



## Changes to the Citrus FCM Risk Management System (FMS) for the 2022 Export Season

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The FCM Risk Management System (FMS) for export of citrus (excluding lemons and Key limes) to the EU has been implemented for the last four years. In the 2021 export season, 15 interceptions of FCM larvae were reported by the EU.

Ongoing EU interceptions are a very serious concern for the industry and failure to ensure compliance places the industry's continued access to this critical market in serious jeopardy. Each interception was investigated and data from the season's exports were analysed in detail. After thorough deliberation by the FMS Working Group, DALRRD approved a revision of the FMS for the 2022 season. DALRRD announced the changes at the Annual Citrus co-ordinating meeting held on 18 November 2021 and highlighted the need for all industry parties to play their role to ensure diligent implementation of all aspects of the FMS.

This Cutting Edge highlights the changes that have been made to the FMS for the 2022 export season. The relevant section of the FMS is referenced with each change and the new text is highlighted in italics.

### (2) Eligibility and registration

- (2.5) Requirements for orchard registration. A requirement for orchard registration is that each producer gives certain undertakings. The following change has been made: 5) *to conduct preharvest fruit infestation monitoring as prescribed in the FMS.*
- (2.6.2) Requirements for exporter registration. The following changes have been made: 1) to ensure that temperature monitoring equipment, as stipulated by the FMS, is available for installation during loading; 2) to ensure that the shipping temperatures are reported as stipulated by the FMS; 3) *to ensure that consignments are under cooling as stipulated by the FMS.*
- (2.6.3) Requirements for loading facility registration. The following change has been made: 3) *to digitally monitor pallet movement.*

- (2.6.4) A requirement for cold store registration is that each cold store gives the following undertaking: 1) to handle FMS fruit at temperatures as specified by the FMS.

- (2.7) Only approved packaging, as specified by the FMS may be used for export of fruit under the FMS.

- (2.8) Fruit from an orchard will not be inspected by PPECB for export under the FMS when PhytClean indicates the orchard status is "Not Permitted" or "On Hold or "Withdrawn".

### (4.2) Pre-harvest control measures

#### (4.2.1) Orchard sanitation (Options A, B &C)

- (4.2.1.4) Sanitation must be conducted at least weekly and continue until after harvesting has been completed, and within 14 days thereafter the orchard must be cleared of the current season's fruit (both fruit on the tree and fallen fruit).
- (4.2.1.6) Sanitation fruit must be destroyed on the same day that they are collected, and immediately after they have been counted and a sample drawn for preharvest infestation monitoring, as described in (5) below.

#### (5) Pre-harvest (in orchard, 12 weeks prior to start of harvest) fruit infestation monitoring to determine the need for additional pre-harvest control measures (Options A & B)

- (5.4) Orchard monitoring entails destructive inspection of a sample of fruit from the sanitised fruit from each orchard every two weeks, as described in detail in Appendix 1
- (5.5) Monitoring should preferably be conducted on the same day every second week, but ... the interval between any two monitoring days may not be more than 18 days and for a 12-week monitoring period no less than 6 monitoring records are required.
- (5.8) If recorded infestation is more than an average of 0.1 infested fruit per tree per week in the period 12 to 4 weeks prior to commencement of harvest, then a registered control measure, listed on PhytClean as a suitable corrective treatment, must be applied within 2 weeks after this intervention threshold has been surpassed, particularly as one gets closer to harvest.



- (5.11) Selection of samples and destructive inspection of samples (12 and 4 weeks prior to harvest) must be conducted by trained personnel. Training records and proof of competency evaluation must be safeguarded for inspection / auditing.

**(6) Fruit infestation monitoring (4 weeks prior to start of harvest) to determine option for handling during shipping (Options A & B)**

- (6.1) If recorded infestation (from the process in 5.4 above) is more than an average of 0.1 infested fruit per tree per week in the four weeks preceding the start of harvesting, then fruit from that orchard shall only be potentially eligible for export under Option C.

