



RVIG ADDENDUM



SUPPLEMENTAL INFORMATION FOR BIDDERS PARTICIPATING IN THE 2023 ZESPRI RUBYRED KIWIFRUIT¹ LICENCE AUCTION PROCESS

The purpose of this document is to provide potential Zespri RubyRed Kiwifruit licence purchasers of any new significant information that is material to license purchasing decisions that have arisen following the first season of commercial production of Red19.

In addition to the information below, growers should also fully inform themselves of the content of the 2022 Zespri RubyRed™ New Varieties Information Guide ("RVIG") which can be found on the Zespri Canopy website.

From 2023, the new mechanism for allocating Zespri RubyRed Kiwifruit and Zespri SunGold Kiwifruit licences is via an ascending-price open auction, replacing the previous closed tender process.

The ascending-price open auction process is governed by the 2023 Red19 Licence Application Overview and Rules (the "Red19 LAOR") which can also be found on Canopy.

RED19 VARIETY RELEASE AND LICENSING

Change in planned licence releases

The Zespri RubyRed Kiwifruit marketing proposition and market demand remains strong and unchanged from the original target supply volume of 15 million trays for the Asian market, aimed at attracting new and younger consumers to the broader kiwifruit category.

However, current target demand of 15 million trays by 2032 was based on a yield assumption of 10,000 trays per hectare. These yield assumptions are not currently being realised from orchards that have been in production for more than two years ("refer 2022 production" later in this document). However, it is too early to accurately predict the potential yield of this variety based on a small production data set.

We are still developing knowledge of this new variety, including understanding the yield potential and the timeframe in which orchards are at maximum production levels, how to optimise pack out and shelf life of Zespri RubyRed Kiwifruit, and the impact of internal flesh colour variability on consumer preferences.

As a result, the phasing of licences has been reviewed and extended out to 2027. Subject to annual review, from 2023 to 2025, Zespri intends to release 150 hectares of licence annually, and between 100 and 300 hectares in 2026 and 2027. As we continue to learn more about the yield potential, we will review the phased licence release over the coming seasons.

¹ Note, Zespri RubyRed Kiwifruit (Red19) is a kiwifruit cultivar subject to Plant Variety Right protection in New Zealand and overseas under the denomination ZES008.



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Budwood supply

For the avoidance of doubt, this 'Budwood supply' section supersedes the 'Budwood supply' section on page 9 of the 2022 RVIG.

Both female and male budwood are being procured from a number of former trial orchards across New Zealand for the commercialisation of Red19. Zespri reserves the right to prorate any allocations if unforeseen circumstances require.

Growers who have purchased Zespri RubyRed Kiwifruit licence and who are intending to graft in the Far North can be supplied with Red19 Budwood. This is in accordance with current Kiwifruit Vine Health (KVH) budwood movement protocols

Zespri now have a certified source of Psa-free Red19 budwood established in the South Island from which budwood can be supplied to Zespri RubyRed Kiwifruit licence purchasers within the Exclusion Regions, as defined by KVH. There are male varieties also available for exclusion regions however this does not include the male cultivar, "Russell".

Zespri will use reasonable endeavours to meet successful Auction participants' requests for Red19 budwood supply, however quality of budwood supplied by Zespri may be variable. In the South Island, the quantity of budwood available may be constrained.

Zespri will provide for grafting a minimum of two one-bud sticks for male budwood and two one-bud sticks for female budwood per plant or stump.

In the event Zespri is unable to fully supply all successful Auction participants, pro-rating of supply will occur. Budwood supplied may also come from orchards where Psa-V is present. Zespri makes no warranties and shall not be liable for any direct or indirect damage, loss or cost in relation to budwood quality, supply shortages, trueness to type, or the pest/disease status of budwood supplied.

Preferred profile of budwood may be harder to achieve this year due to frost damage. Growers are encouraged to use their own budwood where possible.

Please visit the KVH website (<https://www.kvh.org.nz>) for any updates to the budwood movement protocol and to ensure your orchard meets the requirements to receive Red19 plant material.

Contact details for licence application and process queries

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FINANCIAL CONSIDERATIONS

Note, the 2022/23 November Forecast (\$20.38) Orchard Gate Returns (OGR) per TE is high, and highly unlikely to be sustained. For planning purposes, we recommend growers should base their budgets on the long term forecast OGR in the Five-Year Outlook document, published in December 2022 and shown below. The OGR is forecast to decrease over the next five years, moving towards the range published in the RVIG (\$10.50-\$13.00).

