

# Presisie Boerdery Inligting

- Inligting.
  - Geografies(Punt- Spesifiek)
  - Standaard sagte kopie formaat.
  - Tydig.
  - Naspeurbaar.
  - Volhoubaar.
  - Herhaalbaar.
  - Akkuraat.
  - Ekonomies.

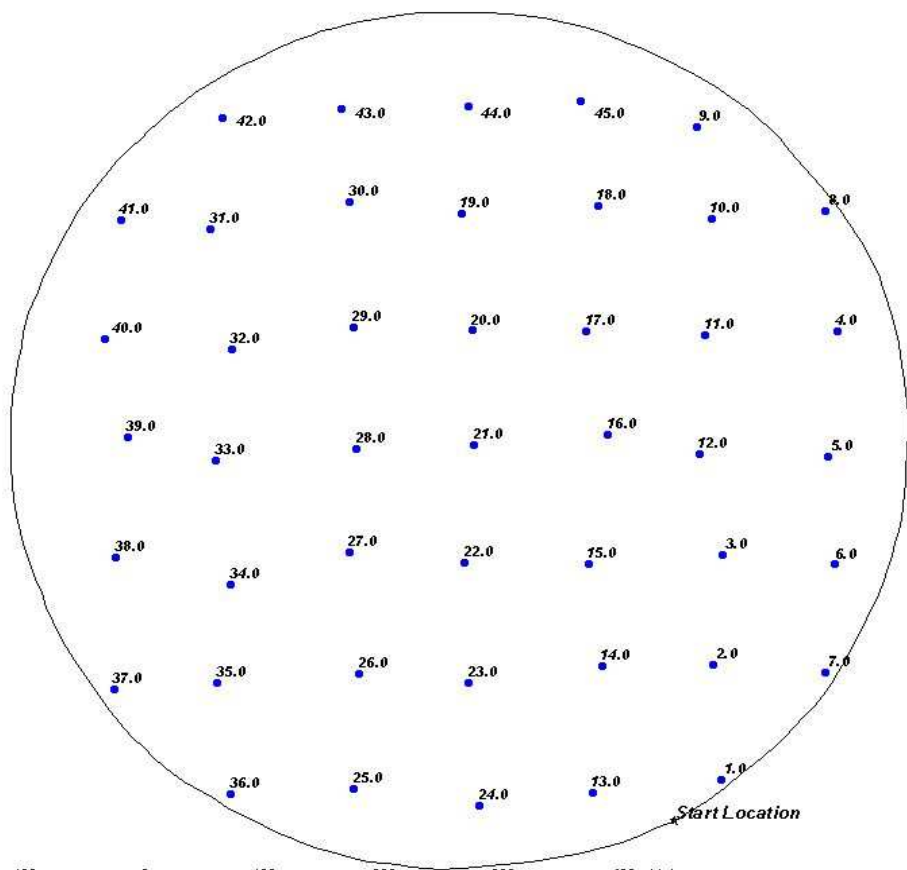
# Stappe van Presisie Boerdery plan

- Insameling van Inligting
- Interpretasie van Inligting.
- Toepassing van Interpretasie
- Toets van Toepassing

# Insameling van Inligting

- Met GPS
- 1 ha grid.
- Trek van monster moet gestandaardiseer wees.
- So gou as moontlik na die oes van die land af is getrek word

Sirkel 3; 04 (44.2 ha.)



Field Boundary  
• s2 pts

Koppie Alleen; 04

Date: Jun 23, 2004  
 Field Name: Sirkel 3;04  
 Farm Name: Koppie Alleen  
 Client Name:  
 Total Hectares: 44.2  
 Field Boundary Start Location:  
 Latitude: -24.50717660  
 Longitude: 28.04702339



# Interpretasie

- Geografies geskied.
- Volgens nagevorste norme.
- Die formaat moet deur almal gebruik kan word.
- Moet prakties op die plaas toegepas kan word.

# Eienskappe

- Chemiese Eienskappe

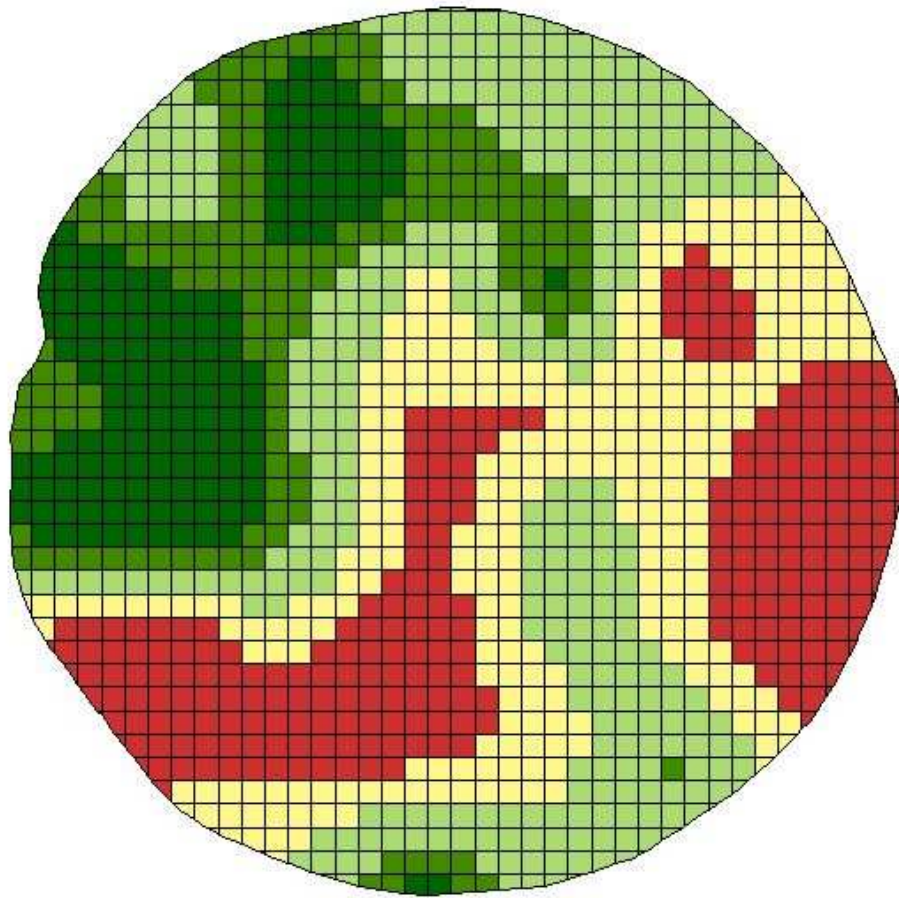
- pH , P, K, Ca, Mg, Na en kationverhoudings
- Mikro-elemente

- Fisiese Eienskappe

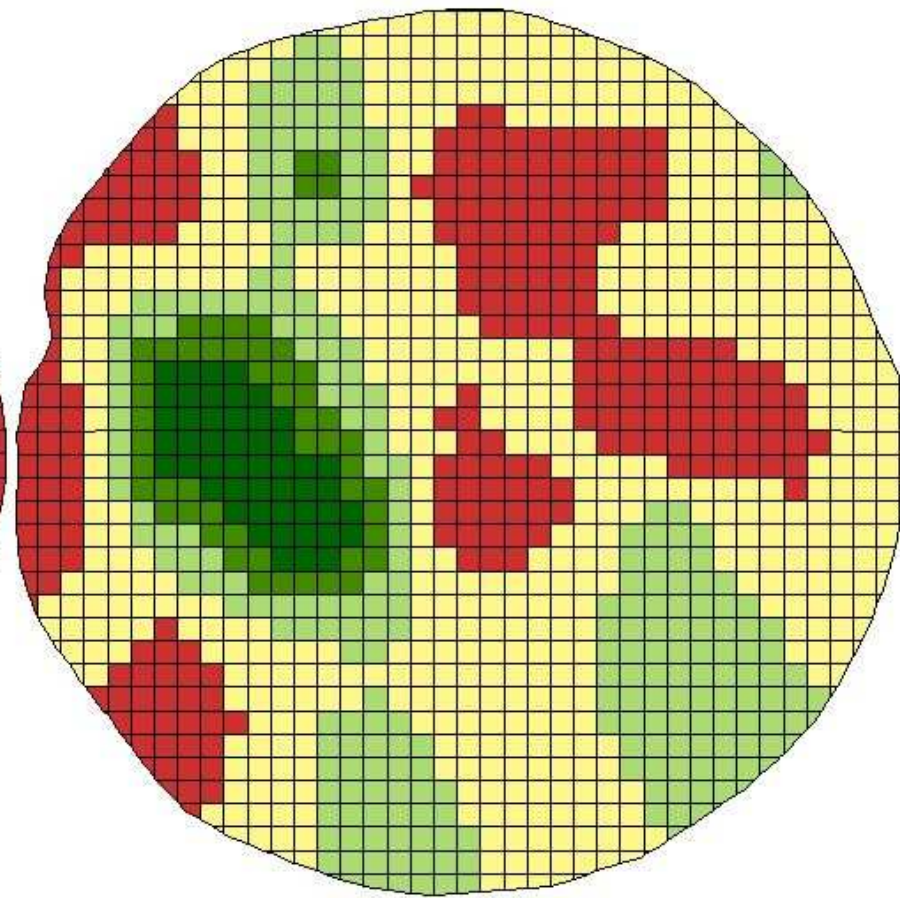
- Tekstuur (klei, slik en Sand)
- Effektiewe diepte
- Beperkende lae
- Grondvorm

# Springbok; 04 (45.5 ha.)

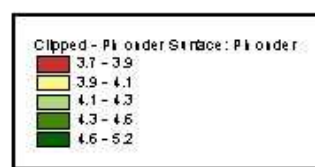
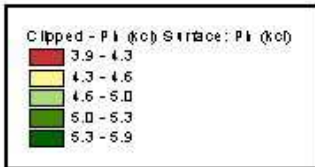
Clipped - Ph (kcl) Surface: Ph (kcl)



