

# DropSight (Patent #2021/01603) - This must-have in agriculture is now available.

An easy-to-use, scientifically developed tool for measuring spray deposition has just been launched in SA.

Billions are spent annually on agricultural insecticides, fungicides, herbicides and growth regulators applied by spray machinery to protect trillions of rands in crop value from pests and diseases. But nobody knows whether the formulation reaches and settles on the intended target area. DropSight was developed to do just that, putting the quantitative measuring power of spray deposition in the hand of the end user.

A team of spray deposition specialists from the agricultural consulting company ProCrop, Bekker Wessels, Dr Gideon van Zyl and Philip Rebel collaborated with Marius Ras, an engineer specialising in application technology, with over 40 years' experience in this field. This formidable team of experts determined the problem areas in agricultural spray deposition assessment, and together with the electronic engineer Cobus Meyer from ARCi Technologies, designed the in-field solution to benefit the industry.

Through the specially designed photographic laboratory (LeafLab), UV fluid (UView) and the DropSight app for a smartphone, the chemical consultant and the farmer of today can make informed decisions based on quantitative measurements of spray deposition.

LeafLab is a portable, on-site laboratory,

developed with DropSight for plant leaf UV photography to quantify the deposition efficiency onto a crop within minutes of application. UV-led lightning with wavelength, intensity and uniformity to optimise fluorescence for smartphone photography when using UView tracer, completes the technical specification. The UView fluorescent fluid is recognised by DropSight software and deposition efficiency is measured and calculated.

## What are the advantages of using Dropsight?

- For the first time the producer can measure how effective the deposition of spray material is on the target.
- "Do it yourself" – use in the orchard or on the land – and get the answers immediately.
- Make adjustments, re-evaluate, and improve the

- effectiveness of your pest/disease/weed control.
- Optimise the use of agrochemicals and thereby reduce input costs.
- Reduce the polluting of natural resources.



**dropsight**  
spray deposition tracer

**LeafLab and UView will be distributed via the leaders in the agrochemical industry. Visit [www.dropsight.ag](http://www.dropsight.ag) for information, prices and step-by-step instructions, or to find a distributor near you.**

# Extension briefs for

## June and July 2022

By Hannes Bester, MC Pretorius, Wayne Mommsen, Coenraad Fraenkel, André Combrink, Catherine Savage, Natasha Jackson and Jan Landman  
(Citrus Research International)

### Integrated pest management

#### False codling moth (S.D. Moore)

Orchard sanitation must continue diligently during the harvesting period. All fruit remaining on trees after harvest must be removed and destroyed within no more than two weeks after completion of harvesting. This is because FCM activity does not cease during winter and any remaining fruit can therefore serve to facilitate this activity. In addition, this winter fruit creates a reservoir of inoculum of FCM for the following spring. Conversely, removal of all fruit after harvest can dramatically reduce FCM levels in the following season. Fruit fly numbers can also build up on unharvested fruit.

Packhouses must continue to implement all aspects of the FCM risk management system (FMS) for fruit destined for the EU, as diligently and accurately as possible. For example, grading of fruit on the packing line must be conducted as stringently as possible. Packhouses should not hesitate to slow down the line speed to enable more careful scrutiny of fruit. Additionally, a designated inspection table should preferably be installed just before final grading and sizing of fruit. These should be equipped with excellent lighting, and staff appointed to conduct such inspections and grading must have 20/20 vision and should be properly trained and incentivised to do the most reliable and accurate job possible. Also, that Perishable Products Export Control Board (PPECB) pallet inspections are a critical component of the FCM Management System (FMS) in assisting to filter out infested fruit and therefore, full

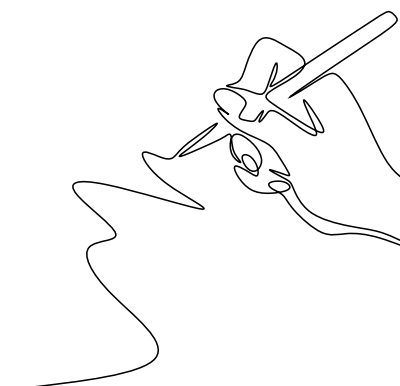
cooperation must be given for this to be conducted thoroughly and accurately.

