

# Bemesting in de biologische teelt; Na gehalte en nieuwe mestregels

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# Wettelijke beperkingen 2010

	kg/ha/yr	
	N	P
Tomato	1590	381
Cucumber	1590	324
Sw. pepper	1550	228
Lettuce	500	88

- Mestwet (N)maximum 170 kg N ha<sup>-1</sup> yr<sup>-1</sup>
- Besluit glastuinbouw / besluit landbouwactiviteiten  
Emissienormen (toekomst) → nu nog gebruiksnormen
- Compost<sup>1</sup>
  - Beperking op kwaliteit (zware metalen)
  - Geen beperking aanwending (gebruiksnorm N en P )

<sup>1</sup> EU regulated

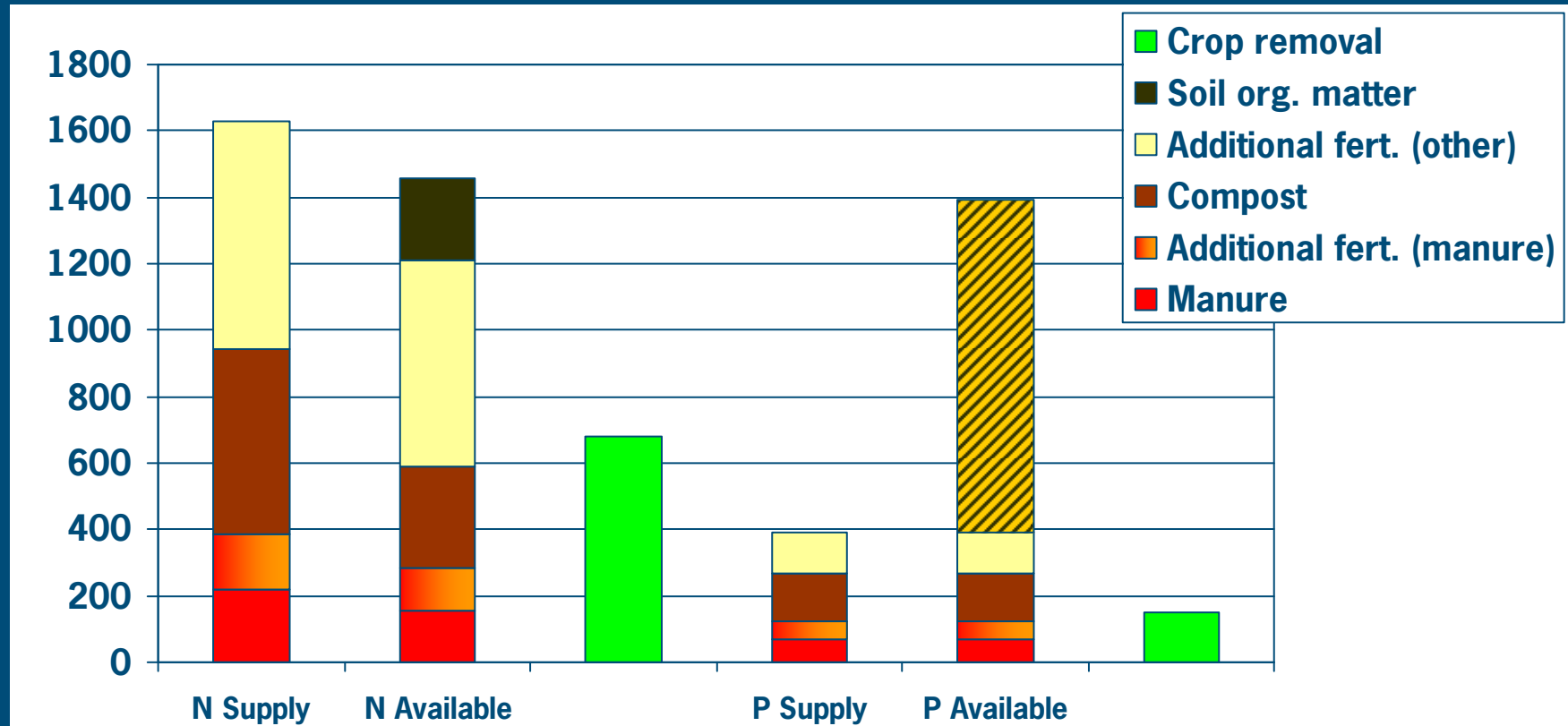


# Regulering organische mest

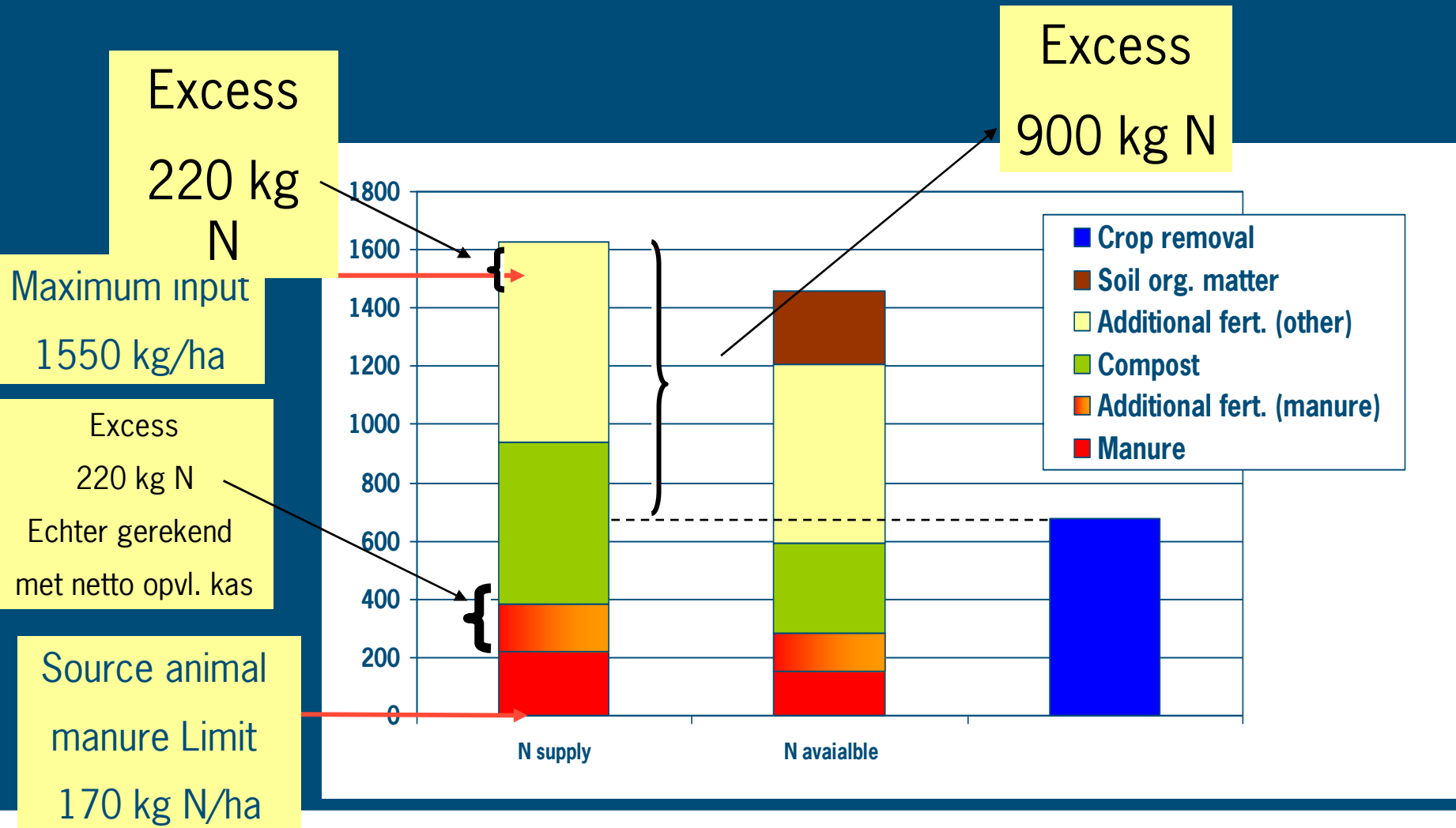
- A fertilizers
  - Organische mest
  - Organische compost
  - Regulierte compost ( 2012)
- B fertilizers
  - Overige meststoffen (EU 2091/92)
- In 2010: verplicht 50 % A fertilizers
- In 2020: 100 (?) % A fertilizers



