



# Projekt 5T

(Together To Twenty Ton in 20-20)

## - udbyttepotentialer og markvariation

Inspirationsmøde i Sakskøbinghallen

6. februar 2018

Otto Nielsen, NBR

## 5T – fase 1/2

**Fase 1**  
2014-2016

### Udbyttepotentialer

5 svenske + 6 danske dyrkere

**Fase 2**  
2017-2019

### Markvariation

5 svenske + 4 danske + 2 finske + 4 tyske + 1 litauisk  
+ 1 polsk + 1 slovakisk

+ 34 danske + 36 svenske (5T+)

# Droneoptagelse (NDVI)

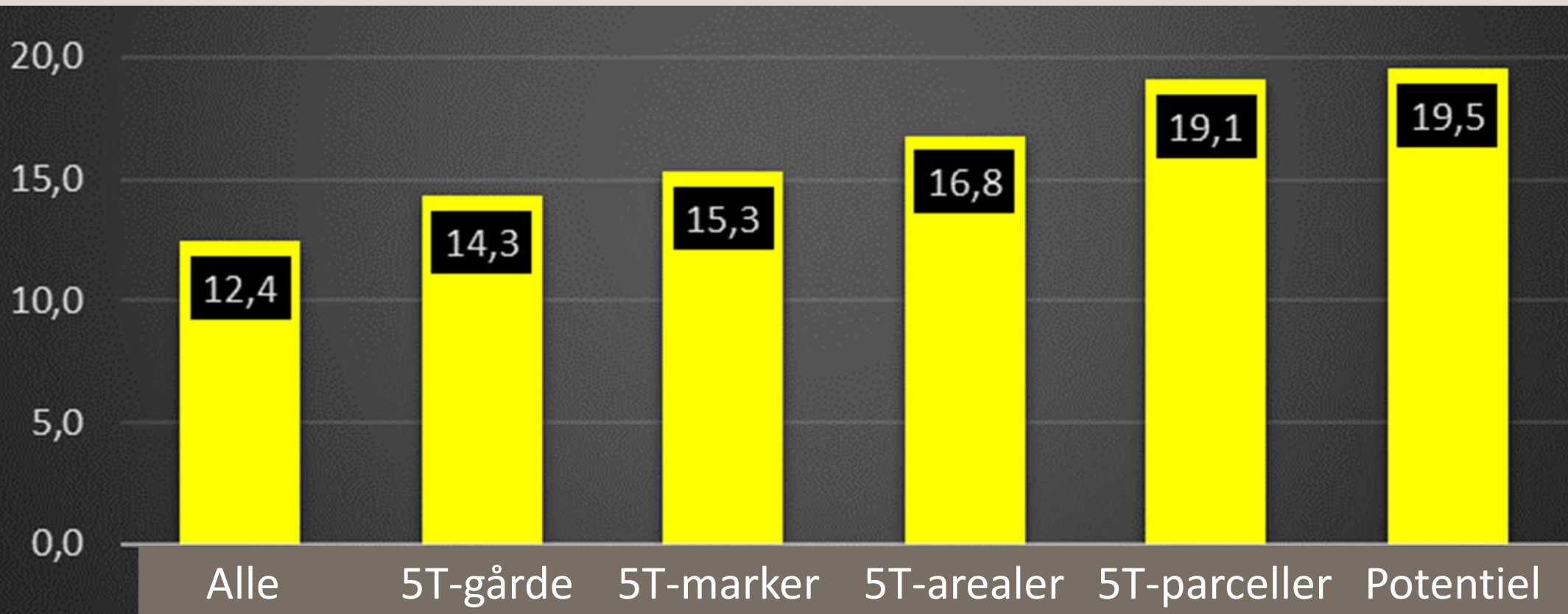
Bo Secher 2016



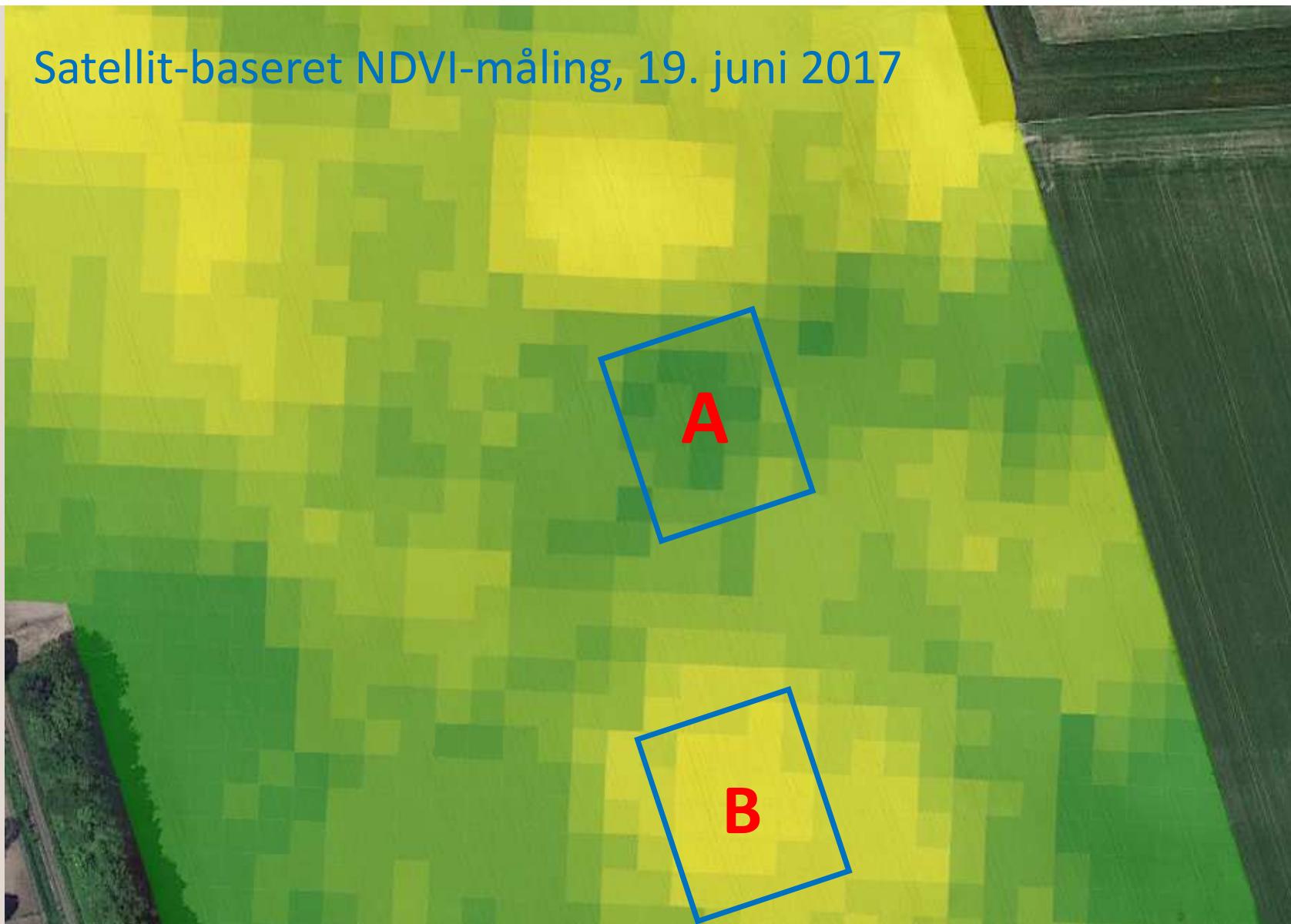
