

Organic production of raspberries and blackberries in high tunnels in Sweden

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CONCLUSIONS

Organic production of *Rubus* in high tunnels in Sweden 2009-2010:

- ◆ Raspberries, combination of floricanes and primocanes grown in soil in high tunnels gives a profitable production with high yield and fruit quality during a long season, June 15– October 15, in Sweden
 - ◆ Raspberries needs minimum 15 gram of organic nitrogen per plant and season
 - ◆ Aphid control is essential during the hole season
 - ◆ Glen Ample is a high yielding and robust cultivar but is very susceptible to *Phyllocoptes gracilis* which has to be controlled, but how?
 - ◆ Polka and Autumn Treasure yields excellent fruit quality
- The project continues 2011



Raspberry leaf and bud mite, *Phyllocoptes gracilis*

Challenges in organic production of *Rubus* in high tunnels in Sweden:

- ◆ Soil or container
- ◆ Organic fertilizers, solid or liquid
- ◆ Aphids (*Aphis idaei*) and mites (*Phyllocoptes gracilis*, *Tetranychus urticae*)
- ◆ Winter damage on buds and canes

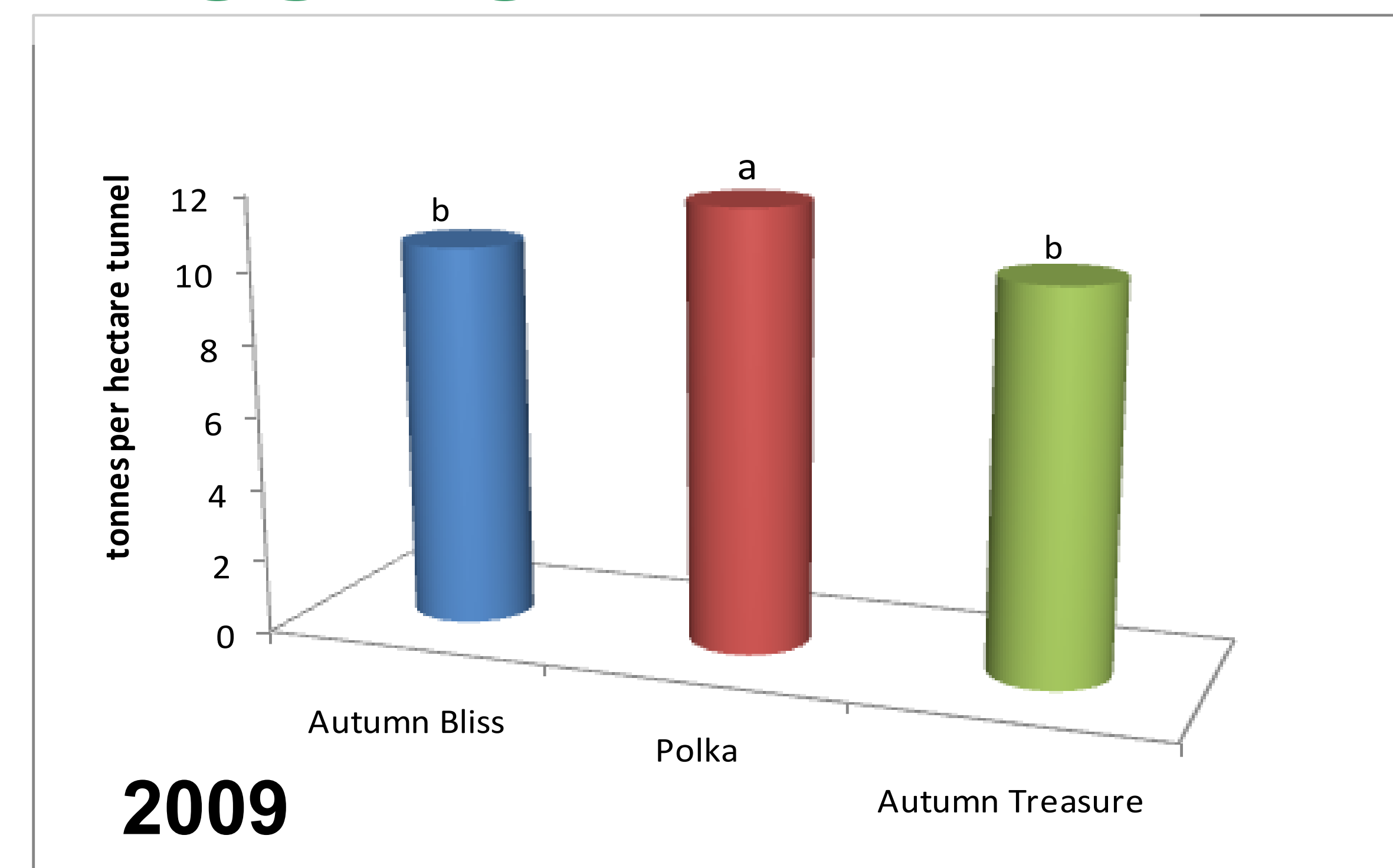


Aphis idaei protected by ants

The project vision

is to achieve sustainable production of high quality raspberries and blackberries during an extended season in Sweden

