Changes in soil bacteria community associated with an introduction of an antagonist of potato disease

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Next generation sequencing in microbial ecology

- MiSeq-sequencing (FIMM)
  - 10 mil. seqs/run
  - 20 000 – 200 000 seqs/sample in published research articles
  - Allows for a repeatable view of the whole microbial community
    - Including the minor groups
  - In our case, 206 000 seqs/sample from same plots on two consecutive years
The bacterial community in field soil after addition of an antagonist bacterium against potato common scab

Incidence and severity of common scab on potato tubers post treatment
Bacterial diversity post treatment (α)

Bacterial communities post treatment (β)
Looking at the changes at taxonomic level

- Adds the function of the bacterial group to considerations
- Slow growers ↓
- Fast growers ↑
- E.g. 5 genera up that use S, SO$_3^-$ and/or SO$_4^{2-}$