Clipped - Ph onder Surface: Ph onder



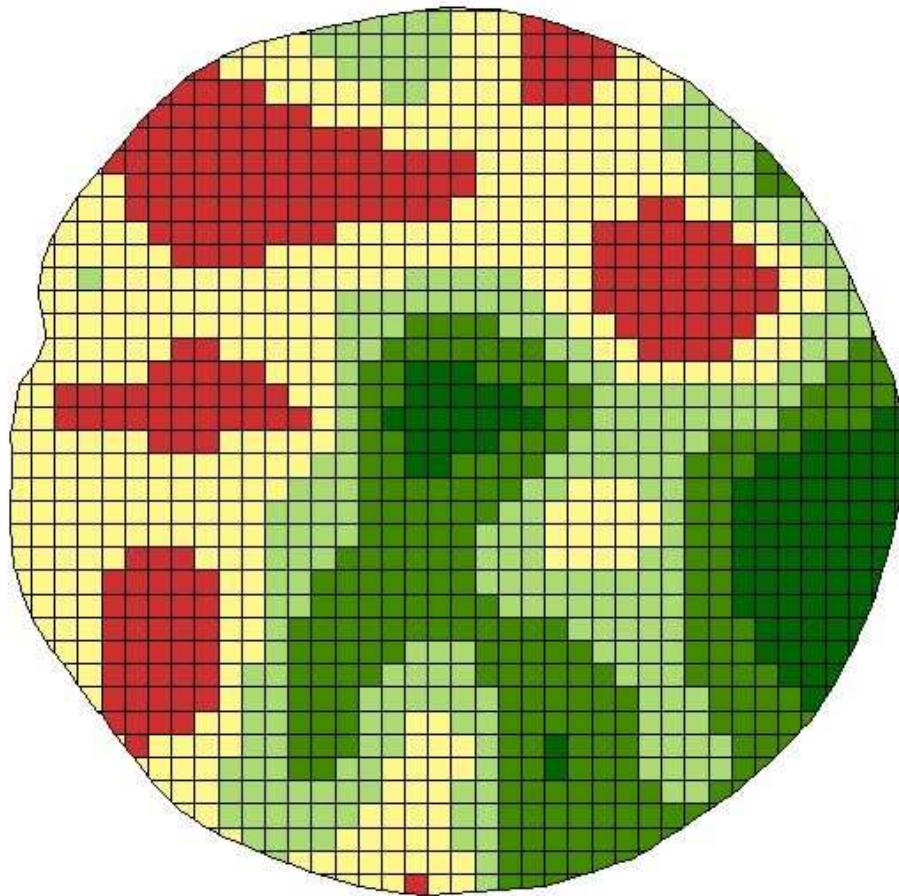
100 0 100 200 300 400 500 600 700 800 Meters



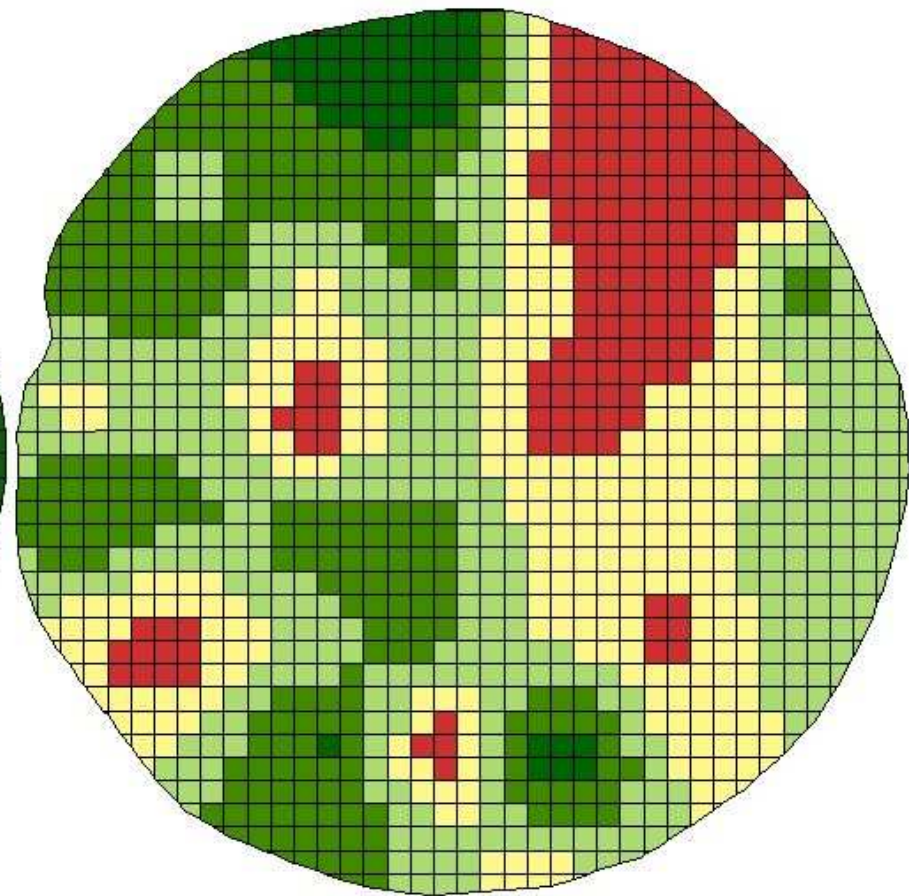


# Springbok; 04 (45.5 ha.)

Clipped - P bray1 Surface: P bray1



Clipped - K Surface



100 0 100 200 300 400 500 600 700 800 Meters

Clipped - P bray1 Surface: P bray1	
Red	5.9 - 32.6
Yellow	32.6 - 43.6
Light Green	43.6 - 55.0
Medium Green	55.0 - 69.9
Dark Green	69.9 - 96.6

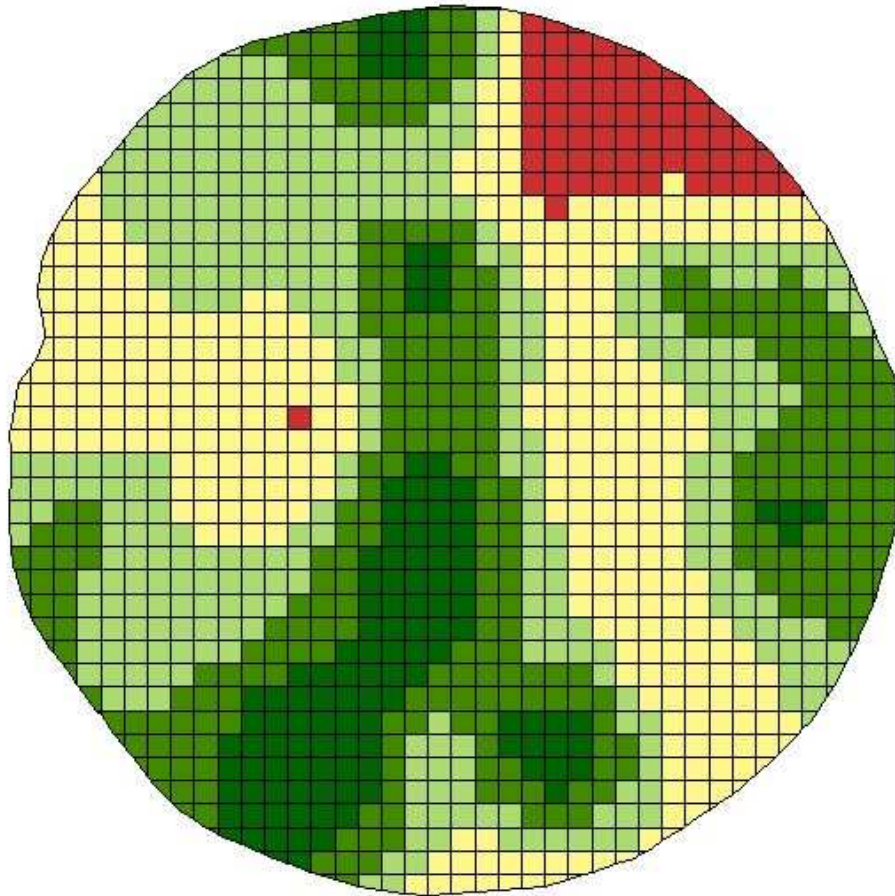
Clipped - K Surface	
Red	38.6 - 65.8
Yellow	65.8 - 85.1
Light Green	85.1 - 103.2
Medium Green	103.2 - 133.1
Dark Green	133.1 - 196.4



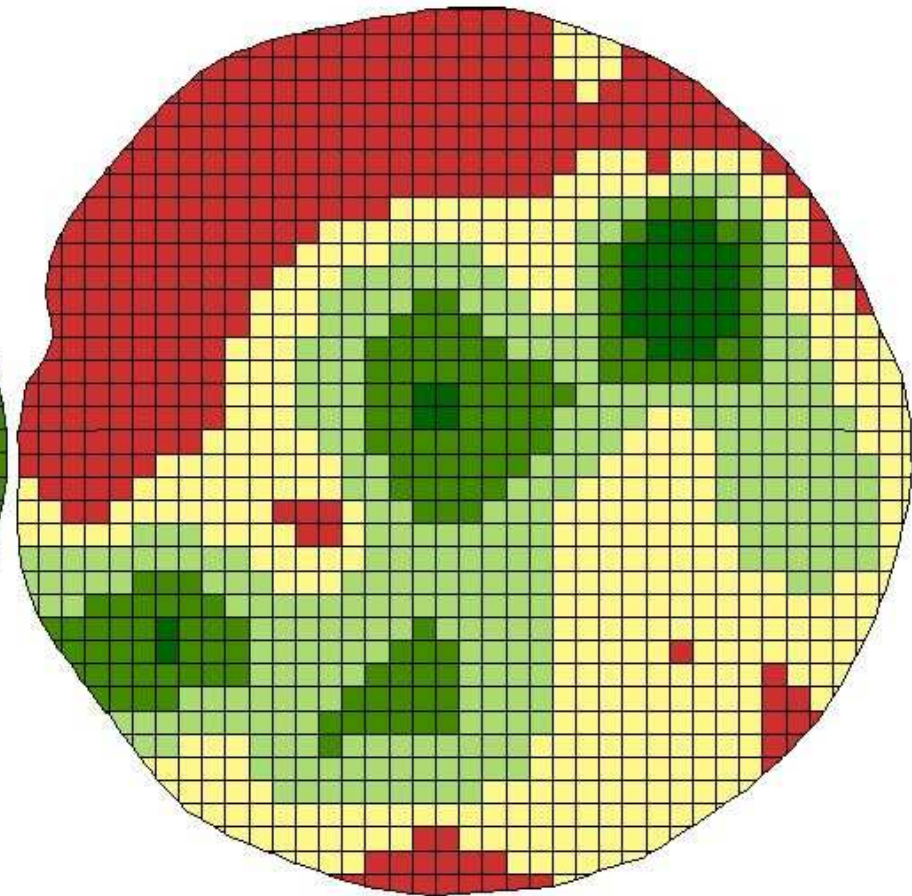


# Springbok; 04 (45.5 ha.)

Clipped - K% Surface



Clipped - Na% Surface



100 0 100 200 300 400 500 600 700 800 Meters

Date: Apr 16, 2004

Field Name: Springbok; 04

Farm Name: Maranata

Client Name: Piet van der Walt

Total Hectares: 45.5

Field Boundary Start Location:

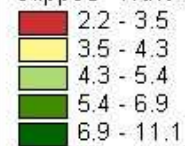
Latitude: -24.37056730

Longitude: 28.10348966

Clipped - K% Surface

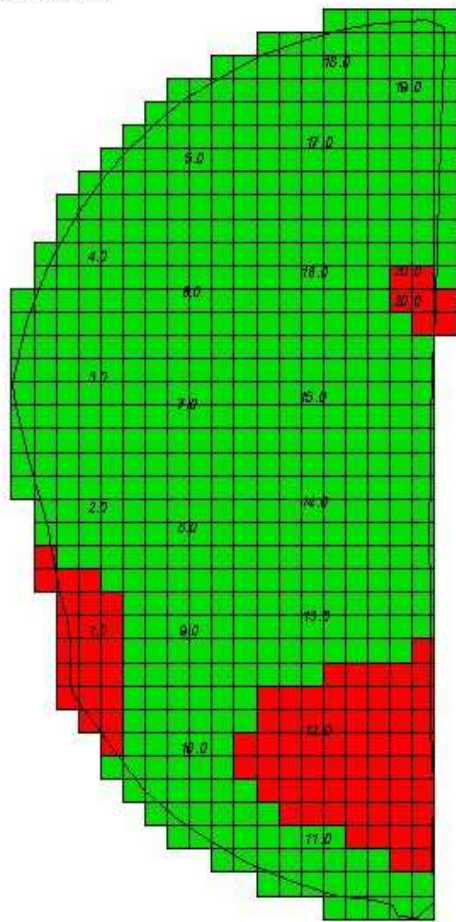


Clipped - Na% Surface

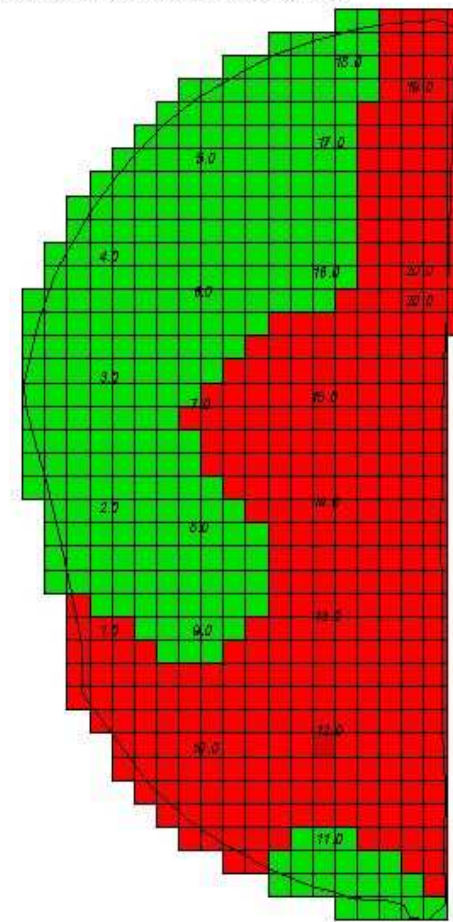


# L5; 04 (22.4 ha.)

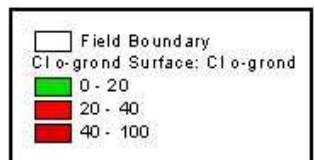
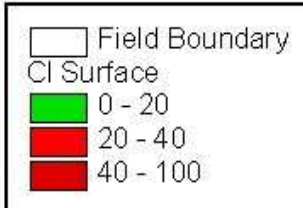
Field Boundary, CI Surface



Field Boundary, CI o-grond Surface: CI o-grond

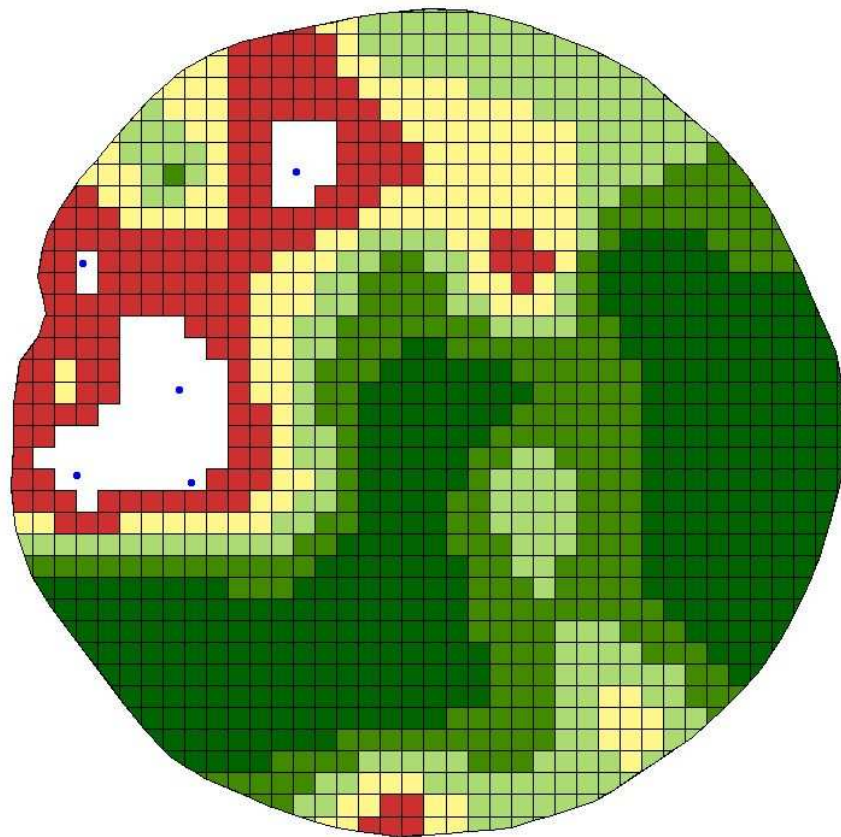


Date: May 25, 2004  
Field Name: L5; 04  
Farm Name: Marble Hall - 9  
Client Name: Rudi du Toit  
Total Hectares: 22.4  
Field Boundary Start Location:  
Latitude: -25.09518508  
Longitude: 29.32872330





### Springbok; 04 (45.5 ha.) - Dolomitese kalk Recommendation



100 0 100 200 300 400 Meters

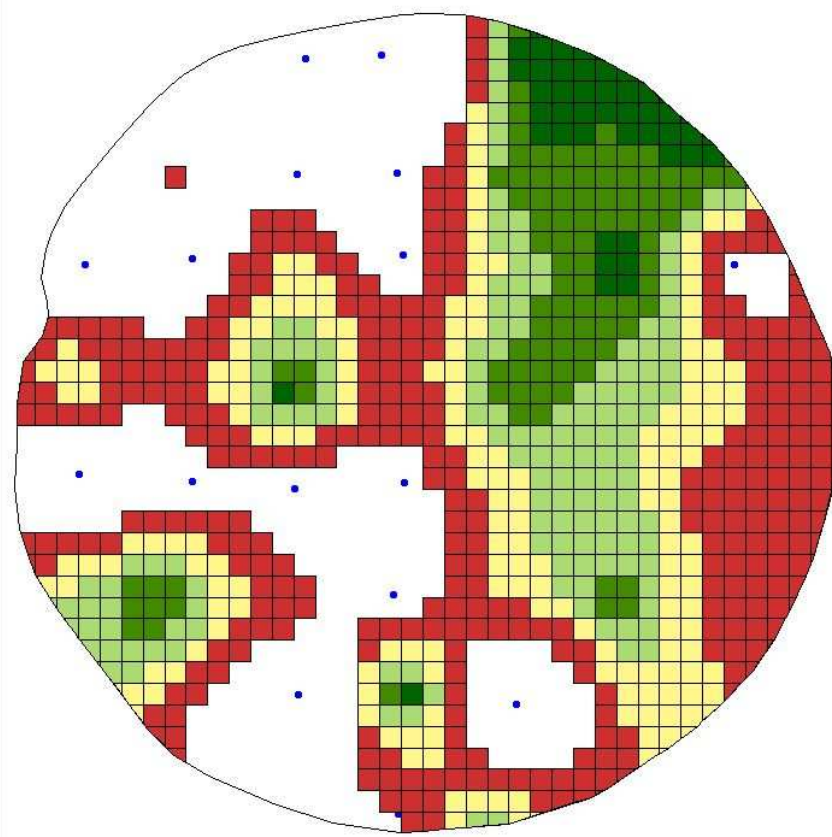
Equation Used: KKas  
 $Ph(0.5^5) / ((5.5 - Ph) * 0.25) * 1000$

Date: Apr 16, 2004  
 Field Name: Springbok; 04  
 Farm Name: Maranata  
 Client Name: Piet van der Wal  
 Total Hectares: 45.5  
 Field Boundary Start Location:  
 Latitude: -24.37056730  
 Longitude: 28.10348966

**Application Estimates:**  
 Product: Dolomitese kalk  
 Min. Rate: 500.0 Kg./ha.  
 Max. Rate: 5000.0 Kg./ha.  
 Avg. Rate: 3295.1 Kg./ha.  
 Total Dolomitese kalk: 141944.7 Kg.  
 Product Price per kilogram: \$0.00  
 Product Cost: \$0.00  
 Number of Hectares to be Applied: 43.0 Hectares  
 Per Hectare Application Charge: \$4.50  
 Anticipated Application Charge: \$193.50  
 Total Cost: \$193.50  
 Cost per Applied Hectare: \$4.50  
 Total Hectare Cost: \$4.25



### Springbok; 04 (45.5 ha.) - K2so4(40%) Recommendation



100 0 100 200 300 400 Meters

Equation Used: Klantek  
 $K(0.100 * ((100 - (K)) * 4))$

Date: Apr 16, 2004  
 Field Name: Springbok; 04  
 Farm Name: Maranata  
 Client Name: Piet van der Wal  
 Total Hectares: 45.5  
 Field Boundary Start Location:  
 Latitude: -24.37056730  
 Longitude: 28.10348966

**Application Estimates:**  
 Product: K2so4(40%)  
 Min. Rate: 70.0 Kg./ha.  
 Max. Rate: 610.0 Kg./ha.  
 Avg. Rate: 217.7 Kg./ha.  
 Total K2so4(40%): 6595.2 Kg.  
 Product Price per kilogram: \$0.00  
 Product Cost: \$0.00  
 Number of Hectares to be Applied: 30.3 Hectares  
 Per Hectare Application Charge: \$0.00  
 Anticipated Application Charge: \$0.00  
 Total Cost: \$0.00  
 Cost per Applied Hectare: \$0.00  
 Total Hectare Cost: \$0.00





# Grond-Potensiaalbepaling

- Hoekom?

- Risiko te beperk.
  - Vir die boer en die Finansierder
- Beter oeskattings te kan maak.
  - Met gewasmodelle en klimaatinligting.
  - Vergemaklik bemarking
  - Vooraf waarskuwing vir oesverliese
- Versekering se premie te verlaag.
  - Afhangend van die risiko profiel van die boer en sy plaas

# Belangrikste grond eienskappe om te bepaal

- Diepte van die A-Horison
- Klei en Slik persentasie van die A-Horison
- Diepte van die B-Horison
- Klei en Slik persentasie van die B-Horison
- Effektiewe diepte.
- Beperkende Laag.
- Grondvorm

