

# Watergift, bemesting en uitspoeling bioteelt

Stand van zaken

Knelpunten

Acties

Wim Voogt,  
Aat van Winkel



# Uitspoelingsonderzoek 2008 - 2010



Lysimeters  
4(5) bedrijven



WAGENINGEN UR

*For quality of life*

# Schets 2008 en 2009

# Resultaten 2008

- De Koning
  - geen beregeningsoverschot
  - geen gemeten drain
- Van Dijk
  - geen beregeningsoverschot
  - Wel drain ca 30 mm
  - N emissie 6 – 10 kg/ha
- Jonkers
  - Beregeningsoverschot 0
  - Drain = 0
- Verbeek
  - Beregeningsoverschot ca 75 mm
  - Gemeten drain ca 10 mm
  - N emissie 2 – 3 kg/ha
- P-emissie in alle gevallen zeer laag, max 0.2 kg/ha/jr

# Seizoen 2009

- Verbeek nagenoeg 0 emissie
- Van Dijk 65 kg N, 0.6 kg P
- Jonkers 0 emissie
- De Koning 0 emissie
- Van Brakel 20 kg N, 0.5 kg P

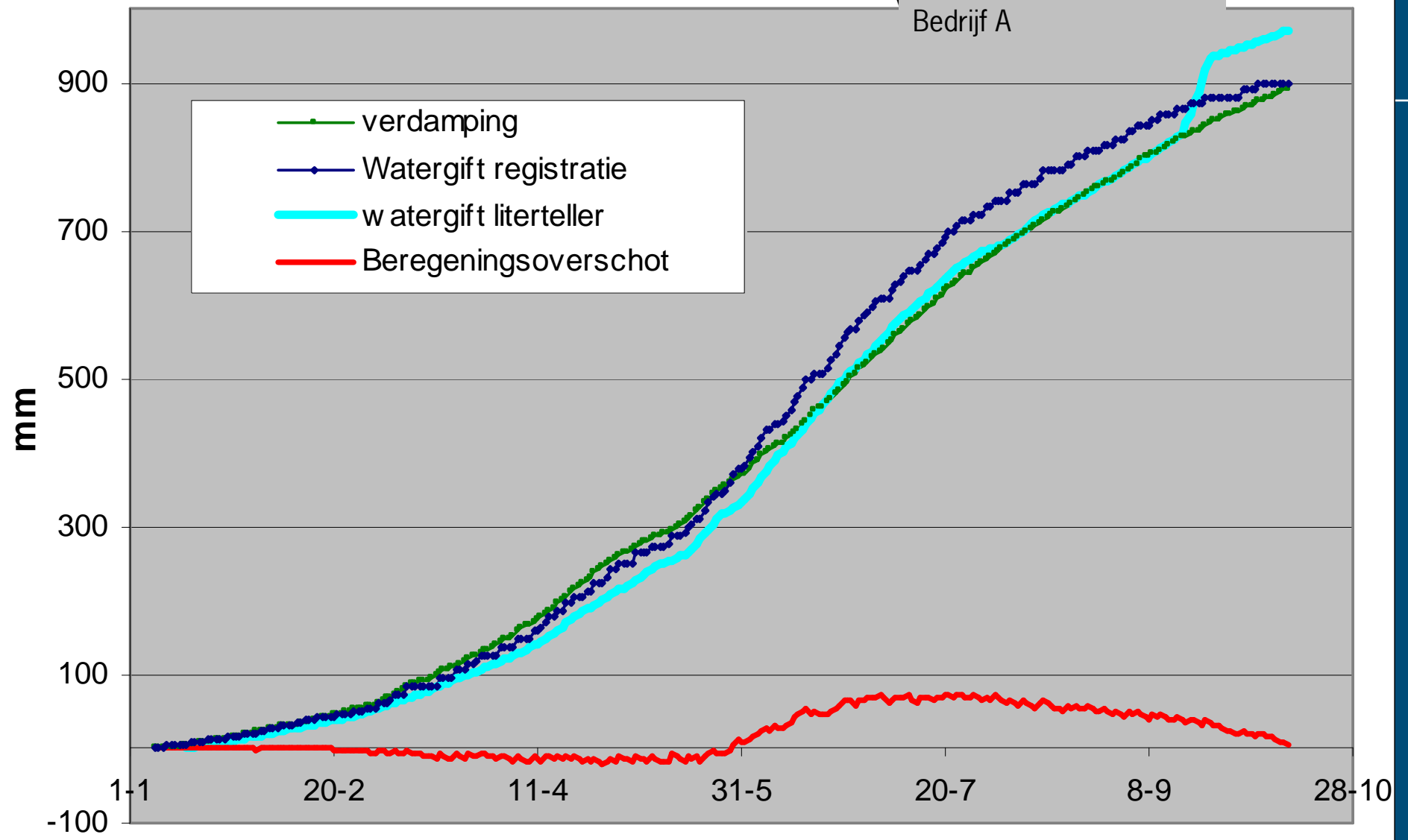
# Situatie 2010

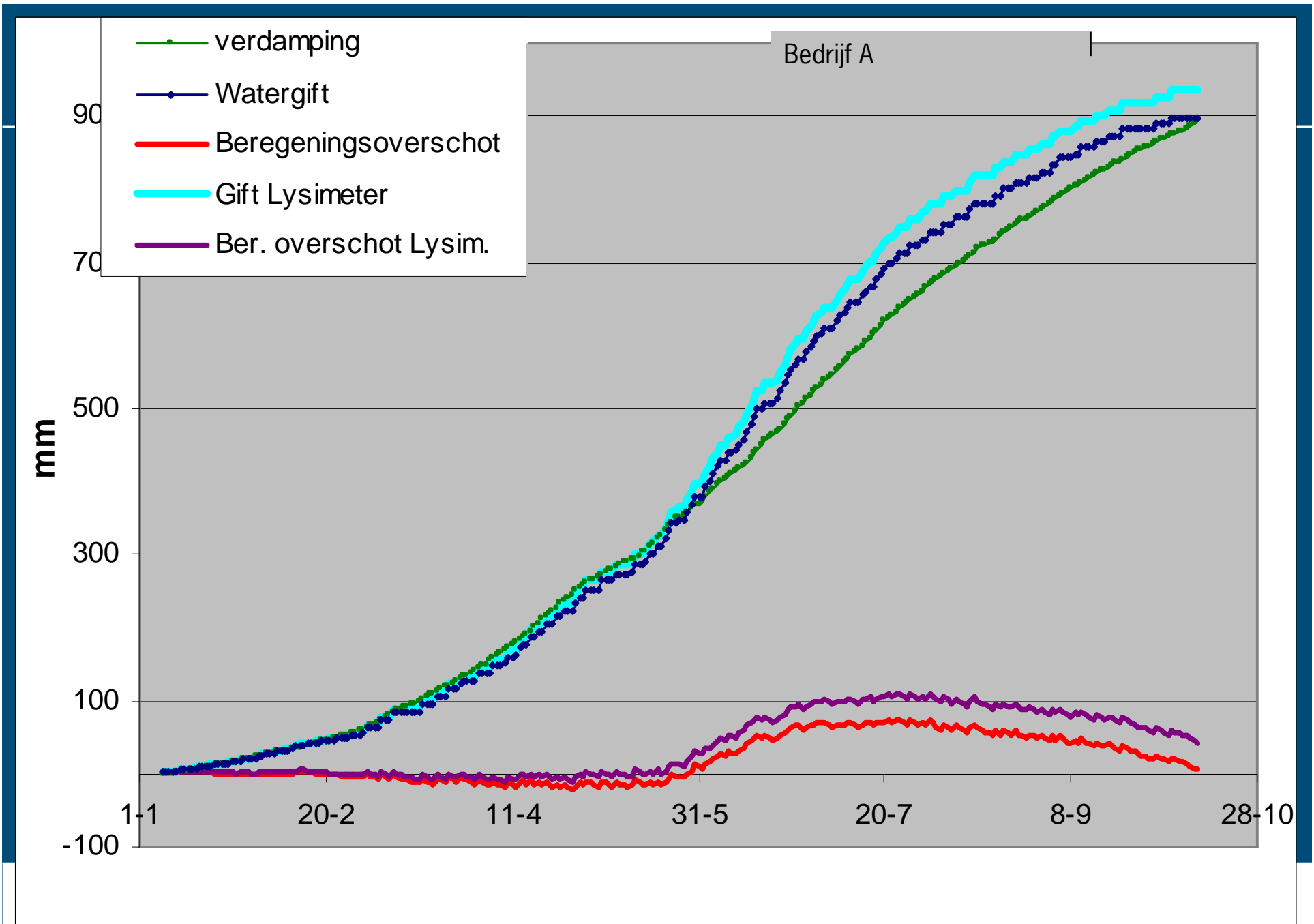
“Geforceerd” drain productie

Door bij lysimeters extra druppelaars

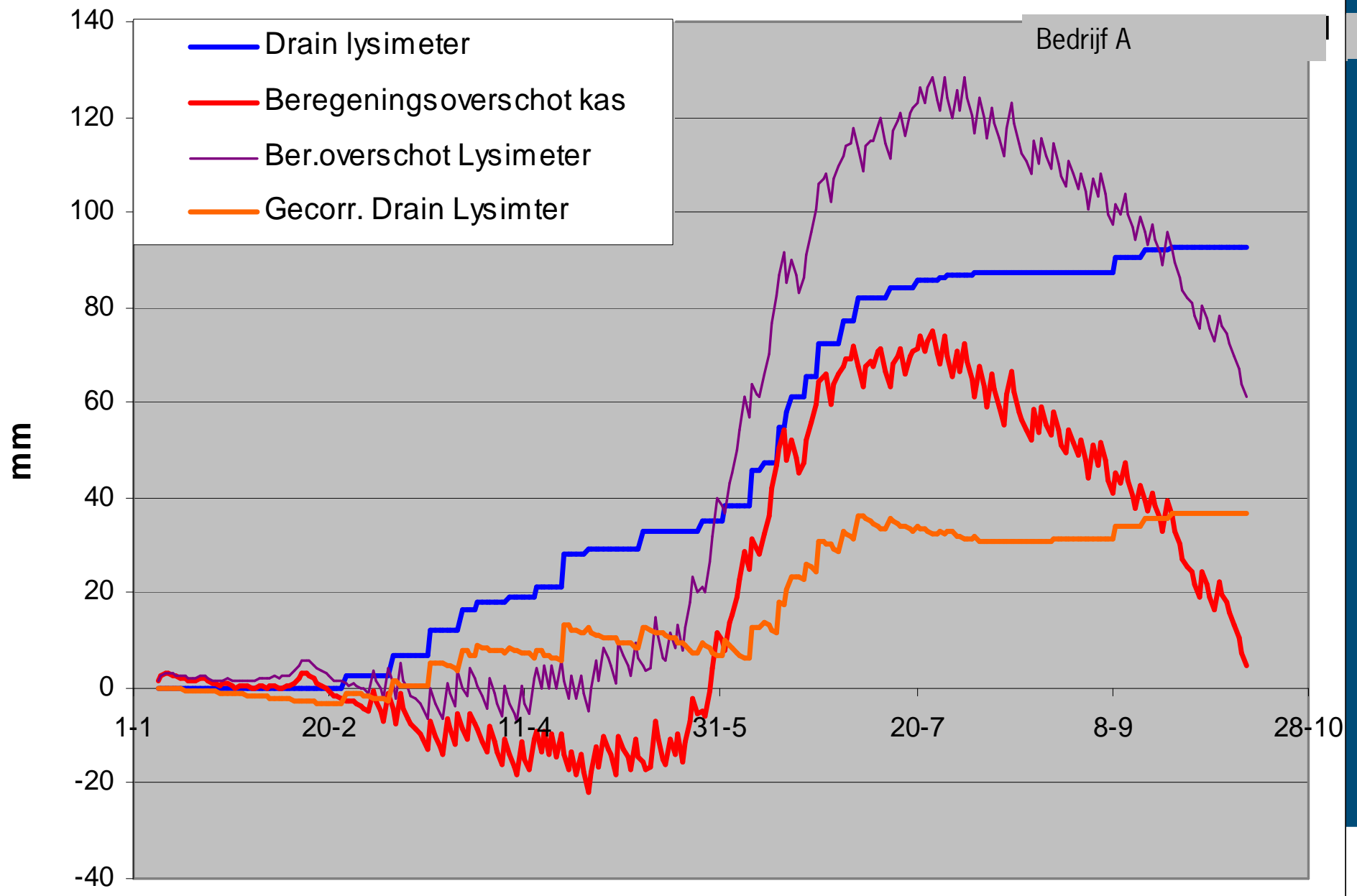
Mogelijkheid van “aan” / “uit” zetten

Bedrijf A

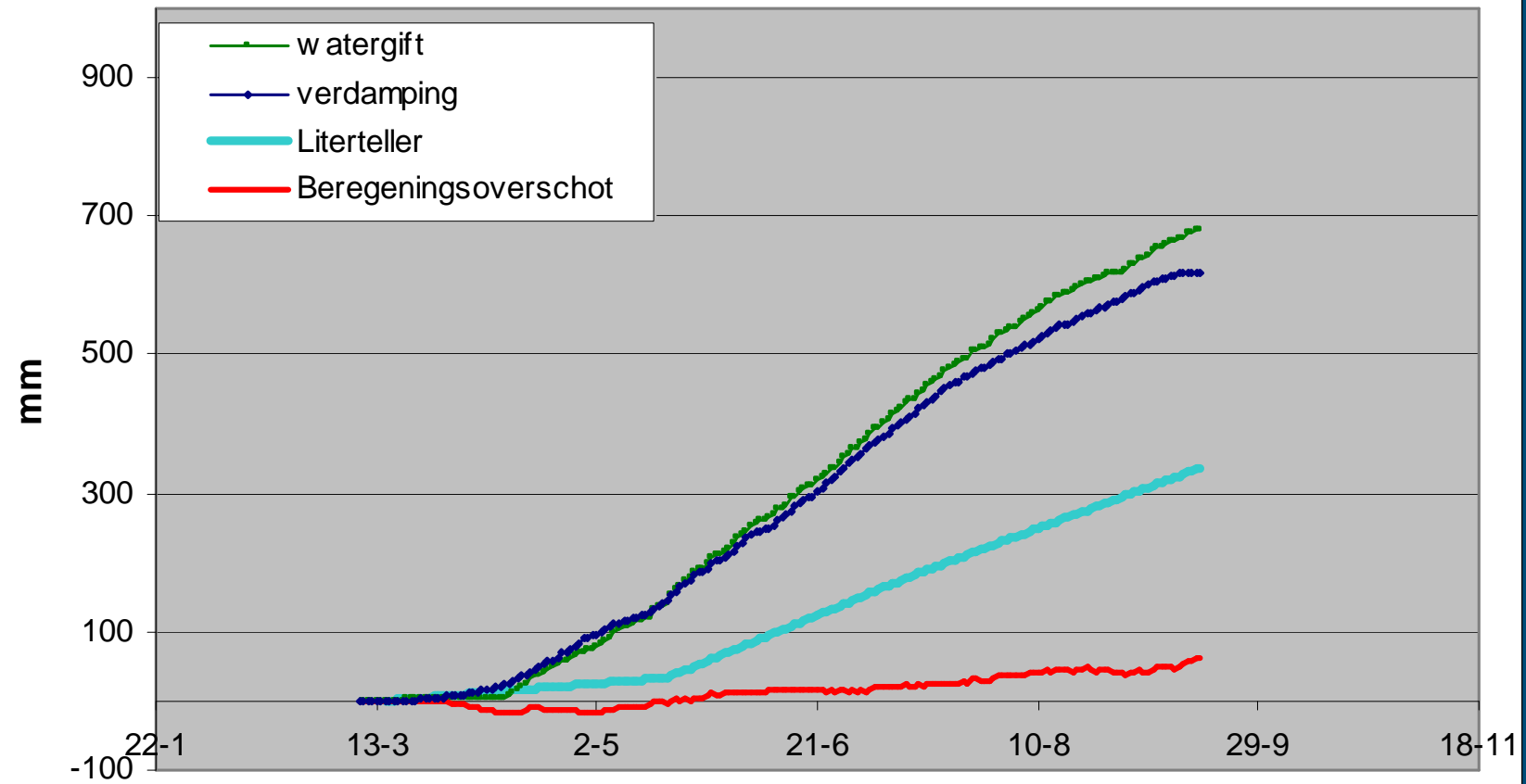