**(8) Verification of FMS orchard status using PPECB inspection data**

- (8.3) Appendix 7 has been changed to Appendix 5.

**(9) Shipping conditions**

- (9.3) The eligible shipping condition options for each consignment must be verified using PhytClean, at the point of loading of the container or SRV, as a precondition for potential phytosanitary certification.

**Appendix 1**

Appendix 1 has been changed to reflect the new pre-harvest fruit infection monitoring.

**Appendix 1 - Procedure for pre-harvest infestation monitoring**

- Preharvest infestation monitoring must be conducted once every two weeks.
- All sanitation fruit collected from an orchard should be pooled on each occasion.
- The total number of fruit collected per orchard must be counted/calculated and recorded. (Techniques to make the task easier can be developed e.g. counting the fruit in one bag/crate from an orchard and multiplying this by the number of crates/bags collected from the orchard; or weighing a small sample of known number of fruit to determine weight of a fruit, weighing all the fruit collected from the orchard, and dividing this by the weight of a fruit, to obtain the total number of fruit).
- The date of the previous sanitation procedure must be recorded, even if no sample was taken for inspection from this previous sanitation.
- A 100-fruit sample of this sanitation fruit must be randomly taken for analysis, regardless of

orchard size. If fewer than 100 fruit were collected from the orchard, then all fruit collected must be sampled.

- The process of random sampling involves a) showing no bias for or against any fruit, based on their appearance, and b) selecting the fruit sample from fruit collected from different sections within the orchard.
- All fruit must be dissected and number of fruit infested (larva still present or exited) must be recorded.
- This must be done on the same day that sanitation is conducted and sanitation fruit must be removed and destroyed immediately after they have been counted and the sample for inspection has been drawn.
- The following information must be entered into PhytClean on each sampling occasion:
  - Date of previous sanitation event (even if a sample was not taken to monitor FCM infestation)
  - Total number of fruit collected per orchard
  - Total number of fruit in sample that were infested with FCM (larva present or exited).
- In addition to the mandatory monitoring described above, monitoring can be supplemented by the 5 data tree monitoring system described in CRI Production Guidelines, but the results must not be loaded onto PhytClean (i.e. results from the 5 data tree monitoring will be for own use only).

**Appendix 3**

Appendix 3 has been changed to reflect the cold chain changes.

Shipping condition options (shipping regime codes) available for export of citrus fruit under the FMS. Refer to Tables 4.4 & 4.5 in Appendix 4, the FMS Container Protocol and the FMS SRV Protocol for further detail.

**Container shipments**

**Option A:**

- **Following codes have been removed:**
  - EW2 and EW1.
- **Following code has been included:**
  - EW0 - Temperature set point of 0.0°C, and pulp temperature must be 25°C or lower prior to loading.
- **Following codes have been changed:**



- EW0 - Temperature set point of 0.0°C, and pulp temperature must be 25°C or lower prior to loading.
- EW01 - Temperature set point of -1°C, and pulp temperature must be 25°C or lower prior to loading.
- EC2 - Only available, with the new A15C carton

#### Option C:

- Following codes have been changed:
  - EC0 - Temperature set point of 0°C, after cooling to pulp temperature of 1.0°C or lower.
  - ECW0 - Also available from Cape Town

#### Specialised Refrigerated Vessels (SRV)

- Following code has been removed:
  - ECV1
- Following codes have been included:
  - Option A & B fruit - ECV01A: Precool to 0.0°C or lower, ship at set point -1.0°C.
  - Option C fruit - ECV01C: Precool to 0.0°C or lower, ship at set point -1.0°C.

#### Appendix 4

The tables (4.2, 4.3, 4.4 and 4.5) have been changed to reflect the cold chain changes.

#### Table 4.2 DESCRIPTION OF ACTIONS (COMPULSORY AND RECOMMENDED)

- Fruit infestation monitoring (A, B) - *Destructive inspection of a sample of fruit from the sanitised fruit from each orchard each week.* Compulsory to start 12 weeks prior to harvest (16 weeks recommended).