#### Red scale (T.G. Grout)

Those growers who have experienced red scale problems during the past season should consider applying narrow distillation range horticultural mineral oils, as these comprise the most IPM-compatible treatment option for red scale. The optimal period to apply this treatment is from budswell to budburst (mid-July to mid-August). The concentration to be used is dependent on the grade of the oil to be applied (generally 1.0 - 1.25% medium grade oil). When spraying oil, care must be taken to apply the oil as a full cover, film wet spray. Trees to be sprayed must also not be under any stress. Pruning the trees before spraying is useful, to improve spray coverage of the tree framework where many of the red scale insects survive. Other treatments for red scale would normally be applied in August, September or after petal fall, and will be discussed in later editions of Extension briefs.

#### Ant control (T.G. Grout)

Ants are usually indirect pests on citrus and interfere with the behaviour of natural enemies, sometimes protecting and even transporting pest species. The winter months are a good time to control ants before honey-dew-producing pests such as aphids increase on the spring growth flush. Trees should also be skirt-pruned to prevent branches from touching the ground later in the season when bearing fruit. A new bait – SAGA – that is effective against both the pugnacious ant and the brown house ant is available from River Bioscience.



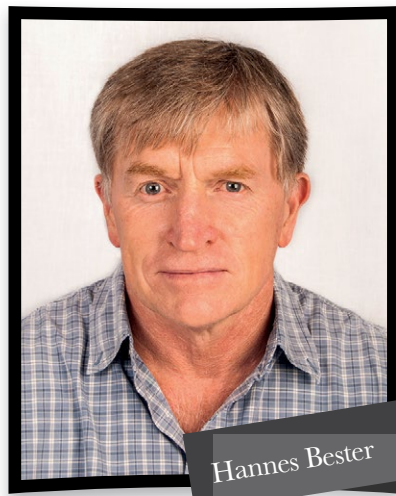
### Naoespraktyke (P.J.R. Cronjé)

Vir die voorkoming van naoes fisiologiese afwykings is die korrekte produksiepraktyke, soos bemesting en besproeiing, asook snoei, uiters belangrik. Daar is egter gedurende die oes en pakproses kritiese faktore waarop gelet moet word, wat die voorkoms van skildefekte, asook algemene vrugkwaliteit kan beïnvloed. Bepaal die optimum plukvenster vir elke kultivar per boord deur h maand voor die beplande oesdatum met rypheidsindeksing (interne kwaliteit en skilkleur) te begin. Daar moet gepoog word om die temperatuur lading op die vrug te beperk vanaf die plukproses tot in die pakhuis, deur die vrugte se veldhitte so gou as moontlik te verwyder (bv. deur vrugte gouer te “drench”). Die paklyn het h invloed op skilkondisie, asook die voorkoms van skildefekte, en dit is belangrik dat detail aandag aan alle bewegende dele, bv. rollers en borsels, asook wakstipe en aanwending, geskenk word.

Ontgroening is h belangrike aspek van die sitrus naoeshantering en moet optimaal bestuur word. Dis belangrik om te beseef dat daar h interaksie tussen kultivar, vrugrypheid en die effektiwiteit van ontgroening bestaan. As vrugte te vroeg (onvoldoende kleur-ontwikkeling aan boom) in die ontgroeningskamer geplaas word, sal die verlangde kleur nie ontwikkel nie en vrugte neig om h geler of bleker voorkoms te kry. Gedurende ontgroening is daar egter aspekte wat streng beheer moet word, nl. etileenkonsentrasie (1-3 ppm), temperatuur en relatiewe humiditeit (95%+).

