,509 | 1,508 | 1,499 | 1,428 | 1,458 |
| 5 – 10 hectares | 720 | 693 | 702 | 607 | 589 | 568 | 515 | 487 |
| Over 10 hectares | 214 | 211 | 207 | 165 | 161 | 147 | 128 | 126 |
| Total (KPINS) | 3,222 | 3,182 | 3,201 | 3,055 | 3,049 | 3,021 | 2,905 | 2,873 |

| | 2020/21 | 2019/20 | Variance |
|---|---------------------|---------------------|----------|
| Zespri global kiwifruit sales | 3.583 billion | 3.140 billion | 14% |
| Export earnings (New Zealand grown) | 2.599 billion | 2.272 billion | 14% |
| New Zealand-grown fruit and service payments | 2.253.2 million | 1.962.5 million | 15% |
| New Zealand-grown Orchard Gate Return (OGR) per hectare | \$123,041 (average) | \$107,142 (average) | 15% |
| - Green | \$76,722 | \$67,295 | 14% |
| - Organic Green | \$66,453 | \$63,734 | 4% |
| - SunGold ¹ | \$177,846 | \$161,660 | 10% |
| - Organic SunGold ¹ | \$158,599 | N/A | N/A |
| Zespri global volume (trays sold) | 181.5 million | 164.4 million | 10% |
| New Zealand-grown | 158.0 million | 145.3 million | 9% |
| Non-New Zealand-grown | 23.5 million | 19.1 million | 23% |

Key figures from Zespri's Annual Results 2020-21

¹ 2019/20 comparative for SunGold reflects the combined pool of Zespri SunGold and Organic SunGold kiwifruit. These varieties have been split into separate pools for the 2020/21 year, as reflected above.

NEW ZEALAND INDUSTRY PERFORMANCE

Regional Production Analysis - NZ Grown Kiwifruit - Trays Supplied to Zespri - FOBS

| | 2020/21 | | 2019/20 | | 2018/19 | | 2017/18 | |
|--|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Tray Equivalents (TEs) supplied to Zespri (FOBS) | Producing Hectares | TE Supplied per ha |
| Zespri Green Kiwifruit | | | | | | | | |
| Northland | 81 | 8,829 | 100 | 6,835 | 106 | 8,498 | 109 | 5,779 |
| Auckland | 243 | 8,030 | 256 | 7,175 | 262 | 9,974 | 273 | 7,719 |
| Bay of Plenty | | | | | | | | |
| Katikati | 859 | 8,011 | 830 | 8,960 | 859 | 9,882 | 940 | 7,678 |
| Ōpōtiki | 436 | 10,735 | 444 | 10,834 | 455 | 11,315 | 457 | 8,917 |
| Tauranga | 996 | 10,625 | 1,066 | 9,773 | 1,087 | 12,014 | 1,086 | 9,193 |
| Te Puke | 3,079 | 11,551 | 3,190 | 11,058 | 3,292 | 12,380 | 3,419 | 9,641 |
| Waihi | 106 | 7,608 | 132 | 7,771 | 138 | 9,858 | 100 | 6,569 |
| Whakatāne | 309 | 7,434 | 331 | 8,369 | 366 | 10,541 | 402 | 7,728 |
| Waikato | 202 | 8,297 | 204 | 9,113 | 203 | 9,076 | 200 | 8,339 |
| Poverty Bay | 40 | 6,054 | 44 | 6,801 | 52 | 7,745 | 54 | 8,366 |
| Hawke's Bay | 41 | 6,005 | 41 | 6,916 | 45 | 7,358 | 43 | 6,620 |
| Lower North Island | 69 | 8,623 | 69 | 9,062 | 70 | 9,291 | 70 | 8,696 |
| South Island | 197 | 6,226 | 208 | 6,519 | 223 | 7,258 | 229 | 5,663 |
| Total producing hectares | 6,659 | | 6,915 | | 7,158 | | 7,382 | |
| Average TE supplied per hectare | | 10,133 | | 9,932 | | 11,320 | | 8,812 |