#### Table 4.3 THRESHOLDS APPLYING TO OPTIONS A, B & C

- Fruit infestation (A & B)
  - During the 12wk pre-harvest period an average of >0.1 infested fruit/tree/week (*live, dead or exited larva*).
  - An average of >0.1 infested fruit/tree/week in last 4 weeks before start of harvest (*live, dead or exited larva*).
- Packhouse delivery inspection (A, B & C)
  - Category A: More than 2 infested fruit in sample (*live or dead larva*)
  - Category B: More than 1 infested fruit in sample (*live or dead larva*)

- Category C: More than 5 infested fruit in sample (*live or dead larva*)

#### Table 4.4 REGIME CODE OPTIONS FOR CONTAINERISED SHIPPING UNDER OPTIONS A, B & C

Table was changed to reflect the changes.

#### Table 4.5 REGIME CODE OPTIONS FOR SPECIALISED REEFER VESSELS (CONVENTIONAL SHIPPING)

Table was changed to reflect the changes.

**Appendix 5 (FMS Packaging requirements) and Appendix 6 (Temperature monitoring, loading and shipping) have been replaced by the FMS Container Protocol and the FMS SRV Protocol.**

#### FMS Container Protocol and FMS SRV Protocol.

##### Packaging

- Telescopic cartons: *only the new A15C SuperVent carton.*
- Open display cartons *may not be used under the code EC2.*
- Open display cartons *may be used under EVC2 in SRV.*
- Ventilated trays may be used as internal packaging, *but only under the following A-codes: EW0, EW01 and C-codes: EC0, ECW0, EC01, ECW01.*
- IFCO plastic crates are allowed. However, if internal packaging (trays) are used, the trays must be ventilated and exported *under the following A-codes: EW0, EW01 or C-codes: EC0, ECW0, EC01 and ECW01.*
- The 9-slat pallet design is recommended to allow alignment of pallet slat spacings with the carton ventholes.

##### Cold stores

- Cold stores handling citrus fruit exported under the FMS must maintain a set point (air temperature) of 2.0°C or lower.
- Forced air cooling (FAC) rooms may use a higher initial Delivery Air Temperature (DAT) setpoint to allow step-down cooling to reach 2.0°C or below.
- For Option B fruit, the following is allowed: *Fruit may be cooled to target shipping*



*temperature and held there i.e., 3.0°C for EC3, 3.5°C for EC35 and 4.0°C for EC4.*

- *Cold store facilities must have the functionality of digital measuring and recording DAT and return air temperature (RAT) in rooms where FMS fruit are stored. No handwritten temperature records accepted.*
- *Digital traceability (hourly resolution) of pallet movement in the cold room must be recorded and made available on request.*

- **Temperature monitoring**

- *Logger position has changed - second last pallet, on the left-hand side of the container, half the height of the pallet.*

- **Cooling duration**

- *Exporters to ensure that all consignments exported in containers are under cooling for at least 24 days.*
- *For precooled fruit the cooling time consists of three parts:*
  - *Duration in the cold room.*
  - *Container dwell time under power.*
  - *Estimated voyage duration as per information from the shipping line.*
- *For ambient loaded fruit (EW0/EW01) the cooling time consists of two parts:*
  - *Container dwell time under power.*
  - *Estimated voyage duration as per information from the shipping line.*

- **Procedures for loading points and exporters**

- *Loading point to generate and provide load-out instruction and PhytClean report (or combination) to PPECB.*
- *Exporters to ensure recording of all pallets' durations and temperature exposure in the cold room and to make the calculation to determine Total Cooling Time available on request.*

## PhytClean

PhytClean is being updated to implement all the changes to the FMS.



## Veranderinge aan die Sitrus VKM Risikobestuurstelsel (FMS) vir die 2022 uitvoerseisoen

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Die VKM-risikobestuurstelsel (FMS) vir die uitvoer van sitrus (suurlemoene en Key lemmetjies uitgesluit) na die EU word al vir die laaste vier jaar geïmplementeer. In die 2021-uitvoerseisoen is 15 onderskeppings van VKM-larwes deur die EU aangemeld.

