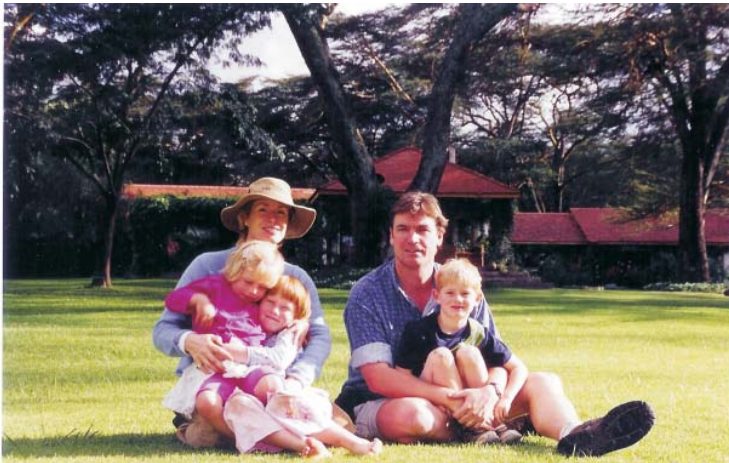


Instrumental Biocommunication for Nematodes

Successful QUANTEC® - Deployment on a large African ornamental-plant farm



The Szapary family run a large ornamental-plant farm in Kenya. Since March 2004 the Hypericum areas are being treated with QUANTEC®. The main problem has been a serious, devastating infestation of the plants with Nematodes. The following is countless Szapary's account of the application of QUANTEC® on the "Wildfire Flowers" farm in Naivasha, Kenya:

"In 2003 Wildfire Flowers planted 20 hectares of two varieties of Hypericum: Pinky Flair and Sugar Flair. By the beginning of 2004, one third of our production was lost as a result of root-knot nematodes (*meloidogyne* spp), an eelworm which commonly attacks the root system of a plant. The resulting wounds leave the plants vulnerable to secondary infection and at worst they

can kill the entire plant. Urgent action was essential to prevent the entire crop from being destroyed.

Hypericum is a cut flower, which is harvested from a mother bush. It is particularly sensitive to nematode attacks, especially in Naivasha's light volcanic soil with little clay content. Prior to planting Hypericum, we had little experience of nematodes, but we soon began to see their effects. Large oval areas of stunted growth appeared in the fields, leading to the eventual death of many of the plants, usually at cut-back stage.



*Damaged
Hypericum-Radix*

Our initial fight against nematodes was conventional. We had regular programmes with intensive applications of chemical nematicides (Nemacur, Temik, Vydate, Rugby), with no discernible improving effect. In no time, the nematode problem had spiralled out of control.



*Affected area with healthy plants
in the background*

By March 2004 we started using QUANTEC®. At the same time, Wildfire began a programme of soil treatments involving biological products only. We no longer use agrochemicals to treat the soil.

QUANTEC® analysis

The Hypericum area of Wildfire is divided into numbered fields, registered on a gps survey map. For the QUANTEC® analysis, each field received a separate healing sheet and underwent its own analysis and treatment.

We created a programme of extremely detailed affirmations for each stage of the Hypericum life cycle, starting with the soil as the perfect host for the seedling, through the various stages of growth, leading to the cutting stage and the perfect handling of the flowers from grading hall, packing, travel, unpacking, auction and final destination. At every stage we described the perfect flower in perfect condition in the perfect environment giving total satisfaction and long shelf-life.

Each field then received appropriate treatment after its unique analysis. The programmes run for an average of 2 months before a new analysis is done, with its adjusted treatment.

Regular soil samples were sent to Holland for nematode analysis in the form of a count.

Conclusion...

We have been using a combination of QUANTEC® and biological treatments on the farm since March 2004. The results are very, very positive. The overall impression is that the entire farm has undergone change on a significant level. Re-growth has substantially improved.



Nematode counts are down to acceptable levels on most fields, with some exceptions, but the plants seem to be able to cope with the nematode pressure in these fields.

In one particular individual field, the nematode count since the start of the treatments has actually gone up, although curiously, the yield and quality produced per hectare in this field is the best that Wildfire has ever produced.



The latest quality reports from the market suggest that there have been marked improvements in the crop's general appearance, including increase of berry size, improved colour of berry, improved resistance to travel, and faster recovery after travel.

Although QUANTEC® is not the only new treatment on our farm, we are in no doubt that a great change has taken place since we started using it.”

Concluding Considerations

In the here-illustrated case the highly toxic chemical agents had no impact at all. For this reason the about-turn to biological measures was an economic necessity. The effect of QUANTEC® in association with biological measures convinced impressively. In contrast to traditional approaches, which abide by the causal approach and see the magnitude of the Nematode infestation as the actual problem, the biological approach is more sophisticated when considering the information at hand. As reported by the Szaparys, the plants in the few fields where the Nematode count remained high were still able to cope. As if someone on-high wanted to call attention to the fact that it's not about getting rid of the problem, rather more about thinking in terms of solutions: of all fields, the field with the highest Nematode infestation yielded a record harvest. Maybe the plants in this field were, due to the very high Nematode infestation, given special protection and invigoration from QUANTEC® and therefore could produce the largest and best-quality harvest yet.

Howsoever – good coordinated and ecologically sound measures both subtle and materialistic have shown their possibilities. This approach will not prevail because of its hundred per cent environmental compatibility but rather for an important reason as described by one of the affected farmers: it costs less and doesn't just combat the problem; it also improves parallel the quantity and quality of the harvest.

Worldwide Service Offering

If you have an ecological problem – regardless of what kind – and are searching for a personal QUANTEC® solution similar to the one described here, then, we will come visit you with the device and not only explain the operation but also assist you in the preparation of the different treatment steps for your project. This offer is valid against reimbursement of travel expenses (economy flight) and applies worldwide.

