

Luppo Diepenbroek

Engelse ervaringen met Herbal Leys – Kruidrijke Gras



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www.improvingfarming.uk

07970 163 228

X @Luppod61

Gezondheid waarschuwing:

- U moet iets Engels kennen, want ik heb over 40 jaar in Engeland gewoond, het Nederlands bijna verleert
- Wat u hoort in plaatsen, mag huidig niet me u overeenkomen, daar verontschuldig ik mij niet voor.
- Als iets niet duidelijk is, alstublieft vraag het gedurende de presentatie, dit is u bijeenkomst.
- Als u van hoofdpijn of oorpijn overkomt → laat mij weten en we houdend een interval.

Tim Parton



Reenerative Farming
Consultant

**Mike
Harrington**



Soil Health & Restoration

**Dr David
Davies**



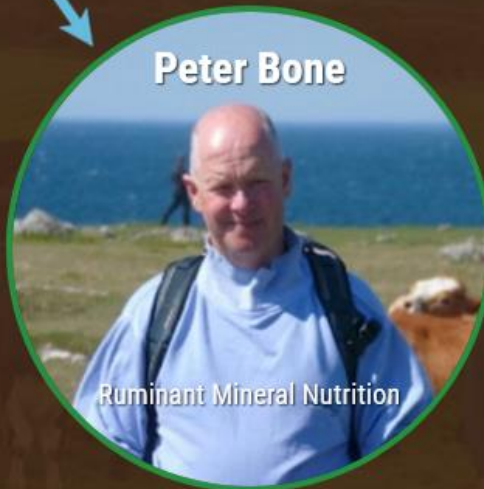
Silage Expert

**Luppo
Diepenbroek**



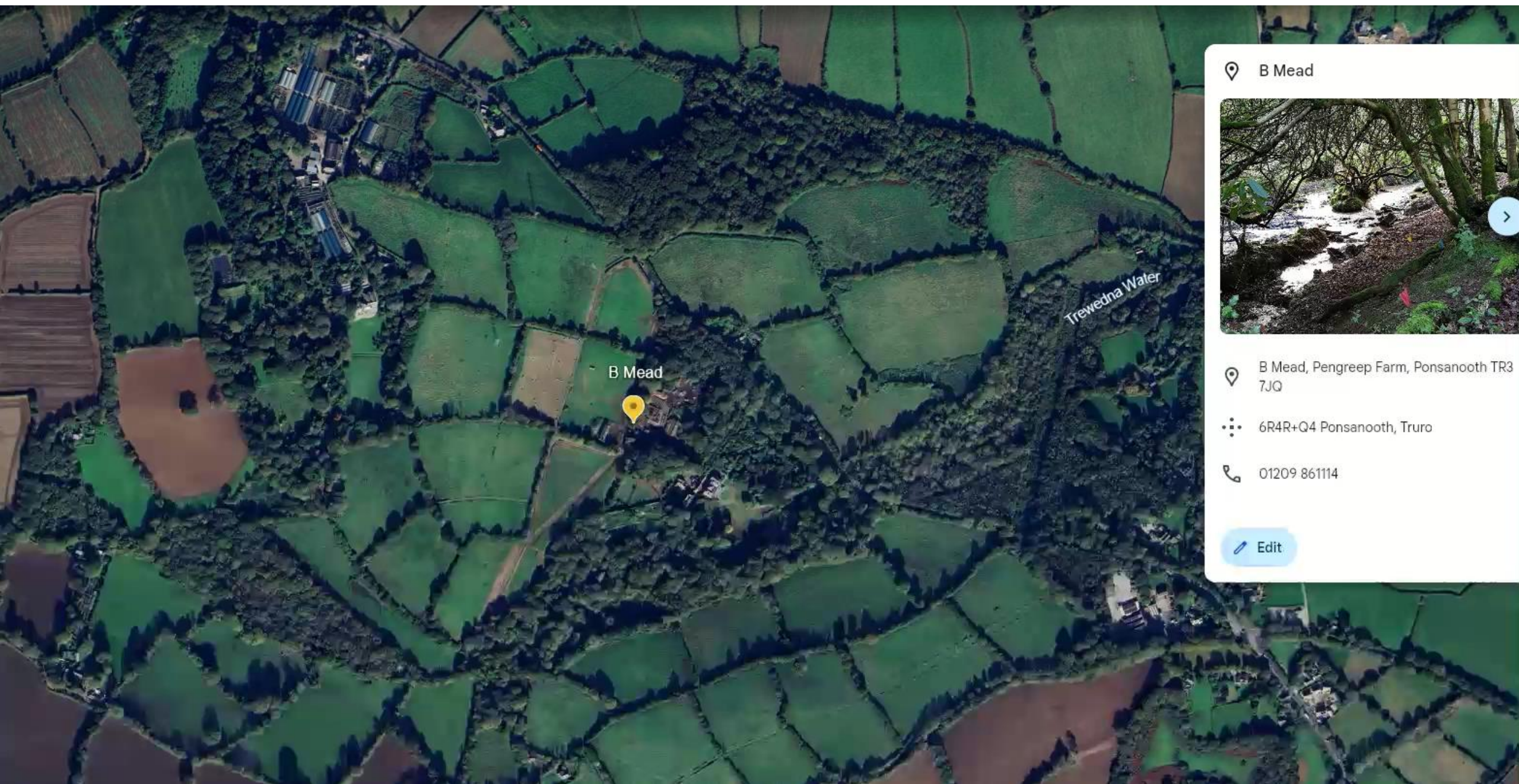
Ruminant Nutrition & Farm
Consultancy

Peter Bone



Ruminant Mineral Nutrition





📍 B Mead

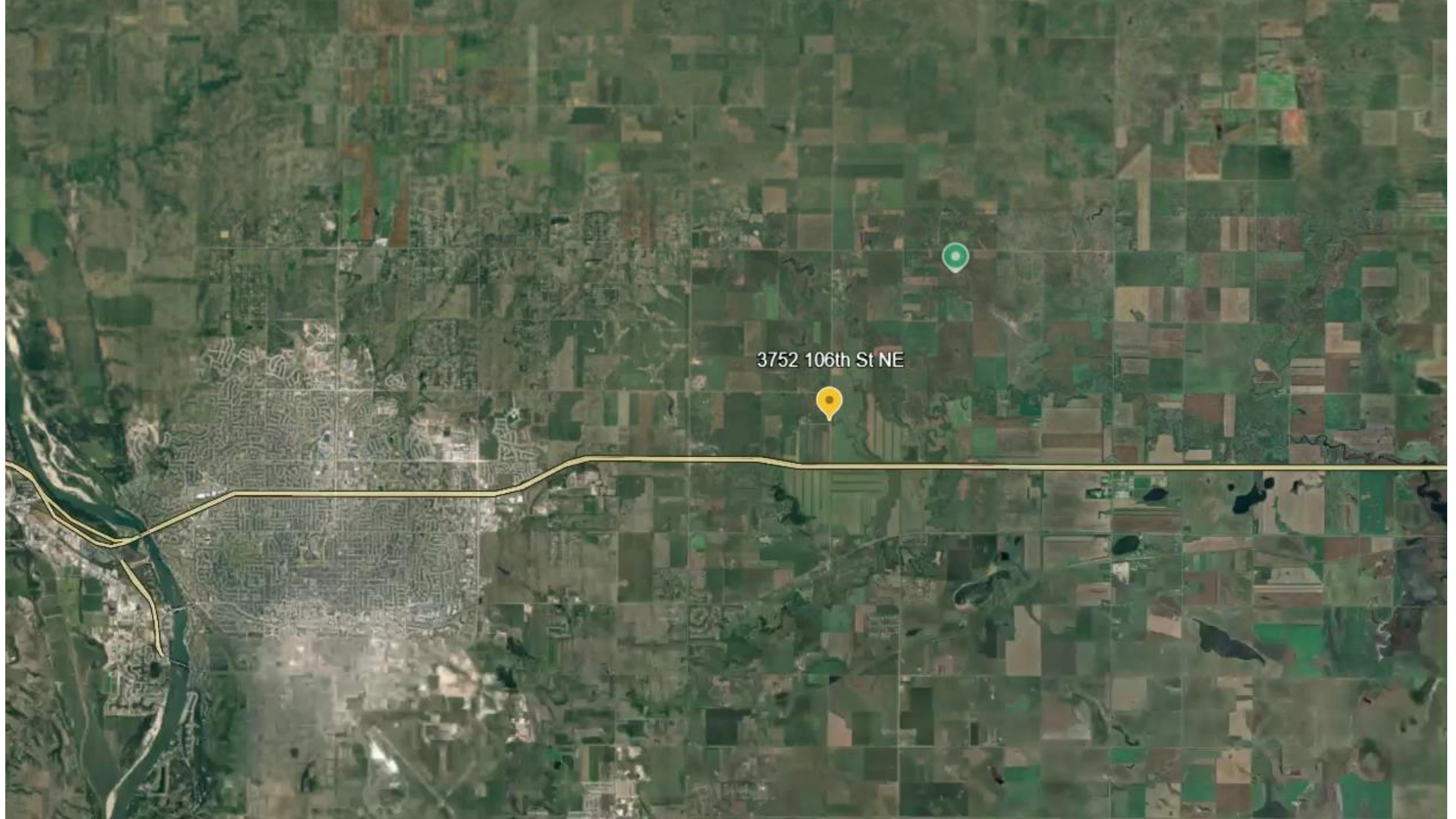


📍 B Mead, Pengreep Farm, Ponsanooth TR3 7JQ

📍 6R4R+Q4 Ponsanooth, Truro

☎️ 01209 861114

[✎ Edit](#)



3752 106th St NE

Bismark, North Dakota. Het jaarlijkse weer:

Climate Bismarck - North Dakota

	Jan	Feb	Mar	Apr	May	Jun
Average high in °C	-4.8	-2.1	4.7	13.9	20.2	25.2
Average low in °C	-16.6	-13.4	-7.0	-0.7	5.9	11.1
Av. precipitation in mm	11	13	22	32	61	81
Average snowfall in cm	23	20	23	10	0	0

	Jul	Aug	Sep	Oct	Nov	Dec
Average high in °C	29.3	28.6	22.3	14.2	4.2	-3.2
Average low in °C	14.1	13.1	7.2	0.1	-7.3	-14.4
Av. precipitation in mm	73	58	40	32	18	12
Average snowfall in cm	0	0	0	5	23	23