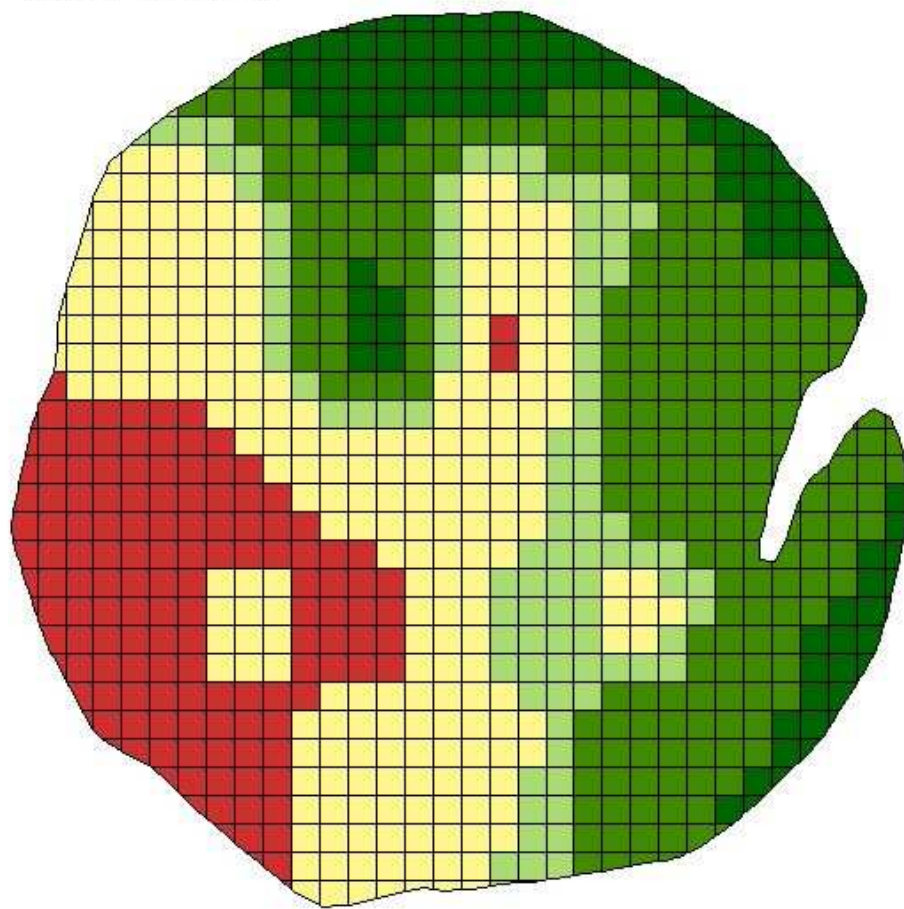


# Bepaling van Potensiaal

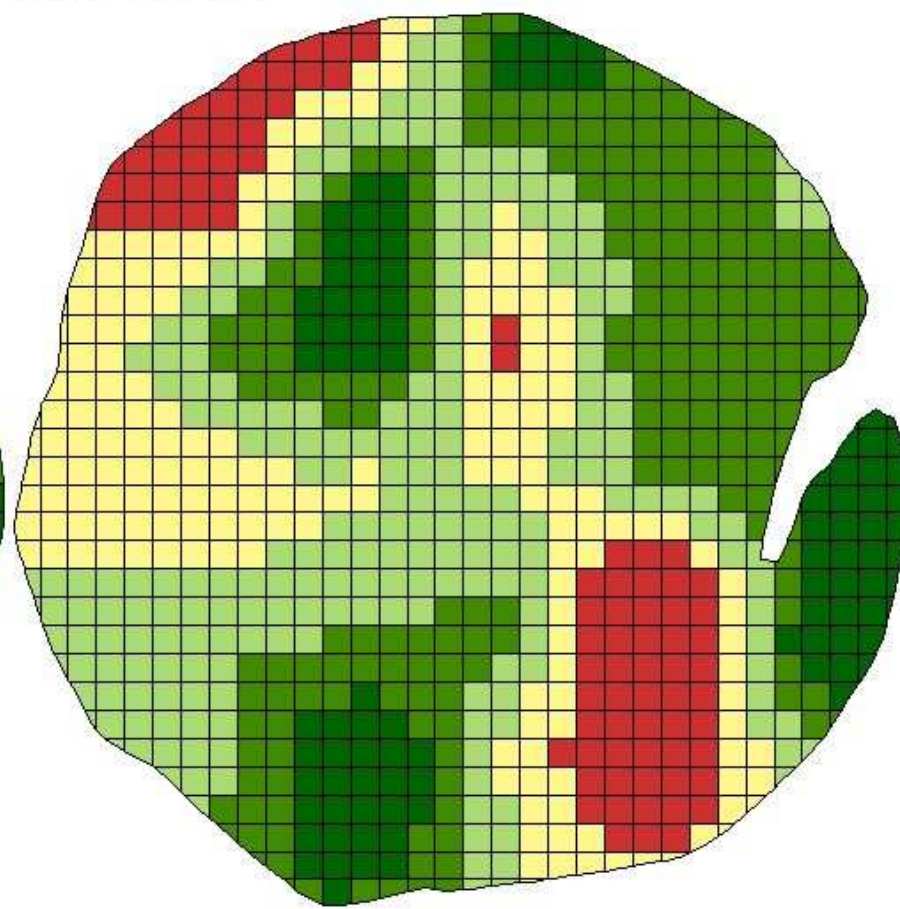
- Empiriese vgl. Craffordt en Knott
  - Klei% en Effektiewe diepte.
- Gewas modelle.
  - Klei en Slik %
  - Effektiewe diepte
  - Klimaat
    - Reenval
    - Hitte eenhede
    - Temperatuur

# Elandsbosch; 03 (30.5 ha.)

Clipped - Klei Surface

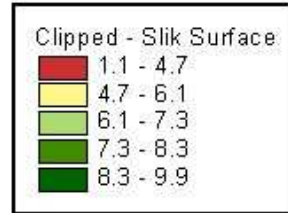


Clipped - Slik Surface



100 0 100 200 300 400 500 600 Meters

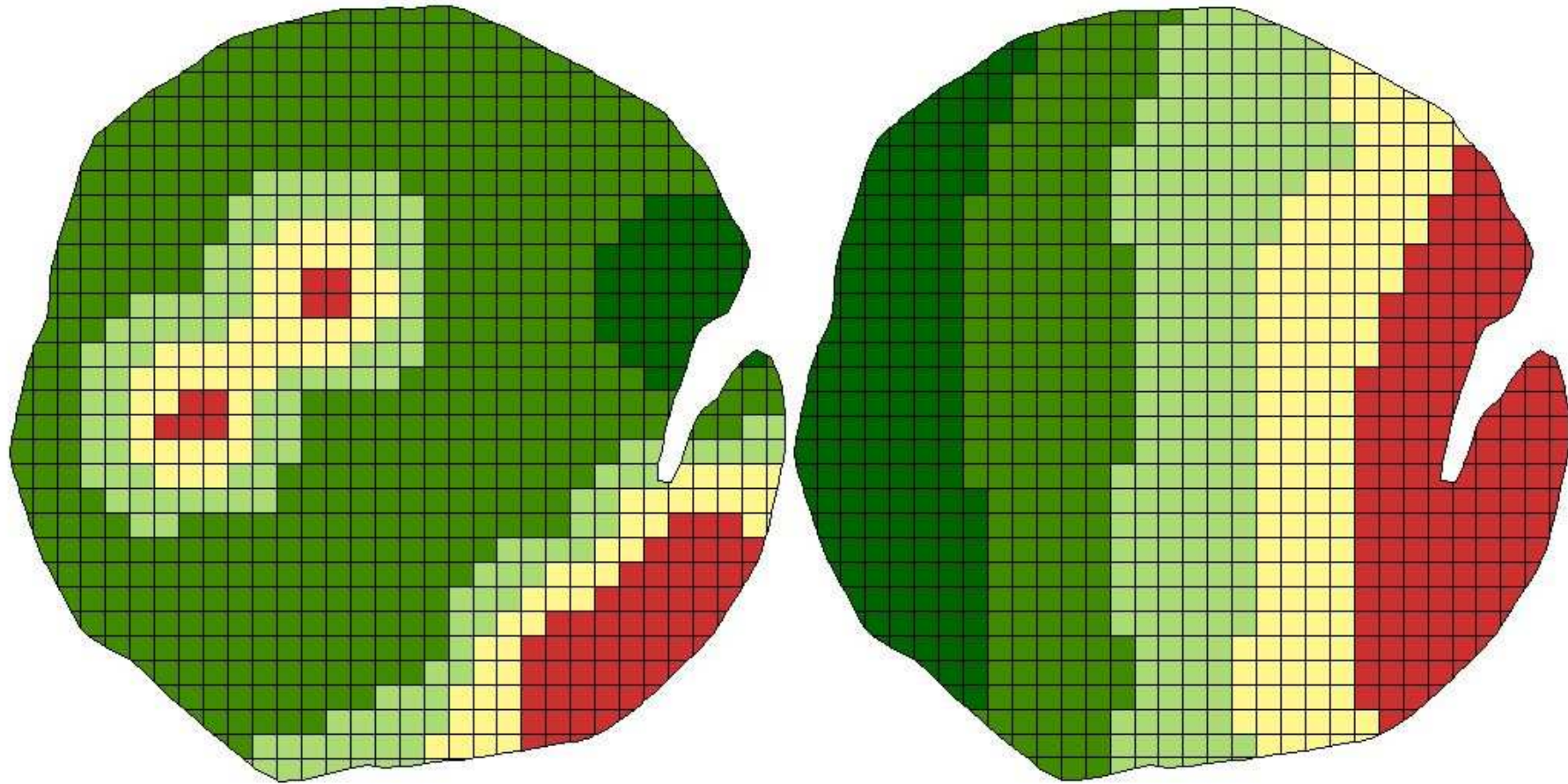
Date: Aug 27, 2003  
Field Name: Elandsbosch; 03  
Farm Name: Elandsbosch  
Client Name: PG Louw  
Total Hectares: 30.5  
Field Boundary Start Location:  
Latitude: -24.27290335  
Longitude: 28.50847164



# Elandsbosch; 03 (30.5 ha.)

Clipped - Diepte Surface

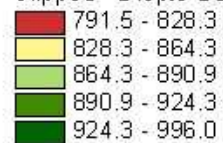
Clipped - Elevation Surface



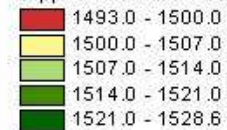
100 0 100 200 300 400 500 600 Meters

Date: Aug 27, 2003  
Field Name: Elandsbosch; 03  
Farm Name: Elandsbosch  
Client Name: PG Louw  
Total Hectares: 30.5  
Field Boundary Start Location:  
Latitude: -24.27290335  
Longitude: 28.50847164

Clipped - Diepte Surface

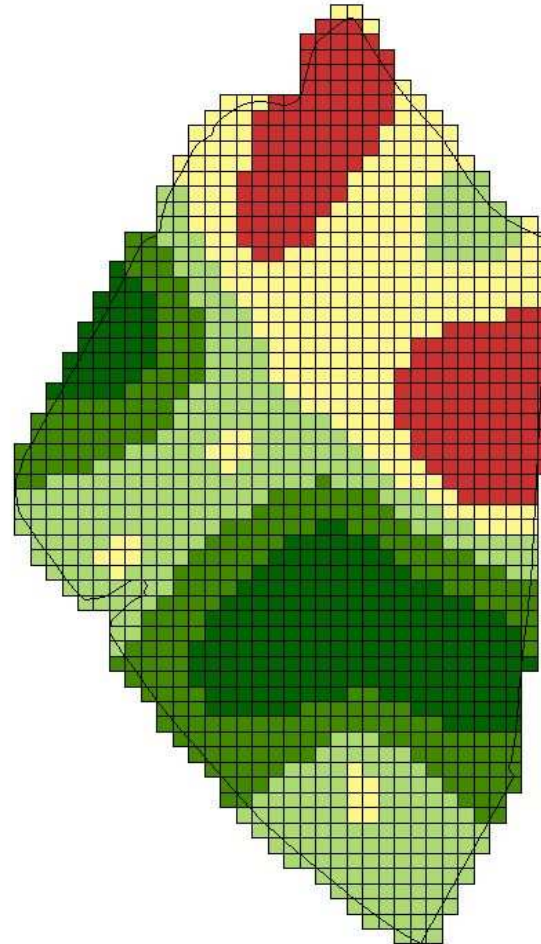


Clipped - Elevation Surface



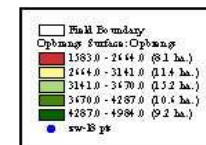


# Zw-18; 04 (50.7 ha.) - Opbrengs Surface: Opbrengs



50 0 50 100 150 200 250 300 350 Meters

Date: Jun 25, 2004  
Field Name: Zw-18; 04  
Farm Name: Zaaivater  
Client Name: Bombardie Bdr  
Total Hectares: 50.7  
Field Boundary Start Location:  
Latitude: -26.06130021  
Longitude: 29.09484399  
No. of Observations: 1366  
Minimum Opbrengs: 1583.0  
Maximum Opbrengs: 4984.0  
Average Opbrengs: 3460.6



# Toepassings

- Veranderlike toediening van Insette.
  - Bestuursones
  - Veranderlike toedieners.
- Besproeiingskedulering posisionering
  - Waar vogmetings geneem word.
  - Hoe om dit na die res van die land te ekstrapoleer.
- Bepaal volhoubaarheid van opbrengs.
- Toets die werklike reaksie van grondstowwe op spesifieke area.(Navorsing op eie grond met eie klimaat in praktyk)
- Verhoed wanbalanse weens onoordeelkundige aanwending van grondstowwe.