#### Optimum ontgroeningstemperatuur

|                               |             |
|-------------------------------|-------------|
| Satsuma-mandaryne             | 18 tot 21°C |
| Clementine- en Nova-mandaryne | 19 tot 22°C |
| Nawel-lemoene                 | 21 tot 23°C |
| Ander-lemoene                 | 23 tot 24°C |
| Pomelos en suurlimoene        | 24 tot 25°C |



Hannes Bester



MC Pretorius

Ontgroen altyd meer sensitiewe vrugte teen die laagste temperatuur. Die etileenbehandeling is die effektiwste as vrugte van dieselfde kleur gelykertyd behandel word. Die tydperk van die behandeling moet ook so kort as moontlik wees. Hou die CO<sub>2</sub>-vlakke onder 0.3% (3000 dpm) deur die ventilasie sodanig te stel; hoë CO<sub>2</sub>-vlakke verlangsamen die ontgroeningsproses deur as kompeterende inhibeerder teen etileen op te tree. h Stadiger ontgroeningstempo sal h verlenging van die tyd in die ontgroeningskamer vereis en 'n verkorte rakleef tyd tot gevolg hê. Vir meer inligting, raadpleeg die *Common defects associated with degreening of citrus* deur Krajewski en Pittaway, wat op die CRI

webwerf bestel kan word: <https://www.citrusres.com/shop/>.

Die koueketting se invloed op die vrugkwaliteit is van kardinale belang en sal nie net die voorkoms van skildefekte beïnvloed nie, maar ook algemene kwaliteitsaspekte soos vrugfermheid en rakleef tyd. Die belangrikste faset van die koueketting is dat dit nie onderbreek mag word nie, m.a.w. as vrugte tot op die verlangde temperatuur verkoel is, mag die temperatuur nie weer styg nie.

### Crop and fruit quality management (P.J.R. Cronjé)

**Maturity indexing:** Maturity indexing on mid-season to late cultivars should commence. Maturity indexing is done to predict the rate of change in fruit maturity in order to harvest fruit at an optimal maturity. The aim is to define changes or rate of change in acids and sugars, and to build up a database over a number of years. Random sampling of fruit every week from each of 10 representative trees should start four to six weeks before the expected harvest date. Titratable acidity is determined by titration with sodium hydroxide, sugar content (Brix) is determined using a refractometer, the sugar:acid ratio calculated and fruit colour should be read from a colour chart. All the parameters mentioned above should be plotted on a graph over time. Once plotted, trends will become apparent, harvest dates can be estimated and problem areas in internal and external quality parameters can be identified and manipulated.

**Degreening and postharvest rind disorders:** The two publications, *Common Defects Associated with Degreening of Citrus* by Andy Krajewski and Tim Pittaway, and *Postharvest Rind Disorders of Citrus Fruit* by Paul J. R. Cronjé are a must for any grower. Both are available from CRI. Order online at [www.citrusres.com](http://www.citrusres.com).

**Pickers training and monitoring:** Picking bags should always be carried on the side of the waist to avoid crushing of

fruit between the body and the ladders, bins or trees. Picking bags should at all times be free of leaves, shoots or sand and kept dry throughout. To avoid lesions on fruit, fingernails of pickers should be short and scissors and ladders handled correctly, i.e. no long stems and limited contact between ladders and fruit. Picking of low-hanging fruit as well as collecting of dropped fruit should be avoided. At each bin, two sorters should be stationed wearing gloves, and the fruit quality of each picker monitored by an appointed team leader via the sorters.

