

NVTL

Ellen Klein

How to reduce chemicals and increase plant health?



Koppert



NVTL

Ellen Klein

How to increase plant health and reduce chemicals?



Koppert

Resilient crop growth



Ellen Klein

Consultant resilient growing

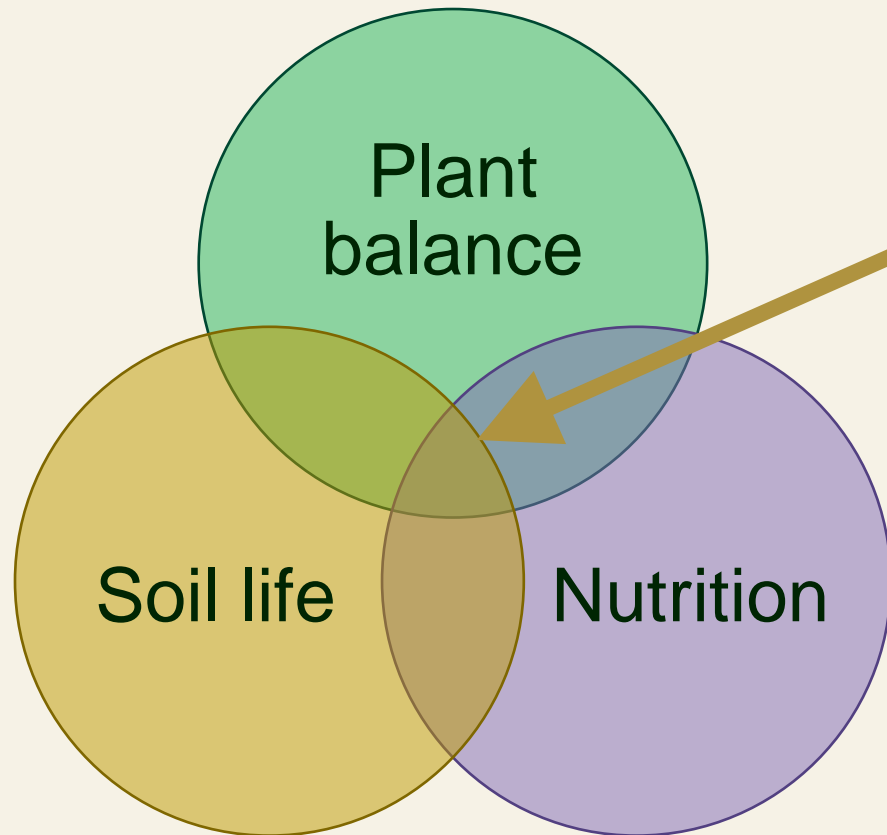


Koppert



Resilient growing

- Resilience against (soil) diseases and pests
- **Plants own defence** = not crop protection