5T parceller hos DK3 2016

The image is a false-color NDVI map of agricultural fields. The color scale ranges from green (low vegetation) to red (high vegetation). A small red dot is located in the upper-middle section of the image. On the left side, there are three pairs of hand-drawn grey circles, each pair encircling a small red dot within a field. A yellow rectangular box with blue text is centered in the image, containing the text '5T parceller hos DK3 2016'.

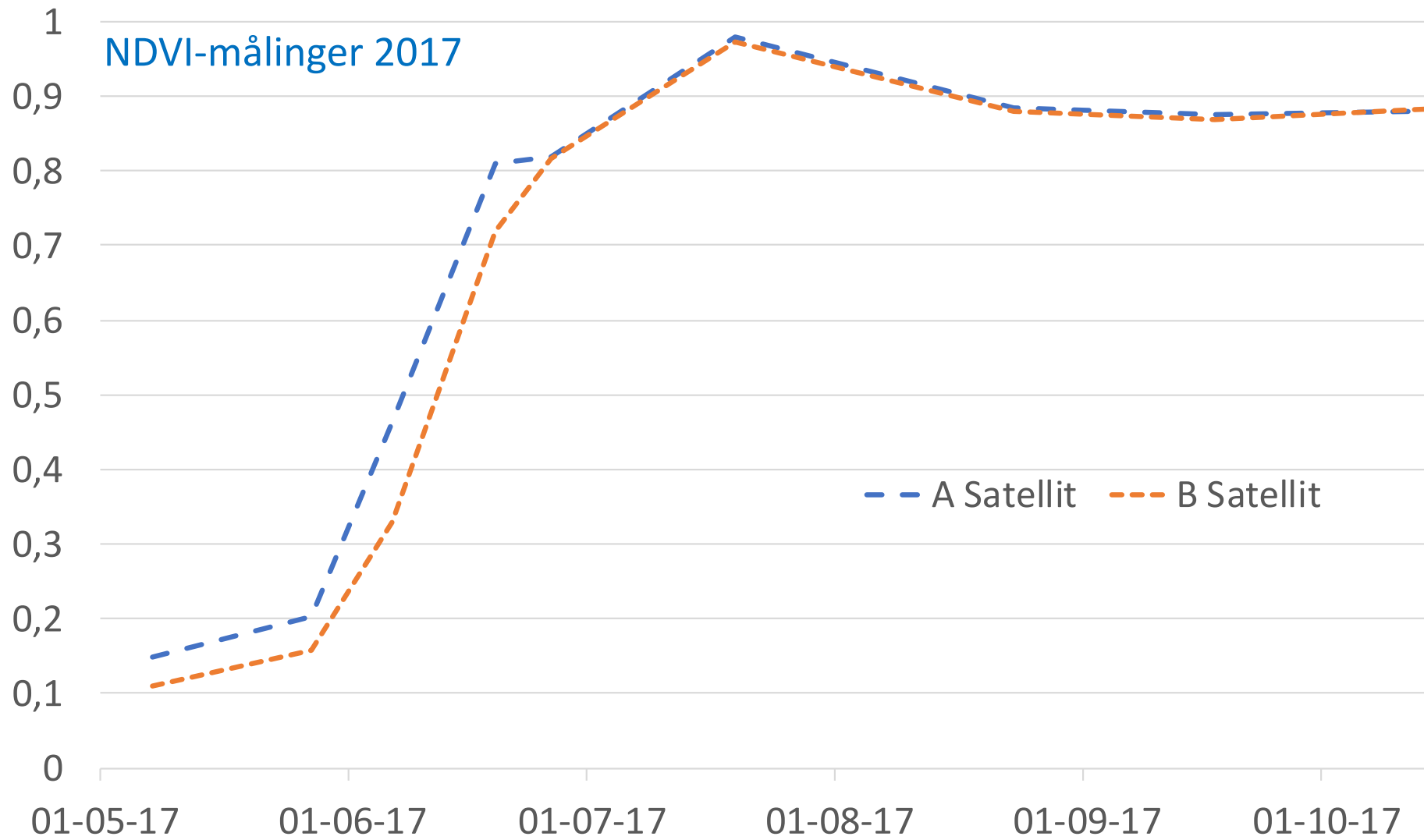
## Udbytter 5T (t/ha; gennemsnit medio november 2014-2016)