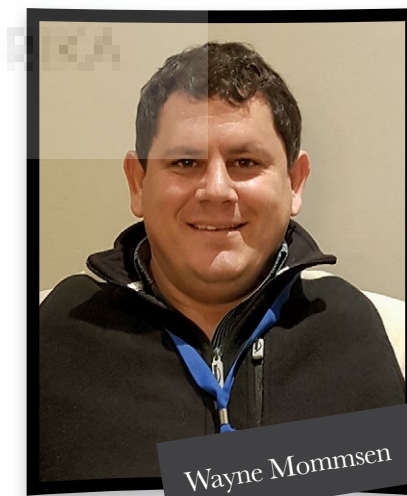
**Pruning:** For early and mid-season cultivars pruning should be done as soon as possible after harvest. All of the following should be removed during pruning: old, broken and dead shoots/twigs; weak and entangled shoots crossing each other or hanging downwards; any rootstock regrowth, water shoots and excessive regrowth from main frame shoots on the inside of the tree. Light levels of above 30% of full sunlight are necessary for optimal photosynthesis – at least one “window” cut should be made to allow adequate light distribution and improve bearing wood. Increase in photosynthesis and light distribution will lead to increased fruit size and internal fruit quality (Brix°), better fruit colour development, increase in rind integrity, as well as a more uniform fruit distribution across the tree. Pruning can also be used as a thinning technique: prune more heavily after a light crop if a heavy crop is expected, and when the orchard has a history of alternate bearing. A follow-up pruning of regrowth in the summer is of critical importance. Pruning tools should always be sanitised with 10% Jik when moving from one orchard to another. Another benefit of pruning is that it ensures better spray penetration during pest and disease control and much more cost-effective spraying.

**Flower induction:** Citrus trees require a rest period of about six weeks to ensure

adequate flower induction. The two mechanisms involved in floral induction in citrus involve (i) low temperature, or (ii) controlled-drought stress, both to prevent root activity. In the absence of low-temperature rest, citrus trees should be exposed to controlled-drought stress for a four to six week period during June and July, if possible.

### Bemesting / Fertilisation (P.J. Raath and J.G.K. Coetzee)

**Blaarontleding / Leaf analysis**  
The very last opportunity to get leaf analyses done is in June and July. Leaf analysis is still the best diagnostic method to measure the nutritional status of the trees.



Wayne Mommsen



Coenraad Fraenkel

Blaaranalise kan egter nie as enigste norm vir die daargestelling van 'n bemestingsprogram gebruik word nie, maar moet as 'n aanvulling tot grondanalises gesien word. Dit is ook nuttig in gevallestudies waar blare vanaf “siek” bome gemonster word, asook vanaf naburige, nie-geaffekteerde bome. Die gesonde/beter bome se blare dien dan as direkte kontrole, sodat die tyd van monsterneming en al die ander veranderlikes, minder krities of nie ter sake is nie. Geen norm word gebruik nie, maar wel die relatiewe verskille tussen die twee monsters.

### Grondontledings/Soil analyses

Soil analyses should be done annually and preferably during the same time as leaf analyses. A good practice is to take soil samples from the same spot every year to ensure accurate historic dataset development for the soils. Sampling areas can be marked with GPS coordinates. And sections where trees are performing poorly should be sampled separately.

Gereelde grondontledings word benodig in bestaande boorde om te verseker dat optimale groeitoestande gehandhaaf word. Die belangrikste voordeel van grondontledings in bestaande boorde is dat veranderings in grondvrugbaarheid bespeur kan word en korrekatief opgetree kan word, voor voedingsprobleme wat boomprestasie benadeel, kan ontwikkel.

### Other analyses

If manure or compost is used, it should be analysed to determine the nutrient value and occurrence of unacceptable elements (e.g. heavy metals) in the organic material. The amount of organic material applied is determined by the concentration of nutrients in the compost or manure. The nutrient content of organic material is much



lower than inorganic fertilisers, and often in an inappropriate ratio compared to the trees’ nutritional requirement. Therefore, be careful not to apply excessive amounts of nutrients that are out of sync with the trees’ requirement.

Bemesting/Fertilisation

Potential yield is used as an indicator for the amount of fertiliser to be applied. Use

historic yield data to determine a realistic target yield and basis from which the fertilisation requirement is compiled. The fertilisation programme should then be tweaked, using results of both soil and leaf analyses.

The fertilisation programme for each season starts in July or August of the previous year, depending on the production area. Due to the properties of the specific chemical ion, the properties of the soil and the physiological requirements

of the trees, certain basic rules should be adhered to when applying fertilisers to citrus.

