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## EXPORT CITRUS POST-HARVEST TREATMENT DECLARATIONS AND LABELLING CONSIDERATIONS

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The combination of South African registered treatments permitted for use on export citrus is determined by the receiving country, typically described in their food safety regulations. Compliance across a range of markets is challenging because the importing countries' rules are becoming increasingly more unique, specific, and changing more rapidly, sometimes mid-way through the export season.

It is the intent of this communication to update (following the previous Cutting Edge No. 377 on this topic) and summarize these post-harvest treatment labelling requirements for key markets, taking into consideration recent new product registrations and practical arrangements. Sanitizers and plant growth regulators are not considered in this document because for many countries these are handled in different legislation to the post-harvest treatments, and are not generally required to be declared on the carton. However, information on these is available from CGA.

This communication is based on the assumption that the post-harvest treatments are used legally (i.e. according to the appropriate registration for that product and where such a treatment and residues are suitable for the intended market), and can therefore be declared as such. It is difficult to represent all the requirements in a single communication, so if any uncertainty remains, CGA should be contacted.

### Post-harvest treatment labelling recommendations

1. In general, labelling of post-harvest treatments should preferably be on the business-end label and **not** on the carton itself. Carton manufacturers and label providers have been advised on the implications of this requirement.
2. Post-harvest treatment indications on separate stickers are not recommended (i.e. it is better on the composite business-end label) as import

inspectors are generally averse to the sticker applications for official purposes.

3. There is great value in having a common statement (wording) per market to reduce the possibility of confusion in the market and to eliminate the potential for receivers to use labelling as a competitive tool between exporters. Where applicable, the recommended declarations here should be adopted in order to bring about uniform labelling conventions. There is evidence that buyers in some markets threaten to use post-harvest declarations as a means to differentiate between exporters, despite the negative impact this might have on long-term sustainability.
4. The use of the term "AND/OR" must be replaced with "AND" where two or more treatments are used. The current marking requirements in the SA Citrus Export Standards published by DoA:FSQA stipulate: If the citrus fruit concerned have been post-harvest treated with a preserving agent or other chemical substances, it shall be indicated on the business side of the container, preceded by the expression "Treated with".
5. Vegan waxes:  
Considerations have been given to the vegan wax requirements and are included in this document. All active substances used in waxes must comply with purity criteria. As of 1 January 2024, all products containing shellac will no longer be Vegetarian Society Approved in the UK.

### Specific comments on post-harvest treatment declarations

1. **United Kingdom:** "AND/OR" should not be used in the post-harvest declarations.
2. **India:** Great care must be taken when shipping citrus to India, given the array of challenges that present themselves to exporters on fruit arrival. These challenges include:
  1. Ongoing modernization of the Indian Food Safety Laws and particularly the institutional arrangements around publishing applicable tolerances for plant protection products, resulting in uncertainty about the applicable MRLs,



2. Carnauba and Shellac waxes are permissible while Oxidized Polyethylene wax is not permitted
3. MRLs can be problematic (with special sensitivity to thiabendazole) and
4. different interpretations of these rules at different ports of entry. In fact, the Indian MRLs are among the most restrictive, and exporters sending fruit to this market are encouraged to engage with CGA to obtain more detail on the requirements to avoid any consignment rejections. CGA engagement with DALRRD and PPECB has tried to ensure consistent application of the approach for declarations for the Indian market.
3. **Japan:** Firstly, all post-harvest treatments must be listed as “food additives” under Japanese law to be used in a post-harvest context – the list of approved food additives is available from CGA. Secondly, some exporters had fruit rejected in Japan when post-harvest treatment residues were **not** detected, while the carton displayed the standard declaration. In trying to avoid this problem, some exporters have used specific declarations. The citrus industry needs to be aware that the use of alternative declarations undermines the ability of the citrus sector to simplify the export process and introduces a major risk that buyers will begin requesting their own set of declarations, which in turn could lead to competitive behaviour on the basis of fewer active ingredients. Great care must be taken so that these negative outcomes are avoided. Nevertheless, it does seem inevitable that standardized wording will not work in all situations.
4. **South Korea:** The Positive List System (PLS) applied as of 1 January 2019. As such, a 0.01 mg/kg default tolerance applies when there is no established MRL in the Korean Food Code. This change is relevant if treatments lead to detectable residues, and must be consistent with the declaration being made on the carton.
5. Stakeholders are encouraged to check with their client or importer in the country of destination for other specific non-regulatory carton marking requirements (e.g. **Russian** food safety and recyclability pictograms). Also refer to the CRI Market Access one-pagers for phytosanitary carton marking requirements.