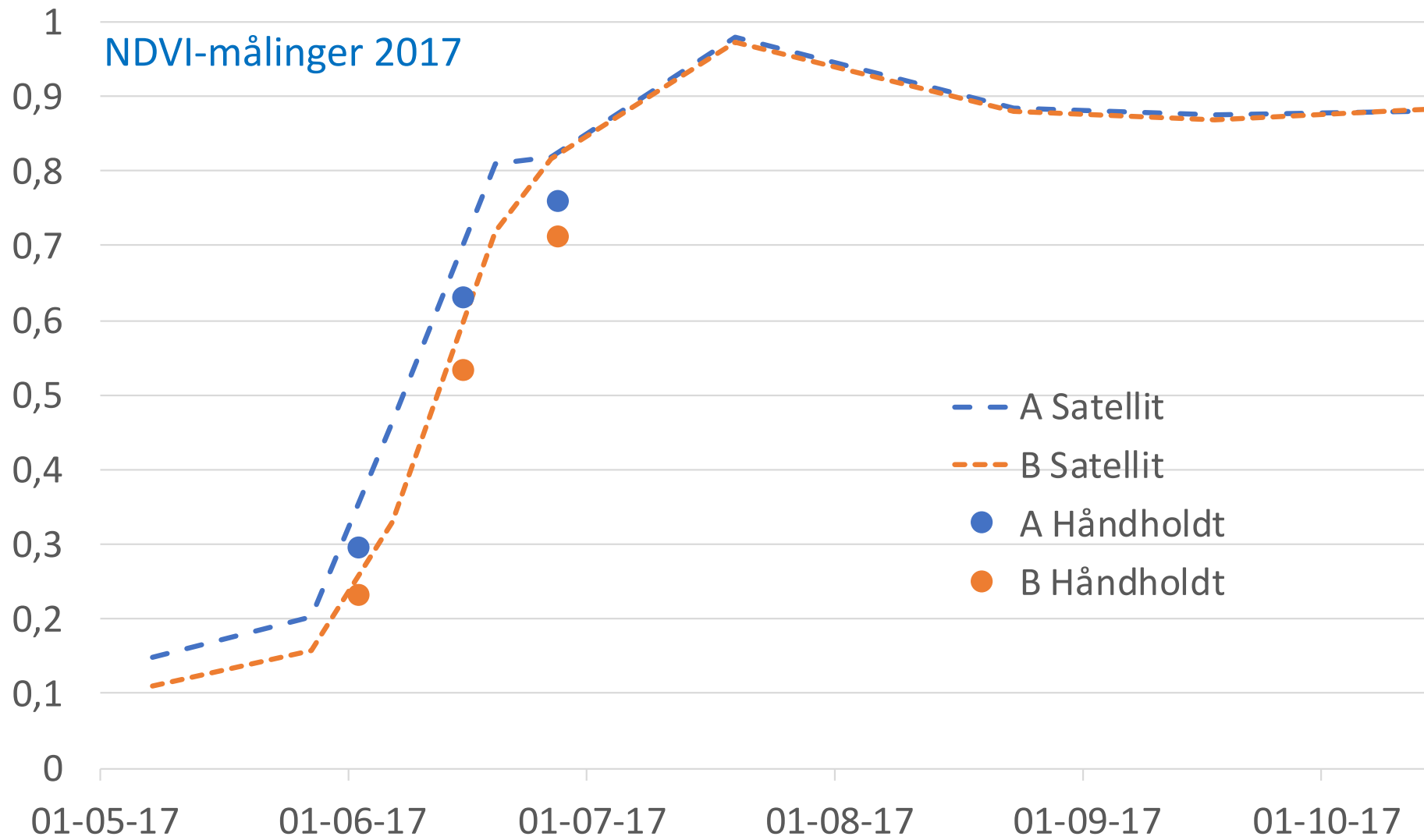
Satellit-baseret NDVI-måling, 19. juni 2017