# Mineralen, gemiddeld Biokas project 2002 - 2006



# N input en regelgeving



# P inputs en regelgeving

Volgens standaard

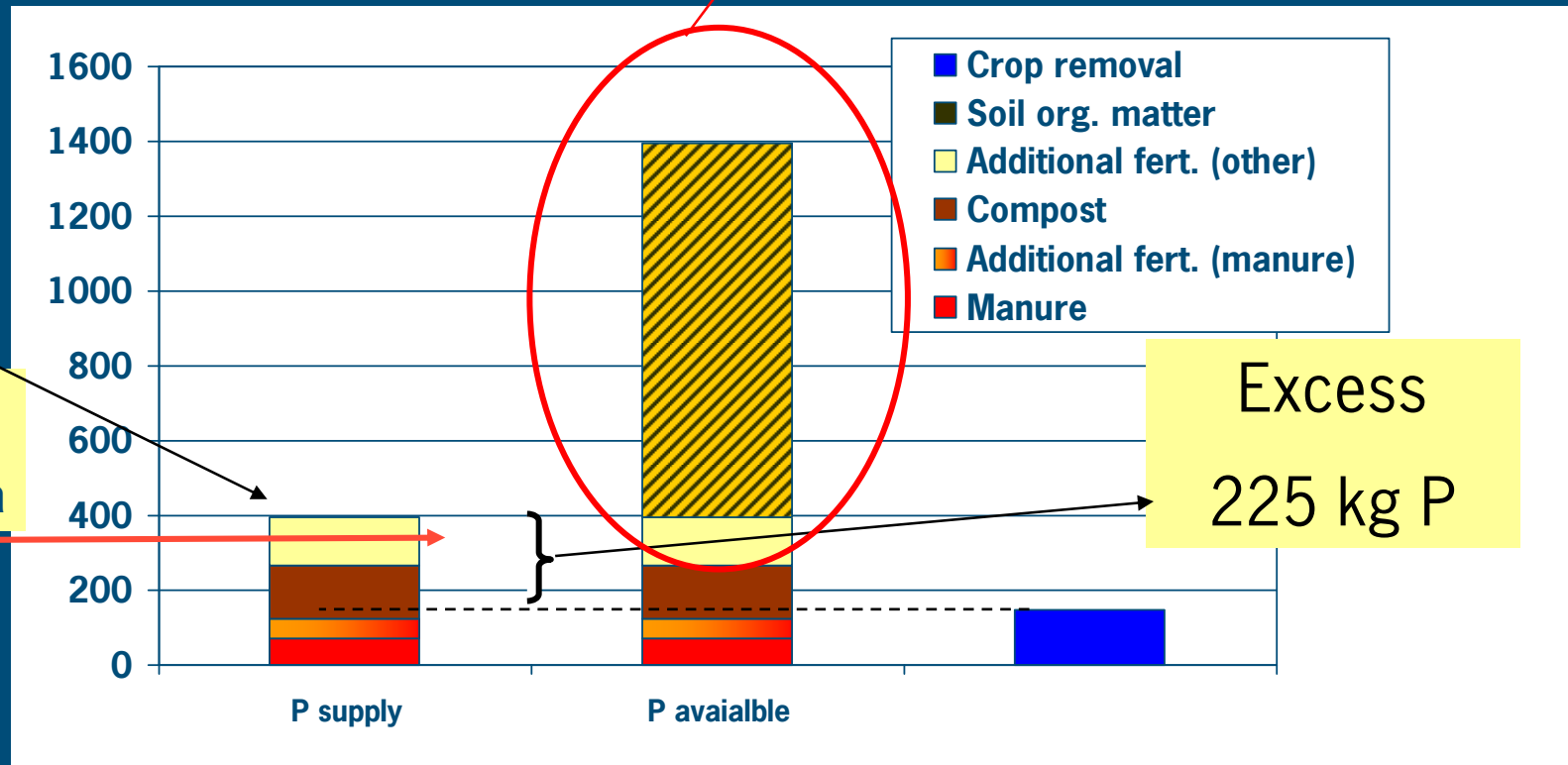
bemestingsadvies 0 P

Excess

50 kg P

Limit

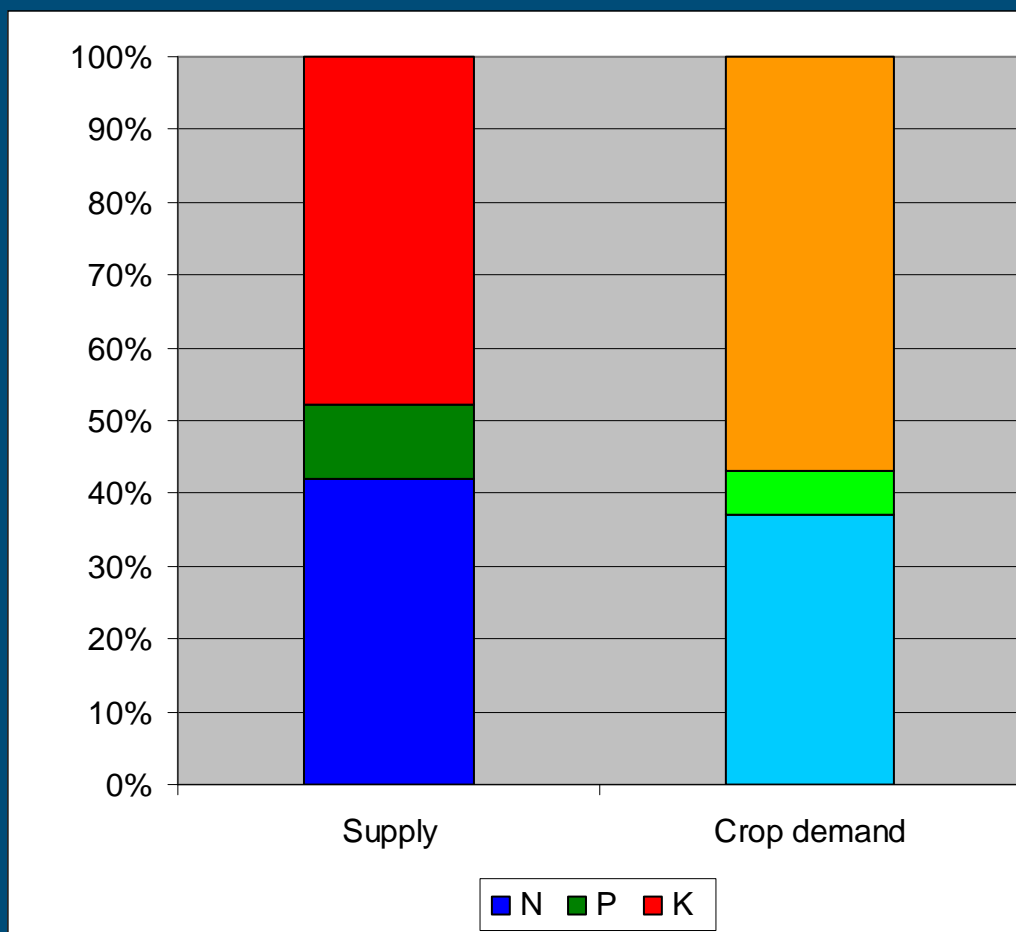
350 kg P/ha



WAGENINGEN UR

For quality of life

