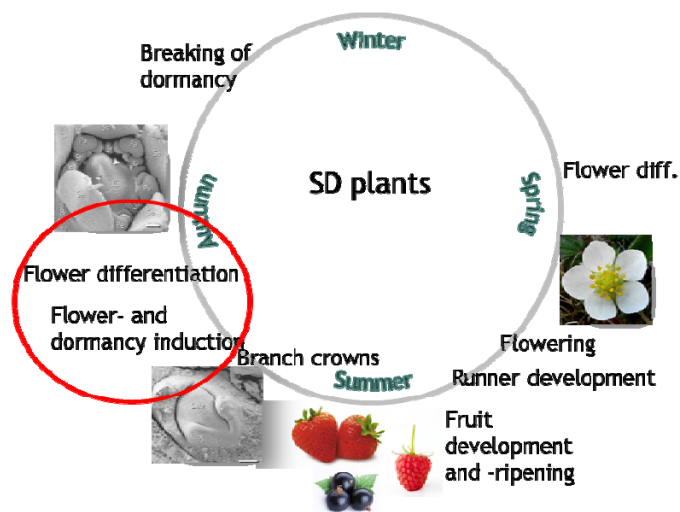
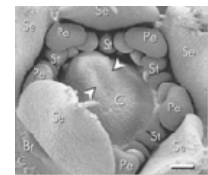
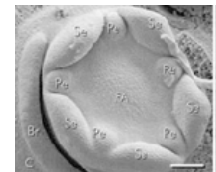
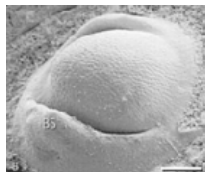
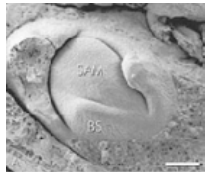


# Autumn fertilization in berry crops

Tomasz Woznicki  
 Anita Sønsteby  
 Ola Heide



**Three berry species (biannual):** facultative short-day (SD) plant that initiates flowers under SD conditions at temperatures ranging from about 15 to 25 C



## Strawberry experiment in controlled climate:

- Plants in pots with artificial photoperiod and temperature control.

### Fertilizers

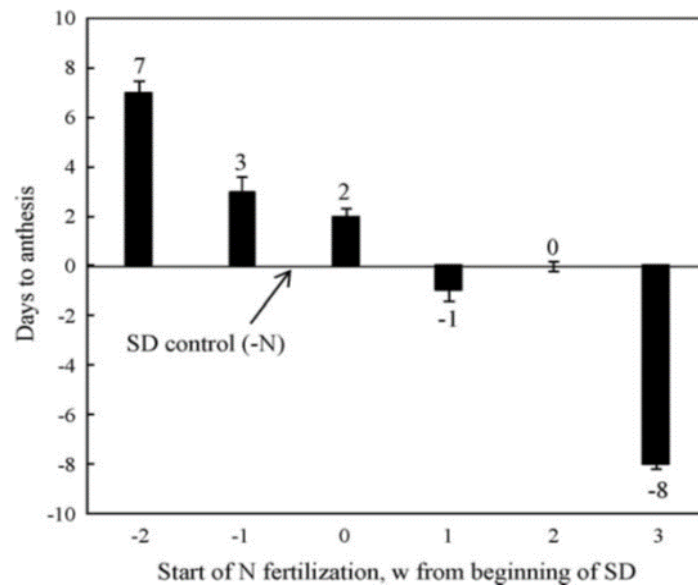
- YaraLiva™ Calcinit: **N-15.5**
- Superba™ Rød (Now: Kristalon) **N-8.5**
- During the **N** application the treated plants received a daily dose of 100 ml of calcium nitrate solution (7.0 g l<sup>-1</sup> of Calcinit for 3 days)

## Nitrogen fertilisation during flower initiation – 'Korona' strawberry

Start N fertilization (date)

