ThermoSeed:
Seed Disinfection Technology
Proof of concept

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2011 International Spinach Conference
October 3-4, 2011
VSS,RvM,GF

ThermoSeed Characteristics

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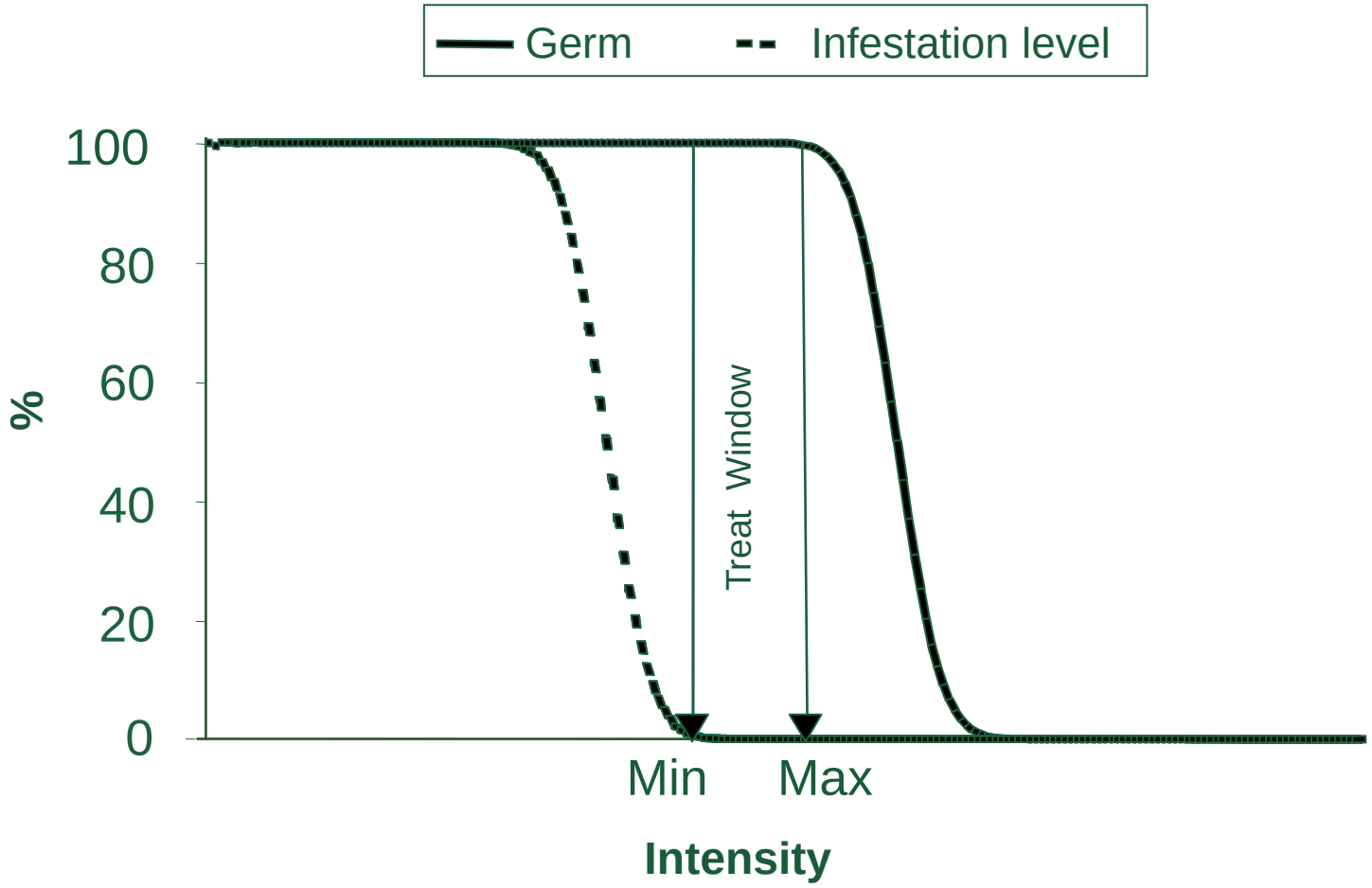
- **Green Technology**
  organically certified
- **High precision method**
  using hot humid air
- **High volume process**
  up to 25 ton/h