# Verhouding N:P:K mestgift en gewasbehoefte

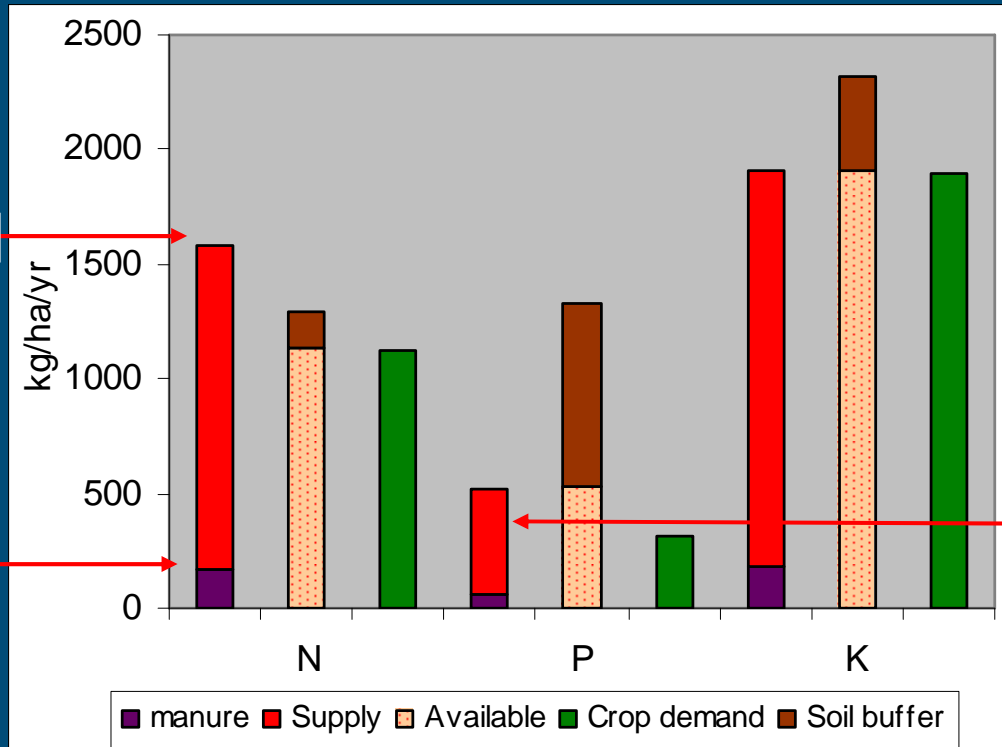


# Voorbeeld afstemming gift op behoefte Tomato

50 kg/m<sup>2</sup>

1600 kg N

170 kg N



380 kg P

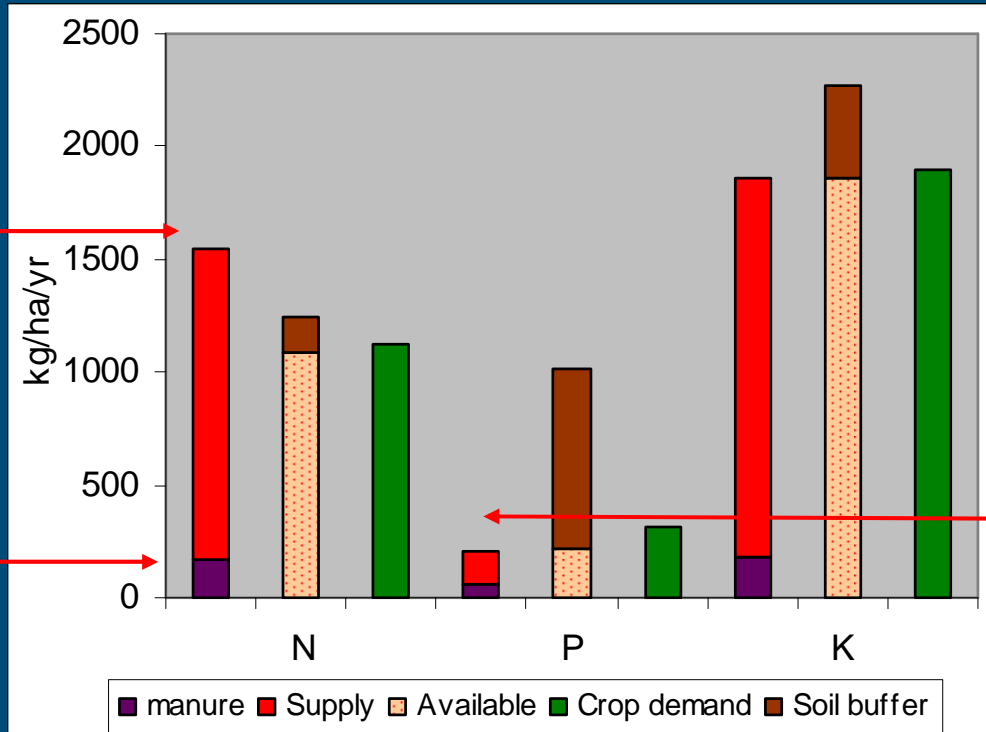
	Base dressing	top dressing
	ton/ha	ton/ha
Farm yard manure	30	
