Effects of beetroot-Vinasse on ascospore formation of *Venturia pirina*:

a one-year field trial on an organic Conference orchard

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Project financing:
BIOCONNECT
Context:
Beetroot Vinasse in former trails:
- small effects on leaf degradation
- promising effects on ascospore reduction

Research aim:
- translate small scale methods to large scale field application of beetroot vinasse
- measurement of ascospore productions

Methodology:
- 500l/ha beetroot vinasse, 1x spraying
- applied in start of leaf-fall
- Leaf-litter kept in mesh cages during winter
- measurements after warm period in spring
Brown coloration directly after spraying with beetroot-vinasse

Mesh cages in the end of the winter
Results

Ascospores (# g⁻¹ dry leaf)

- no beetroot vinasse
- 1x vinasse
- no betroot vinasse
- 1x vinasse

First sampling (15-4-2009), no incubation
Second sampling (22-4-2009), incubation

P = 0.029

+47% +45%

Treatment
Conclusions:

In our experiment results contradicted former findings (although some comparable results were also reported elsewhere)

Note: We only measure ascospore production, not leaf degradation

Possible explanations:
- relative low ascospore numbers
- variations in beetroot-vinasse

Precautions should be taken with use of beetroot-vinasse

In-depth studies of mechanisms involved are necessary