| | 2020/21 | | 2019/20 | | 2018/19 | | 2017/18 | |
|--|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------|
| Tray Equivalents (TEs) supplied to Zespri (FOBS) | Producing Hectares | TE Supplied per ha | Producing Hectares | TE Supplied per ha | Producing hectares | TE Supplied Per ha | Producing hectares | 2016/17 |
| Zespri Organic Green Kiwifruit | | | | | | | | |
| Northland | - | - | - | - | - | - | - | - |
| Auckland | 1 | 5,118 | 1 | 2,626 | 1 | 5,364 | 1 | 2,614 |
| Bay of Plenty | | | | | | | | |
| Katikati | 29 | 6,427 | 30 | 6,095 | 30 | 9,061 | 30 | 6,593 |
| Ōpōtiki | 22 | 7,400 | 21 | 7,092 | 21 | 7,493 | 22 | 5,786 |
| Tauranga | 177 | 7,333 | 174 | 6,599 | 182 | 8,604 | 203 | 6,033 |
| Te Puke | 35 | 8,276 | 37 | 7,924 | 38 | 8,775 | 42 | 6,979 |
| Waihi | 22 | 3,961 | 22 | 5,077 | 22 | 6,589 | 19 | 3,964 |
| Whakatāne | 4 | 2,742 | 4 | 3,178 | 4 | 4,594 | 4 | 4,197 |
| Waikato | 147 | 4,875 | 147 | 6,047 | 148 | 6,885 | 151 | 5,310 |
| Poverty Bay | - | - | 0 | 2,728 | 1 | 4,042 | 1 | 3,676 |
| Hawke's Bay | - | - | - | - | - | - | - | - |
| Lower North Island | 2 | 3,330 | 2 | 3,763 | 2 | 4,439 | 2 | 5,552 |
| South Island | - | - | - | - | - | - | - | - |
| Total producing hectares | 439 | | 437 | | 448 | | 475 | |
| Average TE supplied per hectare | | 6,296 | | 6,386 | | 7,863 | | 8,812 |

| | 2020/21 | | 2019/20 | | 2018/19 | | 2017/18 | |
|--|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Tray Equivalents (TEs) supplied to Zespri (FOBS) | Producing Hectares | TE Supplied per ha |
| Zespri SunGold Kiwifruit (Gold 3) | | | | | | | | |
| Northland | 386 | 13,251 | 368 | 11,0738 | 356 | 12,327 | 319 | 8,044 |
| Auckland | 234 | 14,312 | 227 | 12,865 | 214 | 12,143 | 206 | 10,701 |
| Bay of Plenty | | | | | | | | |
| Katikati | 597 | 13,285 | 537 | 13,421 | 497 | 13,531 | 525 | 11,299 |
| Ōpōtiki | 571 | 13,901 | 543 | 14,132 | 520 | 13,827 | 506 | 12,172 |
| Tauranga | 517 | 14,580 | 500 | 13,133 | 476 | 14,100 | 437 | 12,320 |
| Te Puke | 2,402 | 15,252 | 2,085 | 14,228 | 1,811 | 13,744 | 1,655 | 12,390 |
| Waihi | 97 | 12,256 | 105 | 11,887 | 92 | 12,811 | 53 | 9,168 |
| Whakatāne | 341 | 13,405 | 274 | 12,074 | 240 | 11,931 | 211 | 13,211 |
| Waikato | 185 | 12,773 | 197 | 11,239 | 192 | 10,712 | 183 | 7,937 |
| Poverty Bay | 311 | 10,727 | 267 | 12,321 | 244 | 11,937 | 208 | 9,740 |
| Hawke's Bay | 165 | 11,034 | 156 | 12,559 | 152 | 10,840 | 149 | 8,263 |
| Lower North Island | 1 | 10,096 | 1 | 11,093 | 2 | 5,955 | 2 | 7,799 |
| South Island | 241 | 15,189 | 224 | 14,897 | 200 | 14,135 | 176 | 8,693 |
| Total producing hectares | 6,047 | | 5,483 | | 4,996 | | 4,630 | |
| Average TE supplied per hectare | | 14,130 | | 13,443 | | 13,216 | | 11,292 |