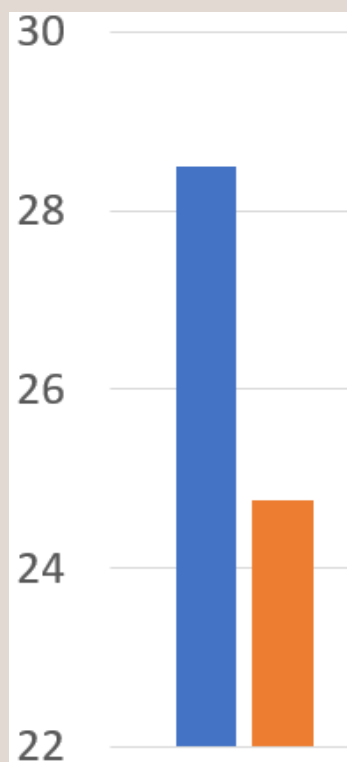
## NDVI-målinger 2017



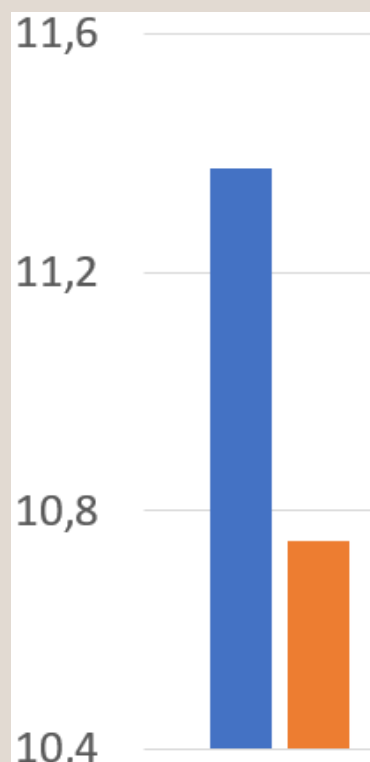
## NDVI-målinger 2017



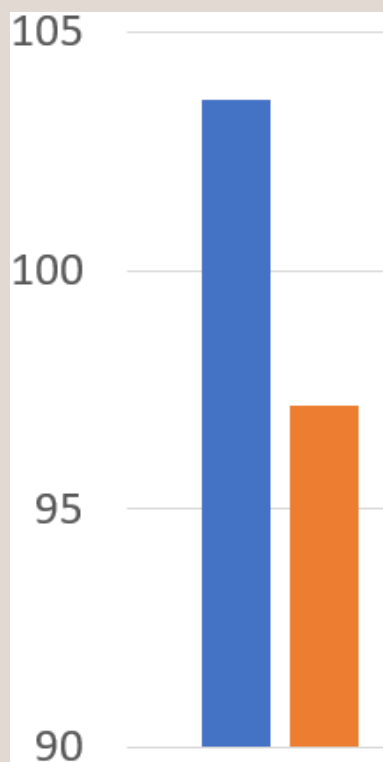
## Plantetal og udbytter 2017 (data fra én 5T-dyrker)



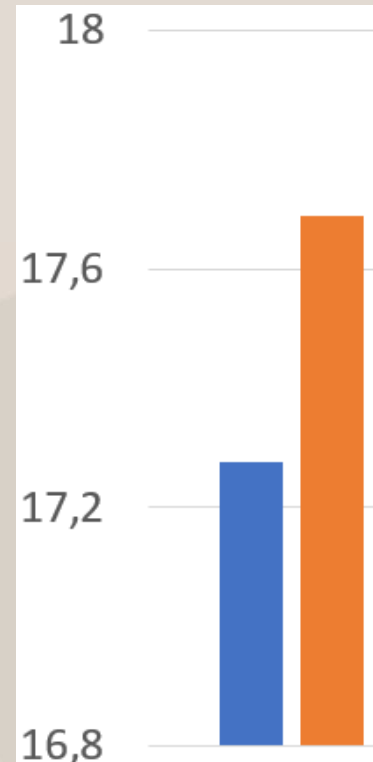
Planter  
kg/parcel



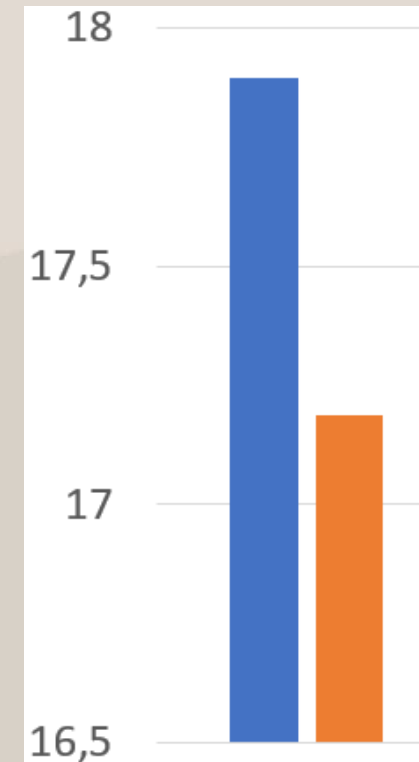
Top  
kg/parcel



Rod  
t/ha



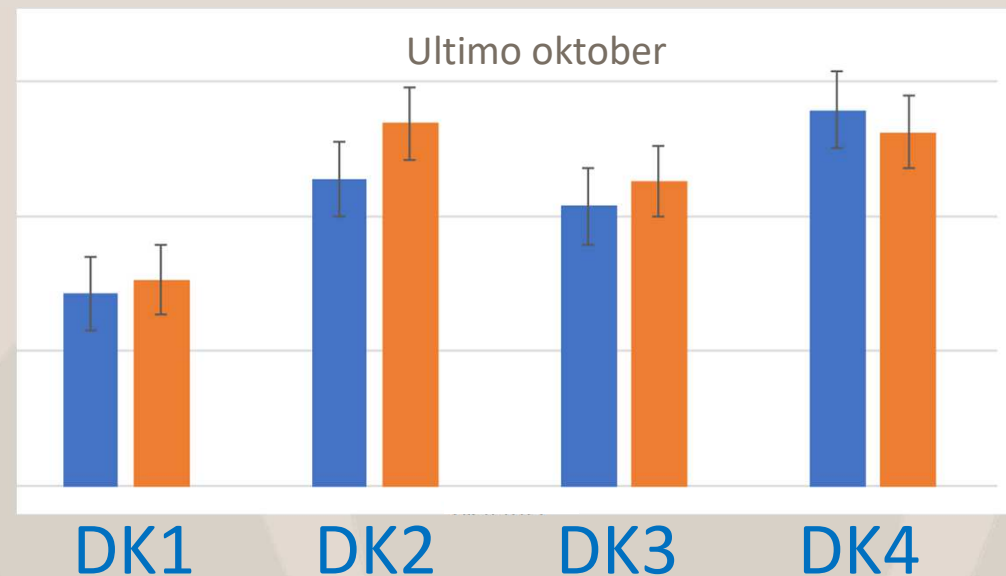
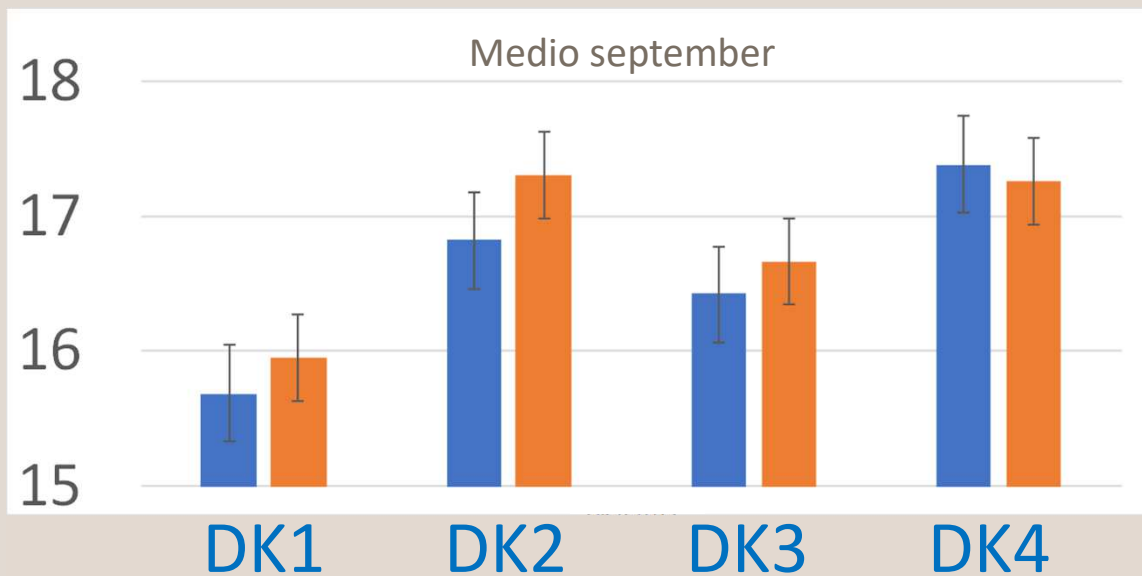
Pol  
%