Blaarbespuitings word gebruik om tekorte reg te stel of om die bome se fisiologie te manipuleer. Vir manipulasie is dit hoofsaaklik lae biuret-ureum of kaliumnitraat wat gebruik word. Indien nodig, moet beide bespuitings ses tot agt weke voor die 50% blom-stadium toegedien word. Dit is meestal Julie of vroeg Augustus.

| Element                                                                                                                                                                          | Mikrospruite/Micro-sprinklers                                                                                                                                                                                                                                    | Druppers/Drippers                                                                                                                                                                                                                                                                                                            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| N                                                                                                                                                                                | Dien die meeste N gedurende Julie tot September toe. Die aantal toedienings word bepaal deur die totale massa kunsmis wat toegedien moet word en die klei-inhoud van die grond. Die beginsel vir sproeibemesting of hand- en meganiese toediening bly dieselfde. | Die beginsel is soos die vir mikrospruite maar die massa word verdeel in 'n groot aantal toedienings wat tot Desember strek. Die meeste N moet egter nog steeds in Julie tot September toegedien word, en die toedienings moet nie veel langer as Januarie aanhou nie.                                                       |
| Organiese materiaal                                                                                                                                                              | Organiese materiaal soos kompos, kraal- of hoendermis moet nie later as Julie of Augustus toegedien word nie. Vrystelling van N uit organiese materiaal is moeilik om te beheer en oormatige N-mineralisasie na Oktober sal nadelige gevolge inhou.              | Die huidige metode is om die totale massa organiese materiaal te verdeel en in gelyke massas bo-op elke drupper te plaas. Dit moet teen die laatste Julie/Augustus gedoen word.                                                                                                                                              |
| P                                                                                                                                                                                | Use single or double superphosphate. In higher pH soils it should be applied in a narrow strip of about 5 cm wide in the wetted zone.                                                                                                                            | Use a water-soluble source like mono ammonium phosphate (MAP). In high pH soil, phosphoric acid can be used, which should be applied in a few instalments over a period (four to five months) from spring onwards.                                                                                                           |
| K                                                                                                                                                                                | Wanneer sproeibemesting gebruik word, kan korrektiewe bemesting op swaarder gronde teen 100 g K per boom per toediening oor die hele lengte van die siklus toegedien word. Doen dit elke twee tot drie weke totdat die voorgeskrewe aanbeveling toegedien is.    |                                                                                                                                                                                                                                                                                                                              |
|                                                                                                                                                                                  |                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                              |
| Wanneer meganiese of met die hand uitgestrooi word, word die aanbevole K in een (leem- tot kleigronde) tot drie (sandgronde) toedienings gedurende die lente/vroeë somer gemaak. | Dien die aanbevole massa kaliumnitraat, -sulfaat of -chloried oor 'n periode van drie tot ses maande gedurende Julie tot Desember toe.                                                                                                                           |                                                                                                                                                                                                                                                                                                                              |
| Ca                                                                                                                                                                               | Calcium deficiency is only expected on acidic or extremely sandy soils. The most critical time to avoid a deficiency is from August to October. Lime applications should therefore be done in winter, while gypsum can be applied up to August or September.     | In addition to lime and gypsum, that requires rain to be washed into the soil, calcium nitrate is the only suitable alternative source. It must be applied from July to September/October, and can be extended to December. Take the nitrate component of the calcium nitrate into account when calculating N fertilisation. |
| Magnesium                                                                                                                                                                        | Dolomitiese kalk, magnesiumsulfaat of -hidroksied of -oksied kan in die lente, vroeë somer of herfs toegedien word.                                                                                                                                              | Magnesiumnitraat of -sulfaat word ook oor 'n periode van drie tot ses maande toegedien. Die nitraat word gewoonlik vroeg en die sulfaat na Oktober toegedien.                                                                                                                                                                |
| Sulphur                                                                                                                                                                          | Sulphur deficiency has the most devastating effect on fruit set. Where a deficiency is present, apply the sulphate (e.g. gypsum) during July to August. On sandy soils, maintenance applications are done during spring or early summer.                         | Gypsum, applied in the rainy season. Otherwise, magnesium, potassium or ammonium sulphate are S-sources and the application is timed to fit the requirement of these four elements.                                                                                                                                          |