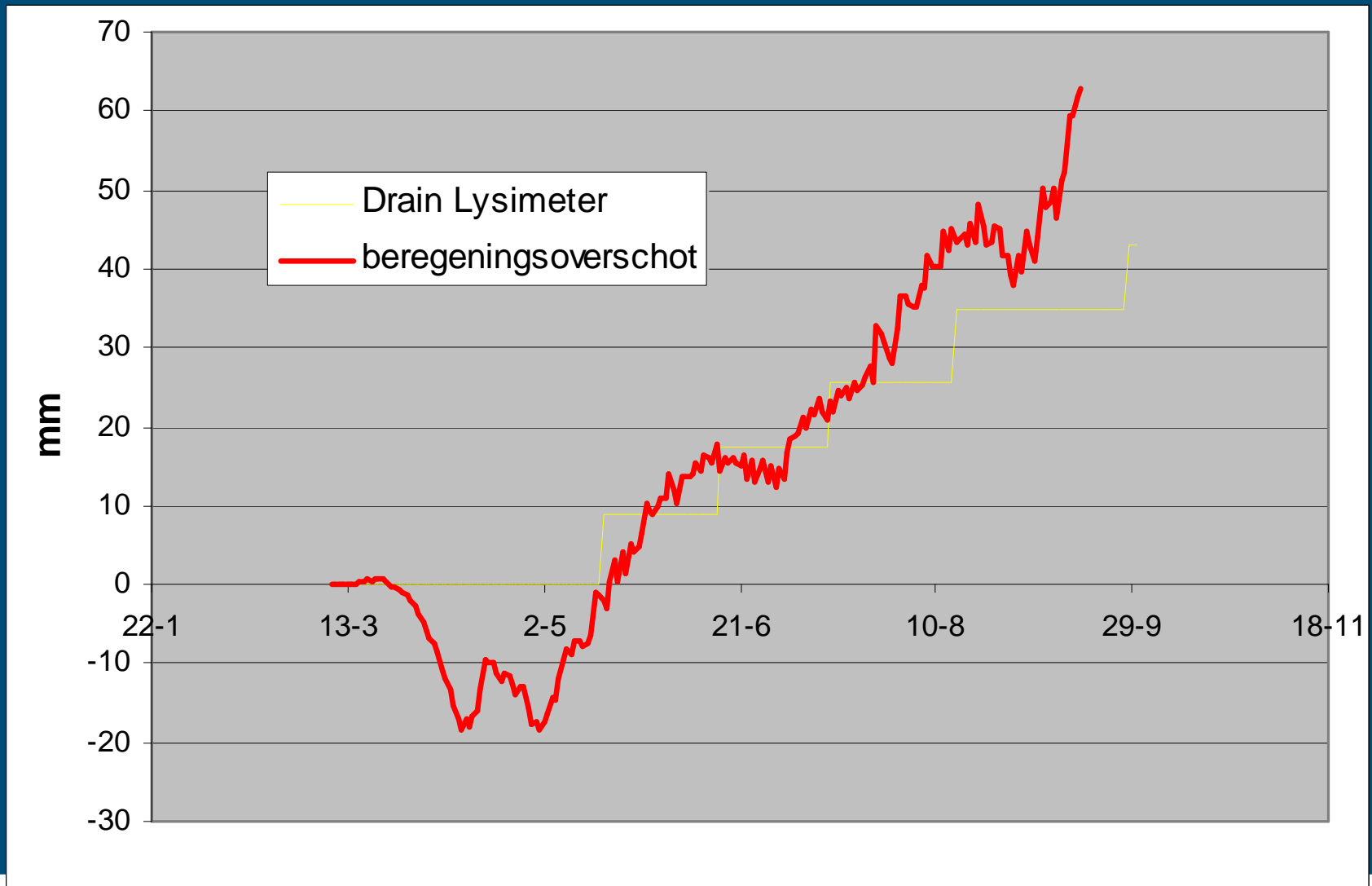




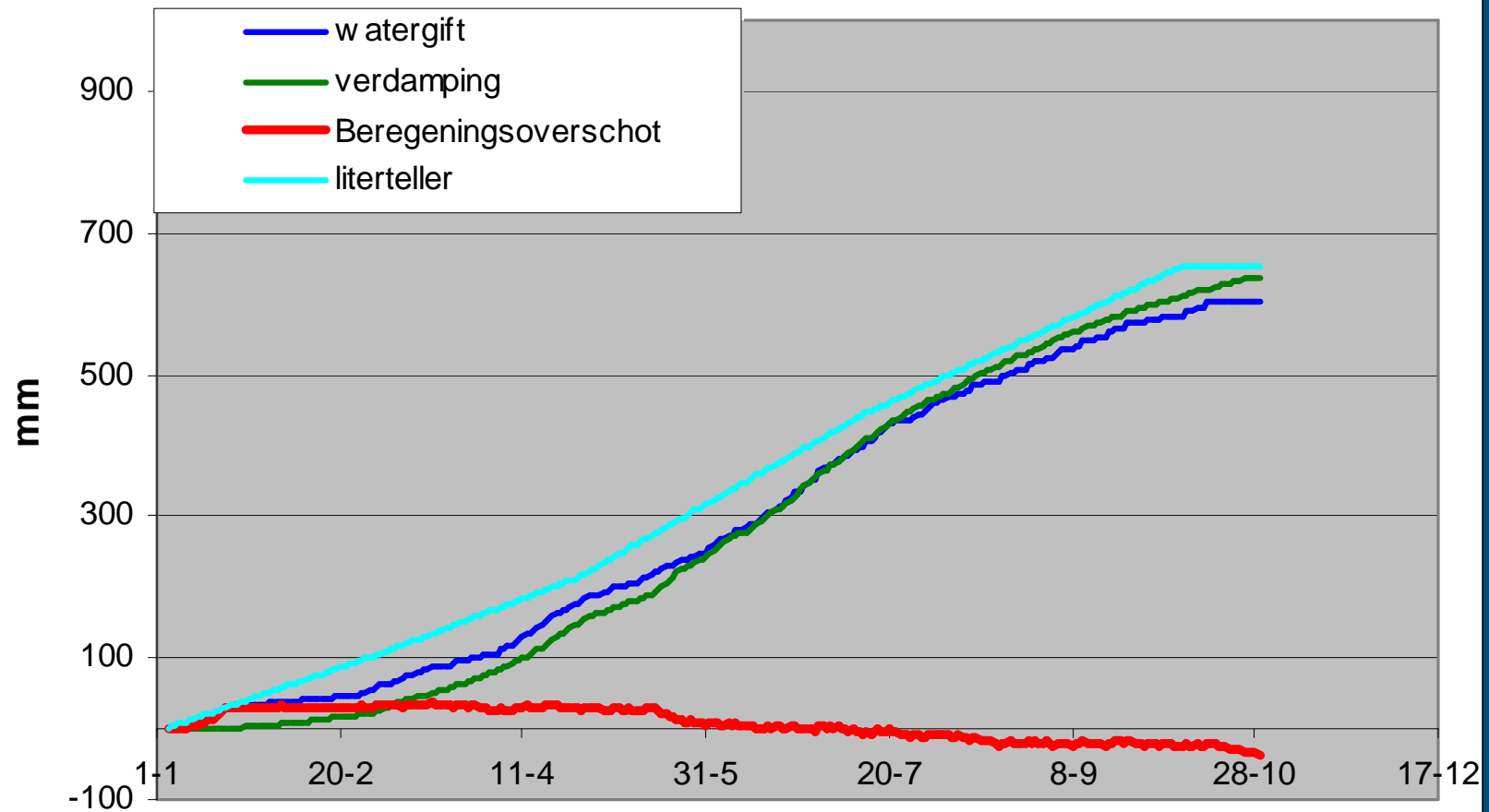


Bedrijf B

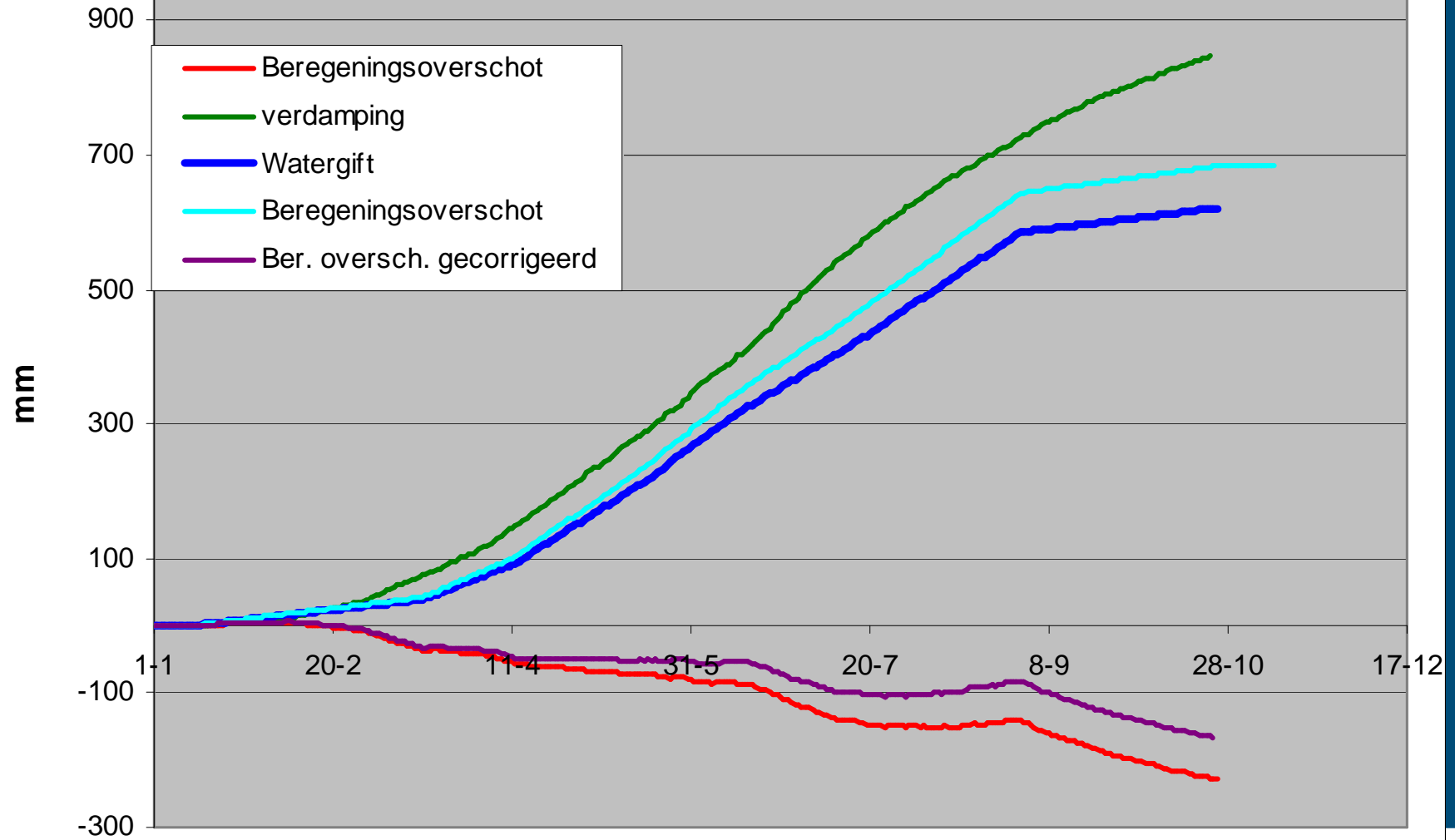


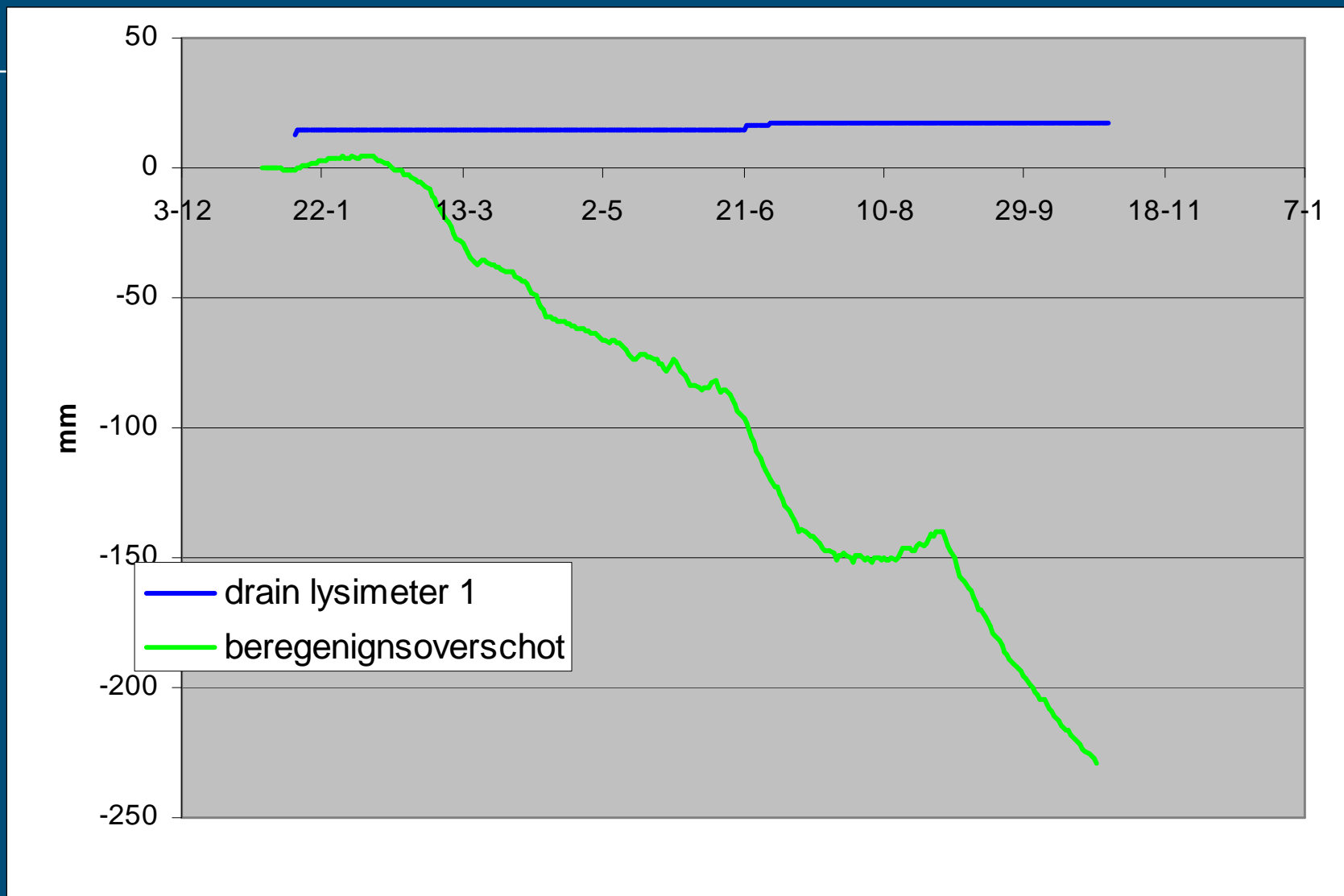


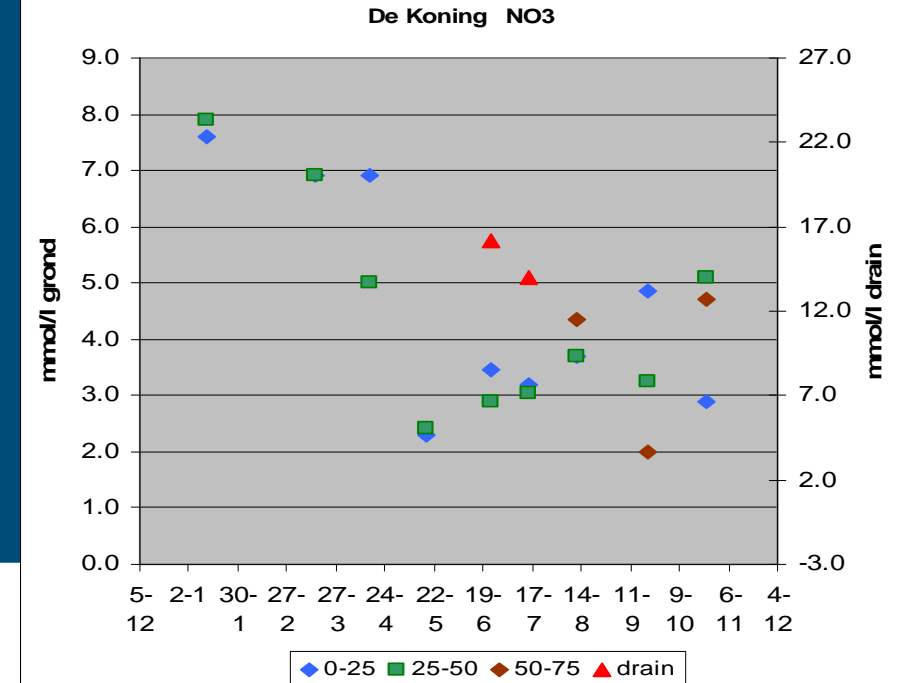
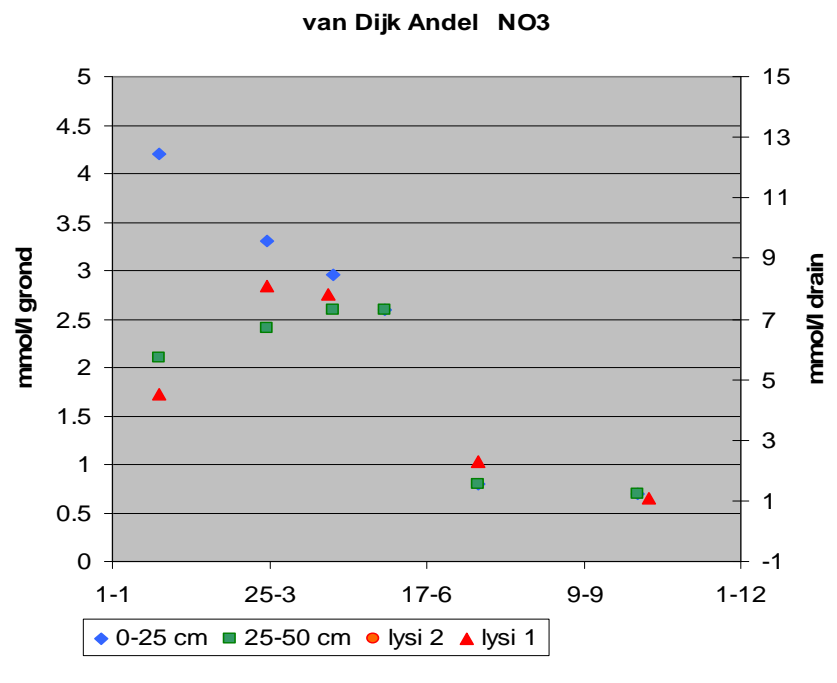
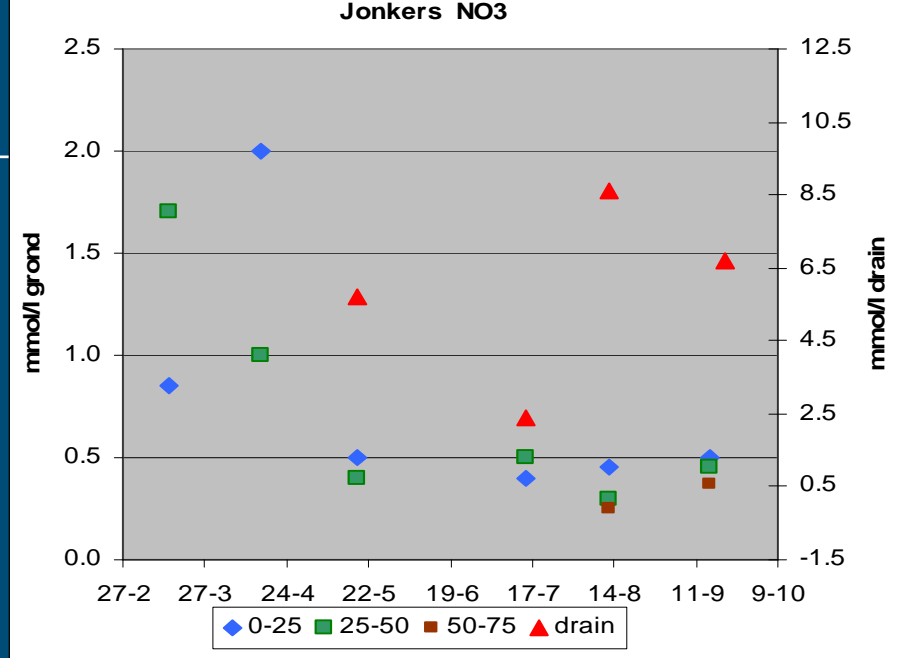
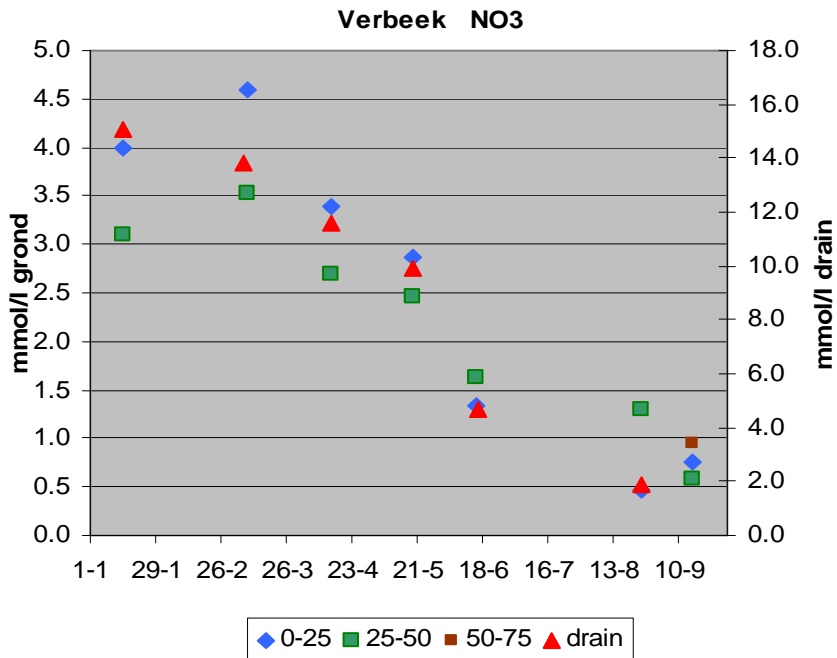
Bedrijf C

