

EXTENSION BRIEFS

DEC 2006/JAN 2007

HENNIE LE ROUX & HANNES BESTER

Citrus Research International

CITRUS BLACK SPOT

G.C. SCHUTTE

Growers are reminded that mancozeb may not be sprayed later than December on fruit destined for the Canadian market and not later than the end of January for Japan. Carbendazim and any other breakdown products of the benzimidazole fungicide group that results in carbendazim residue (Benlate, Spotless, Bavistin, Bendazid, Knowin) may not be sprayed on fruit intended for the EU and countries that abide by the CODEX MRL system. Growers that have treated citrus with carbendazim could consider sending this fruit to the Middle East, Korea, Canada or Japan. Copper fungicides or strobilurins in tank mixtures with copper or mancozeb are the only options for January. If a spray mixture containing copper will be used, then a copper spray less than 60 days prior to this is not permitted as it will cause stippling. Remember that the addition of mancozeb or copper fungicides is essential and has been proven to be necessary for effective control of CBS in independent studies. Never allow gaps to occur in and during the susceptible period from October to January especially where contact fungicides are chosen for control. Problem periods are usually over Christmas and New Year. Follow-up treatments are necessary where rainfall occurred within 6 hours after applications. Sporekill (100 ml) is now registered for the control of CBS in tank mixtures of reduced rates of mancozeb or copper of 100 g/100 L water in both cases.

CROP LOAD & FRUIT QUALITY MANAGEMENT

G.H. BARRY, J.S. VERREYNNE

Fruit growth and size: Fruit growth during this time is important to achieve optimum size.

Irrigation: Due to the possibility of hot, dry conditions during mid-summer, irrigation practices must be optimal to ensure that limited water supply does not adversely affect fruit growth. Moisture stress during phase II (starting \pm 60 days after full bloom) of fruit growth results in smaller fruit. Faster and more uniform fruit growth results from more frequent short cycle irrigation compared to long cycle irrigation.

Fertilisation: Leaf N:K ratio is important for fruit size and should be between 1.6 and 2.2. Low K levels will influence fruit size negatively. Avoid nitrogen fertilisation after December.

Regrowth control, especially after heavy pruning earlier in the season, should commence. A lot of regrowth adversely affects fruit size and is antagonistic to fruit colour development, especially for early maturing cultivars.

Hand thinning: Selective removal of 20-30% of fruit from heavy bearing trees (the small and blemished fruit are removed) within 21 days from the November/December fruit drop period can improve fruit size and the earlier this can be done after the

November/December drop the greater the effect would be. This is, however, a time consuming practice, but removing the small fruit, that would not attain marketable size, at an early stage would be cheaper than harvesting these small fruit with clippers at maturity.

Creasing: Gibberellic acid (GA) is applied in January to reduce the incidence of creasing. It should be noted that improper timing of GA delays colour development.

Oleo incidence: Late summer vegetative growth of bearing trees should be kept to a minimum as excessive vegetative vigour during this period is associated with high incidence of oleo at harvest.

Rind colour development: Late nitrogen application and the use of heavy summer oil sprays should be avoided as these treatments are antagonistic to rind colour development. In addition, GA treatment to reduce creasing incidence is also antagonistic to colour development.

INTEGRATED PEST MANAGEMENT

BOORDSANITASIE J.H. HOFMEYR

Die versameling van afgevalde vrugte, asook vrugte op die boom wat met valskoddingmot (VKM) besmet is, help om die plaag te bekamp. Hoe vroeër in die seisoen met boordsanitasie begin word, hoe beter kan die motbevolking onderdruk word. Dié voordelige invloed van boordsanitasie kan veral gesien word aan die afwesigheid van noemenswaardige oesskade gedurende die seisoen tot relatief kort voor oestyd.