ThermoSeed Principle



Example of Process Control

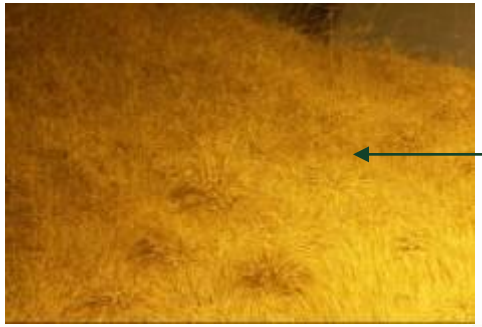
Intake & Main Control Site

Treatment Plant

25 ton/h cereals

2-4ton/h veggies

≈320Km



Focus

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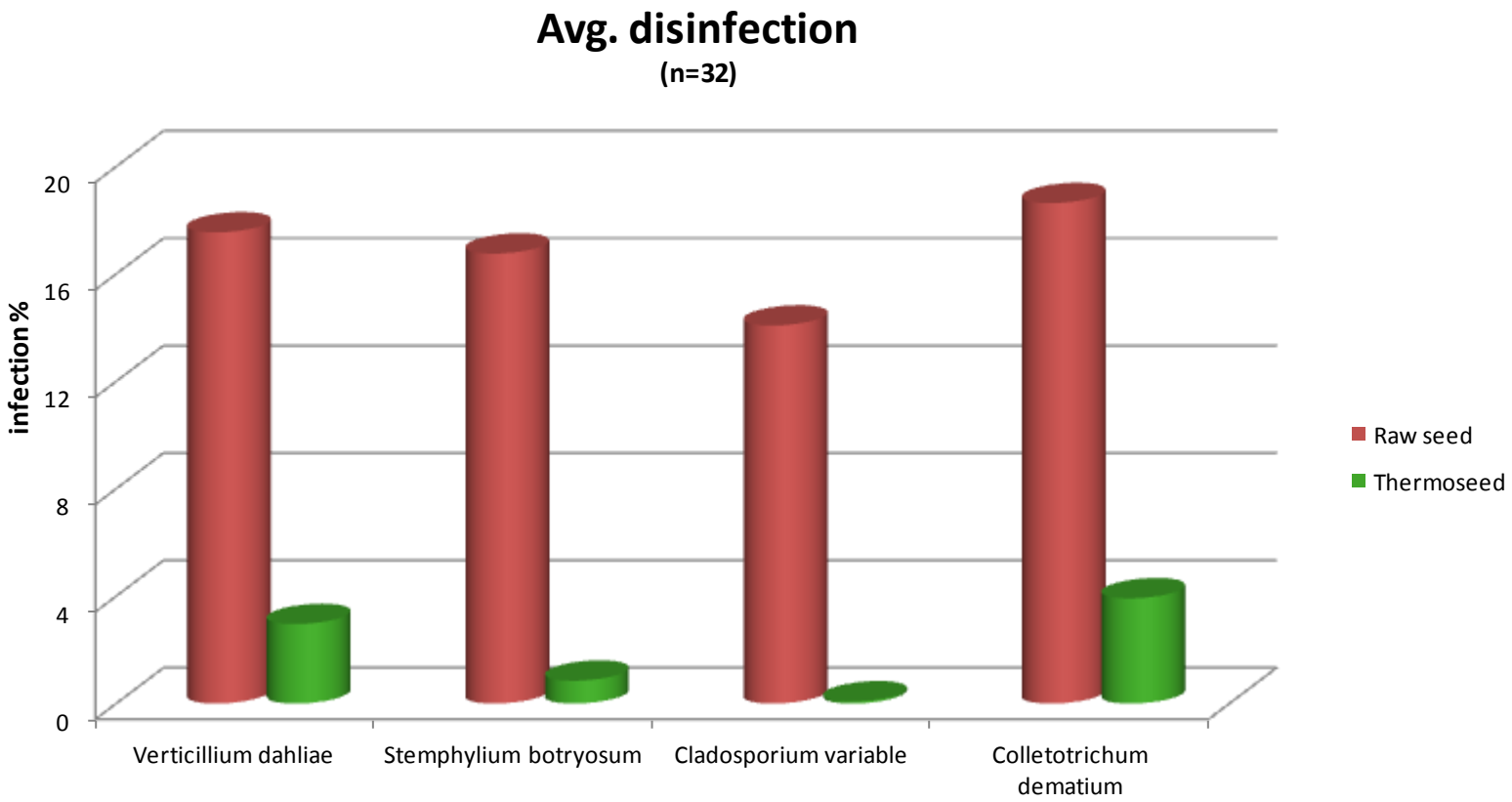
Fungal pathogens