The table below summarizes the requirements per market.

## NA-OESBEHANDELING VAN UITVOERSITRUS EN VERKLARING- OORWEGINGS

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Die kombinasie van geregistreerde na-oesbehandelings wat toegelaat word vir gebruik op uitvoersitrus word bepaal deur die ontvangende land, tipies uiteengesit in hul voedselveiligheidsregulasies. Nakoming van 'n reeks markte se regulasies is uitdagend omdat die invoerlande se reëls toenemend meer uniek en spesifiek word en vinnig kan verander – soms selfs in die middel van 'n uitvoerseisoen.

Die doel van hierdie kommunikasie is om 'n opdatering en samevatting te gee van hierdie na-oesbehandelingverklaringsvereistes vir sleutelmarkte (veranderinge is gemaak aan die vorige Snykant Nr. 377). Ontsmettingsmiddels en plantgroeireguleerders word nie in hierdie dokument oorweeg nie, aangesien dit in baie lande onder verskillende wetgewing as na-oesbehandelings hanteer word en gewoonlik nie op die karton aangedui hoef te word nie. Inligting oor hierdie middels is egter beskikbaar vanaf CGA.

Hierdie kommunikasie is gebaseer op die aanname dat die na-oesbehandelings wettig gebruik word (d.w.s. volgens die toepaslike registrasie vir daardie produk en waar so 'n behandeling en residu geskik is vir die mark), en dus as sodanig verklaar kan word. Dit is moeilik om al die vereistes in een kommunikasie aan te bied, so indien enige onsekerheid bestaan, moet CGA gekontak word.

### Aanbevelings vir na-oes behandelingverklarings

1. Oor die algemeen moet die verklaring van na-oesbehandelings verkieslik op die besigheidskant-etiket wees en nie op die karton self nie.
2. Aanduidings van na-oesbehandelings op aparte plakkers word nie aanbeveel nie (d.w.s. dit is beter op die saamgestelde besigheidskant-etiket), aangesien dit tot inspeksie-afkeure kan lei.
3. Daar is groot waarde in die gebruik van 'n gemeenskaplike verklaring (woordgebruik) per mark om verwarring in die mark te verminder en die potensiaal uit te skakel dat ontvangers etikettering

as 'n mededingende instrument tussen uitvoerders gebruik. Waar toepaslik, moet die aanbevole verklarings hier aangeneem word om uniforme etiketteringskonvensies te bevorder. Daar is bewyse dat kopers in sommige markte dreig om na-oesverklarings te gebruik om onderskeid tussen uitvoerders te tref, ten spyte van die negatiewe impak wat dit op langtermyn volhoubaarheid kan hê.

4. Die gebruik van die term “EN/OF” moet vervang word met “EN” waar twee of meer behandelings gebruik is. Die huidige merkvereistes in die SA Sitrus Uitvoerstandaard wat gepubliseer is deur DoA:FSQA sê: Indien die betrokke sitrusvrugte na-oes behandel is met 'n preserveermiddel of ander chemiese stowwe, moet dit op die besigheidskant van die houer aangedui word, voorafgegaan deur die uitdrukking “Treated with”.
5. **Veganwakse:** Alle aktiewe bestanddele wat in veganwakse gebruik word, moet aan suiwerheidskriteria voldoen. Vanaf 1 Januarie 2024 sal alle produkte wat shellac-waks bevat, nie meer deur die *Vegetarian Society* in die Verenigde Koninkryke goedgekeur wees nie.