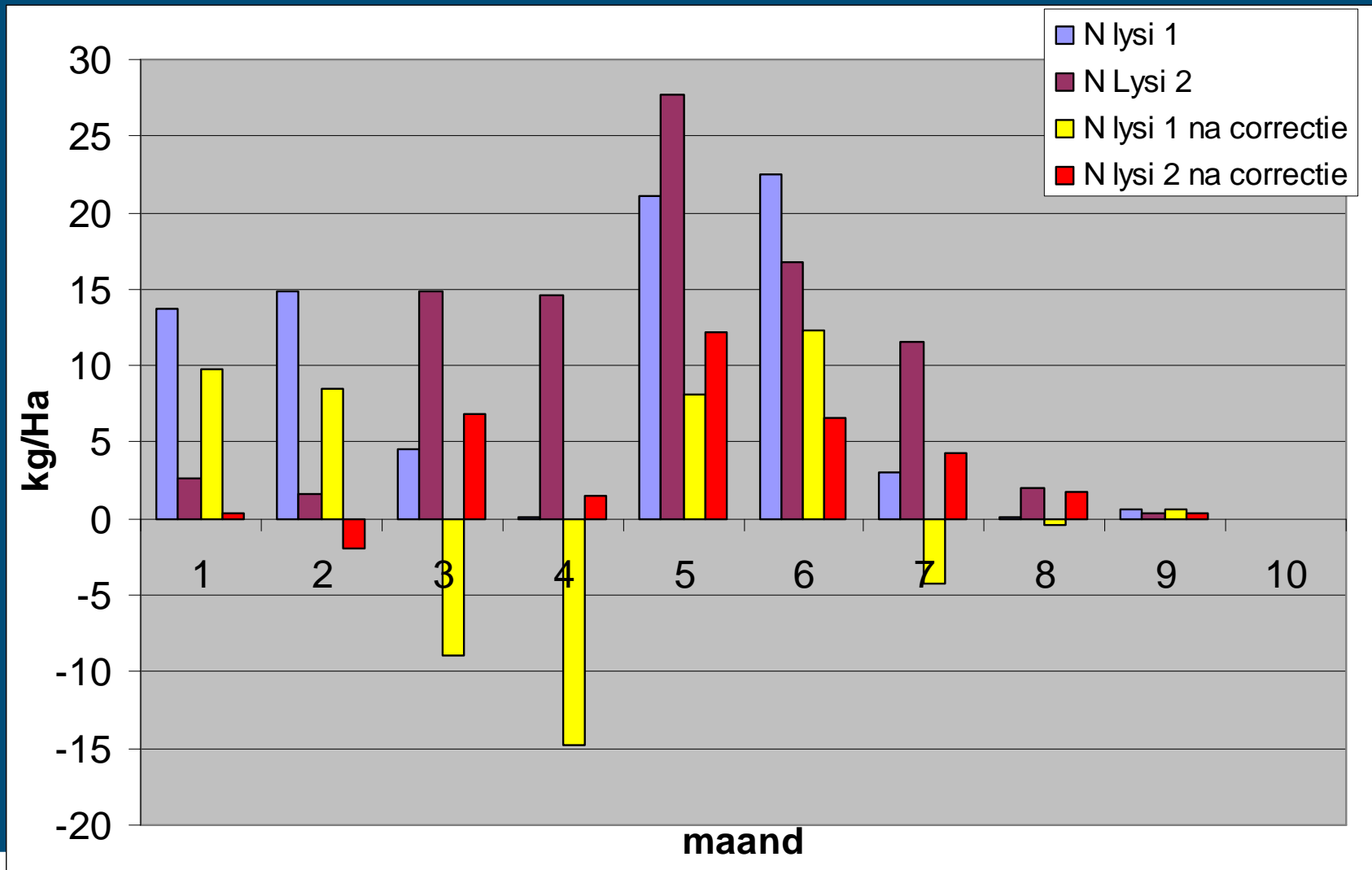


# Bedrijf D

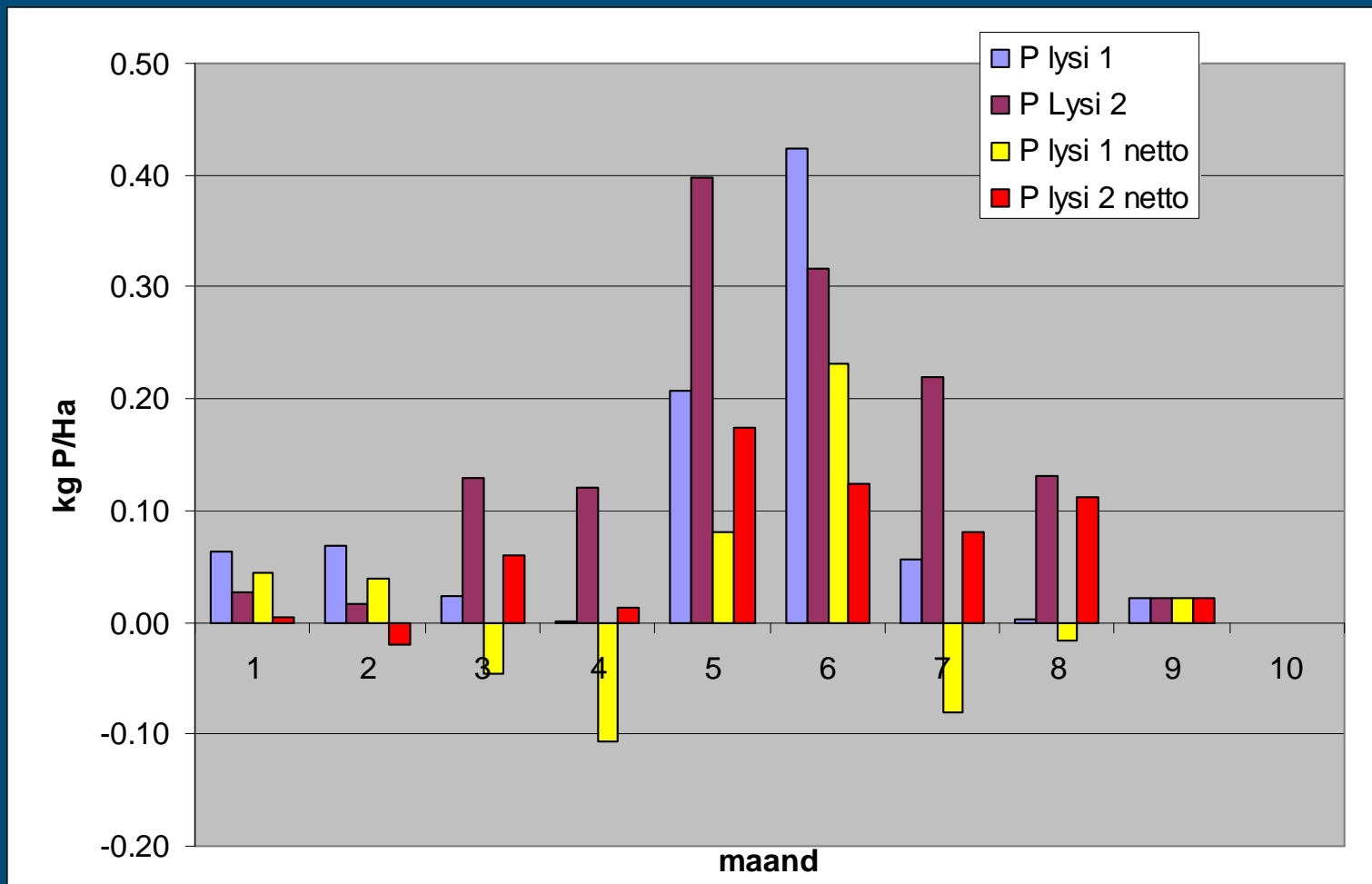


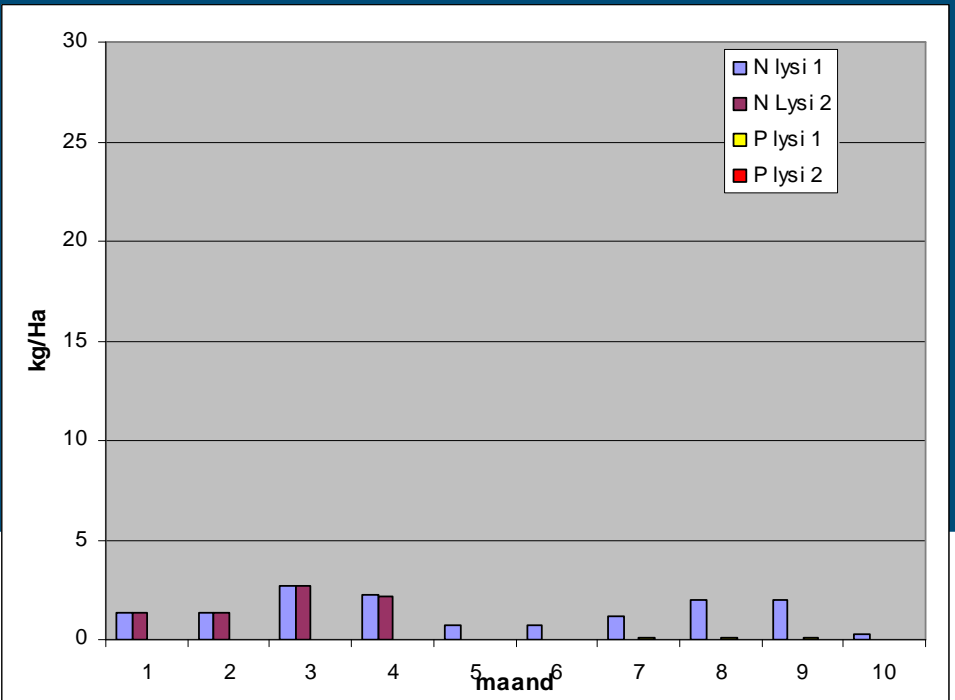
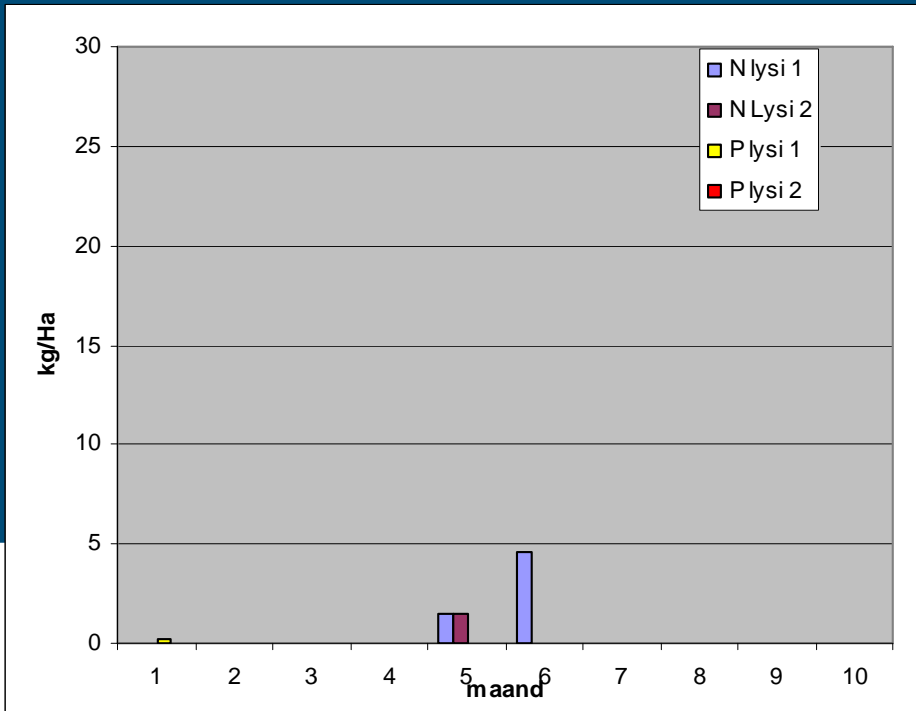
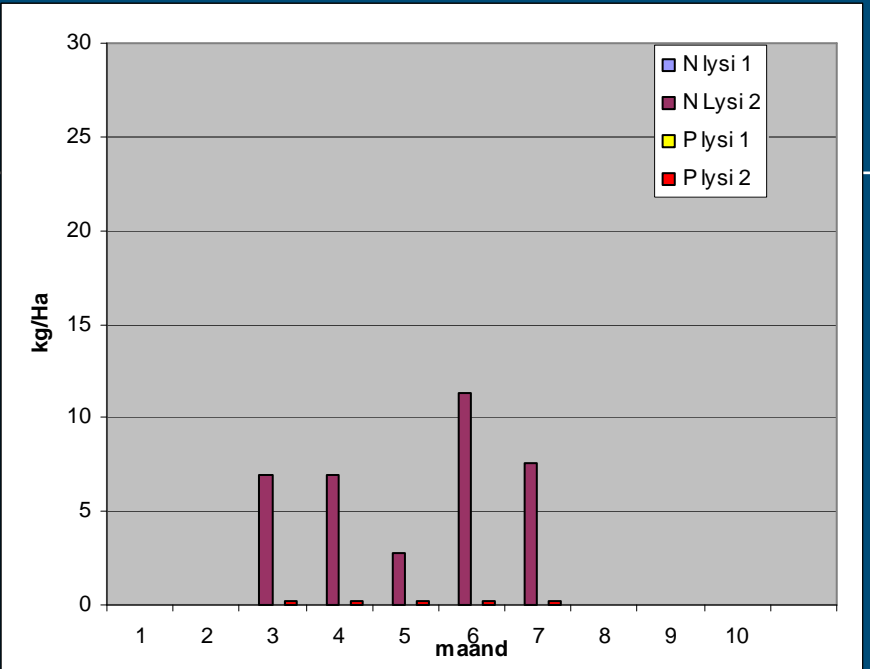