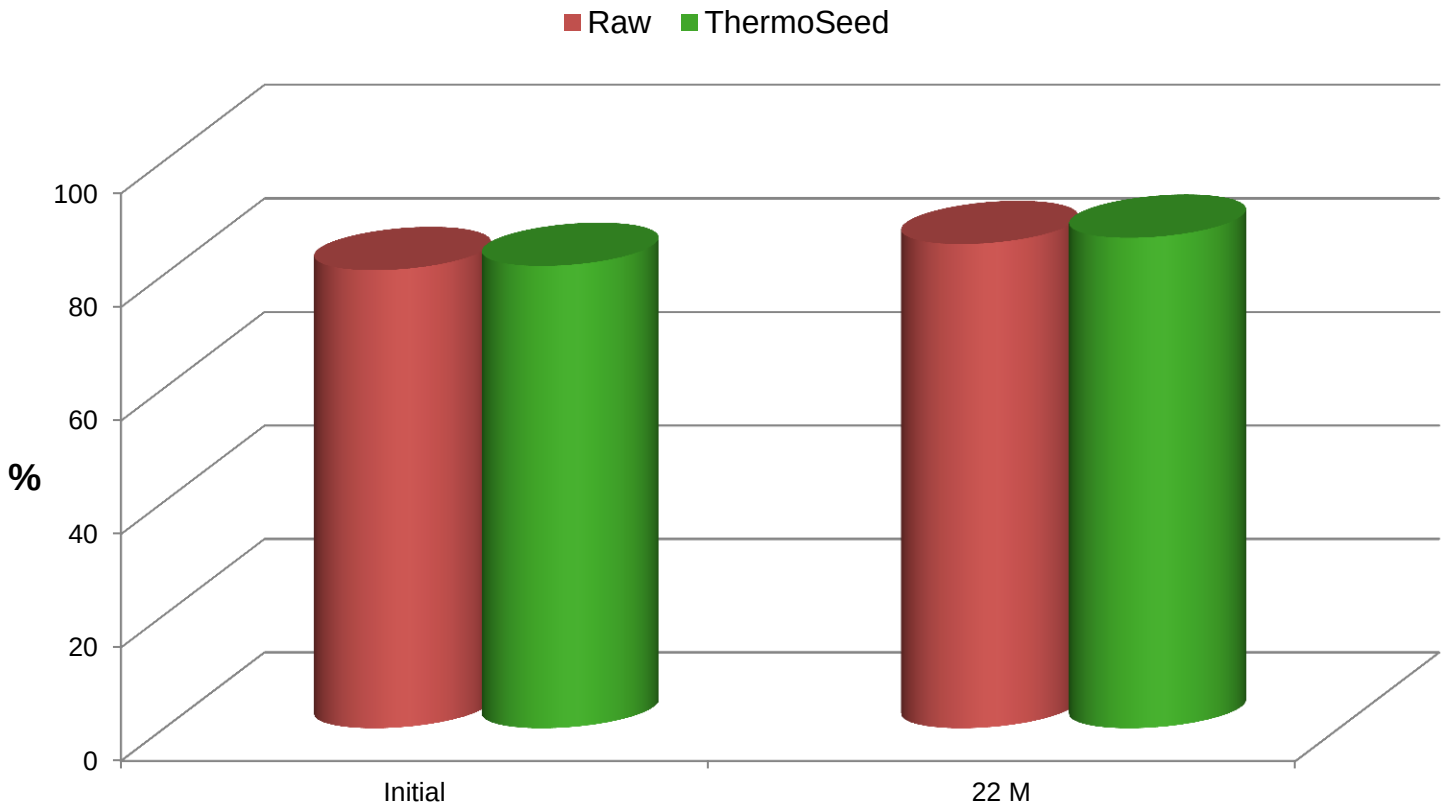
- Spinach
- Carrot
- Onions

Spinach – TS Disinfection Overview