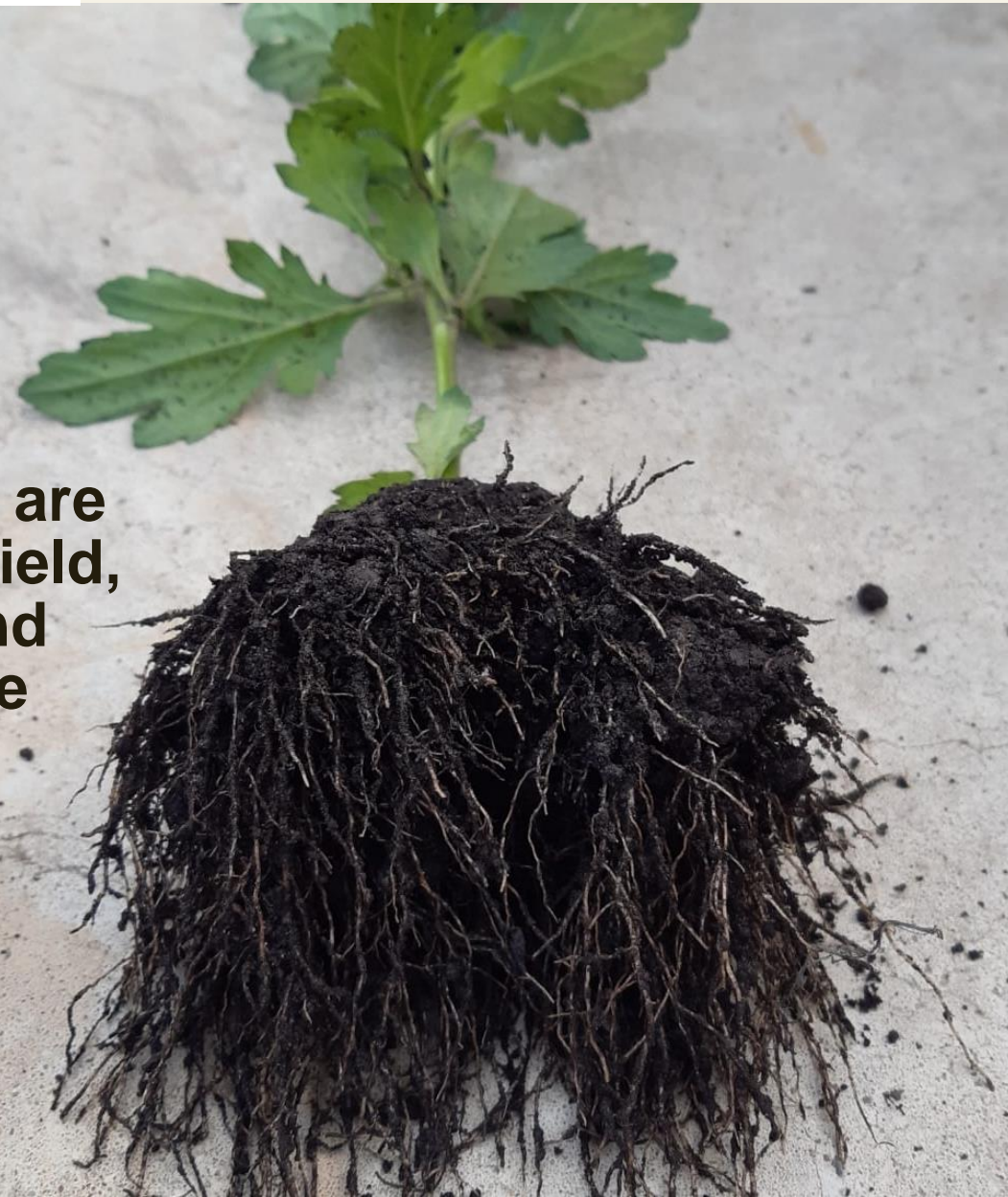
Roots



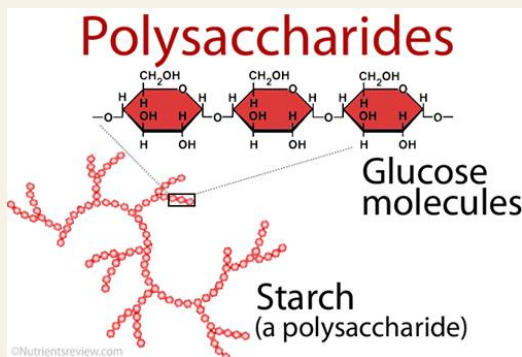
Soil life



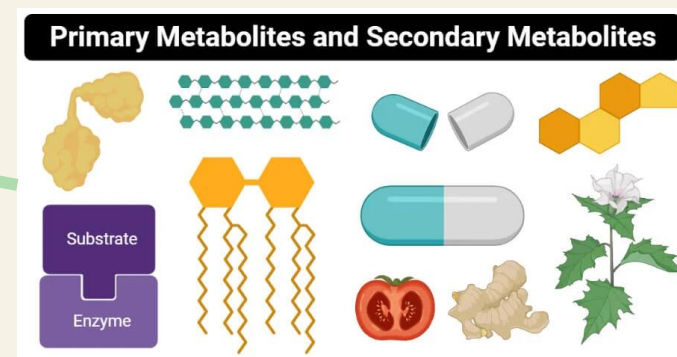
**Good roots are
crucial for yield,
quality and
resilience**



How to help plants to become resilient?



