



WEBINAR 8 JAN 2021 van www.deboeraanhetroer.nl
voor erfbetreders en koplopers getiteld:
“PRECISIEBEMESTING, HET WINNENDE PAARD”

DE ESSENTIE VAN PRECISIEBEMESTING

H.Bartlema Voorzitter Stichting NCOK

Nederlands Centrum voor de Ontwikkeling van de Kringloopprecisiebemesting

Dit webinar wordt georganiseerd met financiële steun van:




DE JUISTE PLAATS : IN DE WORTELZONE

WETENSCHAPPELIJK ONDERZOEK NAAR DE VOORDELEN VOOR BOER EN MILIEU VAN PLAATSIING IN DE WORTELZONE
PROFIT FROM PLACEMENT YARA , een brochure van YARA uit 2009, downloaden www.smartfertilization.org/documenten

Chafer Liquid Fertilizers

Profit from Placement



Profit from Placement

Proved Placement

Doing the best job gives the best Chafer liquid fertilizer placement benefits. In fact, farmers accept an 80% profit from the 100% fertilizer placement. A controlled supply of nutrient provides both fertilizer and water to the plant roots.

Unbeatable Accuracy

Fertilizer CV (Coefficient of Variation) is a measure of the variability of fertilizer placement. Chafer liquid fertilizer placement has a CV of 1.5%, which is significantly lower than broadcast application (CV of 10-15%).

Yield - Grower's Friend (2007)



Chafer liquid fertilizer placement provides a significant yield advantage over broadcast application. The chart shows that placement treatments consistently result in higher yields per hectare compared to broadcast treatments.

Increased Efficiency

The use of precision agriculture techniques in Chafer liquid fertilizer placement increases the efficiency of fertilizer use. Chafer liquid fertilizer placement is available in the plant root zone, where the rate of utilization is higher. This results in a more efficient use of fertilizer. Chafer liquid fertilizer placement is also available in the soil, where it is available to the plant roots. Chafer liquid fertilizer placement is also available in the soil, where it is available to the plant roots.




Application Systems

Chafer liquid fertilizer placement can be applied using a variety of systems. The most common system is the use of a tractor-mounted applicator. Chafer liquid fertilizer placement can also be applied using a hand-applied system. Chafer liquid fertilizer placement can also be applied using a hand-applied system.



Yield - Grower's Friend (2007)



Chafer liquid fertilizer placement provides a significant yield advantage over broadcast application. The chart shows that placement treatments consistently result in higher yields per hectare compared to broadcast treatments.

Summary

- Increased Yield - Average of 10% increase in yield
- Increased Efficiency - Average of 10% increase in fertilizer use
- Increased Profitability - Average of 10% increase in profit

Feasibility Study

Benefits of Place Placement

Parameter	Unit	Value	Value
Fertilizer use per hectare	kg	100	100
Average crop yield	tonnes/ha	40	40
Crop value	€/tonne	100	100
Total income from placement	€	100	100

Total benefit from placement - 227,824



Knowledge gaps

For further information please contact: info@yara.com

Crop Specific Grades

Chafer liquid fertilizer placement provides a significant yield advantage over broadcast application. The chart shows that placement treatments consistently result in higher yields per hectare compared to broadcast treatments.

Grade	N	P2O5	K2O	Other
Chafer 10-10-10	10	10	10	
Chafer 15-15-15	15	15	15	
Chafer 20-20-20	20	20	20	

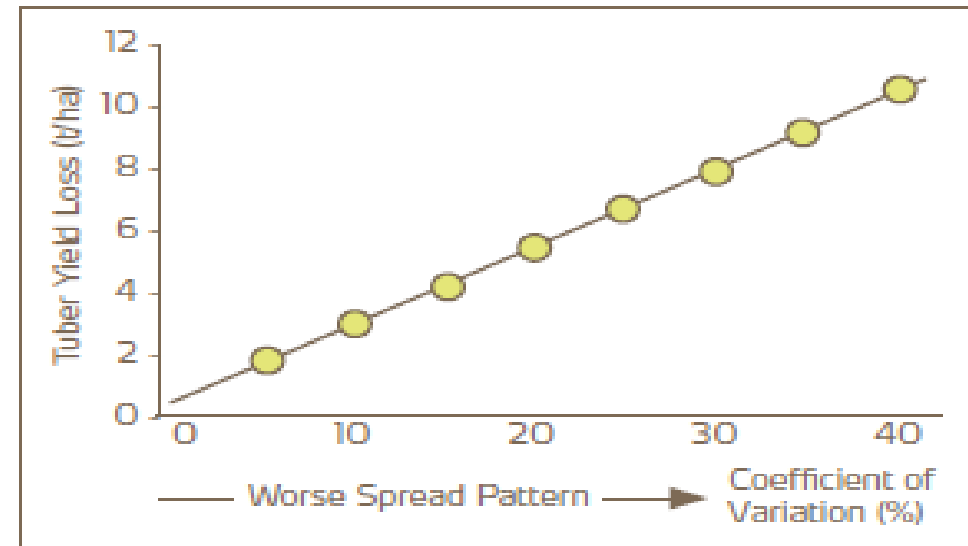


Unbeatable Accuracy

Reduced CV

Fertilizer can be very accurately applied using placement and achieve a coefficient of variation (CV%) of less than 5%.