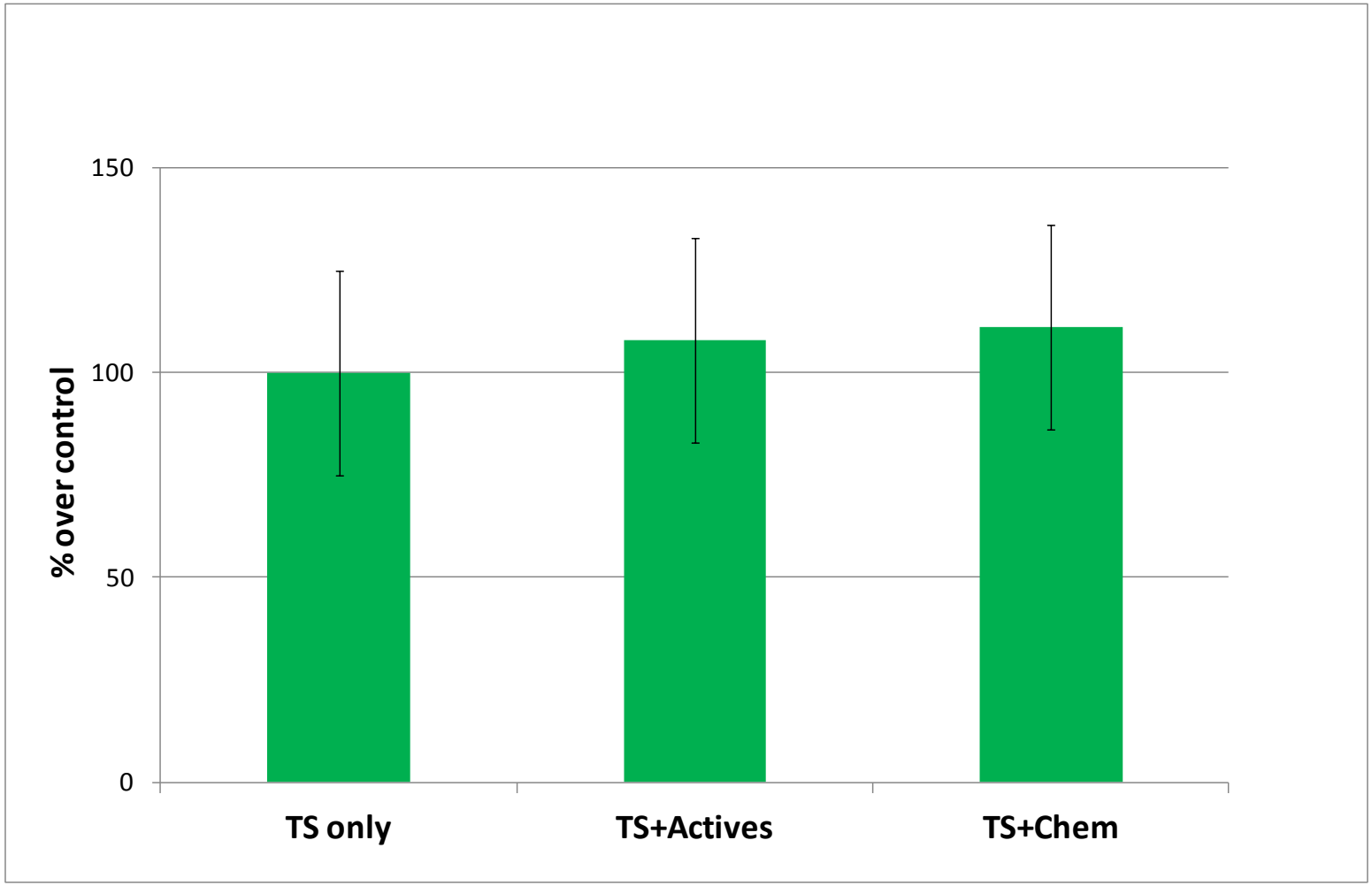
Shelf life – Spinach

n=10 lots



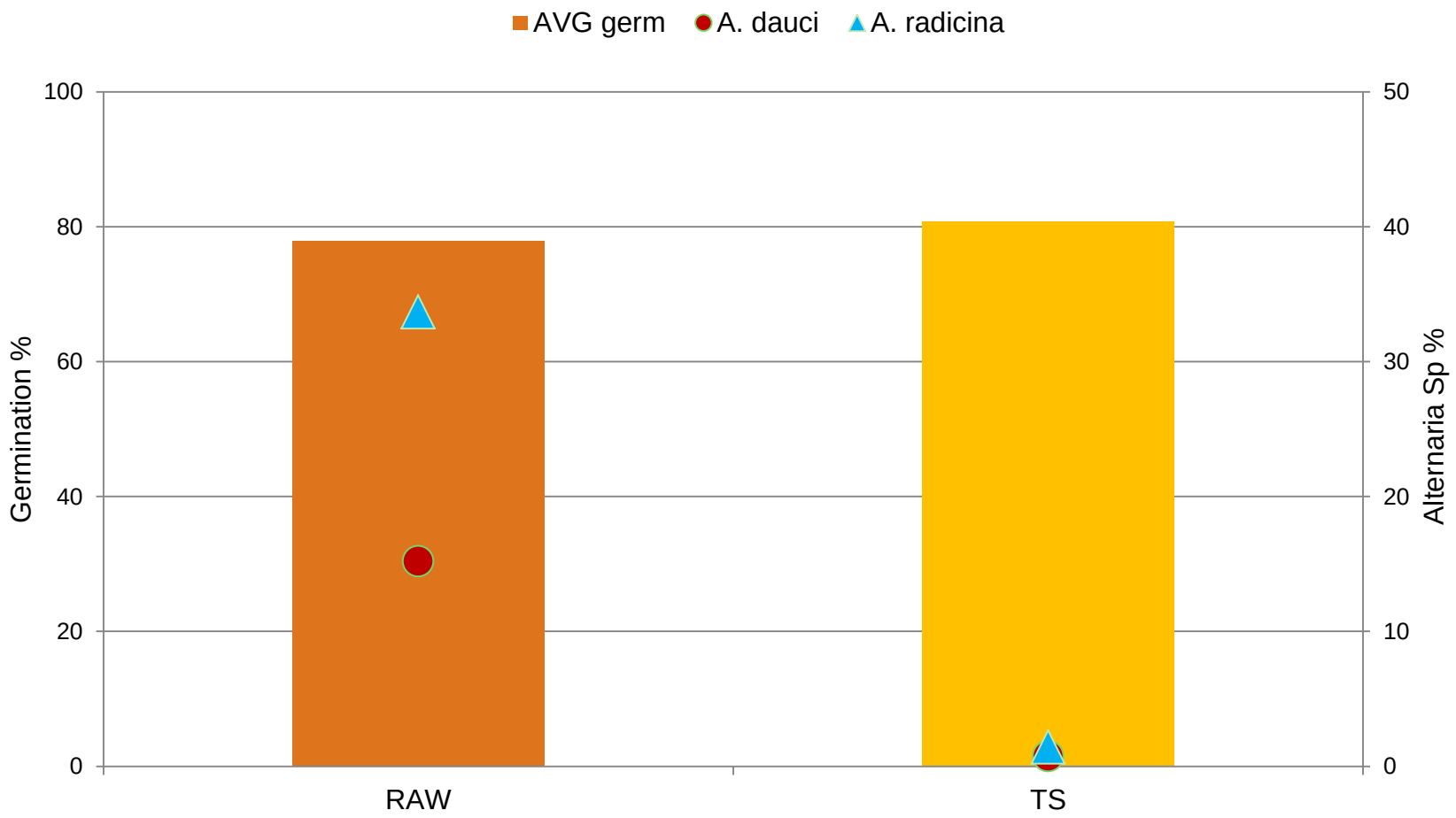
Spinach Avg. Field Trials 2009-11