| | 2020/21 | | 2019/20 | | 2018/19 | | 2017/18 | |
|--|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------|
| Tray Equivalents (TEs) supplied to Zespri (FOBS) | Producing Hectares | TE Supplied per ha | Producing Hectares | TE Supplied per ha | Producing hectares | TE Supplied Per ha | Producing hectares | 2016/17 |
| Zespri Organic SunGold Kiwifruit (Gold 3) | | | | | | | | |
| Northland | 9 | 7,579 | - | - | - | - | - | - |
| Auckland | 4 | 8,687 | - | - | - | - | - | - |
| Bay of Plenty | | | | | | | | |
| Katikati | 2 | 7,868 | - | - | - | - | - | - |
| Ōpōtiki | 11 | 7,939 | - | - | - | - | - | - |
| Tauranga | 30 | 10,618 | - | - | - | - | - | - |
| Te Puke | 52 | 12,350 | - | - | - | - | - | - |
| Waihi | 13 | 9,307 | - | - | - | - | - | - |
| Whakatāne | - | - | - | - | - | - | - | - |
| Waikato | 18 | 8,263 | - | - | - | - | - | - |
| Poverty Bay | 3 | - | - | - | - | - | - | - |
| Hawke's Bay | - | - | - | - | - | - | - | - |
| Lower North Island | 2 | 4,871 | - | - | - | - | - | - |
| South Island | - | - | - | - | - | - | - | - |
| Total producing hectares | 142 | | - | | - | | - | |
| Average TE supplied per hectare | | 10,253 | | - | | - | | - |

| | 2020/21 | | 2019/20 | | 2018/19 | | 2017/18 | |
|--|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Tray Equivalents (TEs) supplied to Zespri (FOBS) | Producing Hectares | TE Supplied per ha |
| Zespri Sweet Green Kiwifruit (Green14) | | | | | | | | |
| Northland | - | - | - | - | 1 | 5,809 | 1 | 3,401 |
| Auckland | 12 | 3,088 | 14 | 2,894 | 18 | 4,196 | 14 | 5,238 |
| Bay of Plenty | | | | | | | | |
| Katikati | 8 | 4,307 | 9 | 4,718 | 8 | 5,871 | 11 | 7,377 |
| Ōpōtiki | 5 | 5,687 | 5 | 7,353 | 8 | 8,003 | 12 | 7,790 |
| Tauranga | 1 | 5,771 | 1 | 7,380 | 4 | 7,254 | 6 | 5,845 |
| Te Puke | 9 | 8,719 | 17 | 7,778 | 59 | 6,944 | 80 | 7,711 |
| Waihi | - | - | - | - | - | - | - | - |
| Whakatāne | 5 | 5,844 | 7 | 5,674 | 17 | 6,863 | 18 | 7,550 |
| Waikato | - | - | 8 | 6,248 | 11 | 5,032 | 15 | 5,428 |
| Poverty Bay | - | - | - | - | 3 | 5,298 | 4 | 6,985 |
| Hawke's Bay | 7 | 7,831 | 7 | 5,920 | 8 | 3,682 | 8 | 4,415 |
| Lower North Island | 1 | 2,471 | 2 | 3,181 | 4 | 2,602 | 4 | 6,486 |
| South Island | - | - | - | 2,789 | 2 | 4,013 | 2 | 2,789 |
| Total producing hectares | 48 | - | 70 | - | 145 | - | 175 | - |
| Average TE supplied per hectare | - | 5,608 | - | 5668 | - | 6,150 | - | 6,925 |

Production area and trays supplied of kiwifruit varieties by region over the past four seasons.



GLOSSARY

Zespri Variety names:

| Business Name | Abbreviation | EDI variety code | Zespri brand name | PVR denomination (legal name) |
|---------------|--------------|------------------|-------------------|-------------------------------|
| Hayward | HW | HW | Green | Hayward |
| Gold 3 | G3 | GA | SunGold | ZESY002 |
| Hort16A | 16A | GK | Zespri Gold | HORT16A |
| Red 19 | R19 | RS | Ruby Red | ZES008 |
| Green 14 | G14 | HE | Sweet Green | ZESH004 |