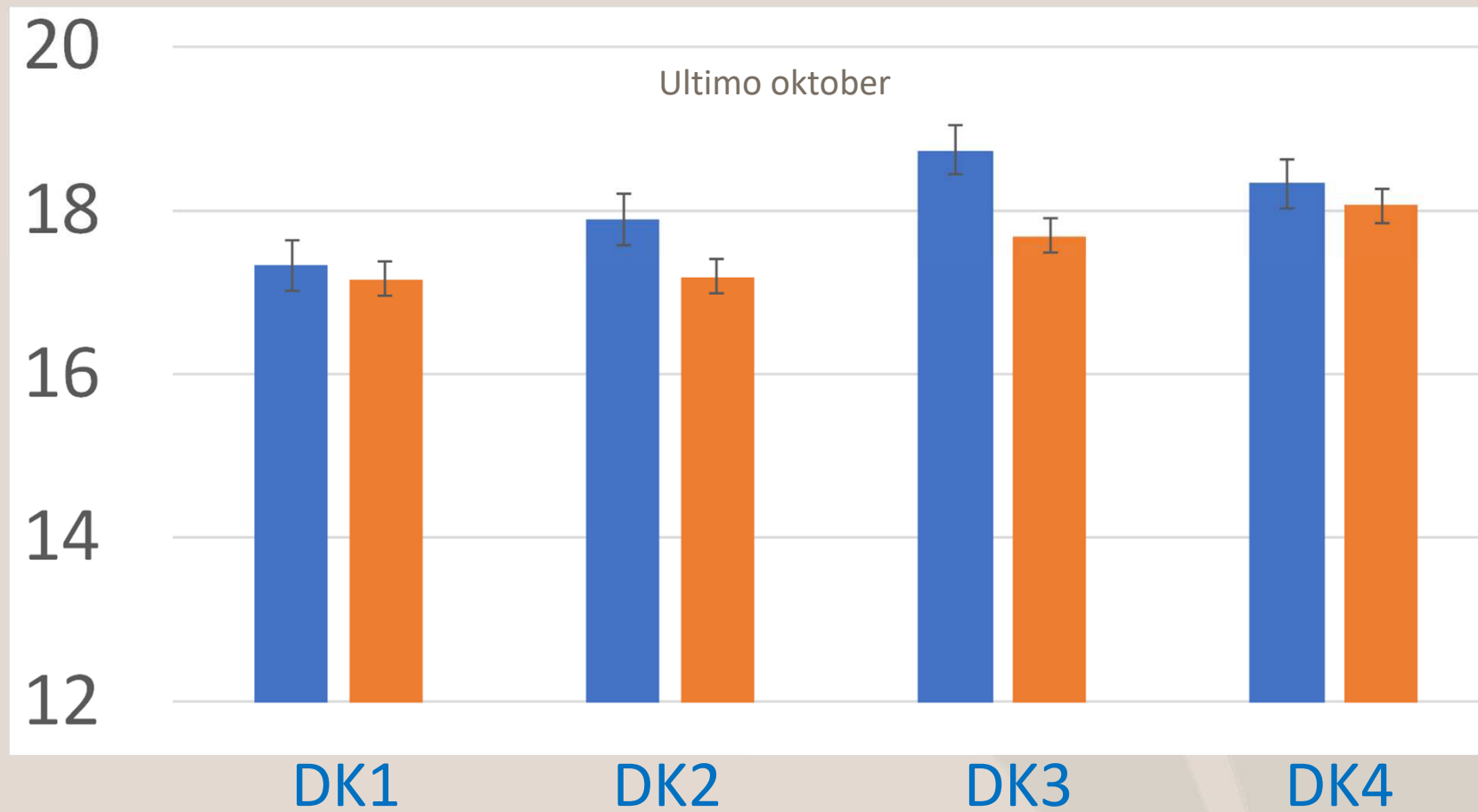
Sukker  
t/ha



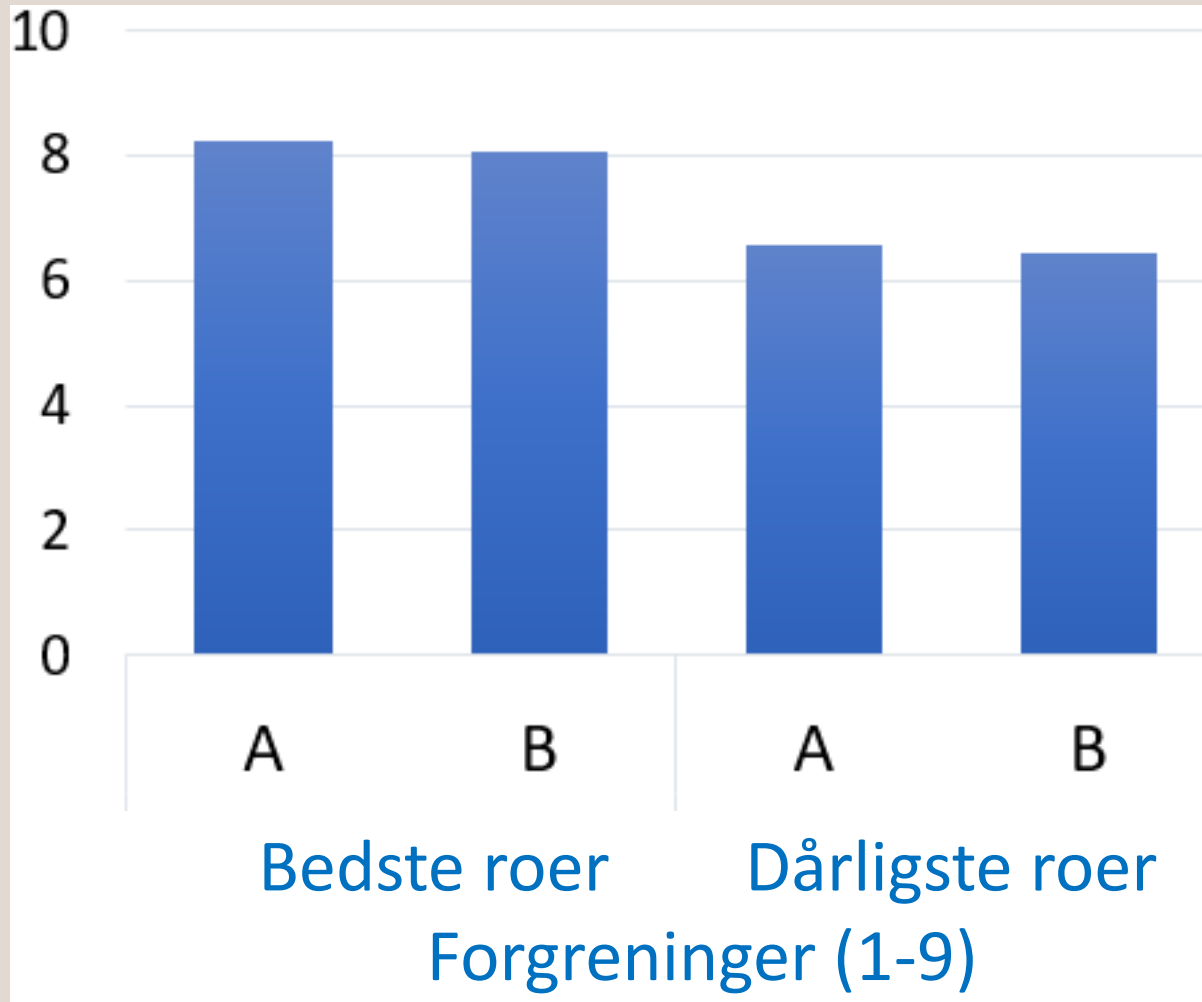