Greencompost	100	
Mixed fert. 9 6 12		9.5
Potassium sulphate	1	



# Voorbeeld 2

1600 kg N

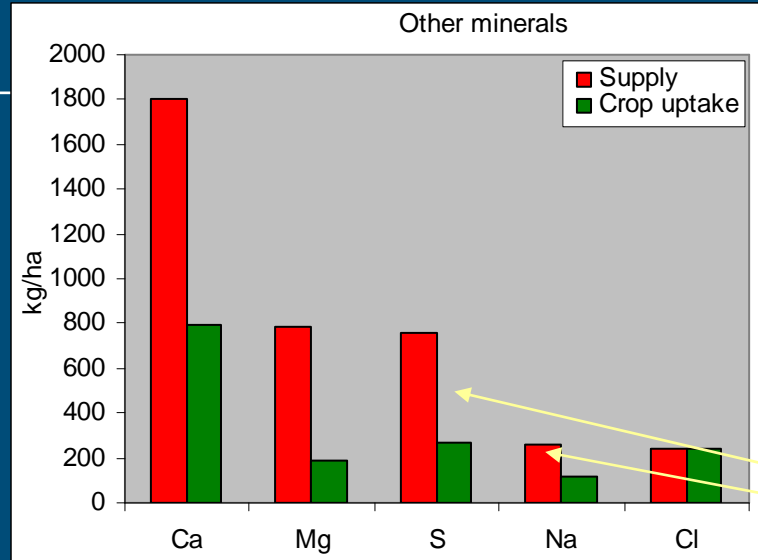
170 kg N



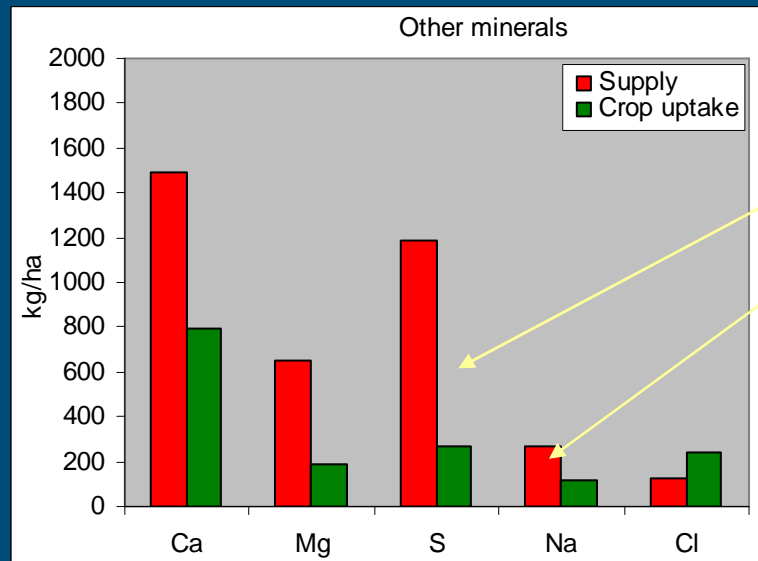
380 kg P

	Base dressing ton/ha	top dressing ton/ha
FYM	30	
Greencompost	100	
Feathermeal		5
Pot. Sulph.	4.5	

