

## PHYTOPHTHORA BRUINVROTBEHEER

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In die somerreënval gebiede word bruinvrot op sitrus hoofsaaklik veroorsaak deur die swam *Phytophthora nicotianae* var. *parasitica* en affekteer dit meestal die onderste 1.5 m van die vrugte naaste aan die grondoppervlak. In die winterreënvalgebiede daarteen kom *Phytophthora citrophthora* ook voor. Hierdie swam beweeg hoër op in die boom en kan vrugte tot bo in 'n sitrusboom besmet.

**Die huidige warm en droë klimaatstoestand wat in meeste van die somerreënvalgebiede voorkom regverdig nie voorkomende bruinvrotbeheer bespuitings nie.** Hierdie toestande is uiters ongunstig vir die *Phytophthora* patoëne om bruinvrot verliese te veroorsaak. Meeste van die boorde in hierdie gebiede is tans **onder stres** weens die hoë dag temperature asook min tot geen reën wat gedurende die somer geval het nie. Hierdie toestande kan veroorsaak dat fitotoksiese skade op vrugte kan voorkom indien voorkomende bespuitings met fosfonate gedoen sou word.

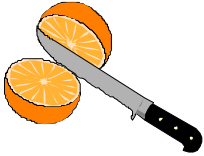
**AANBEVELING: GEEN VOORKOMENDE FOSFONAAT BESPUITINGS BEHOORT IN HIERDIE GEBIEDE VIR DIE BEHEER VAN PHYTOPHTHORA BRUINVROT GESPUIT WORD NIE.**

Indien goeie deurdringende reën wel later in tydens herfs mag voorkom, is tenminste 30 mm reën nodig, voordat 'n bruinvrotbespuiting strategie oorweeg behoort te word.

Beheermaatreëls indien goeie reëns wel voorkom

1. Kontakmiddels soos mancozeb en koper kan gespuit word, slegs as 'n voorkomendemaatreël.
2. Fosfonaat produkte het 'n korrektiewe werking. 'n Verskeidenheid fosfonaatprodukte is beskikbaar soos bv. Fighter en Phytex (**Fighter is die enigste geregistreerde bruinvrotbeheer produk**).

3. Baie belangrik: Aliette is nie geregistreer as 'n bruinvrotbeheer middel nie.
4. **Verseker dat die voorskrifte sorgvuldig volgens die etiket nagekom word.**
5. **NB: Verseker dat bome onder geen vorm van stres is wanneer middels toegedien word nie. Versuip-toestande kan ook 'n vorm van stres veroorsaak.**
6. Vermei die gebruik van fosfonaatbespuitings op Satsumas en ander sagtesitruskultivars.
7. 'n Buitengewone hoë drag en boorde wat gestres word om die interne kwaliteit te verbeter, beïnvloed ook bome se gevoeligheid vir spanningstoestande, bv. droogte en hoë temperature.
8. **BELANGRIKE KENNISGEWING:** GEEN buffers, bv. Bladbuff, behoort by tenkmengsels waarby fosfonate soos Fighter en Phytex gemeng is, bygevoeg te word nie. Geen regstelling van die water se pH is nodig indien van die fosfonaatprodukte gebruik word nie. **Byvoeging van enige bufferprodukte kan fitotoksiese simptome veroorsaak en bevorder!**



## **PHYTOPHTHORA BROWN ROT CONTROL**

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In the summer rainfall areas, brown rot on citrus is mainly caused by the fungus, *Phytophthora nicotianae* var. *parasitica* and it most often affects lower hanging fruit, i.e. fruit hanging within 1.5 m of the ground. On the contrary, *Phytophthora citrophthora* also occurs in the winter rainfall areas. This fungus moves higher up the tree and can affect fruit right on top of the citrus tree.

**Current high day temperatures and very little to no rainfall occurring in most of the summer rainfall regions does not justify a preventative brown rot control strategy.** The climatical conditions are unfavourable for the development of *Phytophthora* brown rot.

Most of the orchards in these regions are under stress due the high day temperatures and low rainfall. These conditions will enhance phytotoxic damage to fruit if preventative phosphonate brown rot sprays are applied.

**RECOMMENDATION: NO PREVENTATIVE PHOSPHONATE APPLICATIONS IN THESE REGIONS SHOULD BE CONSIDERED FOR THE CONTROL OF BROWN ROT.**

If good soaking rains do occur in autumn at least 30 mm of rain will be necessary before a brown rot control strategy is considered.

### Control measures to be taken if good rains do fall

1. Contact fungicide, e.g. mancozeb and copper, can be sprayed but only as a preventive measure.
2. Phosphonate sprays have a corrective function and can be applied as foliar sprays to prevent brown rot on citrus. A variety of phosphonate products are available, e.g. Fighter and Phytex (**Fighter is the only registered product for brown rot control**).
3. Important notice: Aliette is not registered for use as a brown rot control product.

4. **Ensure that the instructions on the label are followed carefully.**
5. **NB: Ensure that trees are not under any form of stress when sprays are applied. Waterlogged ground can result in stress conditions.**
6. No phosphonate sprays are to be applied to Satsumas and other soft citrus cultivars where these trees are under stress to enhance internal quality.
7. An unusually large fruit load and trees that are stressed to enhance internal fruit quality will influence the trees' sensitivity to stress conditions, e.g. drought and high temperatures.
8. **IMPORTANT NOTICE: NO buffers e.g. Bladbuff, need to be added to tank mixtures where phosphonates such as Fighter and Phytex have already been added. No adjustment to the water pH is necessary when a phosphonate product has been added. The addition of any buffer products can result in phytotoxic symptoms.**