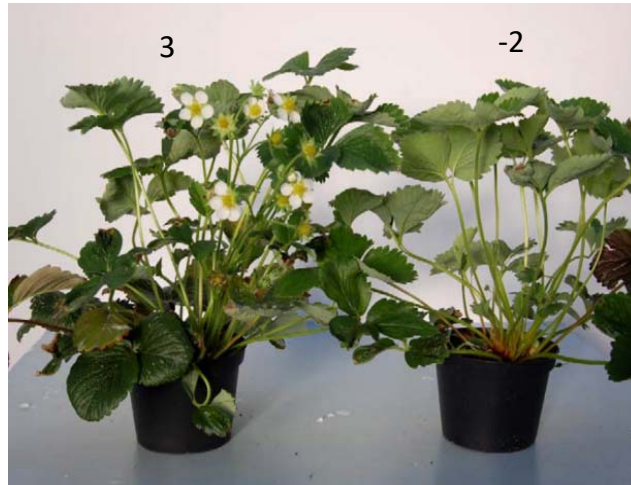
		32, 5/8	33, 12/8	34, 19/8	35, 26/8	36, 2/9	37, 9/9	38, 16/9	39, 23/9
Weeks from beginning of SD	-2	X	X	X					
	-1		X	X	X				
	0			X	X	X			
	1				X	X	X		
	2					X	X	X	
	3						X	X	X

## Time to flowering



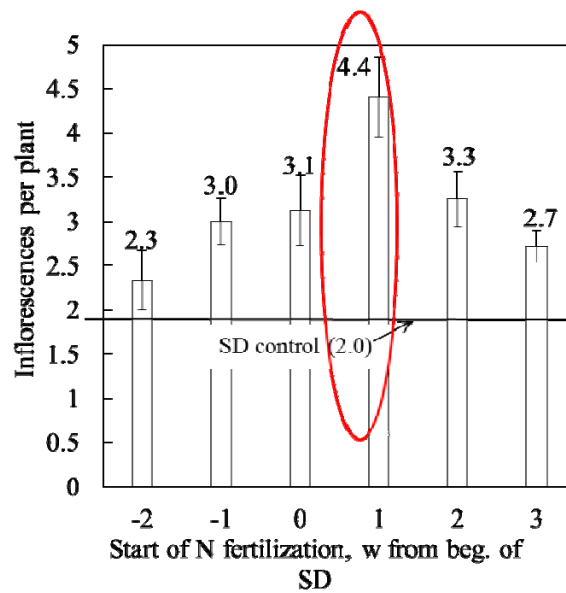
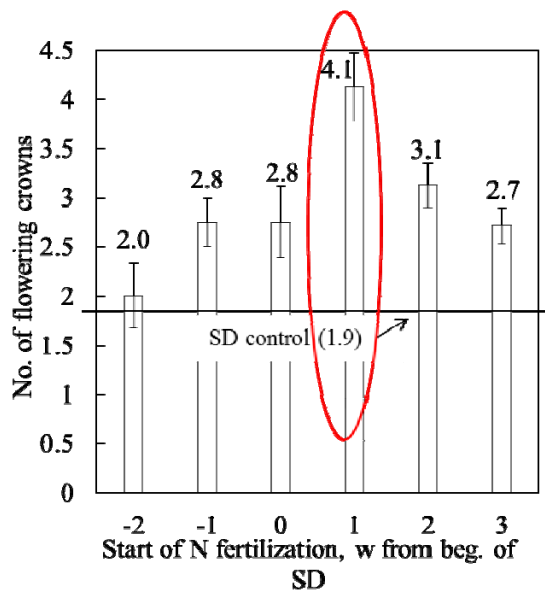
'Korona' strawberry plants 77 days after start of the SD treatment.