Terms and Definitions

| Term | Definition |
|-------------------------------|---|
| 5-Year Outlook | Annual document outlining Zespri's strategies for each category for the next 3 years and beyond. |
| 12-month supply | Sourcing kiwifruit globally, for supply to Zespri customers and consumers year-round. |
| Allophanic Soil | Crumbly, free draining soil with limited natural fertility. |
| Apical dominance | The growing shoot tip inhibits the growth of lateral or axillary buds. |
| Bio-stimulants | Include diverse formulations of compounds, substances and micro-organisms that are applied to plants or soils to improve crop vigour, yields, quality and tolerance to stresses. |
| Black seeds | The number of mature black seeds in a fruit. It is used as a measure of maturity. |
| Botrytis | A pathogenic fungus that causes grey mould and storage diseases in kiwifruit. |
| Brix | Percentage of sugar by weight (grams per 100mL water) in juice of kiwifruit. |
| CA | Controlled Atmosphere – regulating the O ₂ and CO ₂ levels, as well as temperature and humidity of sealed storage facilities; slows down ripening (effectively putting fruit into hibernation) and improves firmness of stored fruit. |
| Checkpoint | Process/check undertaken at wharf – fruit is electronically scanned as it is loaded onto the vessel. |
| Chlorosis | Condition in which leaves produce insufficient chlorophyll so may be pale, yellow or yellow-white. Often a symptom of phytotoxicity. |
| Collaborative Marketer | KNZ approved kiwifruit exporter from NZ (other than Zespri). |
| CPS | Crop Protection Standard – Set of rules for agrichemical use, determined by Zespri, which ensures fruit meets legal requirements of export markets as well as customer and consumer requirements for food safety and sustainability. |
| Cultivar | New variety produced by selective breeding. |
| Dioecious | Having separate male and female plants. |
| DM | Dry Matter – calculated as the ratio of dry to fresh weight. DM = Dry weight ÷ fresh weight. Dry weight constituents include carbohydrates, proteins, acids and minerals. |

| | |
|-----------------------------------|--|
| EDI | Electronic Data Interface – supply chain information transferred from Postharvest operators to Zespri. |
| Exudates | Fluid leaking from Psa infected vines from cankers or wounds; may be red/orange or white, may appear as dried stains rather than fresh. |
| FOBS | Free On Board Ship – a trade term, Zespri takes ownership of the fruit when it is loaded on a vessel. |
| Fruit and Service Payments | Payments made by Zespri for supply of fruit. Fruit payments (submit and progress payments) and service payments are in place to incentivise the supply of kiwifruit with desired characteristics to gain the best sales return. |
| Global GAP | Global Produce Working Group code for Good Agricultural Practice – set of criteria under which fruit is produced, audited annually. Growers must have Global GAP certification for Zespri to accept their fruit into inventory. |
| Gold3 | Gold cultivar commercialised by Zespri in 2010, otherwise known as SunGold. Replaced ZespriGold (Hort16A) that was susceptible to Psa. Has PVR protection; growers must purchase license to be able to grow it. |
| Gold9 | Gold cultivar commercialised by Zespri in 2010, otherwise known as ZespriCharm. It was decommercialised due to faults in its storage ability and physical appearance. |
| Green14 | Green cultivar commercialised by Zespri in 2010, otherwise known as SweetGreen. Sweeter fruit than the traditional green Hayward. Has PVR protection; growers must purchase license to be able to grow it. |
| Hayward | Green cultivar, predominant variety since the 1960s. |
| Hort16A | Gold cultivar commercialised by Zespri in 2000, otherwise known as ZespriGold. Hort16A was highly susceptible to Psa and was replaced by Gold3. |
| IAC | Industry Advisory Council – made up of representatives of Zespri, Growers and Supply Entities; manage issues relating to the supply contract – the treatment of and payment of fruit and matters with material financial implications for growers. |
| ISG | Industry Supply Group – made up of representatives Zespri, Growers and Supply Entities; manage decisions relating to the supply chain process – quality assurance and rules around labelling, packaging and the export of kiwifruit. |
| IT | International Tray – single layer packaging tray for fruit (size 18-36), 3.6kg. |
| KISP | Kiwifruit Industry Strategy Project – long term plan developed by industry representatives to achieve market, strategic and financial goals for the benefit of NZ Growers. |
| Kiwistart | Period early in Harvest (ISO weeks 11/12 to 18/19, although dates vary with variety and can change depending on maturity) for which a premium is paid for fruit submitted, as an incentive to ensure supply of kiwifruit early in the season. |
| Kiwigreen | Zespri’s Integrated Pest Management programme for pest and disease control, uses environmentally responsible production methods to ensure minimal/nil chemical residues. |
| KNZ | Kiwifruit New Zealand – industry regulator who give Zespri the mandate to be the vehicle for the SPE. Also allows other exporters to trade NZ grown kiwifruit outside of Australasia via collaborative marketing agreements. |
| KPIN | Kiwifruit Property Identification Number – a unique ID that every orchard must have. Allows traceability of fruit. |
| KVH | Kiwifruit Vine Health – independent industry body responsible for biosecurity. |
| M2 | Modular Double – packaging tray with 2 layers of fruit (Green and Gold). |
| MB | Modular Bulk – loose fill packaging for fruit, 10kg net fruit weight (Green). |