# Toets(meet)

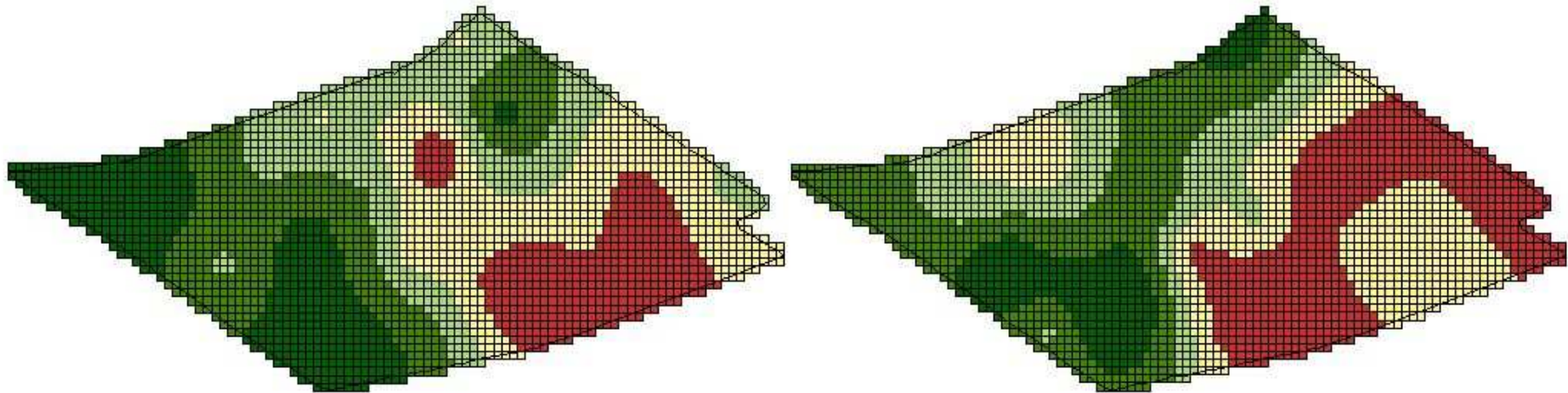
- Neem waar met oog.
- Satellietbeelde
- Gemmidelde opbrengs.
- Opbrengskaarte
- Herhaalde neem van Grondmonsters.



# Zw-114; 04 (98.9 ha.)

Field Boundary, P\_bray1 Surface

Field Boundary, K Surface



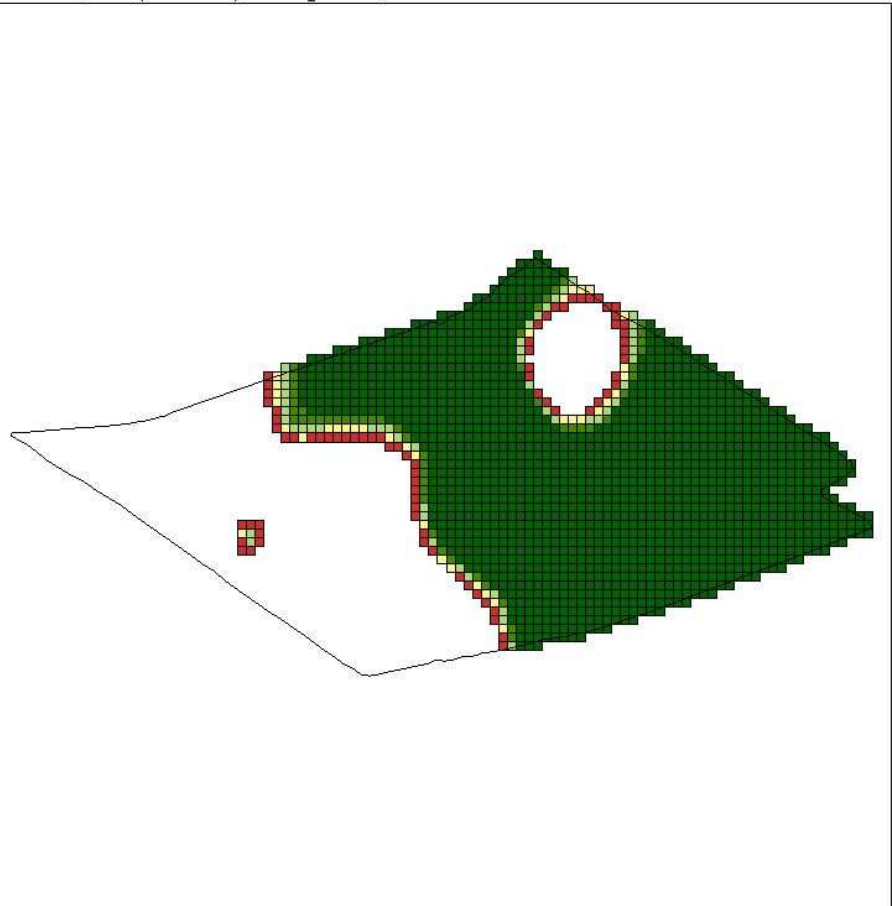
Date: Aug 16, 2004  
Field Name: Zw-114; 04  
Farm Name: Zaakwater  
Client Name: Bombardie Bdr  
Total Hectares: 98.9  
Field Boundary Start Location:  
Latitude: -26.07558756  
Longitude: 29.09005582

Field Boundary	P_bray1 Surface
[Red]	8.4 - 17.8
[Yellow]	17.8 - 25.6
[Light Green]	25.6 - 34.9
[Dark Green]	34.9 - 46.2
[Dark Green]	46.2 - 59.0

Field Boundary	K Surface
[Red]	20.1 - 34.3
[Yellow]	34.3 - 44.9
[Light Green]	44.9 - 55.8
[Dark Green]	55.8 - 67.7
[Dark Green]	67.7 - 94.3



Zw-114; 04 (98.9 ha.) - Psupers10,5% Recommendation



100 0 100 200 300 400 500 600 700 800 900 1000 1100 Meters

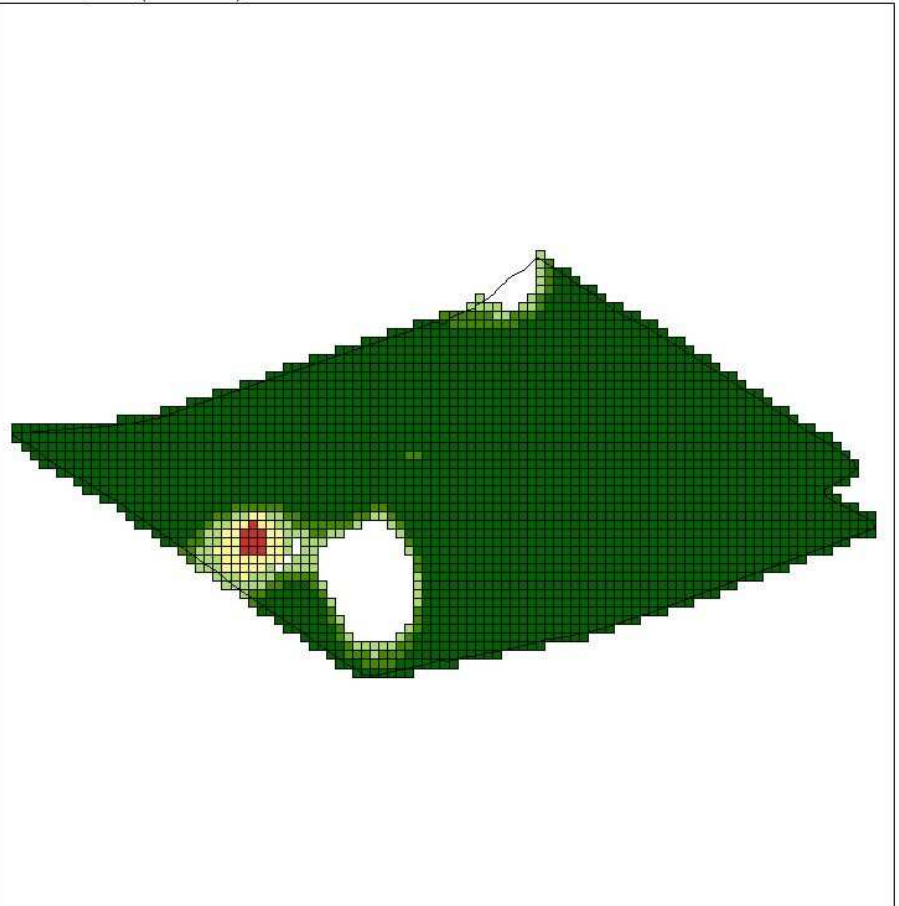
Equation Used: Planter P  
 $((36 - [P]) > 0)$  :  $((30 - [P]) * 5) + 30$   
 $((36 - [P]) < 0)$  : 0

Date: May 24, 2005  
 Field Name: Zw-114; 04  
 Farm Name: Zaahvatar  
 Client Name: Bombardie Edr  
 Total Hectares: 98.9  
 Field Boundary Start Location:  
 Latmde: -26.07558756  
 Longmde: 29.09005582

Application Estimates:  
 Product: Psupers10,5%  
 Min. Rate: 50.0 Kg./ha.  
 Max. Rate: 250.0 Kg./ha.  
 Avg. Rate: 231.6 Kg./ha.  
 Total Psupers10,5%: 14171.2 Kg.  
 Product Price per kilogram: \$0.00  
 Product Cost: \$0.00  
 Number of Hectares to be Applied: 61.2 Hectares  
 Per Hectare Application Charge: \$0.00  
 Anticipated Application Charge: \$0.00  
 Total Cost: \$0.00  
 Cost per Applied Hectare: \$0.00  
 Total Hectare Cost: \$0.00