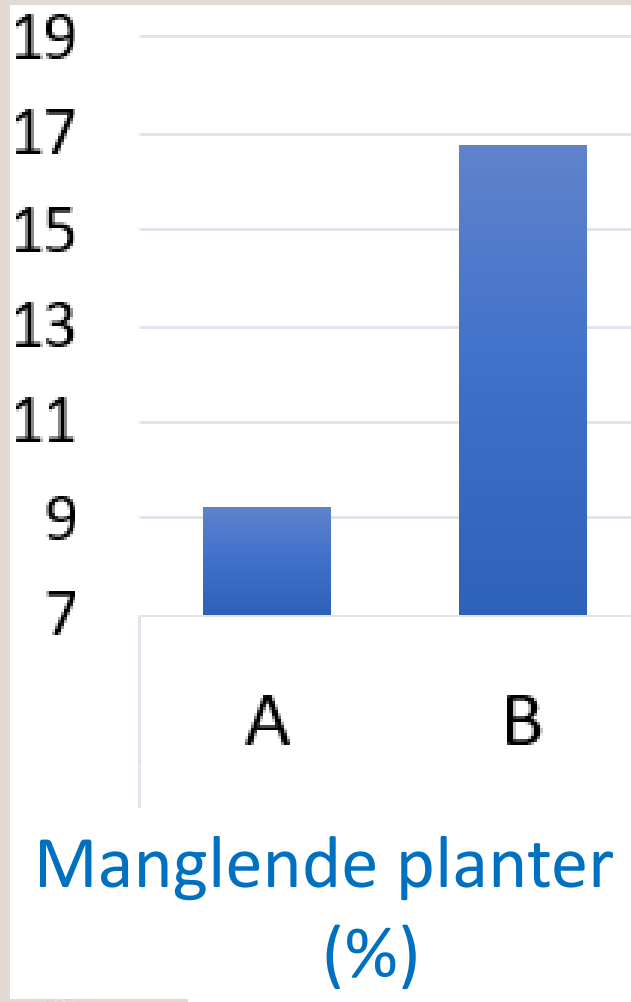
## Sukkerprocenter 2017 (5T-dyrkere)