	2022 harvest	2023 harvest	2024 harvest	2025 harvest	2026 Harvest
RVIG	\$11.00-13.00	\$10.50-13.00	\$10.50-13.00	\$10.50-13.00	\$10.50-13.00
Five-Year Outlook - December 2022	\$19.43	\$18.00	\$16.63	\$14.17	\$14.46

Forecast variation

The main drivers of variation between the 2022/23 November Forecast (\$20.38) and that published in the RVIG are associated with the low 2022 supply season volumes; a change of market mix; better than expected selling price premium; and Non-Standard Supply (NSS) returns.

- Market mix:** As per the RVIG, it was anticipated that volumes would be shared across markets including Japan, China, Taiwan, Korea, Singapore, Hong Kong, and Australia. However, with low volumes in 2022 (112,000 TEs), a significant portion of the crop was sent to the two highest value markets (Japan and Singapore). Favourable market mix contributed \$4.50 to OGR (November Forecast vs. in the RVIG). This contribution is expected to decrease as volumes increase and are shared across more markets.
- Selling price premium:** The low volume meant markets were not selling for as long as initially planned, meaning fruit loss/quality claims in market were low; and also meant that fruit was able to be sold at a higher net price point.
- Non-Standard Supply (NSS):** A \$22/Te (TFSP) return was achieved for NSS fruit in 2022. This was due to all exported size 46s being sold at similar prices to Standard Supply while overall volumes are still scarce. Zespri is again procuring all size 46s as Non-Standard Supply in 2023. Non-Standard Supply procurement is reviewed annually.

On-orchard costs

Growers will be aware that on-orchard costs have increased significantly across all varieties in recent years. Minimum wage increases, labour constraints, and general inflation, is likely to continue for the foreseeable future.

2022 on-orchard costs survey information is available on Canopy. See: [Canopy > Growing Kiwifruit > My Orchard Business > Business Planning & Reviewing](#).



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RISK IDENTIFICATION

The RVIG 'Risk identification' section (pages 21 to 31) outlines in detail the risks posed by COVID-19, new variety risks, and risks specific to the Red19 variety, including early flowering and budbreak risks, and the resultant higher risk of exposure to spring frost.

Growers should carefully consider the information provided in full. In addition, growers should note the following risks, in addition to those set out in the RVIG:

Constraint of labour

Like other horticultural industries, the kiwifruit industry relies heavily on seasonal labour, in particular from overseas under the Recognised Seasonal Employer scheme, and from international visitors on working holiday visas. Growers choosing to grow Red19 should give consideration to their current cultivar mix, timing of key operations, and their ability to source labour to complete key tasks.

Growers have observed that timeliness of completing key on-orchard operations is crucial to producing a successful crop more so in Red19 than other cultivars. Having access to adequate labour will be key to this.

Any reductions in supply of this labour, and any failure of seasonal labour supply to keep pace with industry growth, could impact the ability to harvest and pack the kiwifruit crop, including in a timely manner through the seasonal labour demand peak. This could have a materially adverse effect on Zespri and grower returns.

Government regulation

Changes to New Zealand's competition laws, which come into effect in April 2023, will remove the existing blanket protections for conduct relating to the use of intellectual property, which includes plant variety rights. This will mean that conduct relating to intellectual property will for the first time become open to scrutiny under the Commerce Act 1986. While it is highly unlikely that Zespri's core rights to licence out its plant variety rights as it has done to date will be affected, there is a risk that some existing provisions of Zespri's grower licences might be challenged, and if such challenges were successful, some amendments could be required. This could have an impact on Zespri returns, on grower returns, and on the value of licences purchased.

RED19 ON-ORCHARD AND TECHNICAL INFORMATION

The 'Red19 on-orchard and technical information' section (pages 33 to 95) of the RVIG outlines in detail the attributes, risks, and maturity indicators relevant to growing Red19, as seen from Plant and Food Research clonal trials and pre-commercial field trials. In addition to information set out in the RVIG, growers should carefully consider the below information:

2022 production

The table overleaf shows 2022 Red19 yields for KPIN maturity areas with prior Red19 production (excludes first year of production), drawn from raw unadjusted production data. Only the top 25 percent of these growers achieved close to target 10,000 Class 1 TE/ha production. Overall average



production in 2022 was 5,891 Te/ha, but is expected to improve as knowledge of the variety and Red19 growing practices increase. It is difficult to ascertain if long term averages will meet the 10,000 TE target.