Zw-114; 04 (98.9 ha.) - KCL50% Recommendation



100 0 100 200 300 400 500 600 700 800 900 1000 1100 Meters

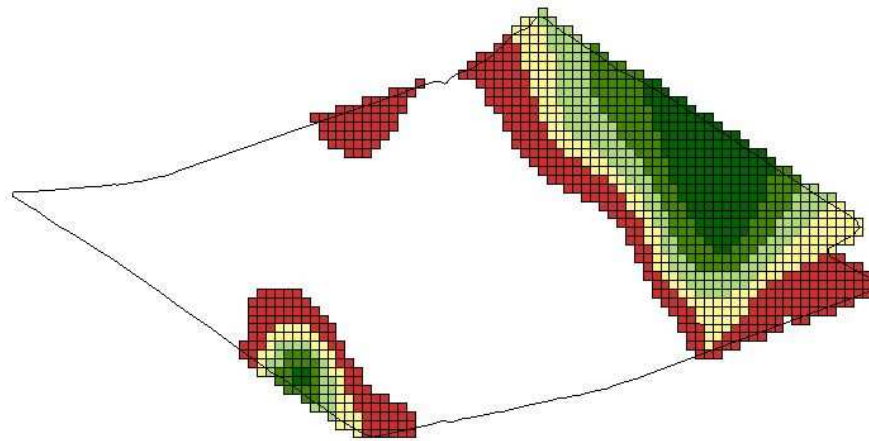
Equation Used: PLANTER KMIELIES  
 $((70 - [K]) > 0)$  OR  $([K] < 5)$  :  $((70 - [K]) * 4) + 100$   
 $((70 - [K]) < 0)$  AND  $([K] > 5)$  : 0

Date: May 24, 2005  
 Field Name: Zw-114; 04  
 Farm Name: Zaahvatar  
 Client Name: Bombardie Edr  
 Total Hectares: 98.9  
 Field Boundary Start Location:  
 Latmde: -26.07558756  
 Longmde: 29.09005582

Application Estimates:  
 Product: KCL50%  
 Min. Rate: 110.0 Kg./ha.  
 Max. Rate: 250.0 Kg./ha.  
 Avg. Rate: 245.6 Kg./ha.  
 Total KCL50%: 22935.6 Kg.  
 Product Price per kilogram: \$0.00  
 Product Cost: \$0.00  
 Number of Hectares to be Applied: 93.4 Hectares  
 Per Hectare Application Charge: \$0.00  
 Anticipated Application Charge: \$0.00  
 Total Cost: \$0.00  
 Cost per Applied Hectare: \$0.00  
 Total Hectare Cost: \$0.00



## Zw-114; 04 (98.9 ha.) - Kalsitese Kalk Recommendation



100 0 100 200 300 400 500 600 700 800 900 1000 1100 Meters

Equation Used: KKas  

$$\text{Ph}(0,5) \{ (5 - [\text{Ph}]) / 0.25 \} * 1000$$

Date: Aug 17, 2004  
 Field Name: Zw-114; 04  
 Farm Name: Zaaiwater  
 Client Name: Bombardie Bdr  
 Total Hectares: 98.9  
 Field Boundary Start Location:  
 Latitude: -26.07538756  
 Longitude: 29.09005382

Application Estimates:  
 Product: Kalsitese Kalk  
 Min. Rate: 500.0 Kg./ha.  
 Max. Rate: 2450.0 Kg./ha.  
 Avg. Rate: 1217.2 Kg./ha.  
 Total Kalsitese Kalk: 46593.2 Kg.  
 Product Price per kilogram: \$0.00  
 Product Cost: \$0.00  
 Number of Hectares to be Applied: 38.3 Hectares  
 Per Hectare Application Charge: \$0.00  
 Anticipated Application Charge: \$0.00  
 Total Cost: \$0.00  
 Cost per Applied Hectare: \$0.00  
 Total Hectare Cost: \$0.00

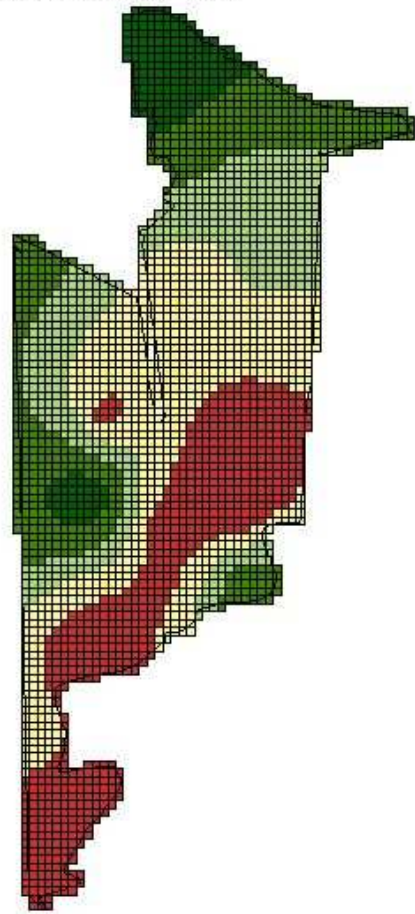


**Lantek doen die chemiese kartering en strooiwerk**

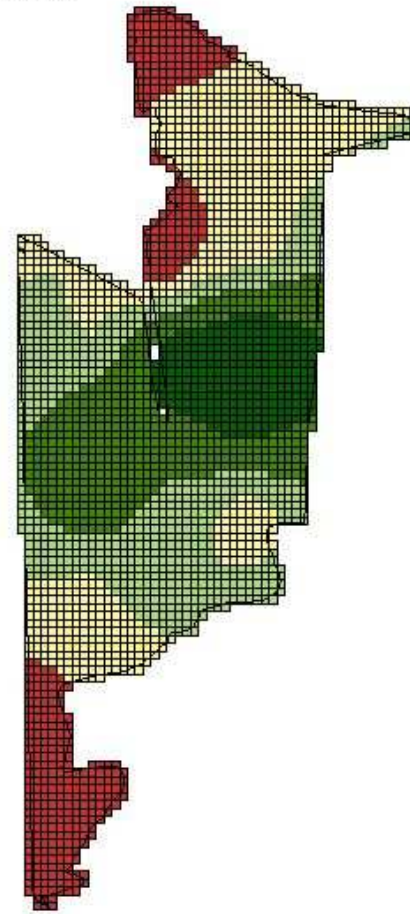
Aksie of Produk	Hektare	Koste/ha	Totale Koste
Chemiese Kartering	98	95	9310.0
Toediening van Kunsmis			
Supers(10.5)	61.2	55	3366.0
Kcl(50)	93.4	55	5137.0
Totale koste van Diens			17813.0
Koste per hektaar			181.8
Normale Toediening plantbehoefte Kalium			61924.5
Normale Toediening plantbehoefte Fosfaat			39690.0
Totaal			101614.5
Presiese Toediening Fosfaat			53406.0
Presiese Toediening Kalium			25507.0
Totaal			78913.0
Besparing			22701.5
Besparing op kunsmis/hektaar			231.6
Besparing deur Presisie Boerdery			49.9

# Bo-125a; 04 (98.9 ha.)

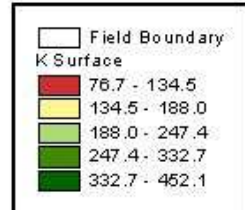
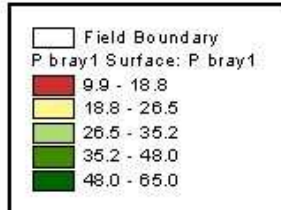
Field Boundary, P bray1 Surface: P bray1



Field Boundary, K Surface

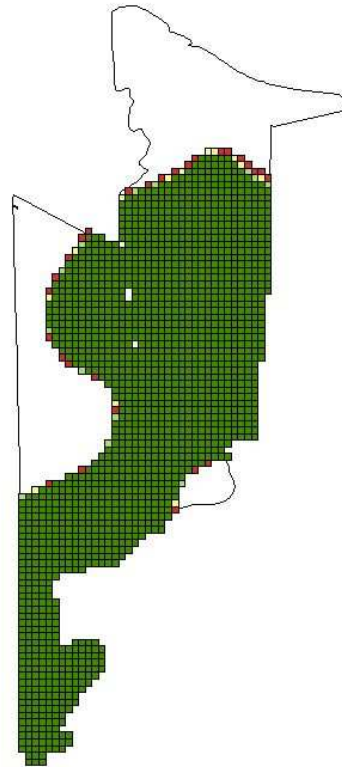


Date: Aug 15, 2004  
Field Name: Bo-125a; 04  
Farm Name: Plaas Bombardie  
Client Name: Bombardie Bdr  
Total Hectares: 98.9  
Field Boundary Start Location:  
Latitude: -26.19373997  
Longitude: 29.04638996





Bo-125a; 04 (98.9 ha.) - Psupers10,5% Recommendation



100 0 100 200 300 400 500 600 700 800 900 1000 1100 1200 1300 Meters

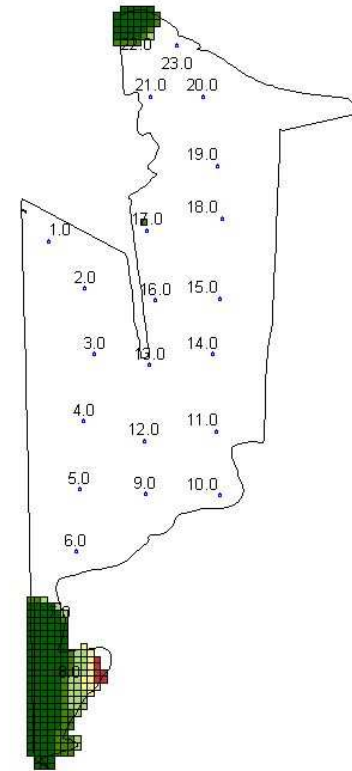
Equation Used: Planter P  
 $((30 - [P]) > 0)$  :  $((30 - [P]) * 5) + 22.5$   
 $((30 - [P]) < 0)$  : 0

Date: Apr 28, 2005  
 Field Name: Bo-125a; 04  
 Farm Name: Plas Bombardie  
 Client Name: Bombardie Edr  
 Total Hectares: 98.9  
 Field Boundary Start Location:  
 Latitude: -26.19373997  
 Longitude: 29.04638996

Application Estimates:  
 Product: Psupers10,5%  
 Min. Rate: 210.0 Kg./ha.  
 Max. Rate: 250.0 Kg./ha.  
 Avg. Rate: 249.2 Kg./ha.  
 Total Psupers10,5%: 16100.0 Kg.  
 Product Price per kilogram: \$0.00  
 Product Cost: \$0.00  
 Number of Hectares to be Applied: 64.6 Hectares  
 Per Hectare Application Charge: \$0.00  
 Anticipated Application Charge: \$0.00  
 Total Cost: \$0.00  
 Cost per Applied Hectare: \$0.00  
 Total Hectare Cost: \$0.00



Bo-125a; 04 (98.9 ha.) - KCL50% Recommendation



1000 0 1000 Meters

Equation Used: PLANTER KMIELIES  
 $((100 - [K]) > 0)$  OR  $([K] < 5)$  :  $((100 - [K]) * 5) + 100$   
 $((100 - [K]) < 0)$  AND  $([K] > 5)$  : 0

Date: May 15, 2005  
 Field Name: Bo-125a; 04  
 Farm Name: Plas Bombardie  
 Client Name: Bombardie Edr  
 Total Hectares: 98.9  
 Field Boundary Start Location:  
 Latitude: -26.19373997  
 Longitude: 29.04638996