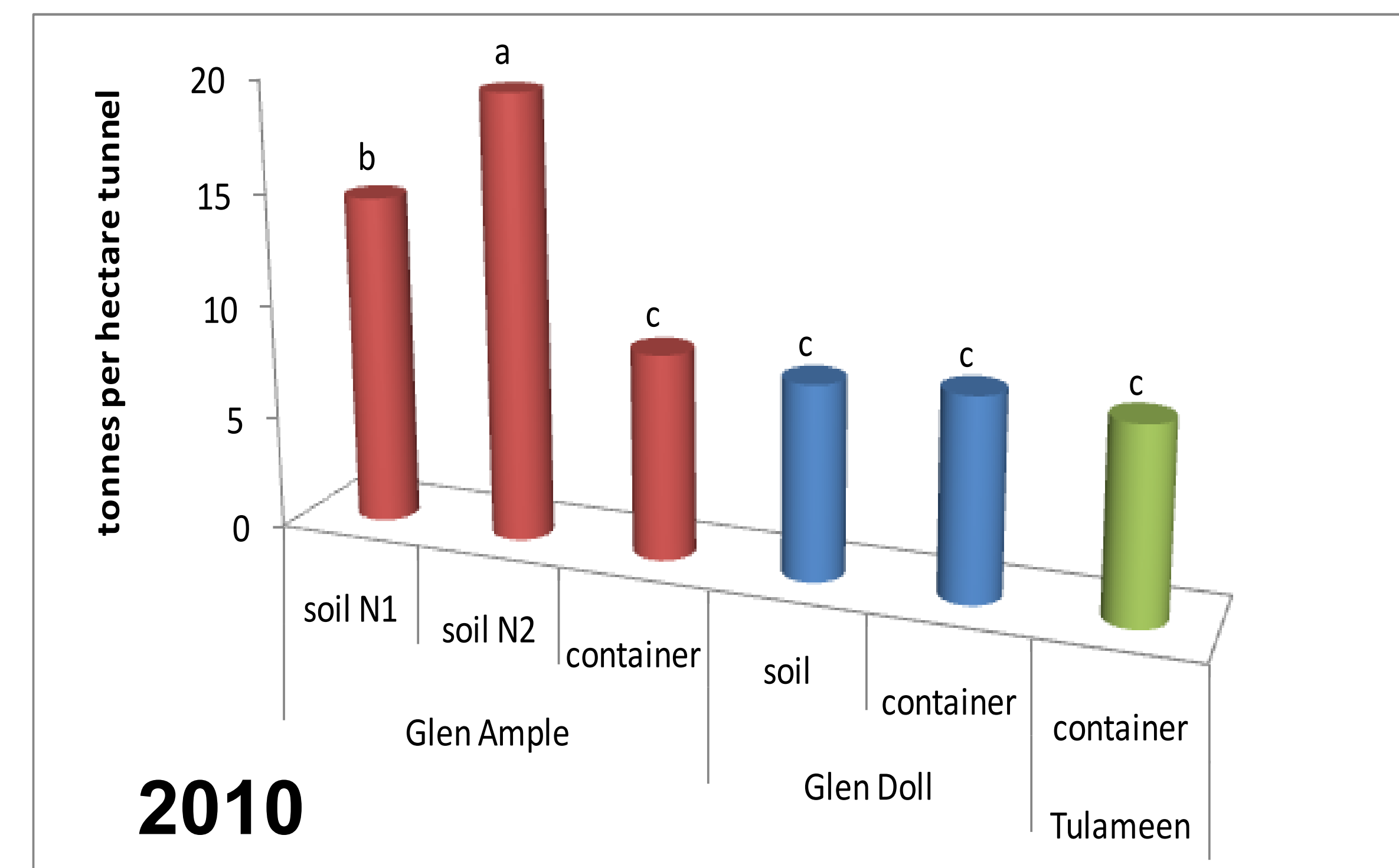
RESULTS



Primocane raspberries: Cv. Polka yielded highest during a long cropping period July 15–October 10. There were no differences between nitrogen treatments the first year. Different letters means significant ($p < 0.05$) difference between cultivars. In 2010 a good yield is expected.



Blackberries 2010: planted in soil looks promising for cultivar Loch Tay and Loch Maree but not for Loch Ness. In spite of a thick snow cover all plants in container died during the winter 2009/2010. Blackberry is not a commercial crop in this area.



Floricanes raspberries: Glen Ample planted in soil, treated with the high level of nitrogen had the highest yield the first year. Glen Doll and Tulameen got severe injuries on buds and canes during the winter 2009/2010 and yielded less and with no differences between treatments. Different letters means significant ($p < 0.001$) difference between treatments

METHODS

Field trials with floricanes and primocane raspberries and blackberries in three parallel high tunnels at Rånnå Experimental Station, (58°27'N, 13°51'E), transplanted August 2008, harvest 2009-2011

Floricanes raspberry cultivars: *Glen Ample*, *Glen Doll*, *Tulameen*,

Primocane raspberry cultivars: *Autumn Bliss*, *Autumn Treasure*, *Polka*

Blackberry cultivars: *Loch Ness*, *Loch Maree*, *Loch Tay*

Floricanes raspberries and blackberries are grown in soil and in containers (20-27 litres)

Treatments with two levels of nitrogen in different cultivars and soil/container

2009: N1=6 and N2= 9 gram N per plant, 2010: N1=12 and N2=17 gram N per plant

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