n=52 trials, 11 lots

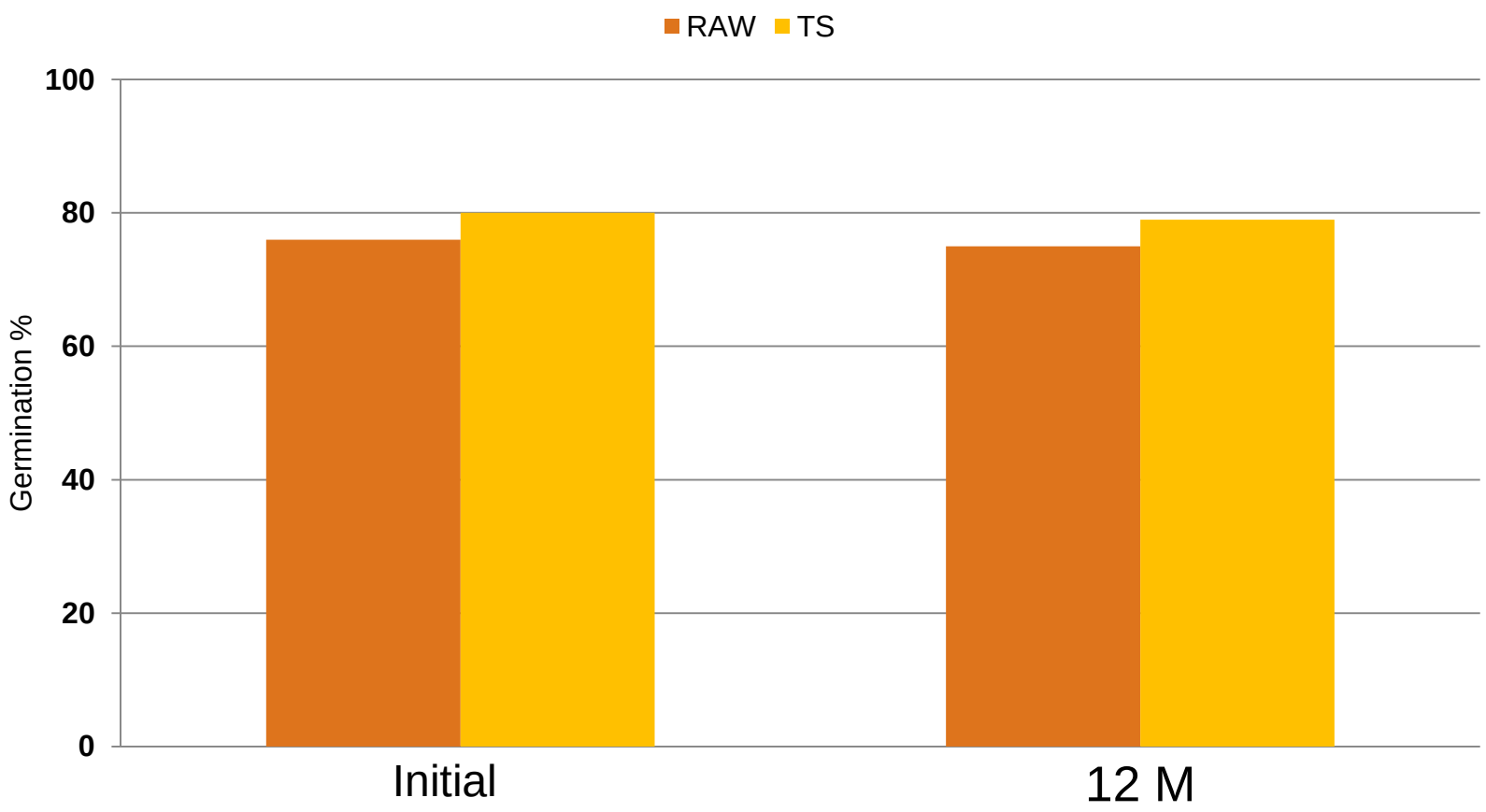


ThermoSeed – Carrot

Avg of 33 lots; (20ºL and 20/30ºLD)