Application Estimates:  
 Product: KCL50%  
 Min. Rate: 100.0 Kg./ha.  
 Max. Rate: 250.0 Kg./ha.  
 Avg. Rate: 228.3 Kg./ha.  
 Total KCL50%: 1634.4 Kg.  
 Product Price per kilogram: \$0.00  
 Product Cost: \$0.00  
 Number of Hectares to be Applied: 7.2 Hectares  
 Per Hectare Application Charge: \$0.00  
 Anticipated Application Charge: \$0.00  
 Total Cost: \$0.00  
 Cost per Applied Hectare: \$0.00  
 Total Hectare Cost: \$0.00





Koste van Land Bo l25 a

Hierdie land het 'n klei% van 38%

Lantek doen die chemiese kartering en strooiwerk

Aksie of Produk	Hektare	Koste/ha	Totale Koste	
Chemiese Kartering	98	95	R	9,310.00
Toediening van Kunsmis				
Supers(10.5)	64.5	55	R	3,547.50
Kcl(50)	7.2	55	R	396.00
<b>Totale koste van Diens</b>			R	13,253.50
<b>Koste per hektaar</b>			R	135.24

Besparing op kunsmis/hektaar

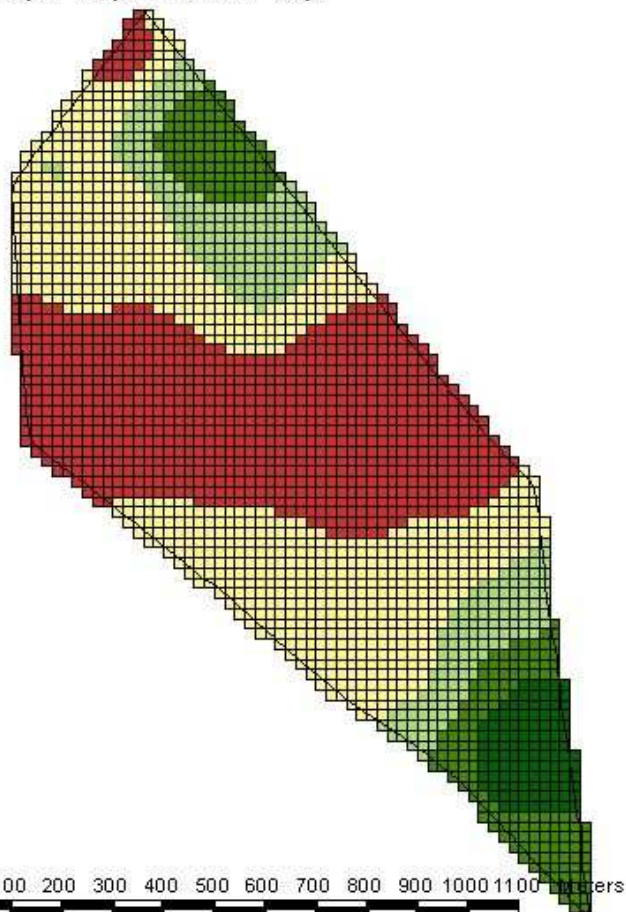
R 608.00

Besparing deur Presisie Boerdery

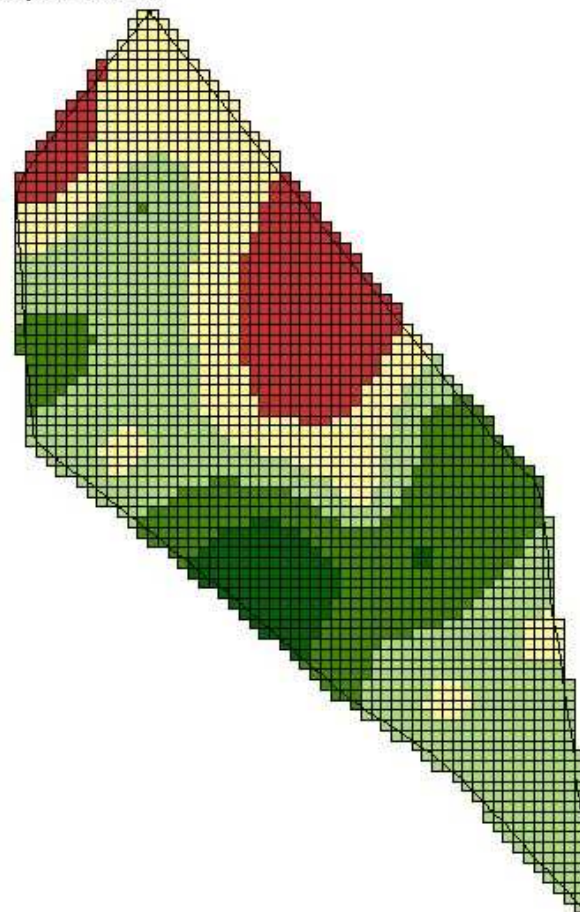
R 472.76

# Bo-13; 04 (88.9 ha.)

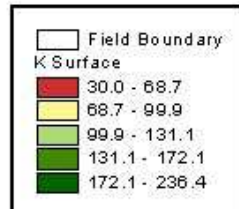
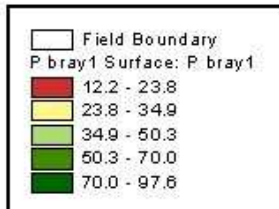
Field Boundary, P bray1 Surface: P bray1



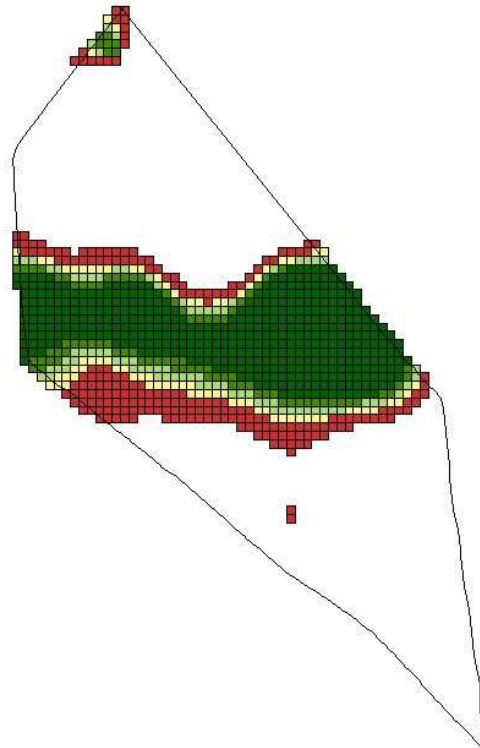
Field Boundary, K Surface



Date: Aug 13, 2004  
Field Name: Bo-13; 04  
Farm Name: Plaas Bombardie  
Client Name: Bombardie Bdr  
Total Hectares: 88.9  
Field Boundary Start Location:  
Latitude: -26.14961163  
Longitude: 29.04719665



Bo-13; 04 (88.9 ha.) - Psupers10,5% Recommendation



100 0 100 200 300 400 500 600 700 800 900 1000 1100 Meters

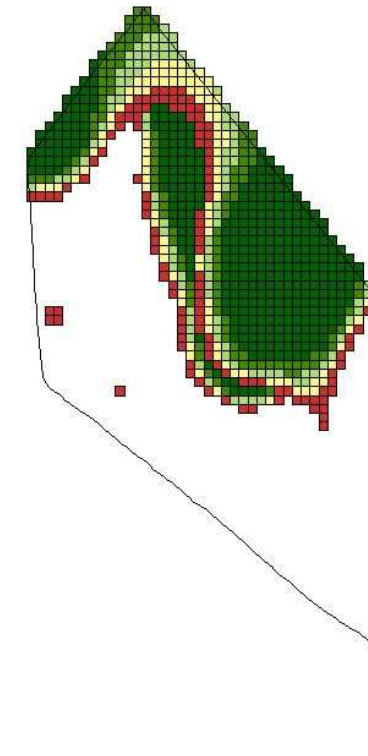
Equation Used: Planter P mielles  
 $((24.5 - [P]) > 0) : (((24.5 - [P]) * 5))$   
 $((24.5 - [P]) < 0) : 0$

Date: Jun 17, 2005  
 Field Name: Bo-13; 04  
 Farm Name: Plass Bombardie  
 Client Name: Bombardie Bdr  
 Total Hectares: 88.9  
 Field Boundary Start Location:  
 Latimde: -26.14961163  
 Longimde: 29.04719665

Application Estimates:  
 Product: Psupers10,5%  
 Min. Rate: 100.0 Kg./ha.  
 Max. Rate: 250.0 Kg./ha.  
 Avg. Rate: 195.5 Kg./ha.  
 Total Psupers10,5%: 6724.4 Kg.  
 Product Price per kilogram: \$0.00  
 Product Cost: \$0.00  
 Number of Hectares to be Applied: 34.4 Hectares  
 Per Hectare Application Charge: \$0.00  
 Anticipated Application Charge: \$0.00  
 Total Cost: \$0.00  
 Cost per Applied Hectare: \$0.00  
 Total Hectare Cost: \$0.00



Bo-13; 04 (88.9 ha.) - KCL50% Recommendation



100 0 100 200 300 400 500 600 700 800 900 1000 Meters

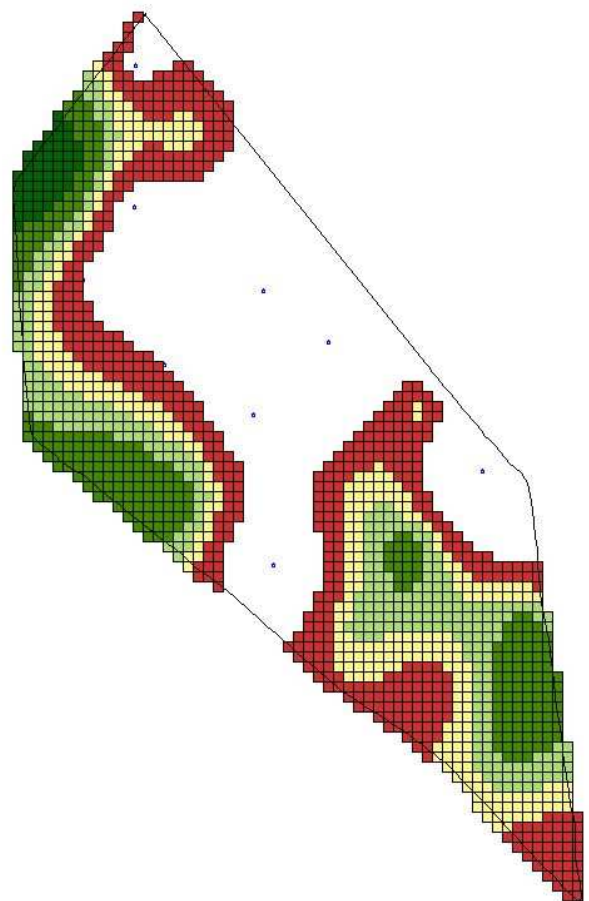
Equation Used: PLANTER K MIELIES  
 $([K] > 90) \text{ AND } ([K\%] > 5) : 0$   
 $([K] < 90) \text{ AND } ([K\%] > 5) : (((90 - [K]) * 4)) + 20$   
 $([K] > 90) \text{ AND } ([K\%] < 5) : (((5 - [K\%]) / 100) * [S]) * 1521) + 20$   
 $([K] < 90) \text{ AND } ([K\%] < 5) : (((90 - [K]) * 4)) + 20$