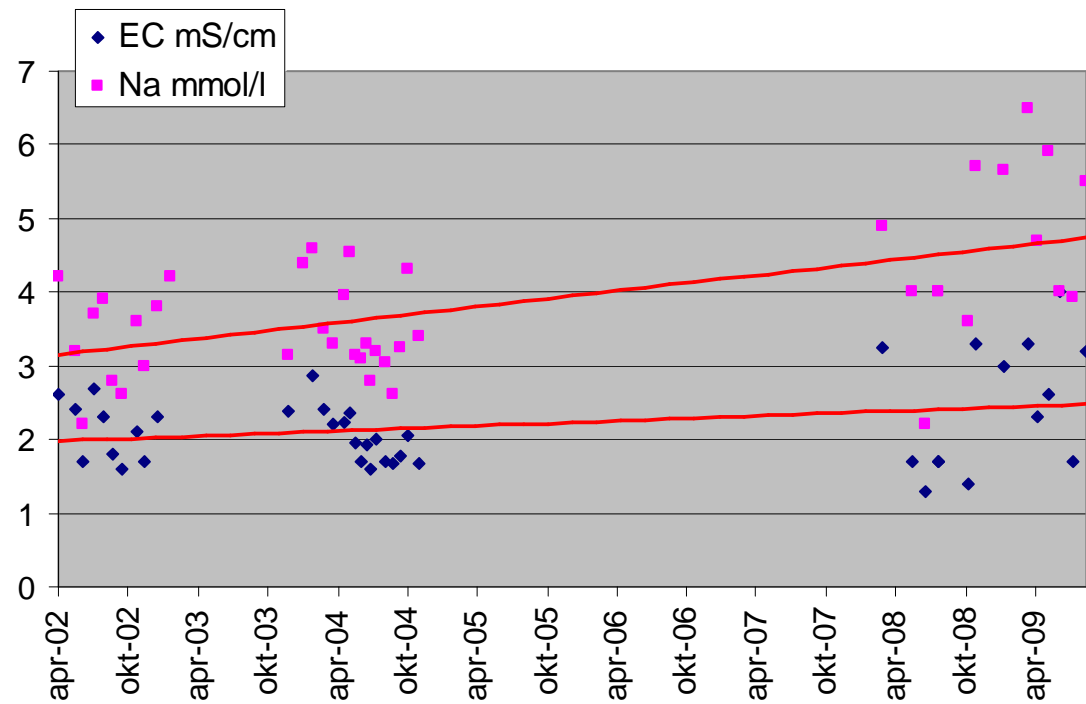




# Knelpunten

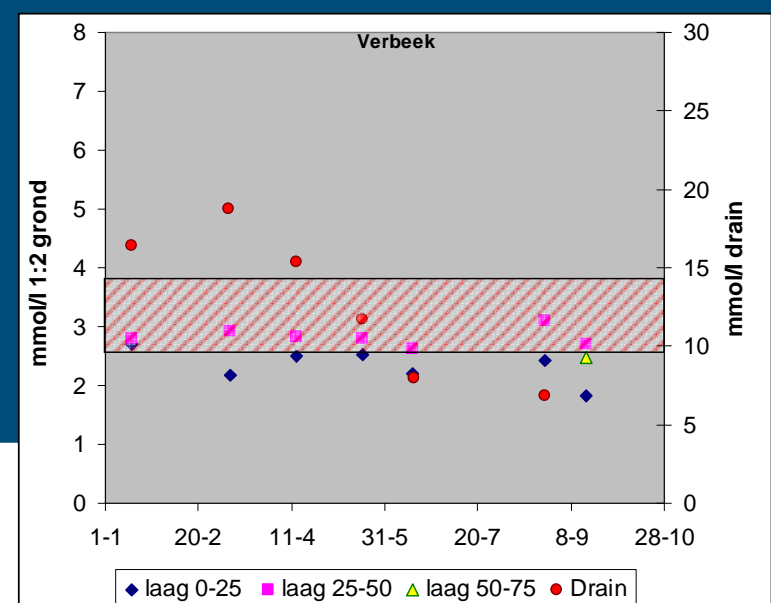
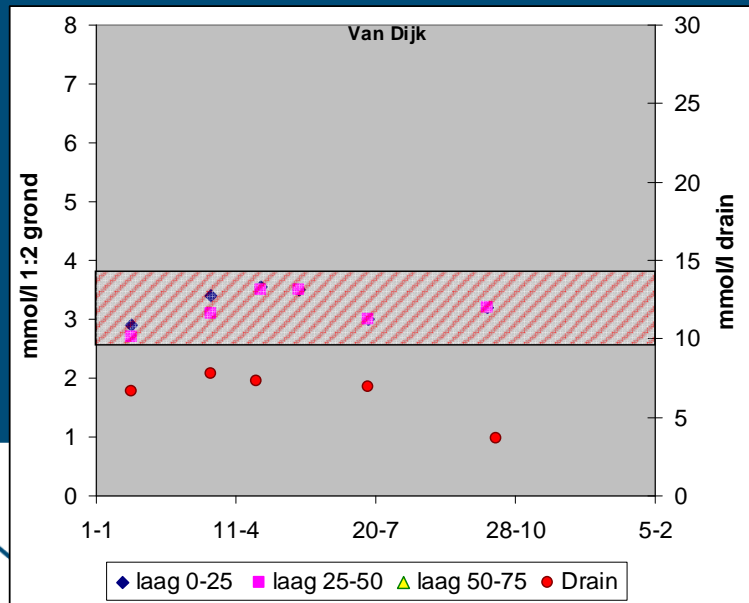
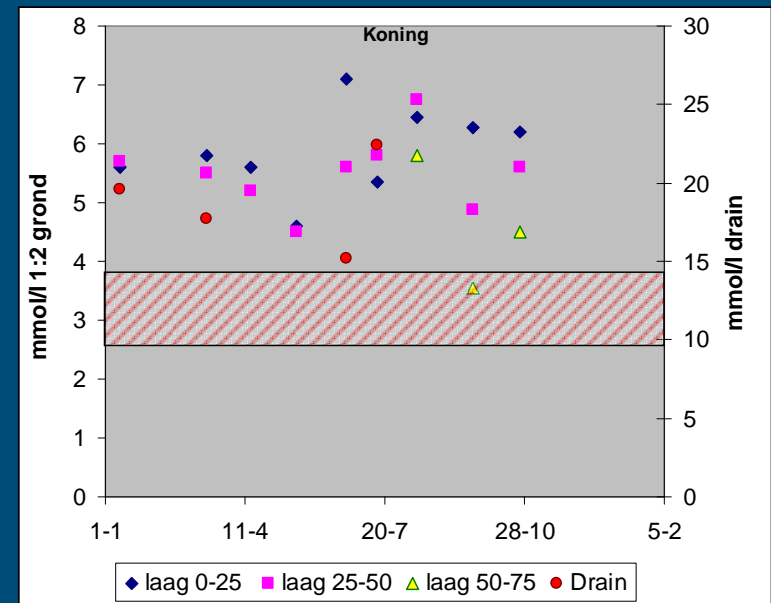
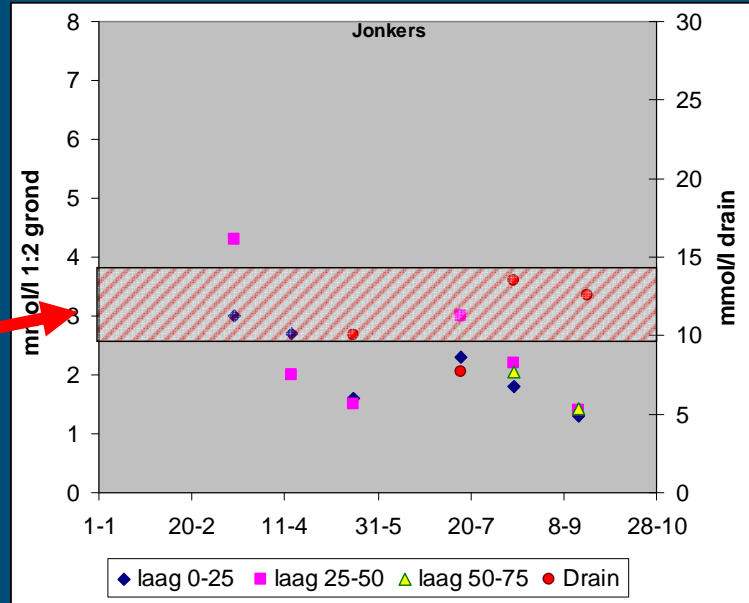
- Mestwet:
  - Aandacht voor dierlijke
- Besluit glastuinbouw /
  - Mineralenoverschot, ma
  - P knelpunt bij hogecom
  - Probleem "evenwichtsb
- Emmissienormen
  - Watermanagement / ui
  - Verzouting
  - Na (SO<sub>4</sub>, Cl ) overschot in meststoffen
- Biologische mestregels
  - compost zeer groot knelpunt