# Maar..... Voorbeeld 1: Gemengde mest



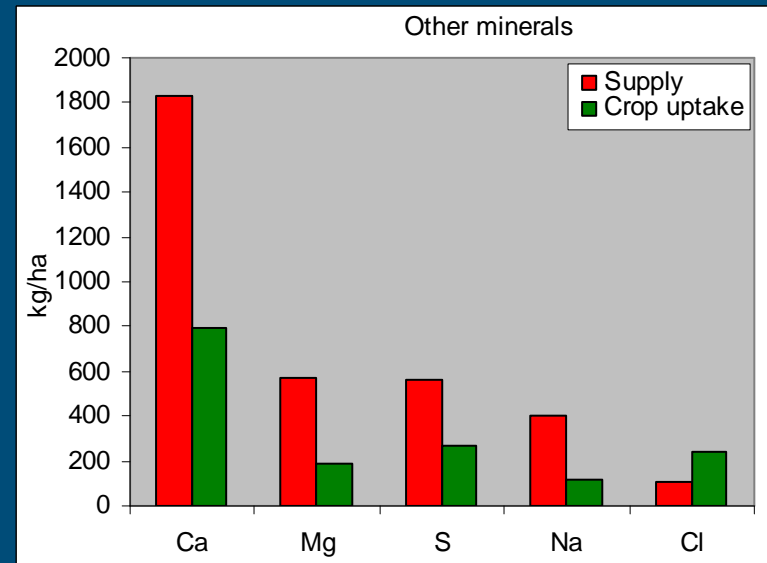
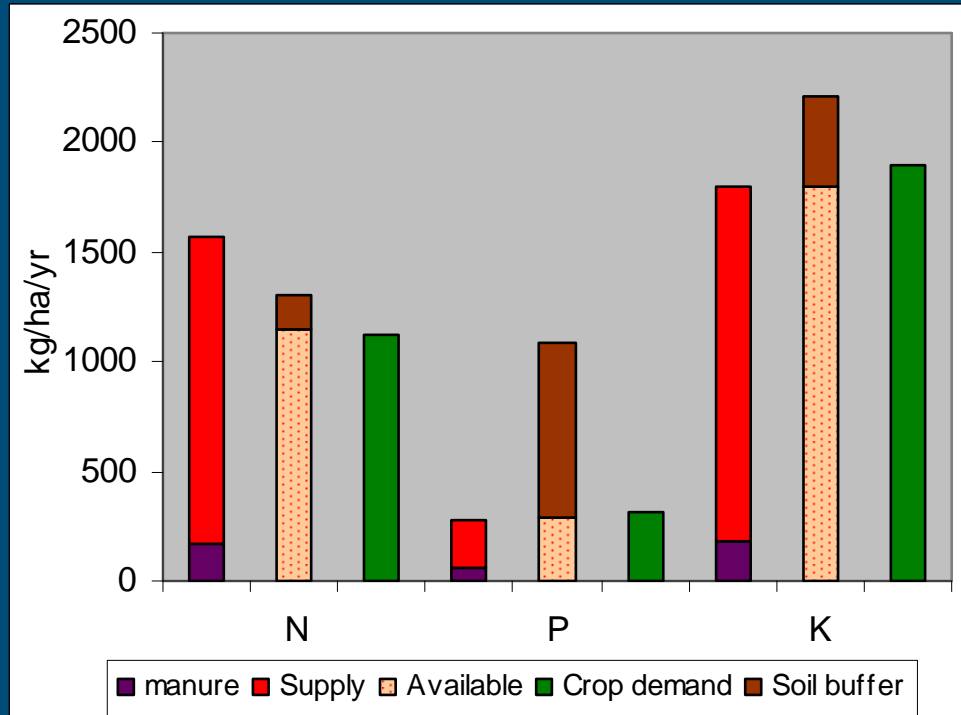
	Base dressing ton/ha	top dressing ton/ha
Farm yard manure	30	
Greencompost	100	
Mixed fert. 9 6 12		9.5
Potassium sulphate	1	



	Base dressing ton/ha	top dressing ton/ha
FYM	30	
Greencompost	100	
Feathermeal		5
Pot. Sulph.	4.5	