| | |
|-----------------------|--|
| ML | Modular Loose – loose fill packing for fruit, 6.8kg net fruit weight (Gold). |
| MRL | Maximum Residue Level – every agricultural compound used in food production has a maximum residue level set. Each country determines its own MRLs. |
| MTP | Maximum Taste Payment – Determined by Zespri each year for each variety (amount per tray). Growers receive a taste payment - a portion of the MTP per tray depending on their TZG and size profile. |
| MTS | Minimum Taste Standard – Zespri initiative used to optimise taste, sets minimum DM levels for crops to be exported. |
| NSS | Non-Standard Supply – fruit that does not meet Zespri’s Class 1 standard i.e., small or below MTS. Sold on local market, processed or used for stock food. |
| OGR | Orchard Gate Return – Net Income a grower receives (Income from Zespri less Cost of Postharvest). |
| Osmoregulation | Process of maintaining internal balance between water and dissolved materials (electrolytes) regardless of environmental conditions. |
| Phenology | Study of the timing of biological events in the lifecycle of plants and animals such as bud break, flowering, maturity, dormancy. |
| Phloem | Transport tissue in vascular plants; conducts sugars and other metabolic products downwards from the leaves. |
| Phytosanitary | Verification (in terms of inspection or provision of a certificate) that plants or plant products are free from quarantine pests or diseases. |
| Phytotoxicity | Toxic effect by a compound on plant growth; range from delayed growth, misshapen leaves or fruit, discoloured or dead spots on leaves, to death of the plant. |
| PLU | Price Look Up – identification number affixed to produce (by fruit sticker) to make check-out and inventory control easier. |
| Psa | <i>Pseudomonas syringae</i> pv. <i>actinidiae</i> – bacterial disease that affects kiwifruit vines. |
| Psa-V | Indicates the virulent strain of the bacteria that exists in New Zealand. |
| Postharvest | Packhouse and cool-store operations. |
| Sclerotinia | A pathogenic fungus that causes fruit loss from diseased fruitlets, fruit scarring and field rot in kiwifruit. |
| Size profile | Fruit range in size from size 16 to size 46. Size is relative to weight, so fruit sizes correspond to the number of fruit that can fit into a 3.6kg tray (IT). Size profile is the number of trays of each size grade in a crop. |
| SPE | Single Point of Entry – use of one exporter rather than multiple exporters e.g., Zespri holds the SPE for the NZ Kiwifruit industry. |
| TE | Tray Equivalent – unit of volume measurement based on a single layer tray (IT). |
| TZG | Taste Zespri Grade – Figure calculated from the dry matter of fruit at each size profile in the crop. Used for calculating the taste payment a grower receives. |
| Xylem | Transport tissue in vascular plants; conducts water from the roots to the shoots and leaves. |
| Zespri | Zespri International Ltd (ZIL) – Limited liability company owned by current and past kiwifruit growers; the world’s largest marketer of Kiwifruit. |
| ZGL | Zespri Group Limited – Parent company of which ZIL is the operating subsidiary. |
| ZGS | Zespri Global Supply – program under which Zespri grows fruit in Italy, France, Japan, South Korea and Australia to ensure 12-month supply to retailers. |