### Spesifieke kommentaar oor na-oesbehandelingverklarings

1. **Verenigde Koninkryk:** “AND/OR” moet nie in die na-oesverklarings gebruik word nie.
2. **Indië:** Groot sorg moet getref word wanneer sitrus na Indië gestuur word, gegewe die verskeidenheid uitdagings wat aan uitvoerders gestel word wanneer die vrugte aankom. Hierdie uitdagings sluit in:
  1. Voortdurende modernisering van die Indiese voedselveiligheidswette en veral die institusionele reëlings rondom die publikasie van toepaslike toleransies vir plaagbeheerprodukte, wat onsekerheid skep oor die toepaslike MRL'e.
  2. Carnauba- en shellac-waks word toegelaat, terwyl geoksideerde poliëtileenwaks nie toegelaat word nie.
  3. MRL'e kan problematies wees (met spesiale sensitiwiteit teenoor thiabendazool).



4. Verskillende interpretasies van hierdie reëls by verskillende hawe-ingange. Die Indiese MRL'e is van die mees beperkende, en uitvoerders word aangeraai om met CGA in verbinding te tree om meer besonderhede oor die vereistes te verkry en sodoende enige afkeuring van vragte te vermy. CGA se betrokkenheid met DALRRD en PPECB poog om konsekwente toepassing van verklarings vir die Indiese mark te verseker.
3. **Japan:** Eerstens moet alle na-oesbehandelings as voedselbymiddels gelys wees onder die Japannese wet om in 'n na-oeskonteks gebruik te word – die lys van goedgekeurde voedselbymiddels is vanaf CGA beskikbaar. Tweedens is vrugte in Japan afgekeur toe na-oesresidu nie opgespoor is nie, terwyl die karton steeds die standaardverklaring getoon het. Sommige uitvoerders het spesifieke verklarings begin gebruik om dit te vermy. Die sitrusbedryf moet bewus wees dat die gebruik van alternatiewe verklarings die vermoë ondermyn om die uitvoerproses te vereenvoudig en verhoog die risiko dat kopers hul eie verklarings gaan begin vereis, wat mededingende gedrag kan veroorsaak op grond van minder aktiewe bestanddele. Groot sorg moet dus geneem word om hierdie negatiewe gevolge te vermy. Nietemin, dit lyk onvermydelik dat gestandaardiseerde bewoording nie in alle situasies sal werk nie.
4. **Suid-Korea:** Die *Positive List System* is vanaf 1 Januarie 2019 van toepassing. 'n Standaardtoleransie van 0.01 mg/kg geld wanneer daar geen vasgestelde MRL in die Koreaanse Voedselkode is nie. Hierdie verandering is relevant indien handelings tot opspoorbare residu lei, en moet ooreenstem met die verklaring wat op die karton gemaak word.
5. Belanghebbendes word aangemoedig om met hul kliënt of invoerder in die bestemmingsland te bevestig oor enige ander spesifieke nie-regulerende kantonmerkingsvereistes (bv. **Russiese** voedselveiligheid- en herwinbaarheidspiktogramme). Verwys ook na die CRI Marktoegang-eenbladsy-oorsigte vir fitosanitêre kantonmerkingsvereistes.