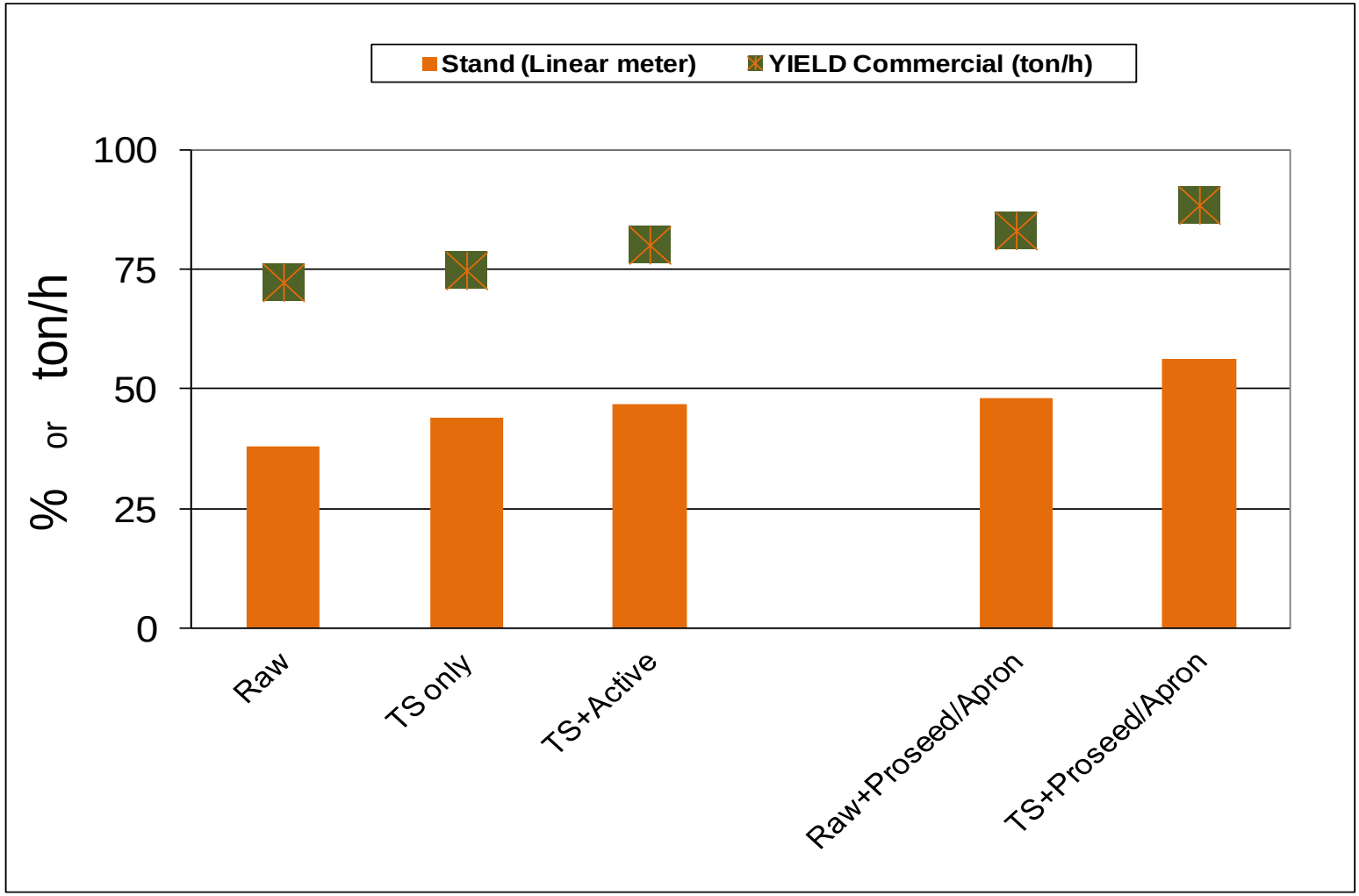


Shelf life ThermoSeed Carrot
12 Months Avg of 6 lots (20°L & 20/30°LD)