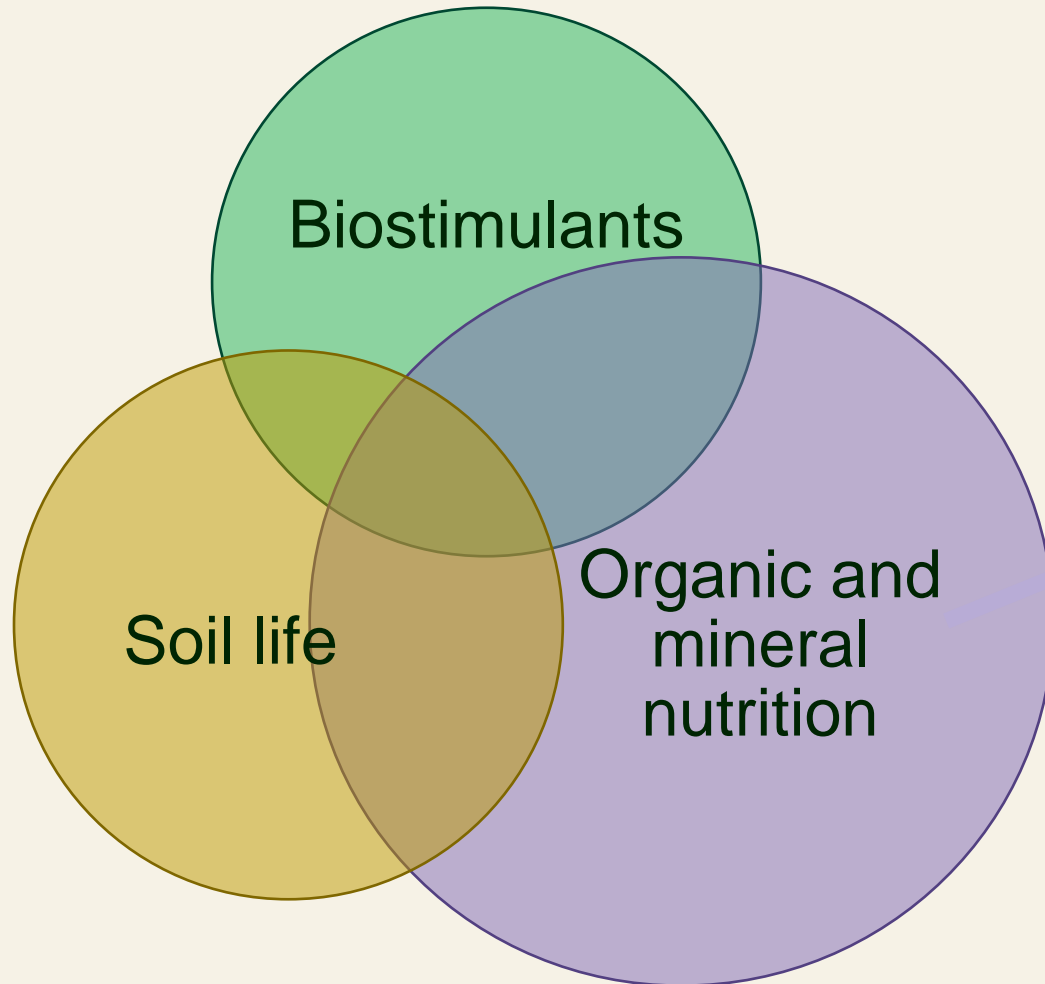
Plants own defence



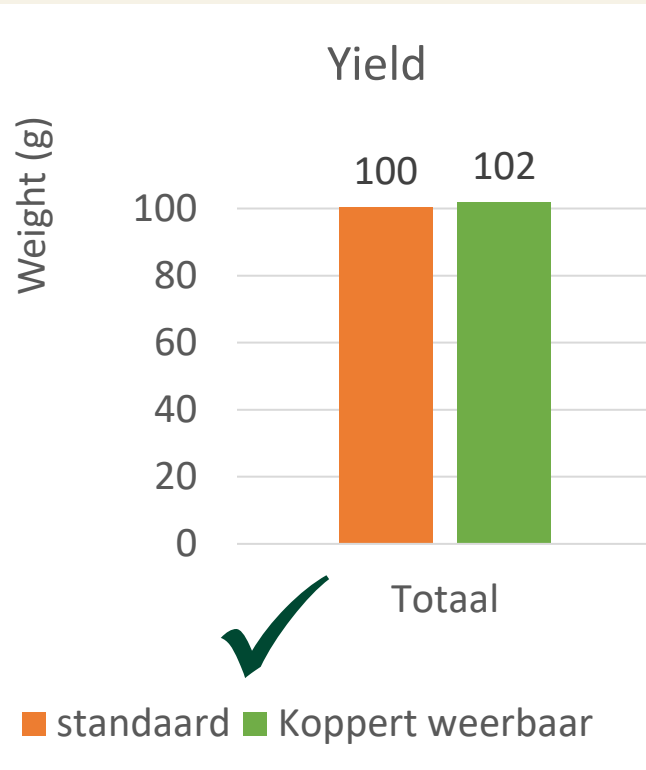
Soil life

Resilient growth

Input:



Requirements growers

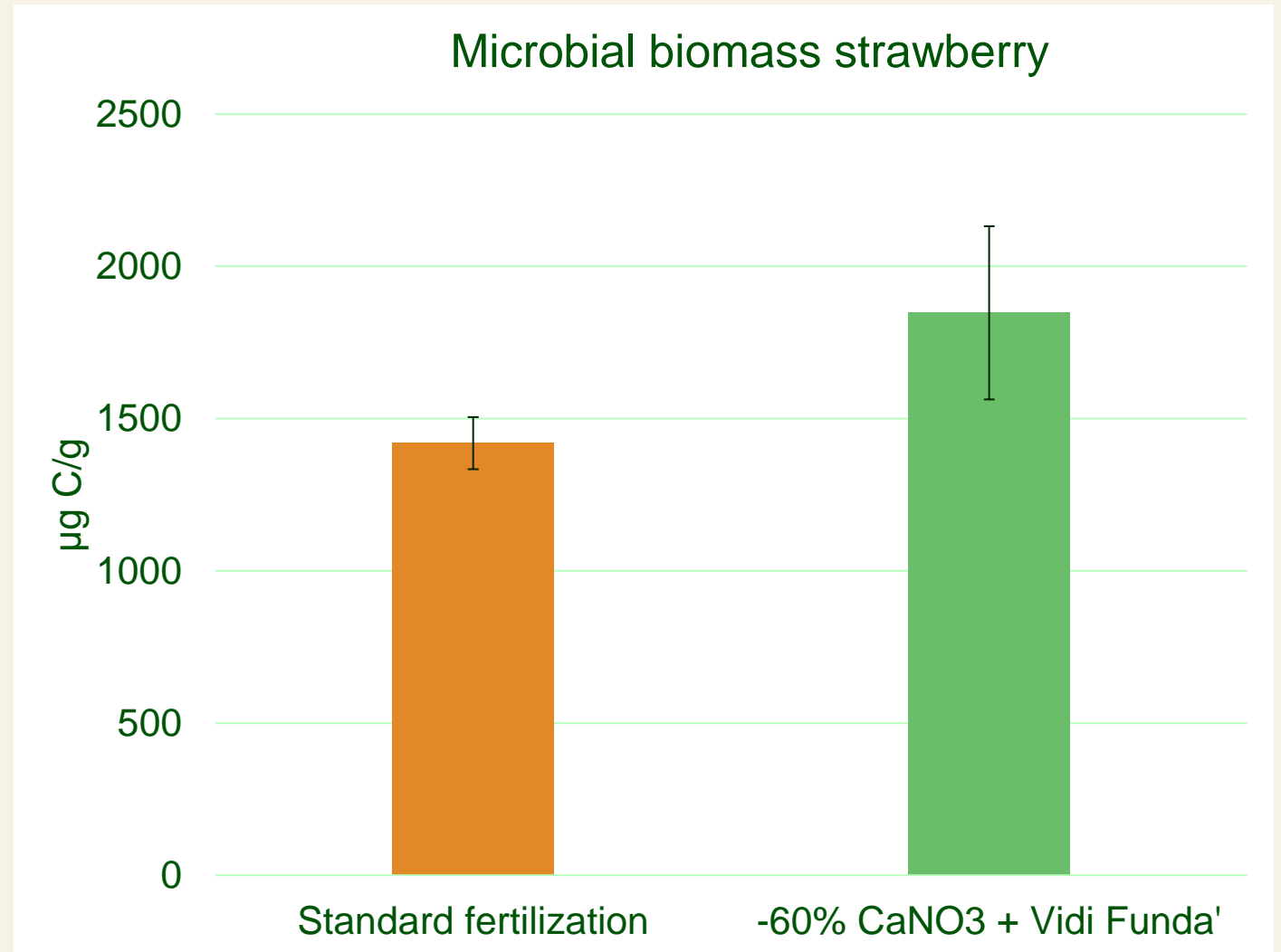


Increase of soil life

Effect of organic and mineral plant nutrition, combined with 60% less NO_3

In trials and practice:

- Strawberry (grown in org. substrate)
- Chrysanthemum (grown in soil)



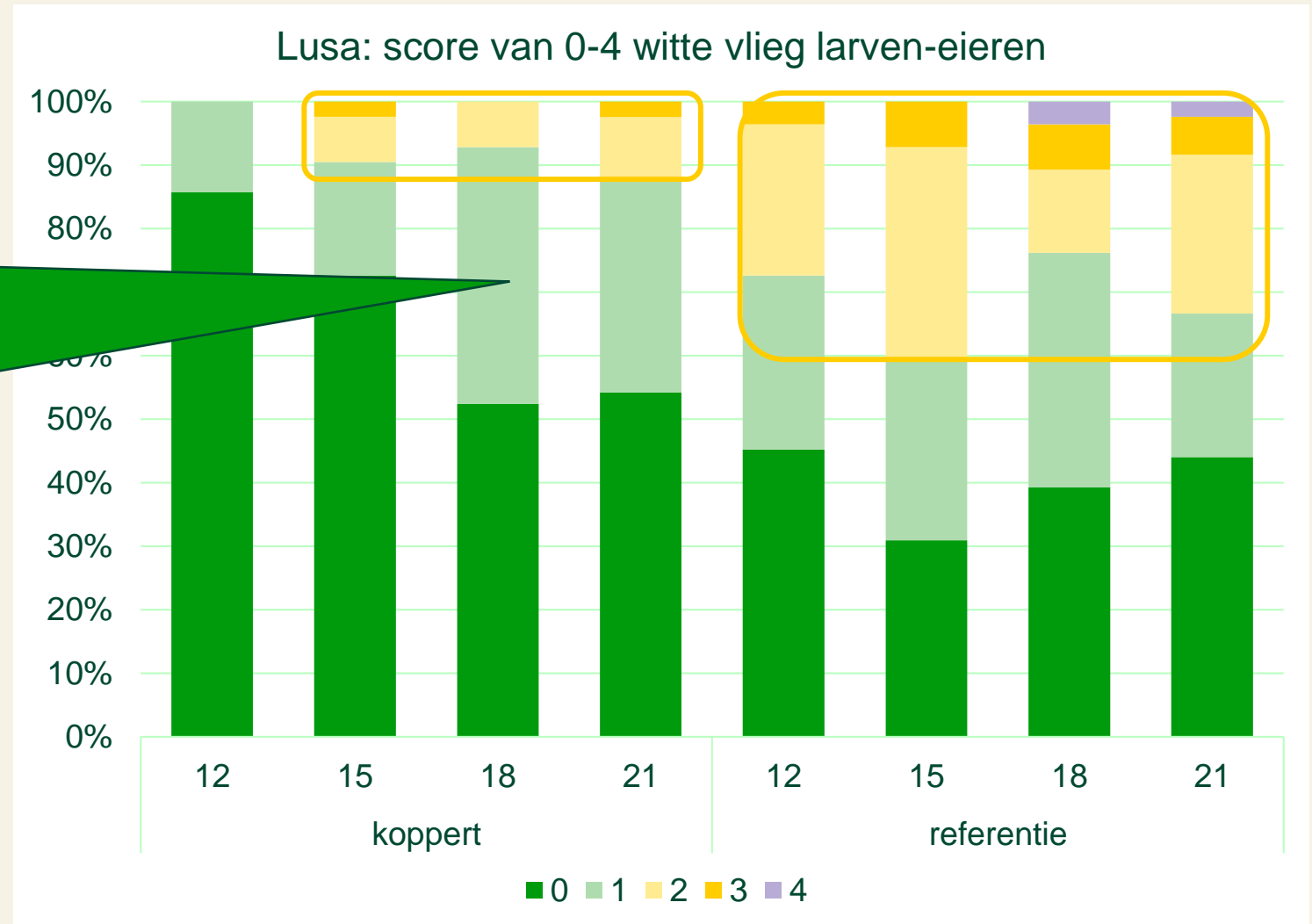
Practice white fly strawberry

Resilient (less attractive for pests)