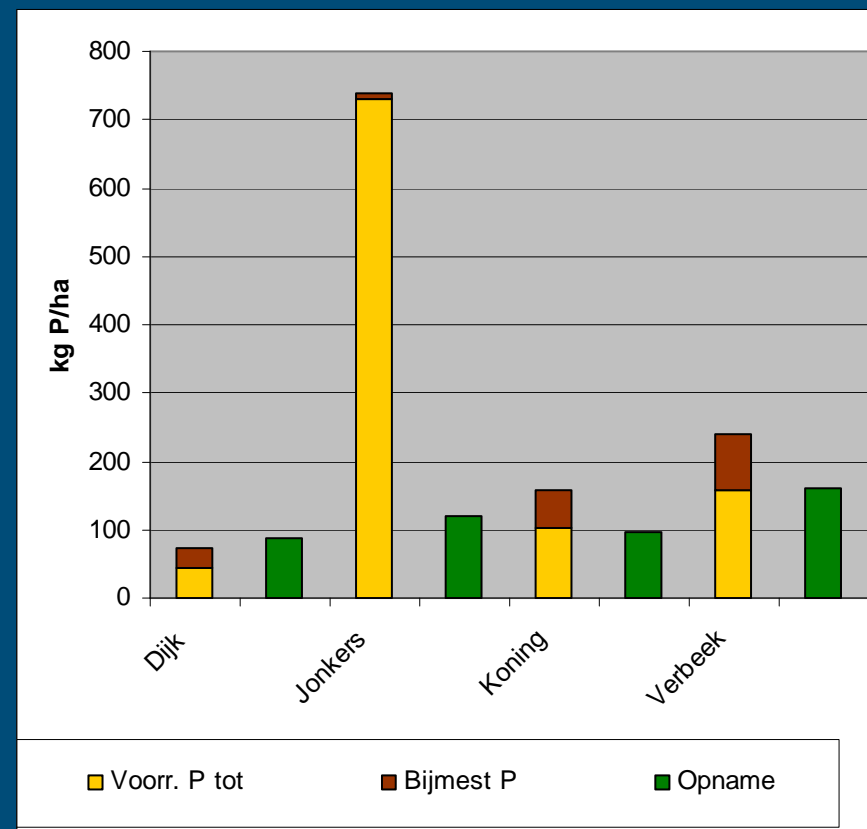
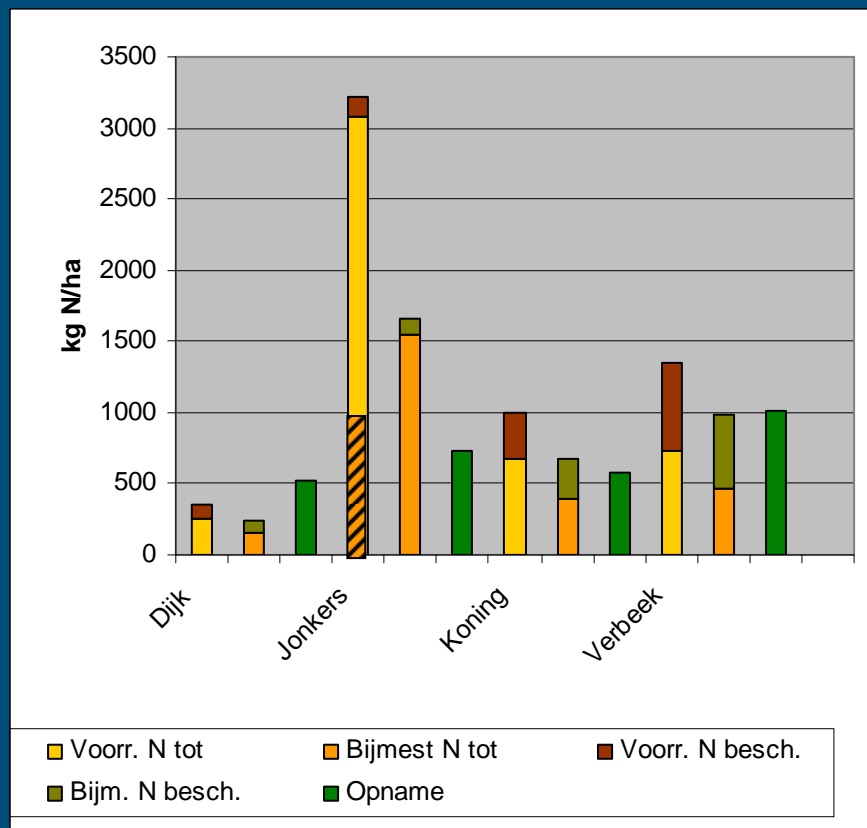
Kalium bronnen  
Voorbeeld 2  
Verenmeel

# Alternatief

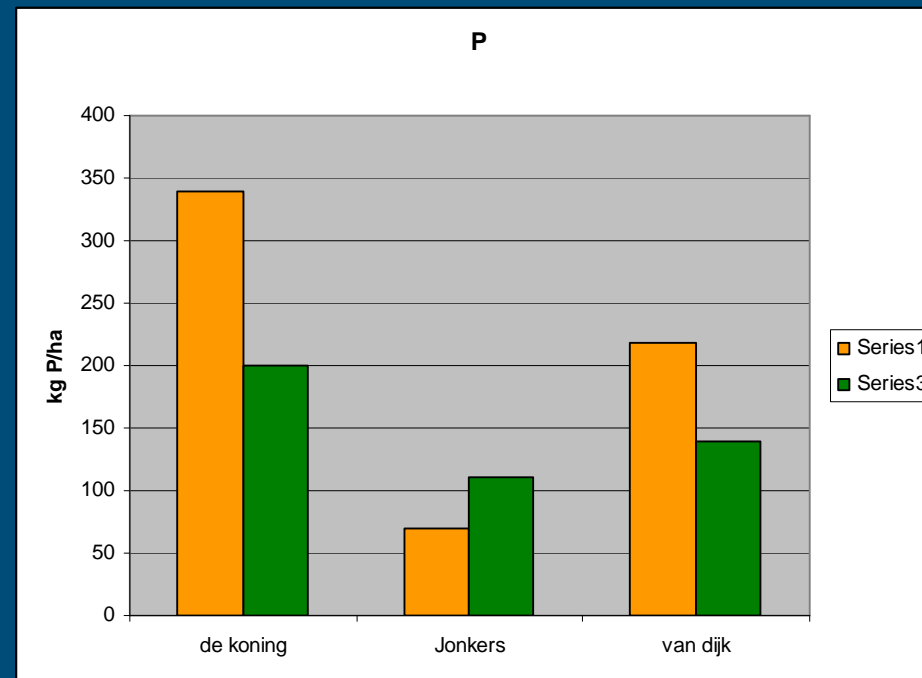
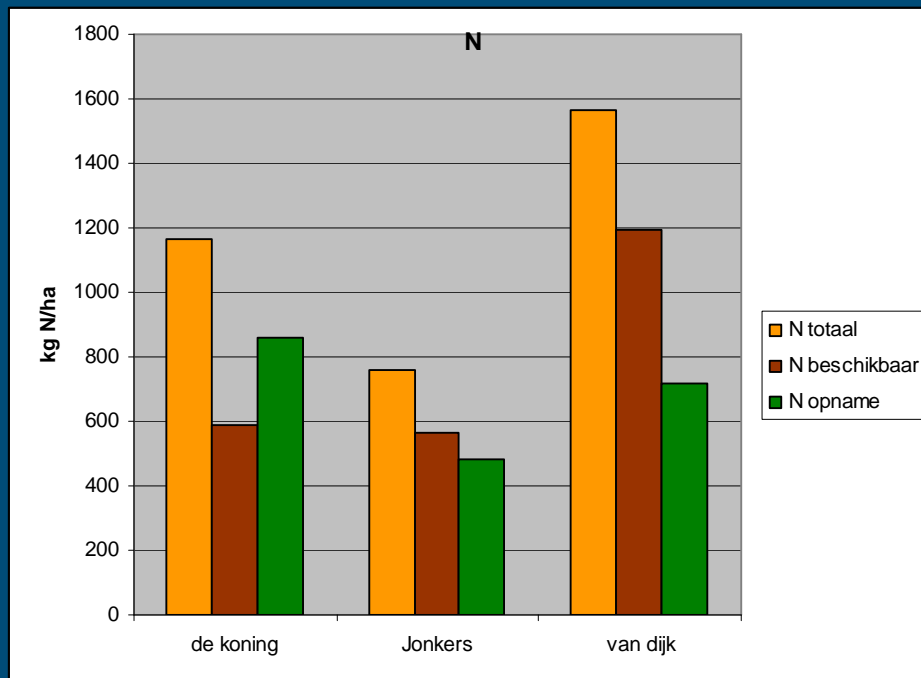


