



BIOLOGIESE BEHEER VAN WITROES

BIOLOGICAL CONTROL OF POWDERY MILDEW

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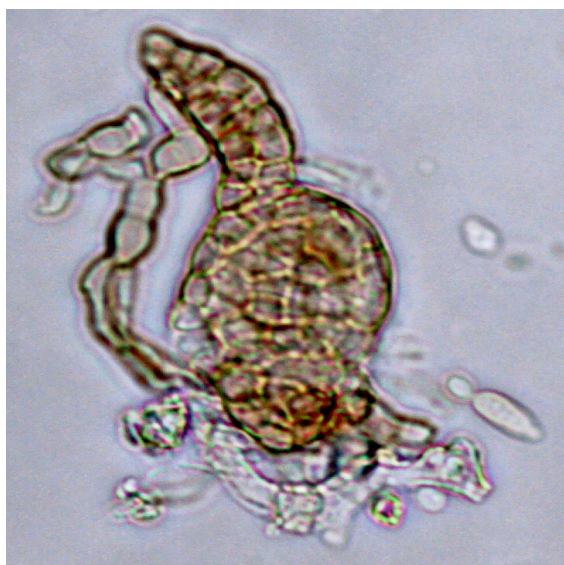
Witroes kan nou biologies beheer word met die swam *Ampelomyces quisqualis* (AQsf). Die swam (AQsf), is vanaf 'n witroes letsel op 'n wingerdblaar, geïsoleer. Die uniekheid van AQsf is dat dit nie net witroes op wingerd parasiteer nie, maar enige witroes dws witroes op akkerbome, appelbome, pampoen ens. Spore van AQsf ontkiem in kontak met witroes spore of swamdrade en groei binne-in die swamdrade van die witroes. AQsf vorm na 'n tyd spore in spesiale strukture in die swamdrade van witroes (Fig 1). Op hierdie stadium is die witroes kolonie gedood, alhoewel die witroes letsel op die blaar of waar dit ook al mag wees, nog poeieragtig vertoon omdat die AQsf ook fyn wit swamdrade het en van die witroes swamdrade met die AQ swamdrade binne-in ook nog sigbaar is. Slegs mikroskopiese ondersoek of met 'n sterk vergrootglas kan gesien word dat die witroes letsel "platgeval" het

Spore van AQsf, oorleef natuurlik in spesiale strukture (Fig 1) op die grond en in skrefies in bas van wingerd. Gebruik van swawel vernietig die swam maar koper (standard dosis) het geen invloed op die swam nie. Dus kan die swam geïntegreerd in 'n wingerd witroesprogram ingesluit word veral in die periode blom tot ertjekorrelstadium. Gebruik van AQsf is veral baie belangrik as na-eosbeheer van witroes.

Witroes oorleef as swamdrade in ogies en ook as spore in spesiale strukture, genaamd cleistothecia, wat ook in skrefies in bas van wingerd vasheg. Hierdie oorlewingsstrukture van die witroes

swam word deur AQsf geparasiteer en dus word die inokulum van witroes vir die volgende seisoen baie verminder. Hierdeur word beheer van witroes in die volgende seisoen dus vergemaklik.

[Spore van die swam en aanbeveling vir gebruik, sal teen einde Januarie beskikbaar wees.](#)



(Fig 1) Piknidium / Picnidia

Biological control of powdery mildew is now possible with the fungus *Ampelomyces quisqualis* (AQsf). The fungus (AQsf), was isolated from a powdery mildew lesion on a vine leaf. AQsf is unique in the sense that it is not only parasitic on grapevine powdery mildew, but on any powdery mildew like on oak trees,

apple trees, pumpkin etc. Spores of AQsf germinate in contact with powdery mildew spores or fungal threads and grow into the spores or fungal threads of the powdery mildew. Special structures (Fig 1) of AQsf forms after a while in fungal threads of the powdery mildews. At this stage the powdery mildew colony has been killed however the colony still has a powdery appearance because the fungal threads of AQsf also has a white colour and parasitized threads of the powdery mildew are still visible. The parasitized lesions of powdery mildew can only be noticed with the aid of a microscope or strong magnifying glass.

Spores of AQsf, survive naturally in special structures (Picnidia Fig. 1) on the soil or in crevices in bark of vineyards. The fungus is destroyed by the use of sulphur but copper (standard dosage) does not influence the fungus at all. Therefore AQsf can be used integrated in a vineyard spray programme with copper especially in the flowering to pea size period. The use of AQsf is especially important as a post harvest spray for control of powdery mildew. Powdery mildew survives as fungal threads in buds as well as special structures called cleistothecia which also occurs in crevices in the bark. These surviving structures of powdery mildew is parasitized by AQsf and therefore the inoculum of powdery mildew is reduced for the following season. Control of powdery mildew is hereby enhanced during the following season.

[By end January spores of the fungus and recommendation for use will be made available.](#)

Organic Industry Stakeholder Workshops were held in Cape Town, Johannesburg and Pietermaritzburg at the end of November 2007. These workshops were initiated by the DTI and the aim was / is to formulate government policies and identify areas of weaknesses within the organic industry. Please contact Hans (021 851 2403) for more information regarding these developments.

The CropLifeSA initiated work group on "organic input" held its first meeting in November 2007. First feedback by Act 36 is now being circulated for comment between members. Please contact Hans (021 851 2403) for more information on this initiative.

Our certification process by BDOCA (Biodynamic and Organic Certification Agency) is as yet not completed. The few outstanding matters on certification issues of the last few products should be completed by end January 2008. BDOCA itself is in a certification process to acquire ISO 65 rating. BDOCA, not only being the **most cost effective** certification body in SA, but also due to its structures (being a Sect.21 company), the one you can recommend to those inquiring on certification matters.

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Dr. Strauss Ferreira wil graag met soveel "tonnel boere" as moontlik kontak opneem. - kontak vir Strauss 082 338 5561 om meer uit te vind.

Dr. Ferreira beoog ook om in Februarie die Vrystaatse vrugte- / groentearias te besoek. - kontak hom asseblief vir moontlike afsprake.

Any technical challenges can be addressed to: strauss@agroorganics.co.za