Average (unweighted) yield per hectare of KPINs with prior production (Class 1 Submit TE)		
Standard Supply Size 18s-42s only		
Quartile	Values	2022
75-100%	Average TE/Hectare	9,379
	Count of KPIN maturity areas	7
50-75%	Average TE/Hectare	6,800
	Count of KPIN maturity areas	7
25-50%	Average TE/Hectare	4,819
	Count of KPIN maturity areas	7
0-25%	Average TE/Hectare	2,565
	Count of KPIN maturity areas	7
ALL	Average TE/Hectare	5,891
	Count of KPIN maturity areas	28

Volumes exclude Size 46 and Size 49 Non-Standard Supply. Size 46s are currently procured by Zespri for export. Size 49s are sold in the New Zealand domestic market only.

Fruit drop

Growers should refer to the content of the RVIG for further information on fruit drop on Red19. Page 78 of the 2022 RVIG contains summary survey results of grower observations of fruit drop, as well as formal fruit drop assessment results. Some growers have reported significant fruit drop in Red19 crops. **Fruit drop remains a risk for Red19 and growers should carefully consider the information provided.**

Hi-Cane

As noted in the RVIG, Red19 is an extremely floral cultivar. Growers currently use hydrogen cyanamide (commonly known as Hi-Cane) as a way to help condense budbreak and reduce the number of side flowers. The Environmental Protection Authority are currently reassessing the availability of hydrogen cyanamide. Having initially recommended the product be banned in five years, the EPA is now recommending a ban in 10 years' time. This recommendation was provided to the Decision Making Committee of the EPA, and the final decision regarding the use of Hi-Cane is expected mid-2023. The Decision Making Committee of the EPA will hold public hearings in Tauranga in March 2023. A ban on Hi-Cane may have potential impacts on Red19 yields, variability of maturity, and on orchard costs.

Harvest and post-harvest

Harvest criteria

A Maturity Review Group reviewed Red19 harvest criteria following the 2022 season, but identified no change to criteria for the 2023 season. The group did identify a change to dispensation criteria.



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Growers should consult with their post-harvest operator to further understand harvest criteria and dispensation.

Packout and rejects

The weighted average Class 1 packout rate was 77 percent (including NSS) in the 2022 season. The main rejects were due to 'blemish' (predominantly skin rub, sunburn, healed insect damage and russet), followed by 'shape' (predominantly misshapen, flat, square and Hayward mark) and surface deposit.

Supply chain operation

Consolidation of part pallets, using one transport pack type and one fruit label will be maintained for the 2023 season to ease post-harvest operations management.

FURTHER INFORMATION

For further information, growers should refer to the 'Risk identification' and 'On-orchard and technical information' sections of the RVIG.

DISCLAIMER

This publication has been prepared based on information available to Zespri Group Limited, its subsidiaries and related companies (ZGL) at the date of publication. Statements in this document about the performance of any new variety of kiwifruit are future-based predictions and opinions of what ZGL anticipates might occur in the future. They are also based on the information available to ZGL at the time of this publication, including assumptions, which could be subject to change after the date of publication. All information in this publication is provided for indicative purposes only. Forward-looking predictions and opinions involve inherent risks and uncertainties. A wide range of different factors could impact adversely on the commercial viability of any new variety of kiwifruit including, but not limited to climatic events, disease, commercial arrangements, regulatory changes, competition, intellectual property infringement, foreign exchange and commodity fluctuations and/or economic conditions in markets.

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Growers are strongly encouraged to seek appropriate professional advice regarding their orchard circumstances, financial and legal position. Growers should also take note of the terms of the applicable Zespri Red19 Kiwifruit Variety Licence that pertain to risk and liability limitation, in particular (but without limitation) clause 17.3 of that document, as well as the terms of the Zespri



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Red19 Licence Application Overview and Rules document that governs the Licence Allocation Process, and any amendments or addenda to those documents that are published on the Canopy website.

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