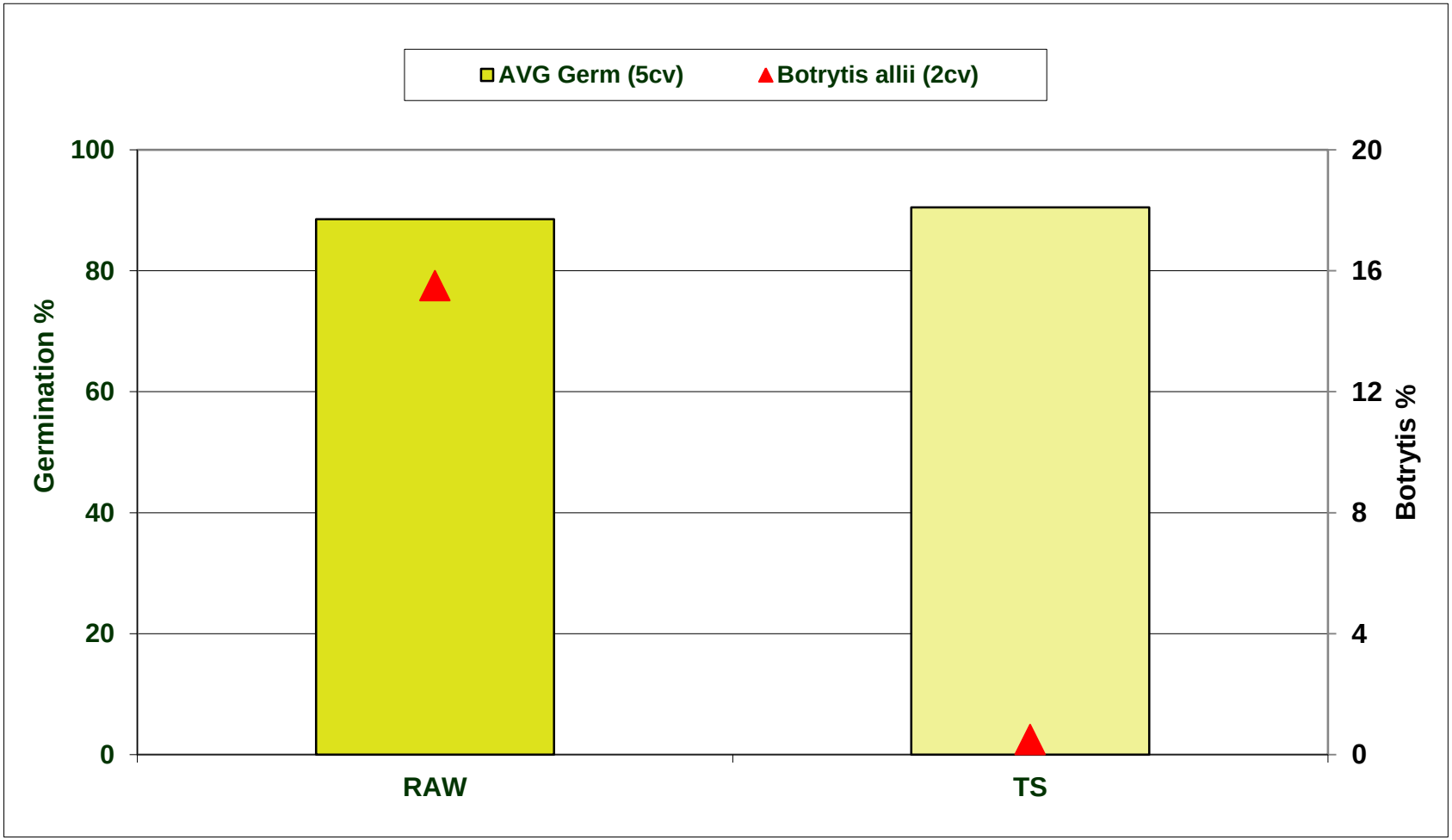
ThermoSeed Carrot Field trial

n=1 lot, NL 2010

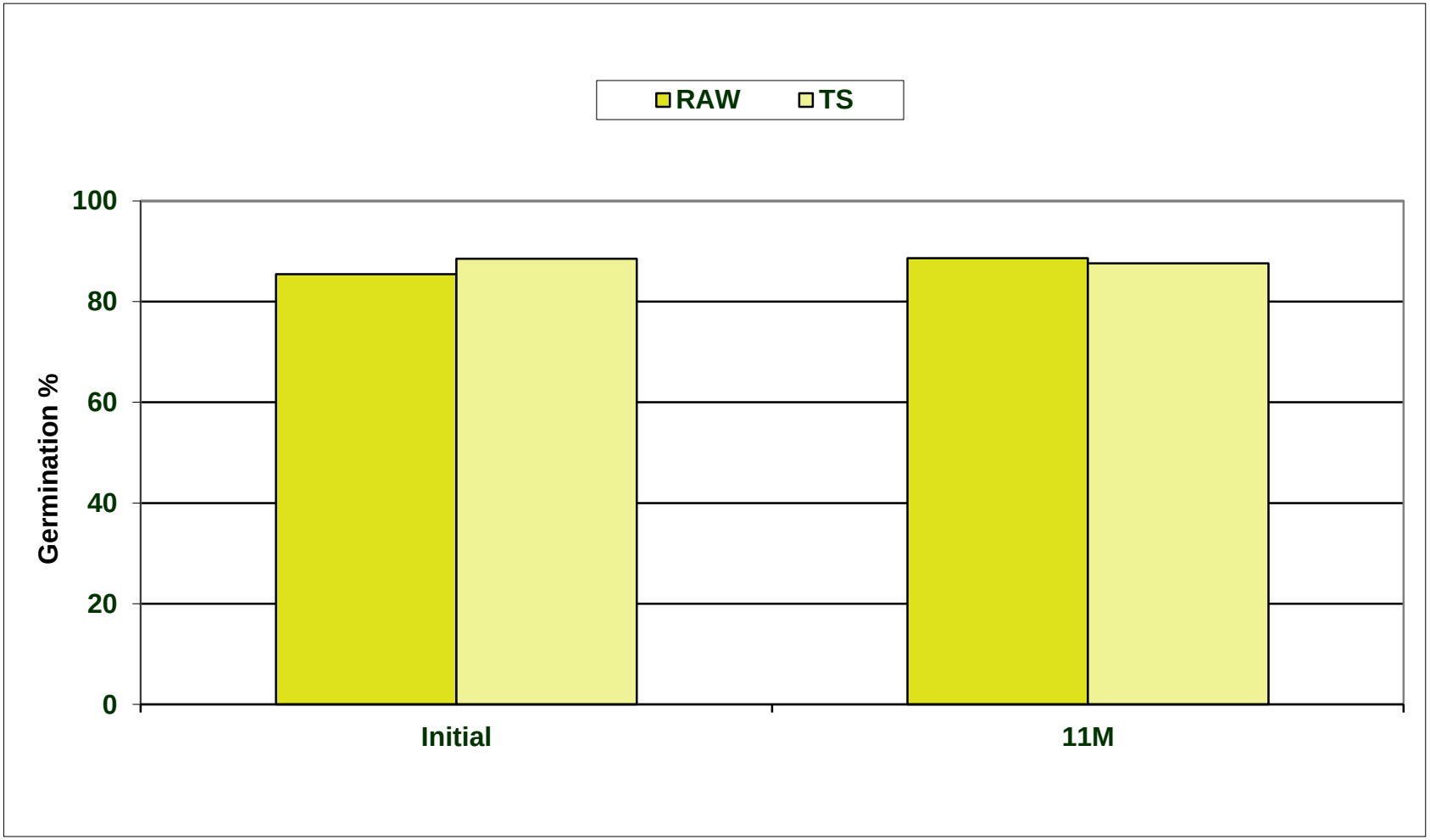


ThermoSeed – Onion

Avg. 5 lots; Germ: 15ºL and GH



Shelf life ThermoSeed Onion
11 Months Avg. 2 Lots (5°D & GH)



Conclusions

- Disinfection:

  ThermoSeed can significantly reduce seed-borne fungal pathogens in the tested crops.

- Quality:

  ThermoSeed seed did not affect the seed quality of the evaluated crops but there were indications that combination with actives (product concept) could result in better field performance.

- Shelf life:

  ThermoSeed did not affect shelf life on the tested objects.

Future developments

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- Continue with Fungal pathogens – veggies
- Product concept TS + Actives.
- Combination with other technologies for wider spectrum.
- Increase Processing Capacity – USA & Japan.

TT200 for Veggies - NL
200 kg/h

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Thanks & “Tot Ziens”