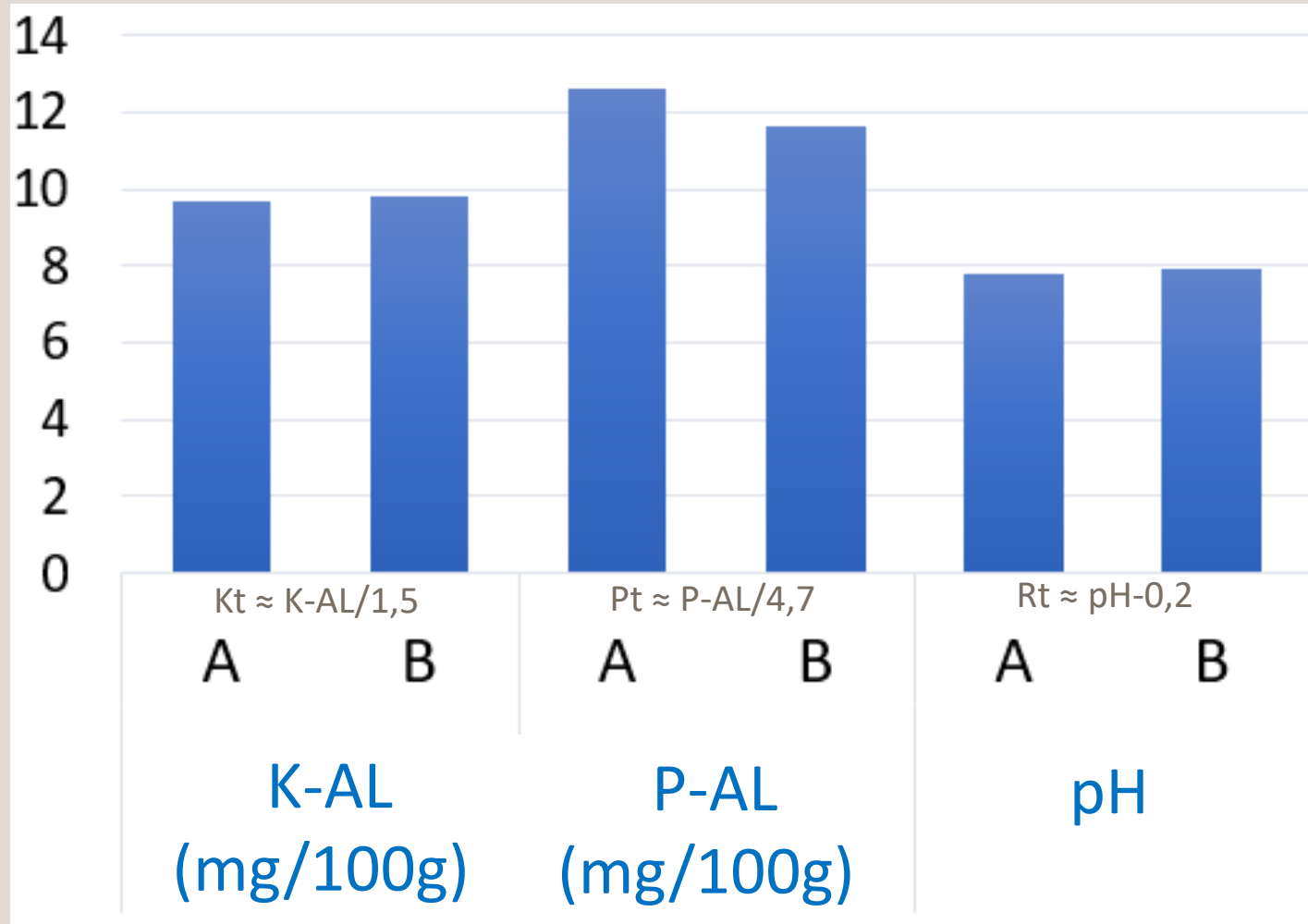
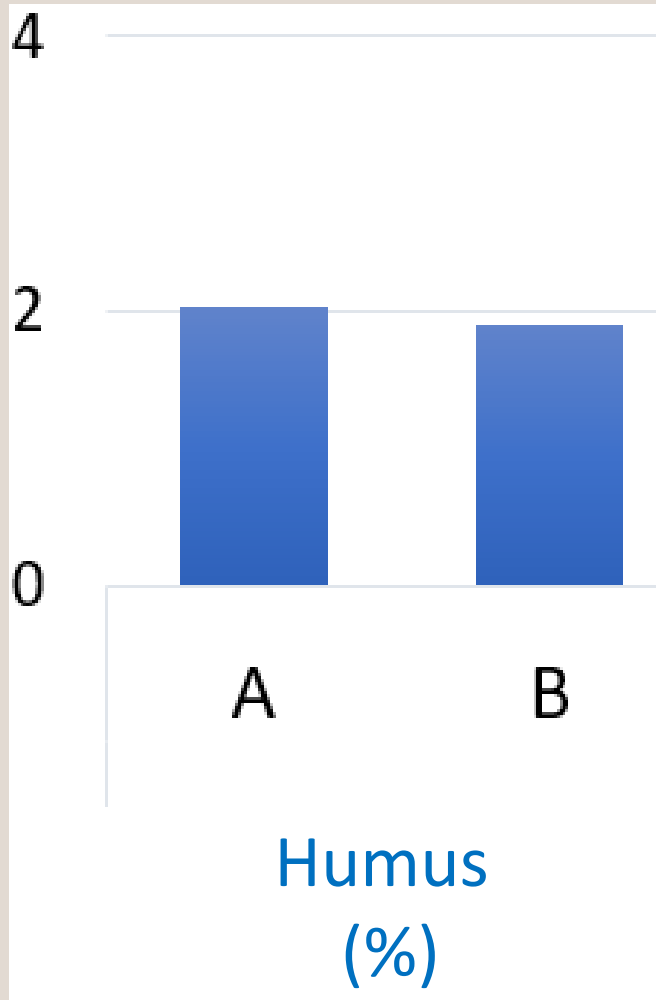
## Sukkerudbytter t/ha 2017 (5T-dyrkere)



