

Towards Potato Cyst Nematode Control and Healthy Soil

Managing Nematodes and Soil Health

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Managing Nematodes and Soil Health

Who we are:

- A transdisciplinary team
- UH, MSU, USC

Where we work:

- Guatemala

What we do:

Sustainable nematode management through improvement of soil health

By understanding socio-cultural basis of the farmers



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1. Potato Cyst Nematode is a widespread problem in Guatemala potato production

- Failure to acknowledge early
- Use of non-certified, clean potato



2. Growers are cognizant of the nematode problem

Yield decrease of 50% over 20 years

5000 lbs/cdr to 2500 lbs/cdr



3. Growers are doing a lot of things correctly for soil health

Rotation

Potato – Maize/bean –

Potato - Maize/bean

Potato – Vegetable – Potato

Potato – Oat – Maize/bean –

Vegetable – Potato

Incorporation of chicken litter



4. Growers associate use of chicken litter with PCN nematode spread severity

Location (soil groups) and cultures (tribes) is significant in understanding socio-cultural basis of soil degradation/regeneration and nematode control



5. Transdisciplinary research is as challenging as it is rewarding

Identifying and congealing the multiple goals and perspectives of the transdisciplinary team members takes time but leads to realistic project outcomes and personal rewards