Deurlopende EU-onderskeppings is 'n baie ernstige bekommernis vir die bedryf en versuim om nakoming te verseker, plaas die bedryf se voortgesette toegang tot hierdie kritieke mark in ernstige gevaar. Elke onderskepping is ondersoek en data van die seisoen se uitvoere is in detail ontleed. Na deeglike beraadslaging deur die FMS-werkgroep, het DALRRD 'n hersiening van die FMS vir die 2022-seisoen goedgekeur. DALRRD het die veranderinge tydens die Jaarlikse Sitruskoördineringsvergadering wat op 18 November 2021 gehou is, aangekondig, en die behoefteklemtoon dat alle bedryfspartye hul rol moet speel om presiese implementering van alle aspekte van die FMS te verseker.

Hierdie Snykant beklemtoon die veranderinge wat aan die FMS vir die 2022-uitvoerseisoen aangebring is. Daar word na die betrokke afdeling van die FMS verwys waar daar 'n verandering aangebring is, en die nuwe teks word in kursief aangedui.

### (2) Gesiktheid en registrasie

- (2.5) Vereistes vir boordregistrasie. 'n Vereiste vir boordregistrasie is dat elke produsent sekere ondernemings sal gee. Die volgende verandering is aangebring: 5) om voor-oes vrugbesmettingsmonitering uit te voer soos in die FMS voorgeskryf.
- (2.6.2) Vereistes vir uitvoerder-registrasie. Die volgende veranderings is aangebring: 1) om te verseker dat temperatuurmoniteringstoerusting, soos deur die FMS bepaal, vir installasie tydens laai, beskikbaar is; 2) om te verseker dat die verskepingstemperature gerapporteer word soos deur die FMS bepaal; 3) om te verseker dat besendings onder verkoeling is soos deur die FMS bepaal.

- (2.6.3) Vereistes vir laaifasiliteit se registrasie. Die volgende verandering is aangebring: 3) om palletbeweging digitaal te monitor.
- (2.6.4) 'n Vereiste vir koelkamer-registrasie is dat elke koelkamer die volgende onderneming gee: 1) om FMS-vrugte te hanter by temperatuur soos deur die FMS bepaal.
- (2.7) Slegs goedgekeurde verpakking, soos deur die FMS gespesifieer, mag vir uitvoer van vrugte onder die FMS gebruik word.
- (2.8) Vrugte van 'n bord sal nie deur PPECB vir uitvoer onder die FMS geïnspekteer word wanneer PhytClean aandui dat die boordstatus "Not Permitted" of "On Hold of "Withdrawn" is nie.

### (4.2) Voor-oes beheermaatreëls

#### (4.2.1) Boordsanitasie (Opsies A, B & C)

- (4.2.1.4) Sanitasie moet ten minste weekliks uitgevoer word en moet tot na die oes afgehandel is, voortgaan, en binne 14 dae daarna, moet die boord skoongemaak word van die huidige seisoen se vrugte (beide vrugte in die boom en vrugte wat gevallen het).
- (4.2.1.6) Sanitasie vrugte moet vernietig word op dieselfde dag as wat dit versamel word, en onmiddellik nadat dit getel en 'n monster vir monitering van voor-oes besmetting getrek is, soos beskryf in (5) hieronder.