Teen die tyd dat dié tydskrif verskyn behoort boordsanitasie alreeds in volle swang te wees. Alle afvalvuggies moet opgetel en vernietig word deur hulle minstens 300 mm diep te begrawe of in dromme met water te gooi. Groter vrugte behoort met 'n trekker-aangedrewe hamermeul fyn gekap te word. Hoe verder buite die boord dié fynkap uitgevoer word, hoe beter. Indien 'n hamermeul nie beskikbaar is nie, moet die vrugte minstens vier weke lank in plastieksakke toegebind word sodat die VKM-larwes kan vrek. Deursigtige (biodegradeerbare) plastiekkunsmis-sakke kan nie hiervoor gebruik word nie, aangesien die larwes daardeur kan vreet. Die taaier, ondeursigtige tipe plastieksakke is wel geskik.

Boordsanitasie help nie net om VKM te onderdruk nie. Dit dra ook by tot vrugtevlieg onderdrukking en vrugte wat met groen en blou Penicillium-, asook bruinvrotswamme, besmet is, word terselfdertyd verwyder.

GRONDGEDRAAGDE SIEKTES M.C. PRETORIUS

Phytophthora beheer Alhoewel redelike goeie reënval gedurende Desembermaande voorkom is Januarie en Februarie maande gewoonlik droeër en die dagtemperatuur heelwat hoër. Daarom die waarskuwing dat indien van fosfonate gebruik gemaak gaan word om *Phytophthora* wortelvrot en bruinvrot te beheer, die middels met sorg en volgens gebruiksaanwysings toegedien moet word. Wat van uiterste belang is, is dat die middels nie gespuut behoort te word indien dagtemperatuur hoër as 28°C is nie, of die

bome onder enige mate van droogte- of hittestres verkeer nie. Geen bespuitings moet gedoen word indien enige warm bergwinde waai nie. Geen voorkomende behandeling vir bruinvrot behoort gespuit te word nie. Geen buffers, wat gebruik word om die water pH reg te stel, is nodig om by die tenkmengsel gevoeg te word nie indien van fosfonaatprodukte gebruik gemaak word.

Aalwurmbeheer Slegs indien goeie deurdringende reëns (40 mm+) geval het behoort die gebruik van aalwurmdoders oorweeg te word. Reën asook besproeiingswater is nodig om die aalwurmdoders effektief deur die grondprofiel te was.

Die neem van grond en wortelmonsters as 'n bestuurshulpmiddel, om die aalwurm en *Phytophthora* status in die grond en wortels van sitrusboorde te bepaal, moet ten minste elke drie jaar gedoen word. Dit is uiters noodsaaklik om 'n monster te neem voordat 'n boord vir herplantdoeleindes verwyder word om die aalwurm en *Phytophthora* status te bepaal.

BLAAR- EN GRONDMONSTERS VIR DIE 2007/2008 SEISOEN

HANNES COETZEE

Blaar- en grondmonsters word by sitrus gedurende Februarie tot Mei maar selfs tot Julie geneem. Met behulp van blaar- en grondontleding plus ander inligting soos die vorige bemestings, blaarvoeding, opbrengs en kwaliteit kan 'n ekonomiese

bemestingsprogram saamgestel word wat:

- Net dié elemente toedien wat nodig is om 'n optimale gebalanseerde voedingstatus te handhaaf.
- Die kunsmisstowwe selekteer wat die goedkoopste is maar die werk sal doen.
- Die optimale tye waarop die verskillende materiale toegedien of gespuit moet word, aandui.

The correct leaf sample is collected by picking:

- Leaves that are 5 to 9 months old (February to July).
- Leaves from fruit bearing twigs. That is leaves that emerge at the same time as the flower/fruit.
- Leaves that represent the average nutritional status of the orchard.
- Leaves every year from the same set of trees (Index trees).
- The leaf samples at the same period (e.g. 2nd week in March) every year.
- One leaf and one composite soil sample per orchard, not exceeding 5 ha per sample.

Maak dus seker dat genoeg tyd en aandag aan die neem van monster bestee word. Op onder andere die blaarontledingsresultate word besluite wat groot impak op die komende oes en insetkoste het, gebaseer.

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