Fertilization started  
3 weeks after  
beginning of SD



Fertilization started  
2 weeks before the  
SD period began

### Effect on flowering



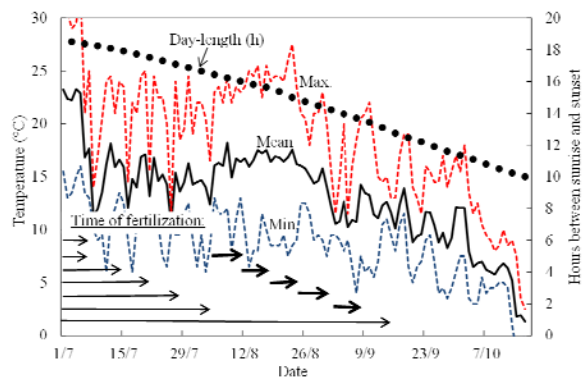
## Blackcurrant



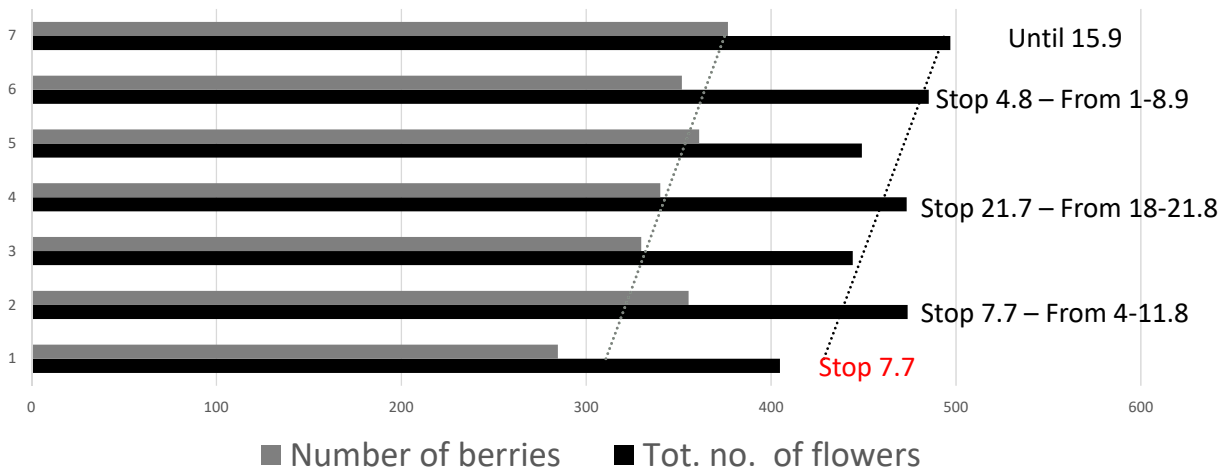
- Single-stemmed plants in pots
- Fertilization with the solution at EC 1.5 (solution of a 2:3 (w:w) mixture of Superba Rød and Calcinit)
- At fase shift: Fertigation pulses.

## Fertilization

- 1. EC = 1.5 until 7 July (thereafter water only)
- 2. EC = 1.5 “ 7 July + EC = 3.0 from 4 -11 August
- 3. EC = 1.5 “ 14 July + EC = 3.0 “ 11 – 18 August
- 4. EC = 1.5 “ 21 July + EC = 3.0 “ 18 – 25 August
- 5. EC = 1.5 “ 28 July + EC = 3.0 “ 25 Aug. – 1 September
- 6. EC = 1.5 “ 4 Aug. + EC = 3.0 “ 1 – 8 September
- 7. EC = 1.5 continuously until 15 September



Effects of fertilization regimes during floral initiation and differentiation on total number of flowers and berries of the black currant cultivar 'Ben Tron'.



## Autumn fertilisation of florican raspberry 'Glen Ample'

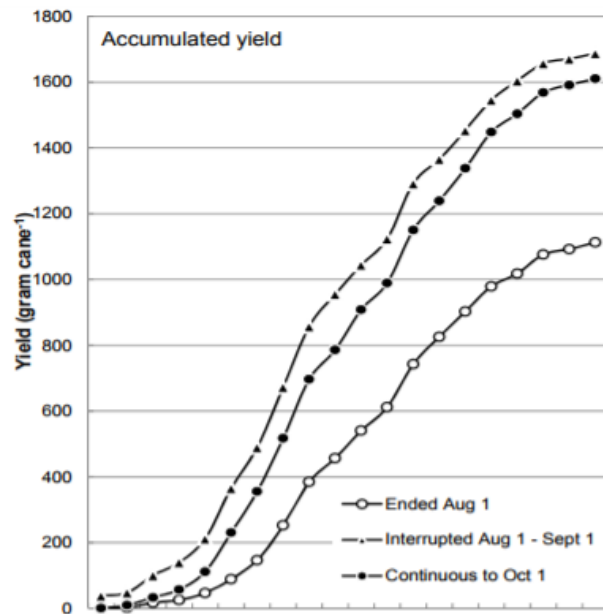
Long canes in pots, daily fertigation with Calcinit/Superba (60/40)

From August 1, the different treatments were introduced:

- 1) Fertigation ended on Aug 1.
- 2) Fertigation interrupted from Aug 1 to Sept 1. Then fertigation until Oct 1.
- 3) Continuous fertigation until Oct 1.

## Results:

- Early termination of fertigation = **poorer growth, shorter canes, significantly lower yield, largest berries**
- Reapplication of fertigation from September = **the highest number of berries and yield.**



Thank you.