- ✓ Less pest pressure at the farms
- ✓ Control with beneficials easier
- ✓ Less chemical treatments

Heavily polluted with honey dew

No white fly



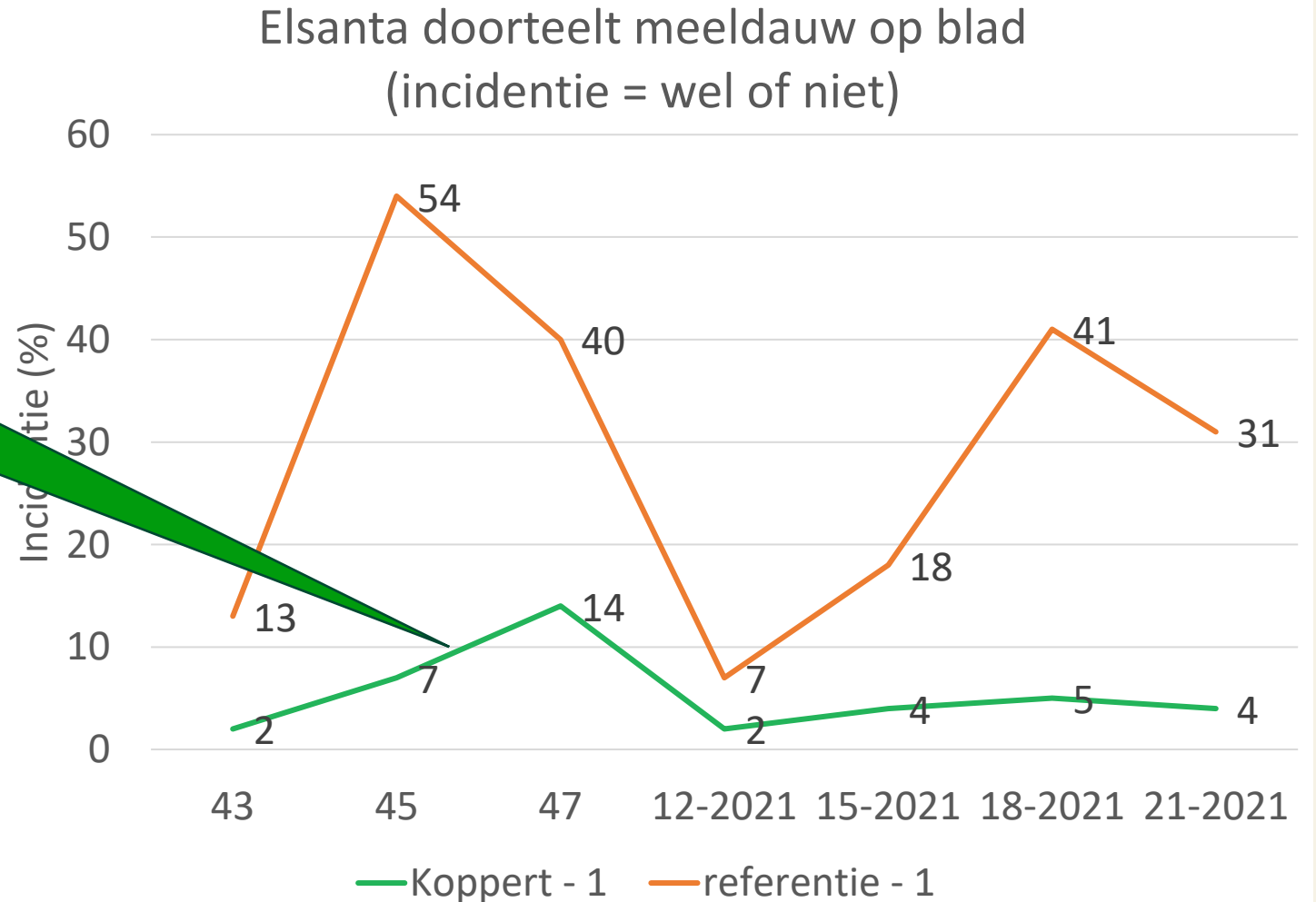
Practice powdery mildew strawberry

Resilient:

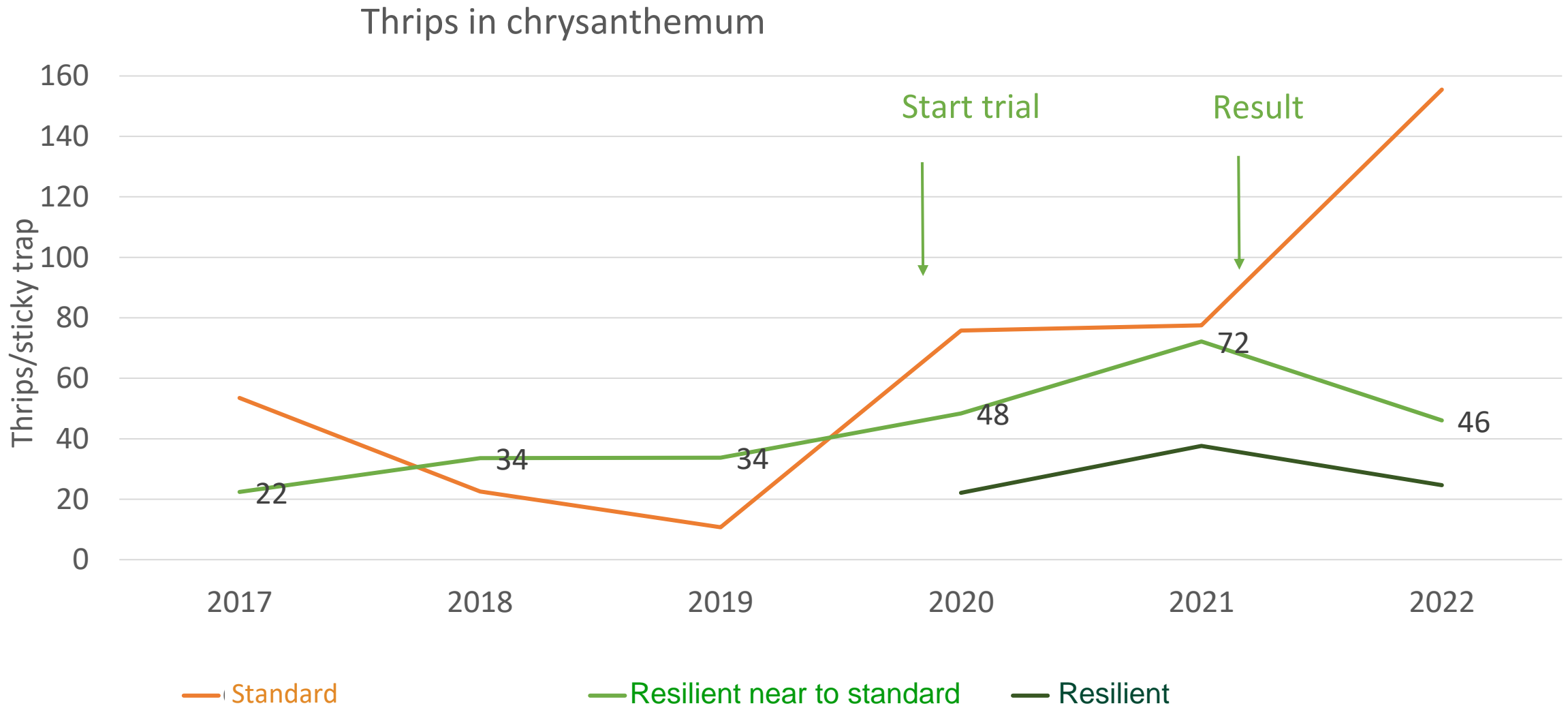
- ✓ 2 sprays less
- ✓ On average 83% less infected leaves

Score on leaves

- No mildew
- Mildew



Thrips chrysanthemum



Resilience = plants own defense

HOW to realise resilience :

- Integrated nutrition (organic + mineral)
 - Low dosage NO_3 and P
 - Improve soil life
- Steer on leafsap analysis (and soil analysis)



Resilience = plants own defense

WHAT are the results:

- Less powdery mildew, aphids, white fly, thrips
- Less losses by *Phytophthora cactorum*
- Yield and quality equal or better

Other benefits

- Less mineral fertilizers
- Better control / less residue?
- Shelf life equal or better
- No soil steaming?
- Stress resistant



NVTL

Thanks for your attention



Koppert

Ellen Klein

06-51410073

eklein@koppert.nl

A large, solid green speech bubble with a tail pointing towards the bottom right, centered on a light gray rectangular background.

Questions?