#### (5) Voor-oes (in board, 12 weke voor aanvang van oes) monitering van vrugbesmetting om die behoefteklemtoon vir bykomende voor-oes beheermaatreëls te bepaal (Opsies A & B)

- (5.4) Boordmonitering behels dat daar elke twee weke 'n destruktiewe inspeksie van 'n monster van vrugte van die sanitasie vrugte van elke bord gedoen word, soos in detail beskryf in Bylaag 1.
- (5.5) Monitering moet verkieslik elke tweede week op dieselfde dag uitgevoer word, maar ... die interval tussen enige twee moniteringsdae mag nie meer as 18 dae wees nie en vir 'n 12 week moniteringsperiode word nie minder nie as 6 moniteringsrekords vereis.
- (5.8) As die aangetekende besmetting meer as 'n gemiddeld van 0,1 besmette vrugte per boom per week is in die tydperk 12 tot 4 weke voor die aanvang van oes, moet 'n geregistreerde beheermaatreël, wat op PhytClean as 'n gesikte korrektiewe behandeling gelys is,



binne 2 weke nadat hierdie intervensiedempel oorskry is, toegepas word, veral soos nader aan oes beweeg word.

- (5.11) Seleksie van monsters en destruktiewe inspeksie van monsters (12 en 4 weke voor oes) moet deur opgeleide personeel uitgevoer word. Opleidingsrekords en bewys van bevoegdheidsevaluering moet vir inspeksie/ouditering beskikbaar wees.

### (6) Vrugbesmetting monitering (4 weke voor aanvang van oes) om opsie vir hantering tydens verskeping te bepaal (Opsies A & B)

- (6.1) Indien die aangetekende besmetting (van die proses in 5.4 hierbo) meer as 'n gemiddeld van 0,1 besmette vrugte per boom per week is in die vier weke wat die aanvang van die oes voorafgaan, sal vrugte van daardie boord slegs gesik wees vir uitvoer onder Opsie C.

### (8) Verifikasie van FMS-boordstatus deur gebruik te maak van PPECB-inspeksiedata

- (8.3) Bylaag 7 is verander na Bylaag 5.

### (9) Verskepingsopsies

- (9.3) Die gesikte verskepingsopsies vir elke besending moet geverifieer word deur van PhytClean gebruik te maak, by die punt van laai van die houer of SRV, as 'n voorvereiste vir potensiële fitosanitêre sertifisering.

#### Bylaag 1

Bylaag 1 is verander om die nuwe monitering van vrugbesmetting voor-oes te weerspieël.

#### Bylaag 1 - Prosedure vir monitering van vrugbesmetting voor oes

- Monitering van vrugbesmetting voor oes moet een keer elke twee weke uitgevoer word.
- Alle sanitasie vrugte wat uit 'n boord versamel word, behoort by elke geleentheid saamgevoeg te word.
- Die totale aantal vrugte wat per boord ingesamel word, moet getel/bereken en aangeteken word. (Tegnieke om die taak makliker te maak kan ontwikkel word, bv. tel die vrugte in een sak/krat van 'n boord en vermenigvuldig dit met die aantal kratte/sakkie wat uit die boord versamel is; of weeg 'n kleiner monster van bekende aantal vrugte om gewig te bepaal van 'n vrug, weeg al die vrugte wat uit die boord versamel is, en deel dit deur die gewig van 'n vrug, om die totale aantal vrugte te verkry).

- Die datum van die vorige sanitasie prosedure moet aangeteken word, selfs al is geen monster vir inspeksie van hierdie vorige sanitasie geneem nie.
- 'n 100-vrugt monster van hierdie sanitasie vrugte moet lukraak geneem word vir ontleding, ongeag die boordgrootte. Indien minder as 100 vrugte uit die boord versamel is, moet alle vrugte wat versamel is, gemonster word.
- Die proses van ewekansige steekproefneming behels: a) om geen vooroordeel vir teen enige vrug te toon nie, gebaseer op hul voorkoms, en b) die seleksie van die vrugtmonster uit vrugte wat van verskillende afdelings binne die boord versamel is.
- Alle vrugte moet gedissekteer word en die aantal vrugte wat besmet is of was (larves nog teenwoordig of weg) moet aangeteken word.
- Dit moet gedoen word op dieselfde dag as wat sanitasie uitgevoer word en sanitasie vrugte moet verwyder en vernietig word onmiddellik nadat dit getel is en die monster vir inspeksie getrek is.
- Die volgende inligting moet tydens elke monsterneming in PhytClean ingevoer word:
  - Datum van vorige sanitasie prosedure (selfs al is 'n monster nie geneem om VKM-besmetting te monitor nie).
  - Totale aantal vrugte wat per boord ingesamel is.
  - Totale aantal vrugte in monster wat met VKM (larwe teenwoordig of weg) besmet was.
- Benewens die verpligte monitering hierbo beskryf, kan monitering aangevul word deur die 5-databoom moniteringstelsel wat in CRI Produkseriglyne beskryf word, maar die resultate moet nie op PhytClean gelaai word nie (resultate van die 5-databoom moniteringstelsel sal slegs vir eie gebruik wees).