Salinity organic greenhouse

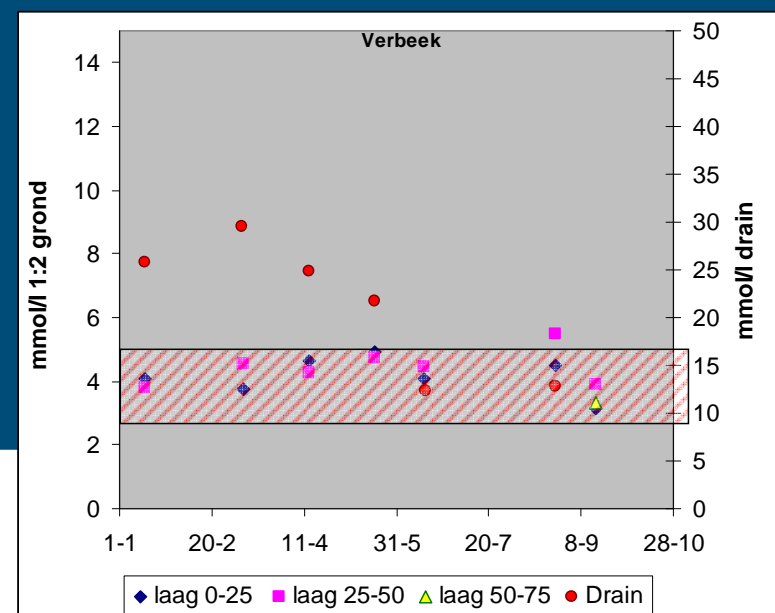
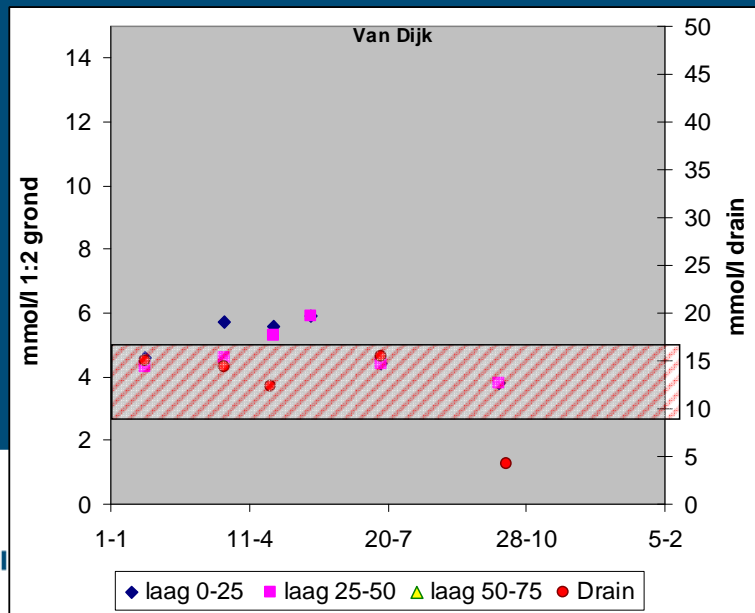
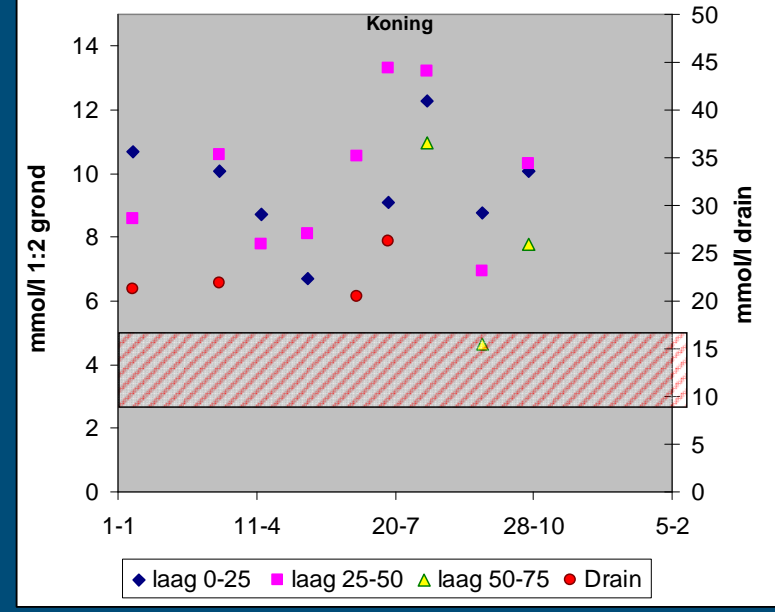
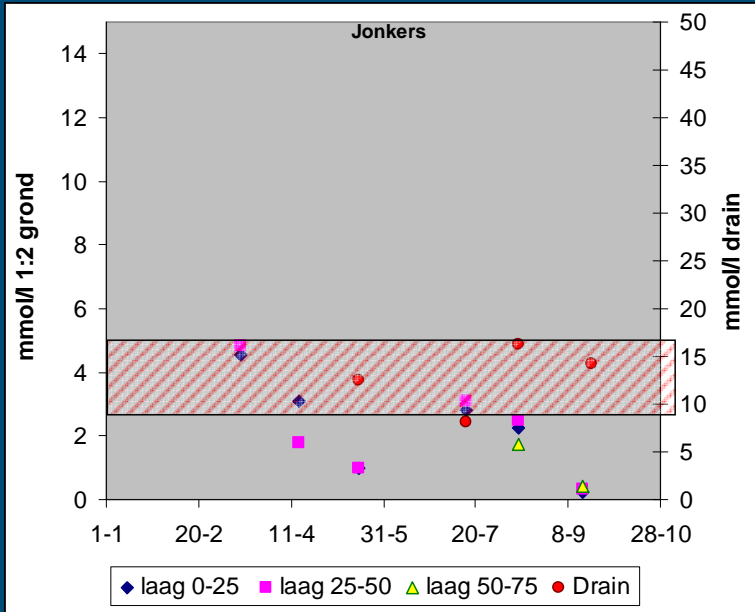