| Element     |                                                                               | Timing                                                                   |
|-------------|-------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| N           | Low biuret urea to stimulate blossom or improve the quality of the blossom    | July or early August                                                     |
|             | Low biuret urea to supplement the nitrogen supply                             | October to February                                                      |
| P           | Om die suurinhoud van die vrugte te verminder                                 | Ses weke na blomblaarval                                                 |
|             | Om die TOV van die vrugte te verhoog                                          | Ses, vier en twee weke voor oes                                          |
|             | Om dunner en gladder skille te gee                                            |                                                                          |
| K           | Potassium nitrate to stimulate blossom or improve the quality of the blossom  | July or early August                                                     |
|             | Potassium sulphate to supplement the K supply, if root uptake is insufficient | August/September for the best results and up to February for maintenance |
|             | Potassium nitrate to supplement the K supply, if root uptake is insufficient  | After fruit drop to December                                             |
| Mg, Zn,     | Waar tekorte ondervind word                                                   | Julie/Augustus en weer in Oktober                                        |
| Mn, B en Mo | Instandhouding, indien nodig                                                  | Oktober tot Desember                                                     |
| Cu          | Only recommended to correct a deficiency                                      | May to July, before flowering                                            |

Postharvest pathology (W. DU Plooy, L. Mamba and C. Savage)

While most packhouses now enter their peak period, important and basic practices such as sanitation and fungicide application must not be neglected.

Packhouse sanitation

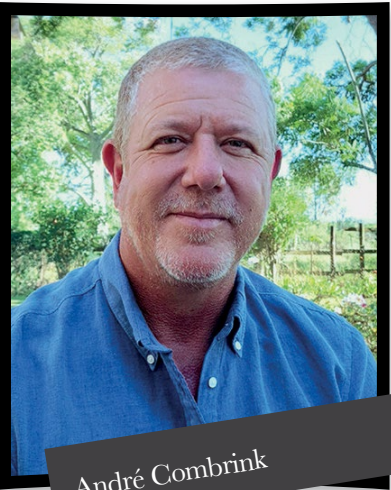
The main aims of this practice are:

- 1. to remove any infected fruit from the packhouse environment;
- 2. to sanitise surfaces with appropriate treatments.

These actions will reduce the inoculum (spore) levels, which will reduce the risk for future infections and fungicide resistance development.

Surfaces that should be considered in sanitation:

- Packline surface – treat daily with a registered, food-safe sanitising product. It is important that the product does not leave a residue and is quick and easy to use.
- Fruit surface – a fruit disinfectant treatment should be one of the first steps when entering the packhouse. Chlorine (Calcium Hypochloride) is the most popular active for this step. Remember to strictly manage the chlorine concentration, pH and ORP. Alternatives such as liquid or powder PAA formulations can also be used. In the case of PAA there is no need to adjust the pH, however the PAA concentration levels must be managed carefully.



André Combrink



Catherine Savage

- Floors and walls – wash weekly with a registered soap and disinfectant product. In these areas, a product that leaves a residue (such as a QAC product) can be used. It is important to remember that a dirty surface can't be sanitised, so the use of a registered soap before sanitation is recommended. The areas to clean include the packhouse, degreening rooms and cold rooms.
- Degreening rooms and cold rooms need to be washed and then, where possible, fumigated with a suitable product that can reach into crevices and folds. Never fumigate when fruit is in the rooms, to avoid the risk of residue transfer.
- Orchard bins and picking bags must be washed and sanitised before being used again.