	Base dressing ton/ha	top dressing ton/ha
FYM	30	
Greencompost	100	
Lucerne		23
Pot. Sulph.	1	

# praktijkbedrijven 2008



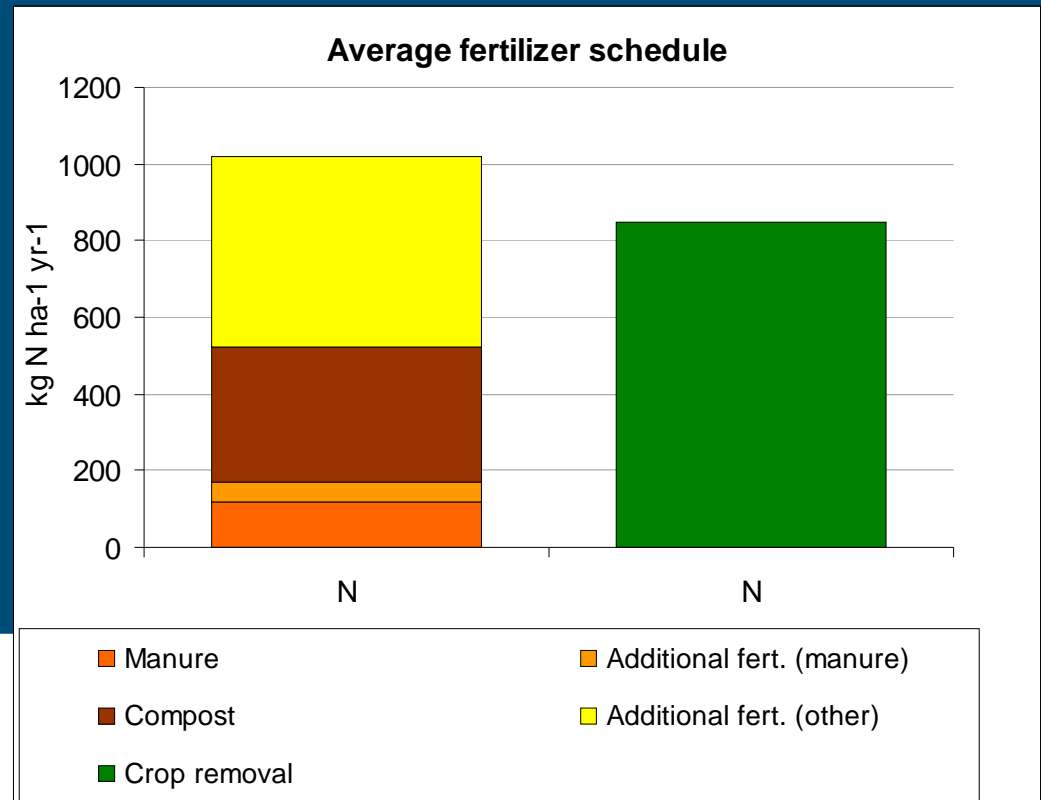
# 2009



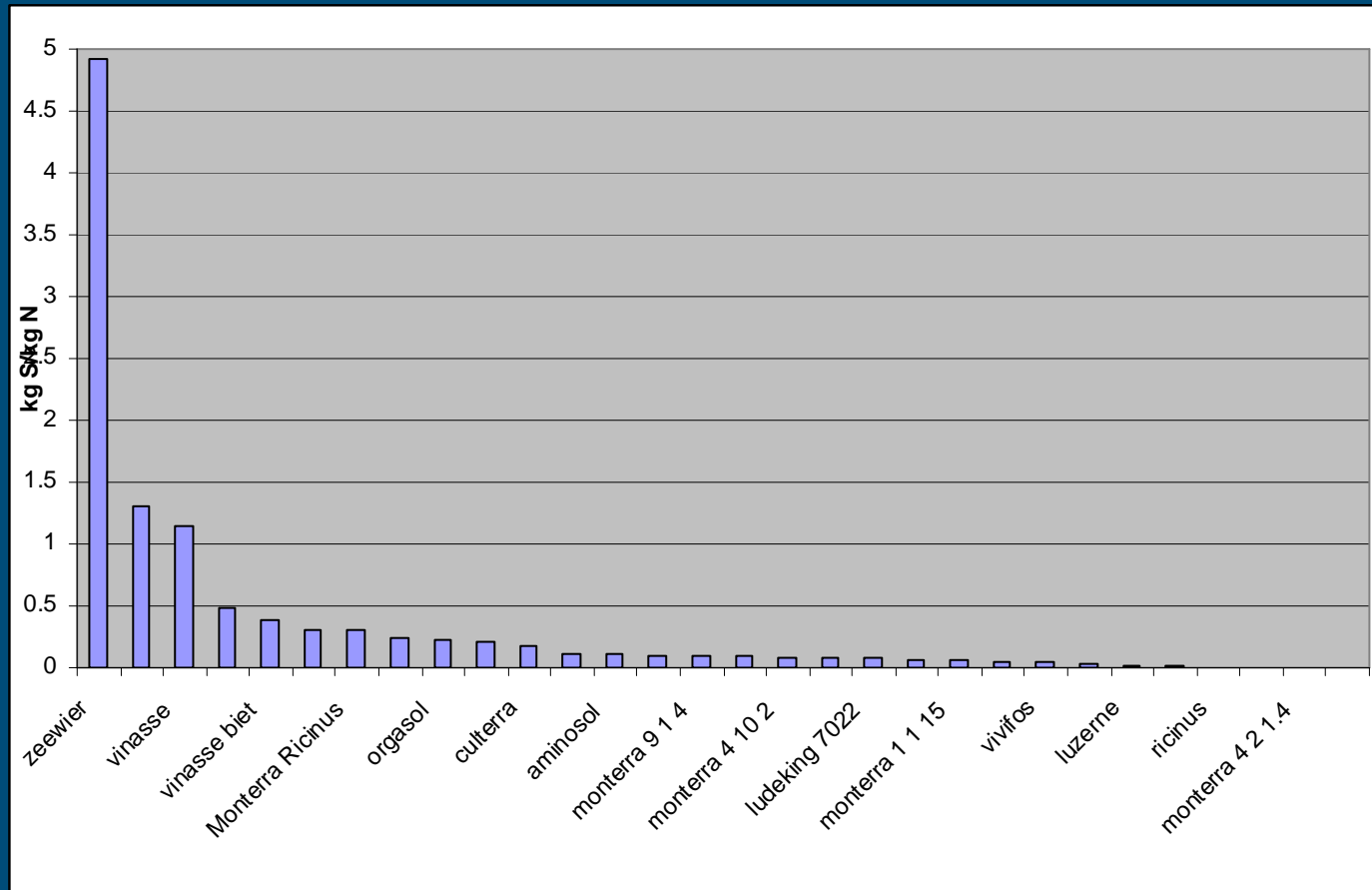