The CV of broadcast applications is typically 10-15% when carried out properly. Therefore placement of fertilizer provides greater accuracy to achieve the target nutrient rates advised by your potato agronomist.



Fertilizer is only applied to cropped areas with no overlaps

3-7% of a potato field is NOT planted to allow for harvesting, irrigation and spraying headlands; whilst 3-5% receives a double overlap when broadcasting fertilizer. Fertilizer placement at planting only places fertilizer where the crop requires it.

This saves fertilizer and reduces the risk of leaching of nutrients into ground water supplies. Areas being cropped will reduce the risk of leaching, particularly on irrigated land, as active plant growth will keep both nitrate and water levels in the soil at low levels during the growing season. Where fertilizer is broadcast and the actual width of planting does not match the full width of the bed, plant roots may not reach fertilized soil along the outer edges of that bed. This area of soil maybe as high as 11% of the field.

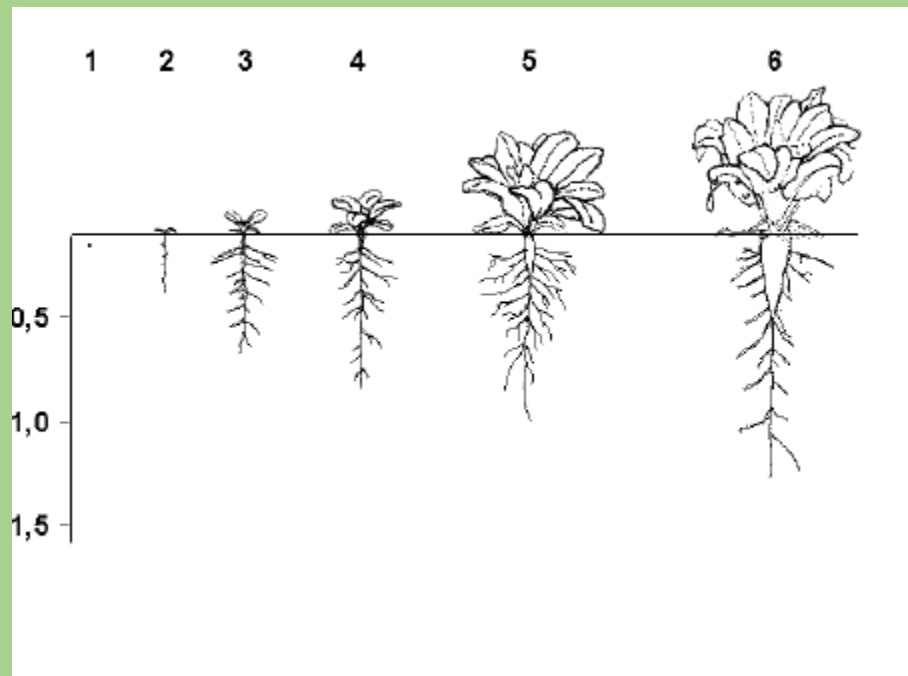
DE JUISTE MESTSTOF :

VOORZIET IN DE BEHOEFTE VAN HET GEWAS op het moment van toediening
IS NIET UITSPOELINGSGEVOELIG, dus nooit NITRAAT gebruiken onder natte omstandigheden
KOMT UIT DE KRINGLOOP of is geproduceerd met hernieuwbare grondstoffen
IS MONDJESMAAT DOSEERBAAR in de wortelzone
HEEFT EEN VOORSPELBARE WERKING, langzaam of snel
IS BETAALBAAR EN ALTIJD BESCHIKBAAR
IS TOEGELATEN VOLGENS DE MESTSTOFENWET

HET JUISTE MOMENT :

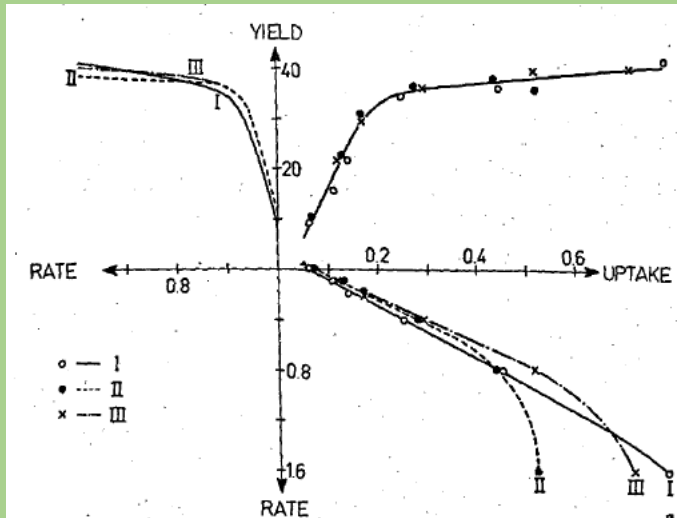
ALS HET GEWAS ER OM VRAAGT en de bodem niet levert

Bij suikerbieten bijvoorbeeld is N nodig pas in bladstadium 6- 8, nr 4 hieronder.