Table 1. Summary of recommended post-harvest treatment declarations per market.

| Active Substance                                          | SA                                                     | EU                                                     | Great Britain <sup>a</sup>                             | Japan                                                                                                     | India             | USA                                                    | Canada                                                 | Taiwan                                                 | CODEX                                                  | South Korea                                            | Russia                                                 | Other          |
|-----------------------------------------------------------|--------------------------------------------------------|--------------------------------------------------------|--------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-------------------|--------------------------------------------------------|--------------------------------------------------------|--------------------------------------------------------|--------------------------------------------------------|--------------------------------------------------------|--------------------------------------------------------|----------------|
| <b>Fungicides (Authorized Usages)</b>                     |                                                        |                                                        |                                                        |                                                                                                           |                   |                                                        |                                                        |                                                        |                                                        |                                                        |                                                        |                |
| <b>Azoxystrobin</b>                                       | Yes                                                    | Yes                                                    | Yes                                                    | Yes                                                                                                       | No                | Yes                                                    | Yes                                                    | Yes                                                    | Yes                                                    | Yes                                                    | Unclear                                                | "No" for China |
| <b>Fludioxonil</b>                                        | Yes                                                    | Yes                                                    | Yes                                                    | Yes                                                                                                       | No                | Yes                                                    | Yes                                                    | Yes                                                    | Yes                                                    | Yes                                                    | Unclear                                                |                |
| <b>Guazatine</b>                                          | Yes                                                    | No                                                     | No                                                     | No                                                                                                        | Yes               | No                                                     | No                                                     | Yes                                                    | Yes                                                    | No                                                     | Yes                                                    |                |
| <b>Imazalil</b>                                           | Yes                                                    | Yes                                                    | Yes                                                    | Yes                                                                                                       | No <sup>b</sup>   | Yes                                                    | Yes                                                    | Yes                                                    | Yes                                                    | Yes                                                    | Yes                                                    |                |
| <b>Prochloraz</b>                                         | Yes                                                    | No                                                     | No                                                     | No                                                                                                        | No                | No                                                     | No                                                     | No                                                     | Yes                                                    | Soft citrus and oranges only                           | Unclear                                                |                |
| <b>Propiconazole <sup>d</sup></b>                         | No                                                     |                                                        |                                                        |                                                                                                           |                   |                                                        |                                                        |                                                        |                                                        |                                                        |                                                        |                |
| <b>Pyrimethanil</b>                                       | Yes                                                    | Yes                                                    | Yes                                                    | Yes                                                                                                       | No                | Yes                                                    | Yes                                                    | Yes                                                    | Yes                                                    | Yes                                                    | Yes                                                    |                |
| <b>SOPP</b>                                               | Yes                                                    | Yes                                                    | Yes                                                    | Yes                                                                                                       | No                | Yes                                                    | Yes                                                    | Yes                                                    | Yes                                                    | No                                                     | Unclear                                                |                |
| <b>Thiabendazole</b>                                      | Yes                                                    | Yes                                                    | Yes                                                    | Yes                                                                                                       | No                | Yes                                                    | Yes                                                    | Yes                                                    | Yes                                                    | Yes                                                    | Yes                                                    |                |
| <b>Example of standardized wording (where applicable)</b> | Treated with: Imazalil, Thiabendazole and Pyrimethanil | Treated with: Imazalil, Thiabendazole and Pyrimethanil | Treated with: Imazalil, Thiabendazole and Pyrimethanil | Treated with: Imazalil and Thiabendazole <b>or</b> Treated with: Imazalil, Pyrimethanil and Thiabendazole | None <sup>b</sup> | Treated with: Imazalil, Thiabendazole and Pyrimethanil | Treated with: Imazalil, Thiabendazole and Pyrimethanil | Treated with: Imazalil, Thiabendazole and Pyrimethanil | Treated with: Imazalil, Thiabendazole and Pyrimethanil | Treated with: Imazalil, Thiabendazole and Pyrimethanil | Treated with: Imazalil, Thiabendazole and Pyrimethanil |                |