# Biologische mestregels

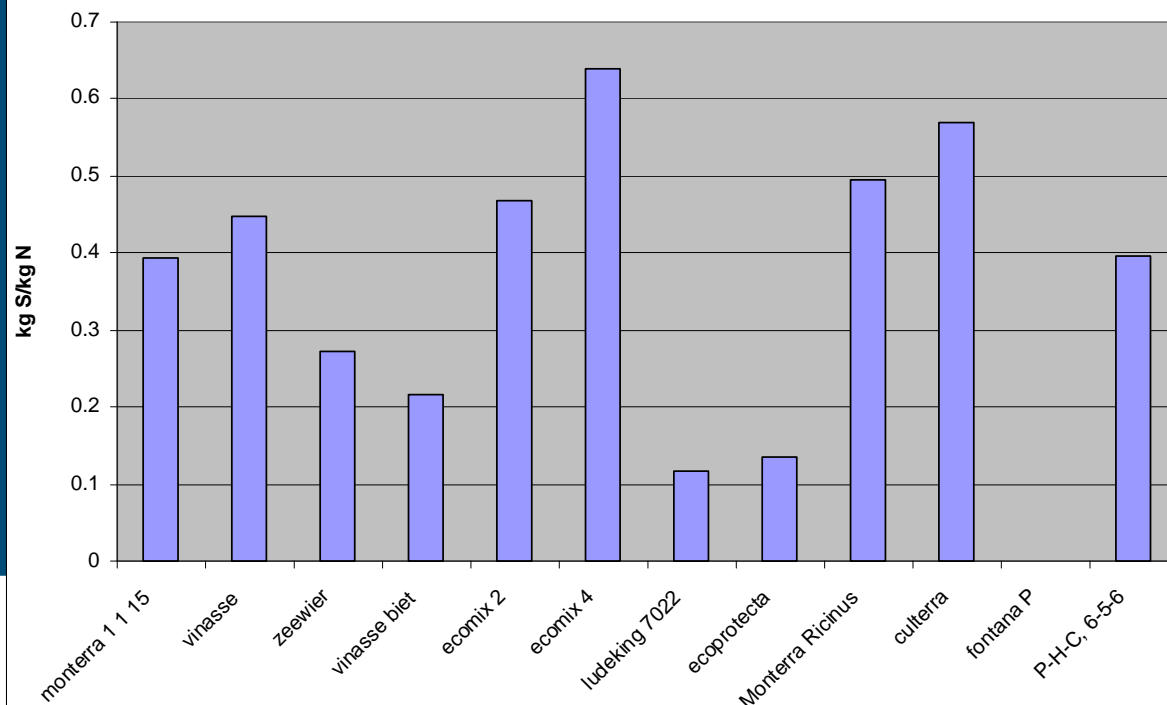
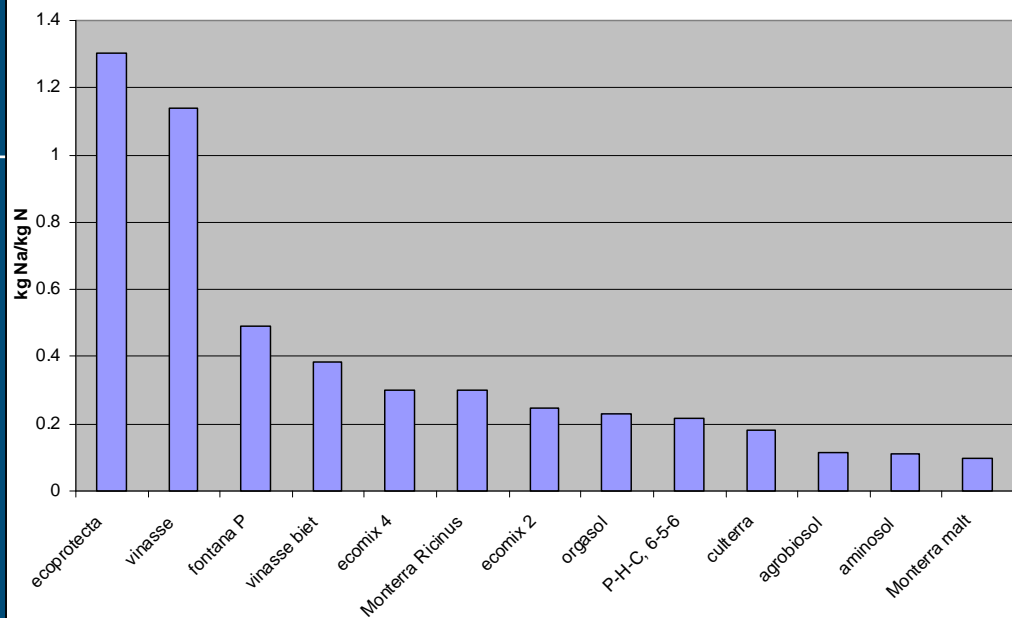
A Meststoffen: beperking dierlijk tot 170 kg N  
Probleem indien compost geen A meststof

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

