Tagetes patula for biological control of soil nematodes

After research showed its good results in the nineties, nowadays Tagetes patula is used in the Netherlands and Belgium with good results against soil nematodes like Pratylenchus penetrans.

What is it?

Original from Mexico, and grown as chicken feed, it was shown that after its use, the next potato crop had less problems with Pratylenchus penetrans, a nematode causing root damage. The Horizon 2020 Network Best4Soil explains how, in the temperate zones like the Netherlands, after 3 months the tillage layer is fully rooted and 99% of the nematodes are killed.

How does it work?

Sowing 5-10 kg seed per ha is enough for a good coverage. Nematode presence decline is that strong that it takes more than 4 susceptible hosts to find higher levels of the nematode again.

This crop also delivers between 625 – 1875 kg effective organic material per hectare. The crop is easily destroyed, especially after the frost, and gives organic matter which is easy to incorporate.

According to Best4Soil results

- Tagetes erecta is much less effective in controlling nematodes
- Tagetes minuta has no nematode-killing effect at all
- With Tagetes patula, farmers have a colourful solution to the problem of root lesion nematodes