Date: Jun 17, 2005  
 Field Name: Bo-13; 04  
 Farm Name: Plass Bombardie  
 Client Name: Bombardie Bdr  
 Total Hectares: 88.9  
 Field Boundary Start Location:  
 Latimde: -26.14961163  
 Longimde: 29.04719665

Application Estimates:  
 Product: KCL50%  
 Min. Rate: 50.0 Kg./ha.  
 Max. Rate: 250.0 Kg./ha.  
 Avg. Rate: 180.7 Kg./ha.  
 Total KCL50%: 5631.2 Kg.  
 Product Price per kilogram: \$0.00  
 Product Cost: \$0.00  
 Number of Hectares to be Applied: 31.2 Hectares  
 Per Hectare Application Charge: \$0.00  
 Anticipated Application Charge: \$0.00  
 Total Cost: \$0.00  
 Cost per Applied Hectare: \$0.00  
 Total Hectare Cost: \$0.00



# Bo-13; 04 (88.9 ha.) - Kalsitiese Kalk Recommendation



100 0 100 200 300 400 500 600 700 800 900 Meters

Equation Used: KKas  

$$Ph(0.5) / ((5 - [Ph])^{0.25}) * 1000$$

Date: Aug 13, 2004  
 Field Name: Bo-13; 04  
 Farm Name: Plas Bombardis  
 Client Name: Bombardis Bdr  
 Total Hectares: 88.9  
 Field Boundary Start Location:  
 Latitude: -26.14961163  
 Longitude: 29.04719665

Application Estimates:  
 Product: Kalsitiese Kalk  
 Min. Rate: 500.0 Kg/ha.  
 Max. Rate: 4400.0 Kg/ha.  
 Avg. Rate: 1256.2 Kg/ha.  
 Total Kalsitiese Kalk: 65772.4 Kg.  
 Product Price per kilogram: \$0.00  
 Product Cost: \$0.00  
 Number of Hectares to be Applied: 52.4 Hectares  
 Per Hectare Application Charge: \$0.00  
 Anticipated Application Charge: \$0.00  
 Total Cost: \$0.00  
 Cost per Applied Hectare: \$0.00  
 Total Hectare Cost: \$0.00



Lantek doen die chemiese kartering en strooiwerk

Aksie of Produk	Hektare	Koste/ha	Totale Koste	
Chemiese Kartering	88.9	95	R	8,445.50
Toediening van Kunsmis				
Supers(10.5)	45.7	55	R	2,513.50
Kcl(50)	12.8	55	R	704.00
<b>Totale koste van Diens</b>			R	11,663.00
<b>Koste per hektaar</b>			R	131.19

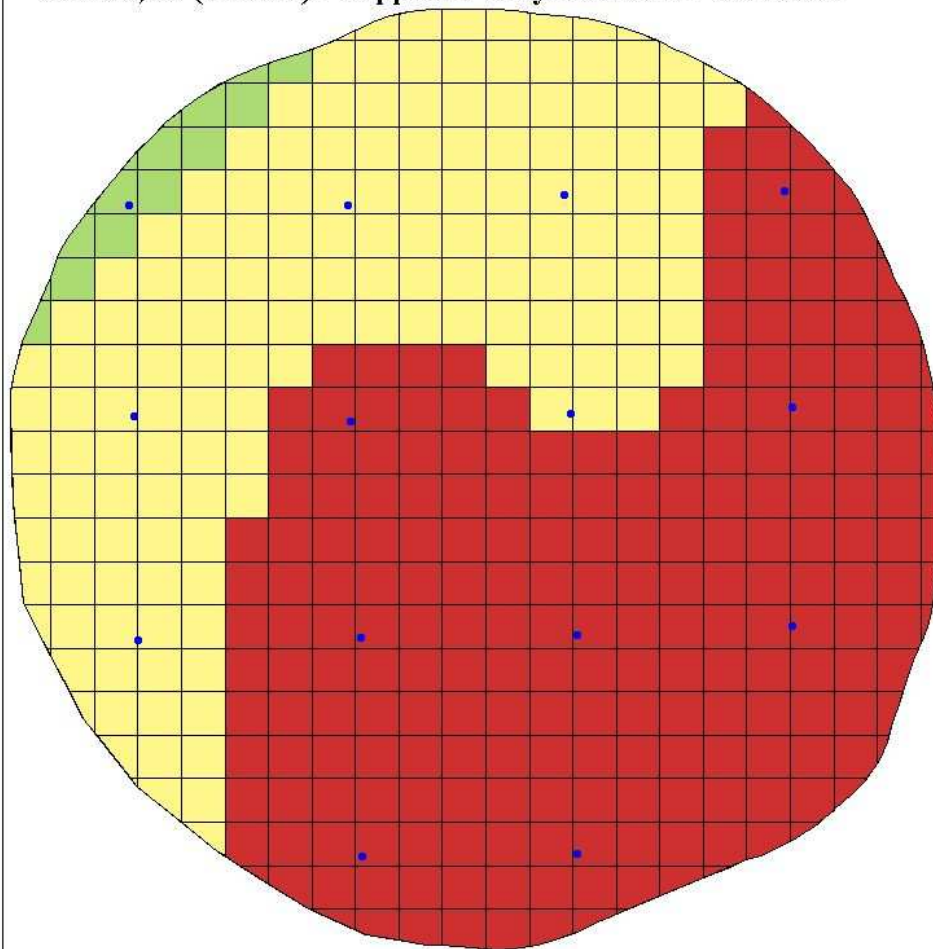
<b>Normale Toediening plantbehoefte Kalium</b>	88.9	387	R	34,404.30
<b>Normale Toediening plantbehoefte Fosfaat</b>	88.9	108	R	9,601.20
<b>Totaal</b>			R	44,005.50
<b>Presisie Toediening Fosfaat</b>			R	12,060.00
<b>Presisie Toediening Kalium</b>			R	15,120.00
<b>Totaal</b>			R	27,180.00
<b>Besparing</b>			R	16,825.50
<b>Besparing op kunsmis/hektaar</b>			R	189.26
<b>Besparing deur Presisie Boerdery</b>			R	58.07

Lantek doen chemiese kartering boer verander sy planter na presisie planter

Aksie of Produk	Hektare	Koste/ha	Totale Koste
Chemiese Kartering	98	95	R 9,310.00
Ombou van planter*			R 208,800.00
Afbetaling oor 3 jaar vir 1000 ha	98	82	R 8,036.00
<b>Totale koste van diens per jaar</b>			R 17,346.00
<b>Koste per hektaar per jaar</b>			R 177.00
<b>Besparing</b>			R 54.65

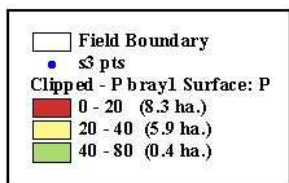


Sirkel 3; 03 (14.6 ha.) - Clipped - P bray1 Surface: P Jaar 2003

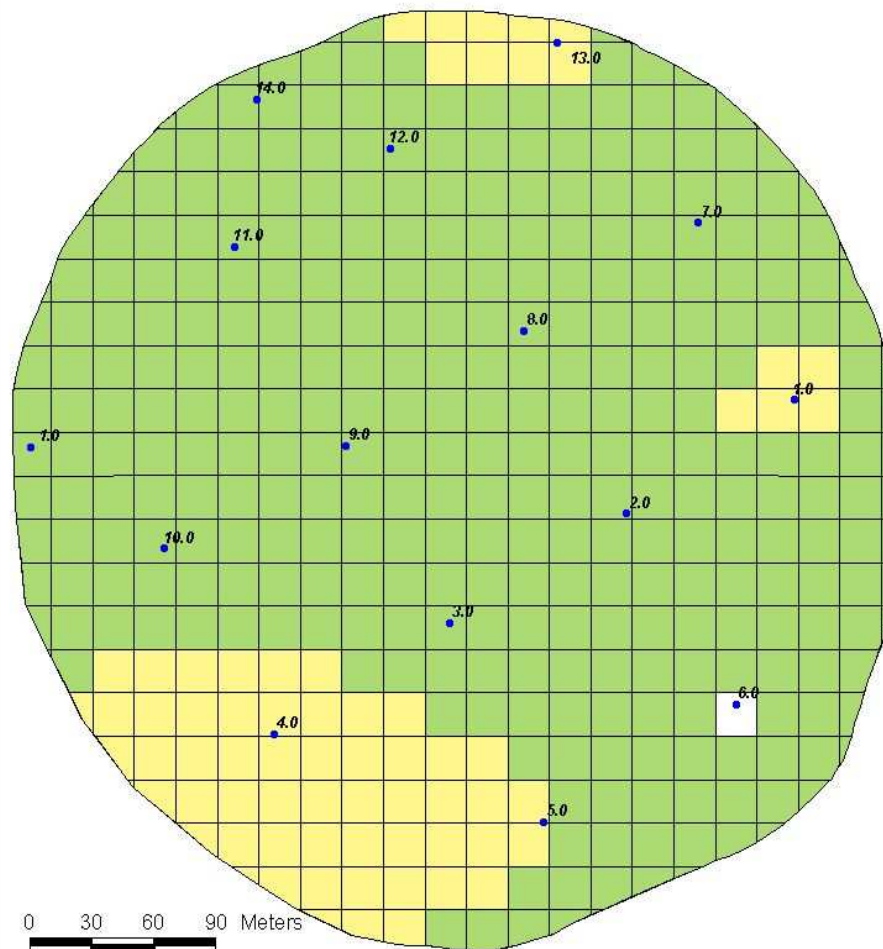


0 30 60 90 Meters

Date: Jul 20, 2004  
 Field Name: Sirkel 3; 03  
 Farm Name: Rietfontein  
 Client Name: Kobus Stapelberg  
 Total Hectares: 14.6  
 Field Boundary Start Location:  
 Latitude: -24.61936826  
 Longitude: 28.26581171  
 No. of Observations: 406  
 Minimum P: 5  
 Maximum P: 41  
 Average P: 21

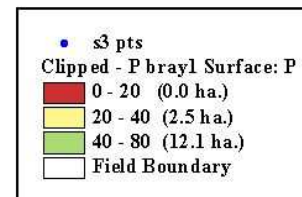


Sirkel 3; 04 (14.6 ha.) - Clipped - P bray1 Surface: P jaar 2004



0 30 60 90 Meters

Date: Jul 20, 2004  
 Field Name: Sirkel 3; 04  
 Farm Name: Rietfontein  
 Client Name: Kobus Stapelberg  
 Total Hectares: 14.6  
 Field Boundary Start Location:  
 Latitude: -24.61936826  
 Longitude: 28.26581171  
 No. of Observations: 406  
 Minimum P: 36  
 Maximum P: 82  
 Average P: 46



# Voordele

- Besparing
- 20% Verhoging in langtermyn opbrengs
- Volhoubaar
- Effektiewer gebruik van duur grondstowwe.
- Hoër opbrengste(swak kolle lewer nou dieselfde as die beter gedeeltes)
- Vooraf waarskuwing.
- Rypword van gewasse meer uniform.
- Kwaliteit meer uniform.
- Minder siektes en plae.(Swakker plante swakker weerstand word eerste aangeval.)
- Naspeurbare rekords van toedienings.
- Verhoging van grondwaarde.