**Sources of inoculum (spores):**

- The orchard – spores naturally occur in the orchards so orchard sanitation is key, to reduce the inoculum load
- Post-degreening fruit – degreening conditions are hugely favourable for disease development and unfortunately, some sporulating fruit are often tipped into the packhouse system
- Waste fruit – have a protocol in place to remove these fruit a.s.a.p. and to keep the waste in sealed containers
- Juice fruit – this fruit is often treated with fungicides, and sits in the packhouse area for some time until shipping to the juicing plant. Therefore, any decay that occurs on such fruit holds a resistance risk.
- Retention samples – shelf life fruit has also been treated with fungicides and holds a similar resistance risk as juice fruit.

**Recommendations that can reduce the risk of infection and/or resistance development:**

- Treat all harvested fruit a.s.a.p. within 12 - 18 hours as most fungicides cannot control infections older than a day
- Don't let fruit stand from Friday afternoon to Monday morning without any fungicide protection, in this case it would be prudent to drench the fruit on Friday
- Degreen fruit for the absolute minimum period of time
- Do not exceed the volume limit of your packline: exceeding the limit will result in accelerated agitation and movement of the fruit, which will result in bruising and injuries, and will reduce the efficacy of sanitation and fungicide treatment. If fruit moves too quickly through the various control points, the following risks will be observed:
  - The chlorine treatment = poor disinfection, spores surviving

- The fungicide dip tank = loading suboptimal residue, poor infection control
- The wax applicator = poor wax deposition on the fruit = suboptimal residue loading, poor moisture retention, negative impact on quality.
- Limit the time from harvest to packing and the eventual introduction to the cold chain.

**Some advice in managing retention fruit:**

- Have a dedicated person managing this task
- Fruit should be evaluated every day, and decayed fruit noted on the carton and removed or isolated
- This infected/discarded fruit should be placed in a plastic bag immediately, and the bag sealed tightly, to reduce the risk



Natasha Jackson



Jan Landman

of releasing inoculum (spores) into the packhouse atmosphere

- Fruit in retention samples have been treated with fungicides, and holds a serious resistance risk if spores are spread into the packhouse
- Green mould sporulation inhibition is a very important criterion to note, as the loss of sporulation inhibition is indicative of either fungicide resistance or poor fungicide application. To prevent spores spreading from this infected fruit, fruit exhibiting sporulation inhibition should be kept in sealed transparent plastic bags and incubated for another week to rate sporulation inhibition (white mycelium with few to no green spores).
- When the sporulation inhibition rating is concluded, the bagged fruit must

be destroyed (with the bag) well away from citrus orchards and packhouses, to prevent spores from entering any production area.

- Do not keep fruit for longer than the shipping period.

Ideally, the retention room should be some distance away from the clean area in the packhouse, and should be totally enclosed with controlled access. This room should be cleaned and treated with a suitable soap and sanitiser at least once a month. ▮

**POME FRUIT**

PHI = 7 days  
SA MRL = 0.3 mg/kg  
EU MRL = 0.4 mg/kg

**CUCURBITS GROUPS**

PHI = 1 day  
SA MRL = 0.5 mg/kg

**LETTUCE**

PHI = 3 days  
SA MRL = 0.05 mg/kg

**CITRUS**

PHI = 21 days  
SA MRL = 0.3 mg/kg  
EU MRL: Lemons = 0.4 mg/kg  
Grapefruit = 0.15 mg/kg  
Oranges & Mandarins = 0.8 mg/kg

**TOMATOES**

PHI = 3 days  
SA MRL = 1.5 mg/kg

**GRAPES**

PHI = 28 days  
SA MRL = 1 mg/kg  
EU MRL = 2 mg/kg

**PEPPERS**

PHI = 1 day  
EU MRL = 0.4 mg/kg

**CRUCIFERAE & BRASSICA GROUPS**

PHI = 3 days

**STONE FRUIT INCLUDING PLUMS**

PHI = 14 days  
SA MRL = 0.4 mg/kg  
EU MRL = 0.5 mg/kg

**Closer® 240 SC**

Isoclast® active

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