# Na ophoping in bodem, situatie 2010

Na  
grensgebied



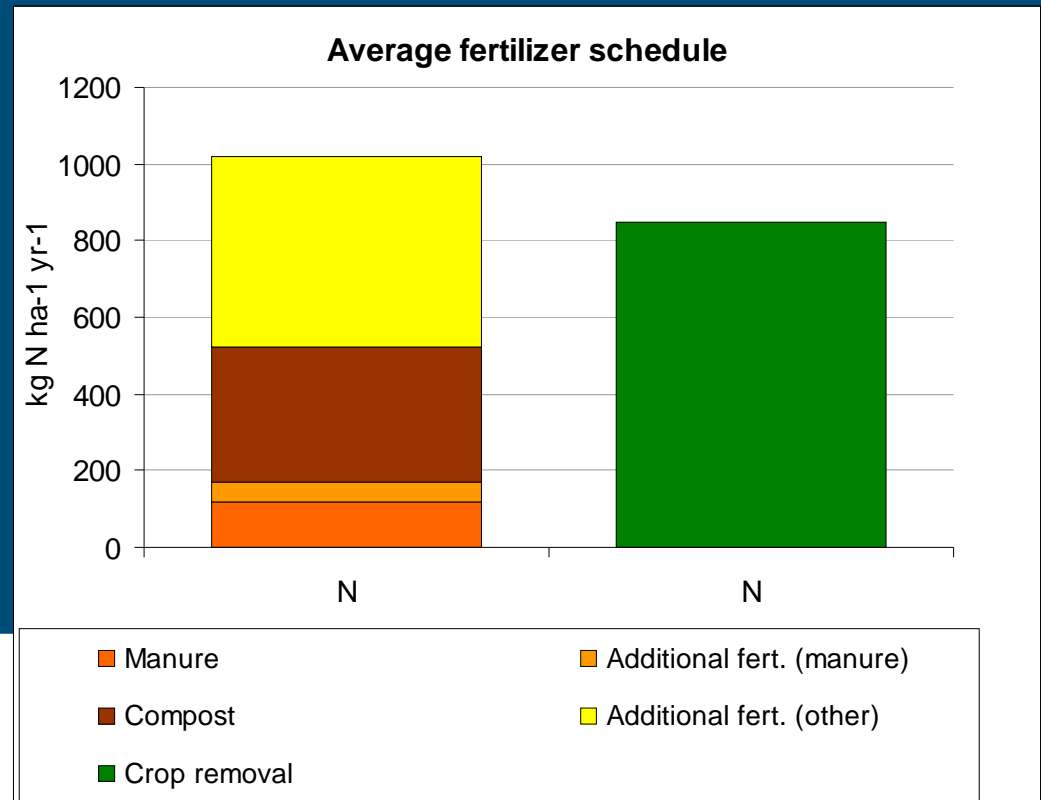
# S04 toestand



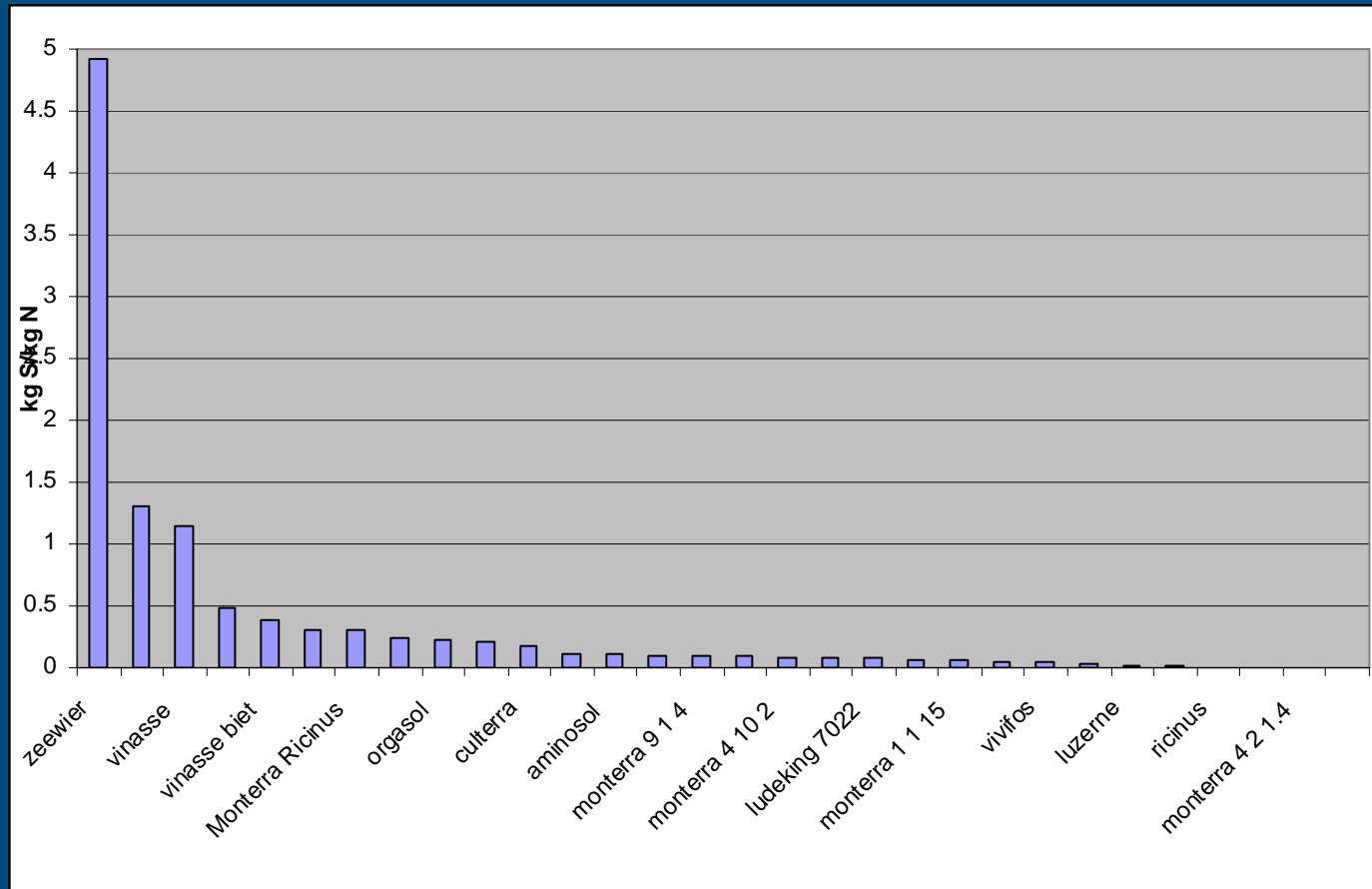
# Biologische mestregels

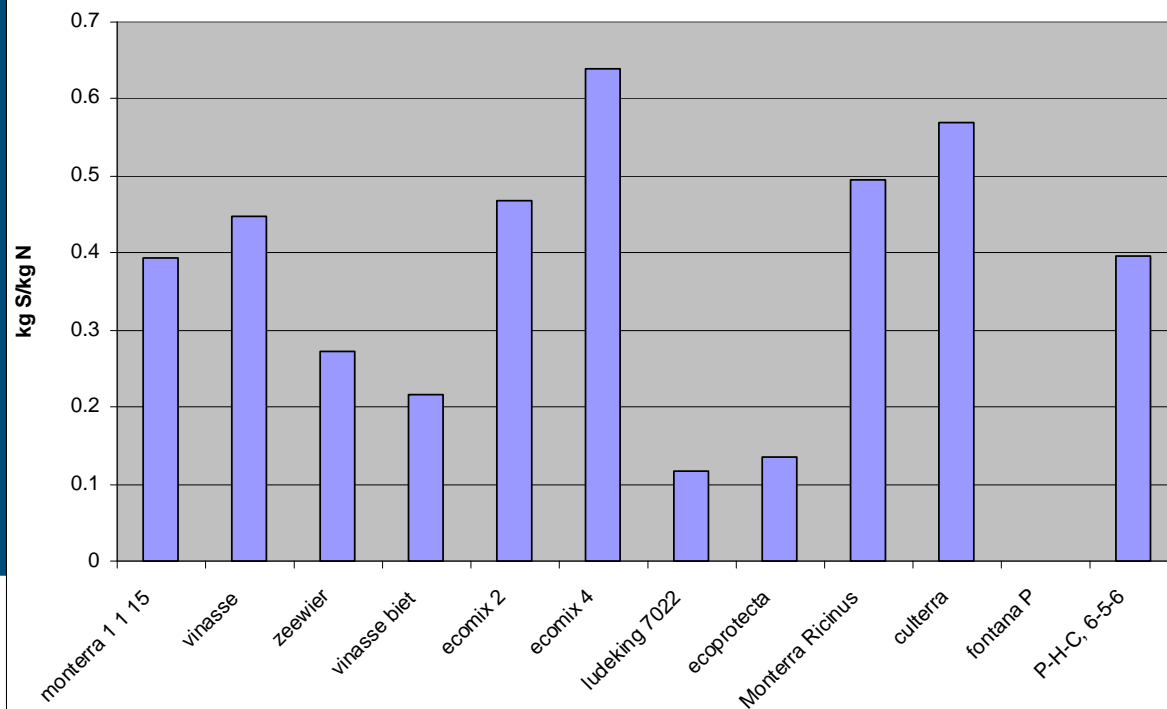
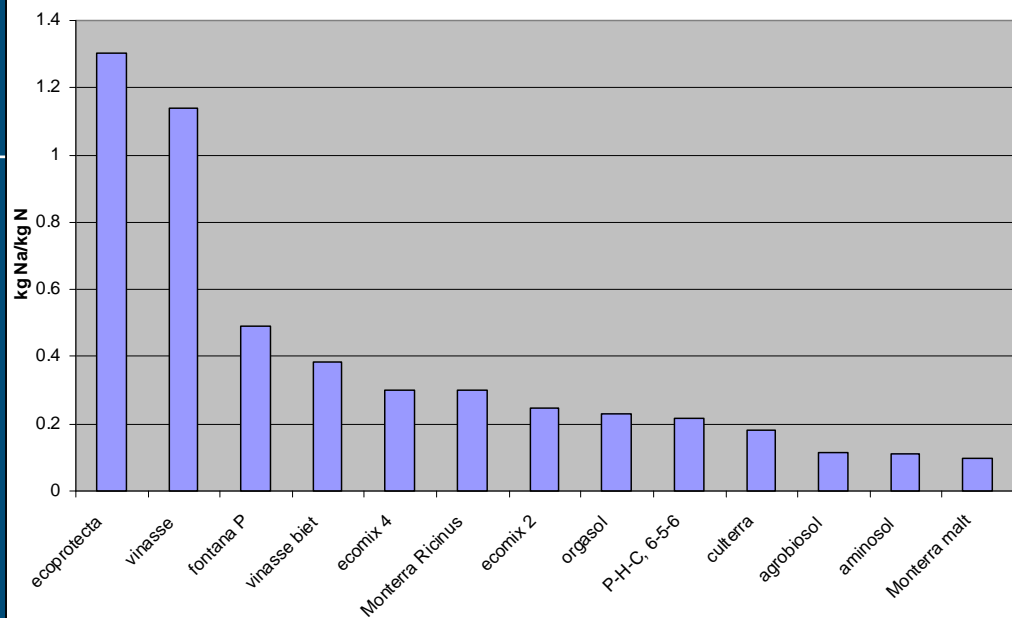
A Meststoffen: beperking dierlijk tot 170 kg N  
Probleem indien compost geen A meststof

Mest+compost  
+/- 50 %



# Keuze meststoffen







# conclusie

- Bemesting: structureel meer N dan gewasbehoefte
  - Denitrificatie onbekend
- Gemakkelijk P overschot
- Sowieso P bemesting eigenlijk niet nodig (P-buffer)
- Weinig tot geen emissie
- Maar risico van verzouting



# Acties telers / sector

Noodzakelijk:

Evenwichtsbemesting:

- Gebalanceerd bemestingsplan (evenwicht)
- Watergift afstemmen op behoefte
- Meststofkeuze hoog Na en SO<sub>4</sub> vermijden
- Waterkwaliteit ! (klasse 1)
- “Biologisch gecertificeerde” compost nodig

# Speerpunten voor het onderzoek

- Emissie onderzoek
  - Huidig KRW project
  - Voortzetting emissie monitoring + mineralenbalans
- Verzoutingsproblematiek
  - Alternatieve inputs laag in Na, SO<sub>4</sub>
  - Na accumulerende gewassen
  - Uitspoelingsonderzoek
  - “slim” uitspoelen (bij te verwachten laag N)