#### Bylaag 3

Bylaag 3 is verander om die veranderinge aan die koue-ketting te weerspieël.

Verskepingsopsies (verskeping regime kodes) beskikbaar vir uitvoer van sitrusvrugte onder die FMS. Verwys na Tabelle 4.4 & 4.5 in Bylaag 4, die FMS Houer Protokol en die FMS SRV Protokol vir verdere besonderhede.

#### Houer-verskeping

##### Opsie A:

- Die volgende kodes is nie meer beskikbaar nie:
  - EW2 en EW1.



• Die volgende kode is ingesluit:

- EW0 – Temperatuur stelpunt van 0.0°C, en pulptemperatuur moet 25°C of laer wees voor laai.

• Die volgende kodes is verander:

- EW0 – Temperatuur stelpunt van 0.0°C, en pulptemperatuur moet 25°C of laer wees voor laai.
- EW01 – Temperatuur stelpunt van -1°C, en pulptemperatuur moet 25°C of laer wees voor laai.
- EC2 - Slegs beskikbaar met die nuwe A15C karton

**Opsie C:**

• Die volgende kodes is verander:

- EC0 – Temperatuur stelpunt van 0°C, na vooraf-verkoeling tot pulptemperatuur van 1.0°C of laer.
- ECW0 - Ook beskikbaar vanaf Kaapstad

**Konvensionele verskeping (SRV)**

• Die volgende kode is nie meer beskikbaar nie

- ECV1

• Die volgende kodes is ingesluit:

- Opsie A & B vrugte - ECV01A: Voor-verkoel tot 0.0°C of laer, verskeep by stelpunt -1.0°C.
- Opsie C vrugte - ECV01C: Voor-verkoel tot 0.0°C of laer, verskeep by stelpunt -1.0°C.

**Bylaag 4**

Die tabelle (4.2, 4.3, 4.4 en 4.5) is verander om die veranderinge te weerspieël.

**Tabel 4.2 BESKRYWING VAN AKSIES (VERPLIGTEND EN AANBEVOLE)**

- Vrugbemettingsmonitering (A, B) - Destruktiewe inspeksie van 'n monster vrugte van die sanitasie vrugte van elke boord elke week. Verpligtend om 12 weke voor oes te begin (16 weke word aanbeveel).

**Tabel 4.3 DREMPELWAARDES WAT VAN TOEPASSING OP OPSIES A, B & C IS**

• Vrugbesmetting (A & B)

- Gedurende die 12 wk voor-oes periode 'n gemiddeld van >0.1 besmette vrugtboom/week (larwe lewendig, dood of weg).
- 'n Gemiddeld van >0.1 besmette vrugtboom/week in die laaste 4 weke voor begin van oes (larwe lewendig, dood of weg).

• Pakhuis afleweringsinspeksie (A, B & C)

- Kategorie A: Meer as 2 besmette vrugte in monster (*lewendige of dooie larwe*)
- Kategorie B: Meer as 1 besmette vrugt in monster (*lewendige of dooie larwe*)
- Kategorie C: Meer as 5 besmette vrugte in monster (*lewendige of dooie larwe*)

**Tabel 4.4 REGIME-KODE-OPSIES VIR HOUERVERSKEPINGS ONDER OPSIES A, B & C**

Tabel is verander om die veranderinge te weerspieël.