**JOU HEFFING WERK VIR JOU - PRODUSENTE SE HEFFINGS WORD AANGEWEND OM DIE AKTIWITEITE VAN DIE CRI TE BEFONDS**



| Waxes                                                      |                                 |                                 |                                 |                           |                                  |                                 |                           |                           |                           |                           |                                 |       |
|------------------------------------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------|----------------------------------|---------------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------------|-------|
|                                                            | SA                              | EU                              | Great Britain <sup>a</sup>      | Japan                     | India                            | USA                             | Canada                    | Taiwan                    | CODEX                     | South Korea               | Russia                          | Other |
| <b>Carnauba (E903)</b>                                     | Yes                             | Yes                             | Yes                             | Yes                       | Yes                              | Yes                             | Yes                       | Yes <sup>c</sup>          | Yes                       | Yes                       | Yes                             |       |
| <b>Shellac (E904)</b>                                      | Yes                             | Yes                             | Yes                             | Yes                       | Yes                              | Yes                             | Yes                       | Yes                       | Yes                       | Yes                       | Yes                             |       |
| <b>Oxidized Polyethylene (E914)</b>                        | Yes                             | Yes                             | Yes                             | No                        | No                               | Yes                             | No                        | Unclear                   | No                        | No                        | Yes                             |       |
| <b>Recommended standardized wording (where applicable)</b> | Treated with: E903, E904 & E914 | Treated with: E903, E904 & E914 | Treated with: E903, E904 & E914 | Treated with: E903 & E904 | Treated with: Carnauba & Shellac | Treated with: E903, E904 & E914 | Treated with: E903 & E904 | Treated with: E903 & E904 | Treated with: E903 & E904 | Treated with: E903 & E904 | Treated with: E903, E904 & E914 |       |
| <b>Use of codes (e.g. E904) in declaration</b>             | Permitted                       | Permitted                       | Permitted                       | Permitted                 | Not Permitted                    | Presumed Permitted              | Presumed Permitted        | Permitted                 | Permitted                 | Presumed Permitted        | Presumed Permitted              |       |

**JOU HEFFING WERK VIR JOU** - PRODUSENTE SE HEFFINGS WORD AANGEWEND  
OM DIE AKTIWITEITE VAN DIE CRI TE BEFONDS



| Further Information |                                                                                                                                           |                                                                                                                                                                             |                                                                                                                                                                             |                                                                                                       |                                                                                           |                                                       |                                                              |                                                                                                                  |                         |                                            |                |              |
|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-------------------------------------------------------|--------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|-------------------------|--------------------------------------------|----------------|--------------|
| <b>Legislation</b>  | Agricultural Products Standards Act, 1990 (Act No.119 of 1990) Standards and Requirements Regarding Control of the Export of Citrus Fruit | Reg. EC/1333/2008 (Food Additives),<br>Reg. No. 231/2012 (specifications for food additives),<br>Reg. EC/1221/2008 (Citrus Marketing Standards),<br>Reg. EC/396/2005 (MRLs) | Reg. EC/1333/2008 (Food Additives),<br>Reg. No. 231/2012 (specifications for food additives),<br>Reg. EC/1221/2008 (Citrus Marketing Standards),<br>Reg. EC/396/2005 (MRLs) | Food Safety Basic Law (Law No. 48 of 2003) and Food Sanitation Act (Act No. 233 of December 24, 1947) | Food Safety and Standards Act, No 34 of 2006. Food Safety and Standards Regulations, 2011 | US Code of Federal Regulations Title 21. Part 172.210 | Food and Drug Regulations under the Food and Drug Act (1985) | Standards for Pesticide Residue Limits in Foods and Specifications of Food Additives published by the Taiwan FDA | CODEX STANDARD 192-1995 | Ministry of Food and Drug Safety Food Code | TR TS 005/2011 | GB 2736-2021 |

- a: From 1 January 2021, an independent pesticides regulatory regime is in operation in Great Britain (England, Scotland and Wales).
- b: Given the rapid changes to the Indian market requirements for post-harvest declarations, please engage with CGA to confirm the latest declarations prior to shipping.
- c: The Taiwan Food and Drug Administration published a carnauba wax MRL of 200 mg/kg on citrus fruit which came into effect on 10 May 2025.
- d: All propiconazole registrations on citrus was phased out under The Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act (No. 36 of 1947).