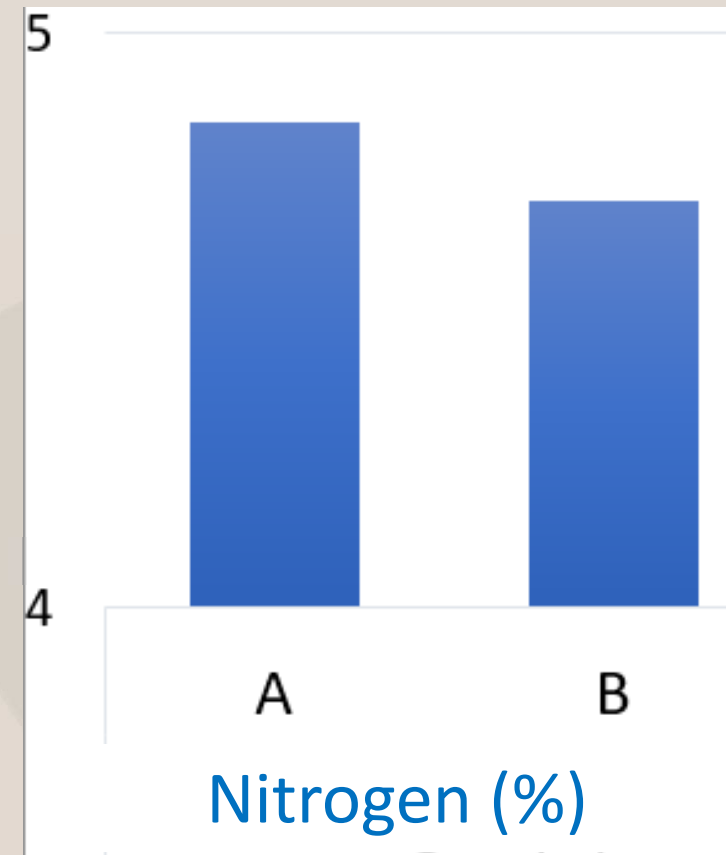
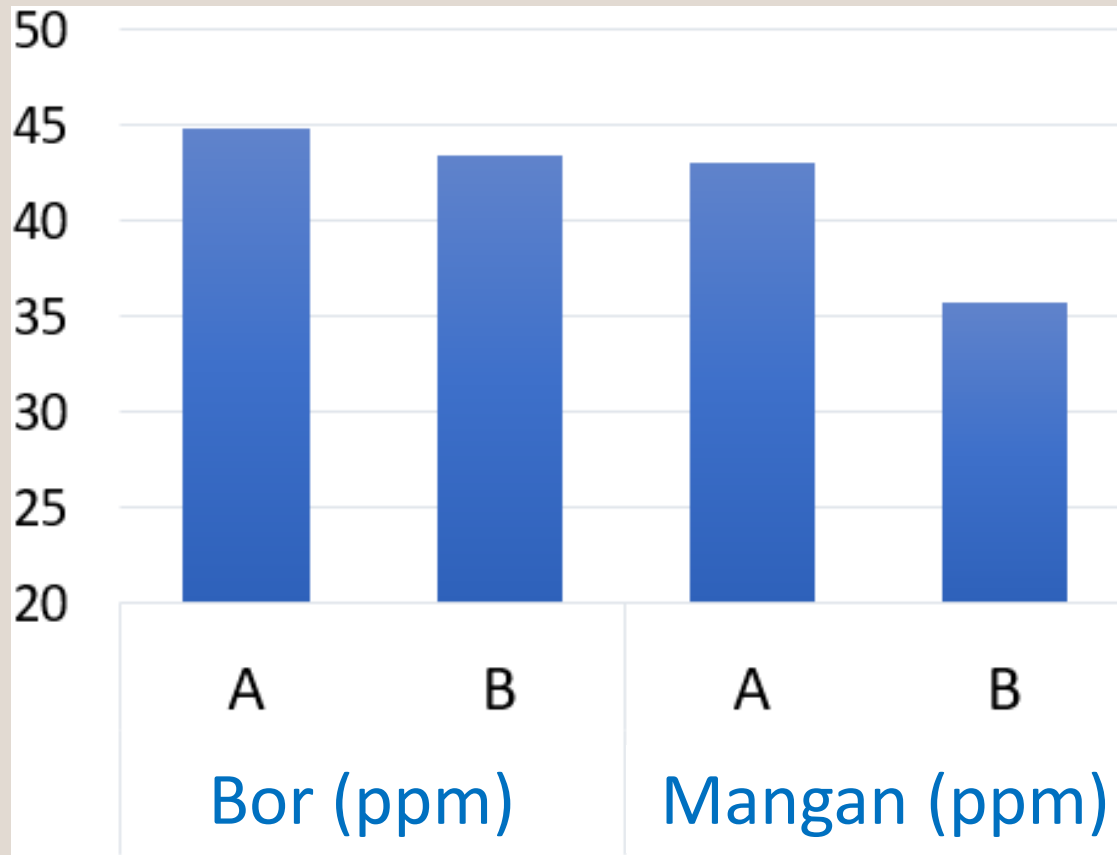
Observationer fra A-B arealer (gennemsnit af op til 38 dyrkere)



## Jordanalyser fra A-B arealer (gennemsnit af op til 38 dyrkere)



## Bladanalyser fra A-B arealer (gennemsnit af op til 38 dyrkere)





# Areal A



Areal B





Areal B



Areal B



Areal A



Areal B



Areal A



# Areal B



## Konklusioner

Årsager til markvariation er forskellig fra mark til mark

Første skridt er at grave planterne op (struktureret metode anbefales)

Lavere NDVI i foråret skyldes til dels manglende plantetal

Lavere NDVI ført generelt til lavere sukkerudbytter (men højere pol)

Rt	pH	Pt	P-Al	Kt	K-Al	Mgt	Mg-Al	Bt	B
7,3	7,5	2,4	11,2	7,6	11,6	7,7	8,9	11,6	0,9
	1,04		4,72		1,52		1,15		0,08

Aluminium (ppm)	100	300
Boron (ppm)	35	100
Calcium (%)	0,8	2
Copper (ppm)	7	30
Iron (ppm)	50	450
Magnesium (%)	0,3	0,7
Manganese (ppm)	35	300
Molybdenum (ppm)	0,25	10
Nitrogen (%)	4	4,7
Phosphorus (%)	0,35	0,7
Potassium (%)	0,35	3
Sulphur (%)	0,2	0,6
Zinc (ppm)	20	150