**Tabel 4.5 REGIME-KODE-OPSIES VIR KONVENTIONELE VERSKEPINGS**

Tabel is verander om die veranderinge te weerspieël.

**Bylaag 5 (FMS Verpakningsvereistes) en Bylaag 6 (Tempertuurmonitering, laai en verskeping) is deur die FMS Houer Protokol en die FMS SRV Protokol vervang.**

**FMS Houer Protokol en FMS SRV Protokol**

• **Verpakking**

- Teleskopiese kartonne: *slegs die nuwe A15C SuperVent karton mag gebruik word.*
- Oop-vertoon kartonne **mag nie onder die EC2 kode gebruik word nie.**
- Oop-vertoon kartonne **mag onder die ECV2 kode gebruik word.**
- Geventileerde "trays" mag as interne verpakking gebruik word, maar *slegs onder die volgende A-kodes: EW0, EWO1 en C-kodes: EC0, ECW0, EC01, ECW01.*
- IFCO plastiek kratte mag gebruik word , maar as intern verpakking "trays" gebruik word, *moet dit geventileerde "trays" wees en onder die volgende A-kodes: EWO, EW01, of C-kode: EC9, ECW0, EC01, en ECW01 uitgevoer word.*
- Die 9-“slat” paletbasis ontwerp word aanbeveel om te verseker dat die karton se ventilasie-gate met die spasies tussen die “slats” ooreenstem.

• **Koelkamers**

- Koelkamers wat vrugte hanteer en wat onder die FMS uitgevoer gaan word moet 'n stelpunt van 2°C en laer (lugtemperatuur) handhaaf.



- Geforseerde lug-verkoelingskamers (FAC) mag 'n aanvanklike hoër leweringstemperatuur (DAT) gebruik om stapsgewyse afwaartse verkoeling tot onder 2°C toe te laat.
- Vir Opsie B vrugte word die volgende toegelaat: Vrugte mag tot die teiken verskepingstemperatuur verkoel word en daar gehou word i.e., 3.0°C vir EC3, 3.5°C vir EC35, 4°C vir EC4.
- Koelkamers moet oor die vermoë besik om digitaal die DAT en "return air delivery" (RAT) te meet en te stoor, in kamers wat FMS vrugte hanteer. Geen handgeskrewe rekords sal aanvaar word nie.
- Digitale opspoorbaarheid (uurlikse resolusie) van palette se beweging in die koelkamers moet aangeteken word en op versoek beskikbaar gestel word.

PhytClean is opgedateer om al die veranderinge aan die FMS te implementeer

## • Temperatuurmonitering

- Die logger posisie in diehouer het verander: tweede laaste palet, op die linkerkant van diehouer, in die middel van die palet.

## • Verkoelingsperiode

- Uitvoerders moet verseker dat alle besendings wat in houers uitgevoer word, vir ten minste 24 dae onder verkoeling is.
- Vir vooraf-verkoelde vrugte bestaan die verkoelingstyd uit drie dele:
  - Tydperk in koelkammer.
  - Tydperk waartydens die houers, onder krag, in die hawe deurbring (stacks)
  - Geskatte verskepingstyd volgens inligting van die verskepingslyne.
- Vir vrugte wat warm gelaai word (EW01/0) bestaan die verkoelingstyd uit twee dele:
  - Tydperk waartydens die houers, onder krag, in die hawe deurbring (stacks),
  - Geskatte verskepingstyd volgens inligting van die verskepingslyne.

## • Prosedures vir laai-punte en uitvoerders

- Laai-punte moet 'n uitlaai-instruksie en PhytClean verslag (of 'n kombinasie hiervan) genereer en aan PPECB verskaaf.
- Uitvoerders moet alle palette se tydsduur en temperatuurblootstelling in koelkamer aanteken en die berekening om Totale Verkoelingstyd te bepaal op aanvraag beskikbaar stel

## PhytClean

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