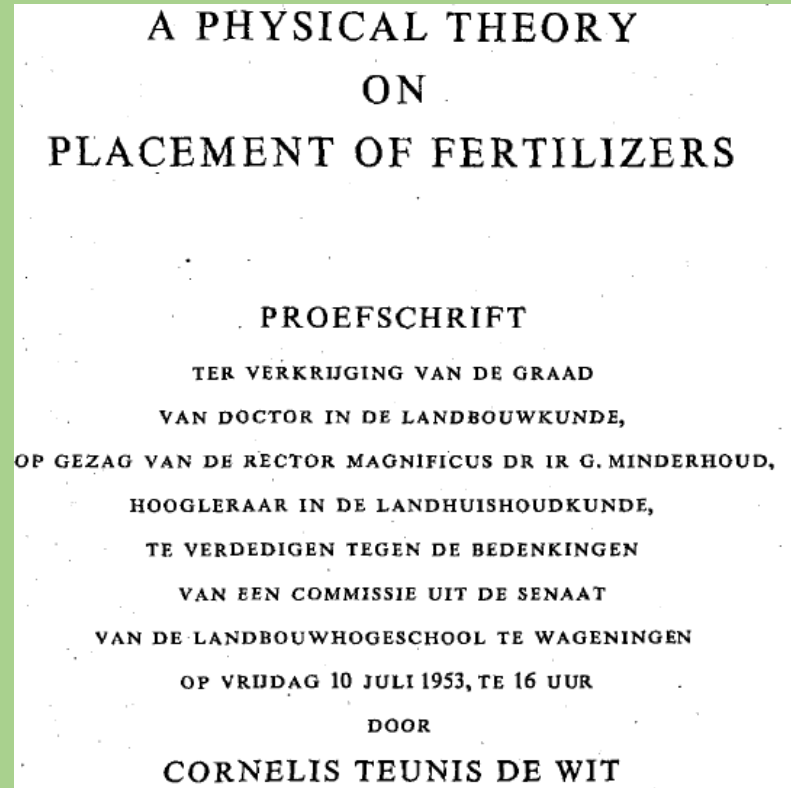


DE JUISTE HOEVEELHEID:

IS DE BENODIGDE CONCENTRATIE in de wortelzone voor de BEOOGDE OPNAME



$$U_r = \left(\frac{X_r}{X_b} \right)^{0.44} U_b$$



HOE DICHTER BIJ DE WORTEL, HOE MINDER GEDOSEERD KAN WORDEN OM DE BENODIGDE CONCENTRATIE TE BEREIKEN

DUS BIJ RIJENBEMESTING MET N IN DE SUIKERBIETEN KUN JE VOLSTAAN MET 85 % VAN DE VOLVELDSGIFT

Bron: www.handboekbodemenbemesting.nl

 [Handeling](#) [Gewas](#) [Bodem](#) [Nieuws](#)

[Bemesting](#)
[Stikstof <](#)

Stikstofbemestingsrichtlijn suikerbieten

Richtlijn voor rijenbemesting

Bij toediening van de stikstof als rijenbemesting kan worden volstaan met 85% van volveldsgift.

Werkwijze:

- Bereken de stikstofgift volgens de richtlijn hierboven (voor volvelds bemesting).
- Corrigeer de gift zonodig voor de N-nawerking uit ondergewerkte groenbemesters en oogstresten.
- Neem van de aldus bepaalde stikstofgift 85%.

PRECISIEBEMESTING

DE JUISTE PLAATS: in de wortelzone

DE JUISTE MESTSTOF: NH_4 , vloeibaar, circulair

HET JUISTE MOMENT: gedurende groei

DE JUISTE DOSERING: 10-50 % minder dan breedwerpig

DIT ZIJN DE KENMERKEN VAN PRECISIEBEMESTING:

A SCHERP BEGRENSD PLAATSEN IN DE WORTELZONE

B OP HET JUISTE MOMENT

C VAN DE JUISTE MESTSTOF

D IN DE JUISTE DOSERING

**met eenvoudige tot dure machines
vrijwel altijd op perceelsniveau of in stroken**

**VOOR VIDEO'S EN HANDLEIDINGEN :
WWW.SMARTFERTILIZATION.ORG**