Bismarck weather averages

Annual high temperature 12.7°C

Annual low temperature -0.7°C

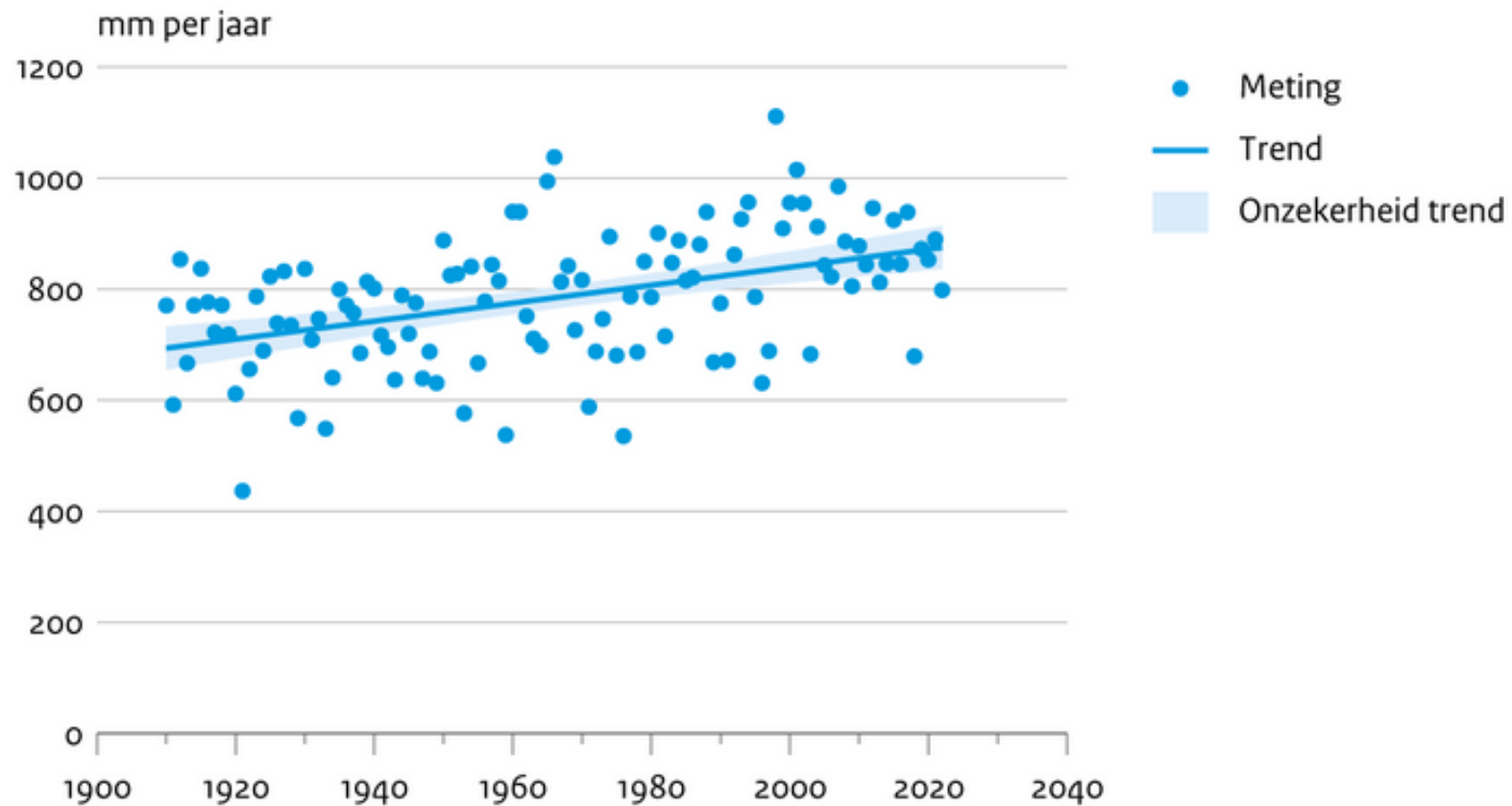
Average annual precip. 453 mm

Av. annual snowfall 127 cm

Neerslag gemiddelde Nederland



Hoeveelheid neerslag



Bron: KNMI; bewerking PBL

PBL/aug23
www.clo.nl/nlo50809

Temperatuur Nederland

De maximum, minimum, en gemiddelde temperaturen in De Bilt van de jaren 1706 t/m 2014, en de normalen van 1981-2010:

	jan	feb	mrt	apr	mei	jun	jul	aug	sep	okt	nov	dec	Jaar
Hoogste	7,1	7,6	8,8	13,1	16,0	18,8	22,3	20,5	17,9	14,2	10,2	7,3	11,7
Normaal	3,1	3,3	6,2	9,2	13,1	15,6	17,9	17,5	14,5	10,7	6,7	3,7	10,1
Gemiddeld	1,4	2,5	4,7	8,2	12,3	15,2	16,9	16,7	14,2	10,0	5,5	2,7	9,2
Laagste	-7,0	-6,7	-2,3	4,3	7,5	11,2	13,9	13,5	10,7	6,0	0,6	-5,7	6,5

Station: North Wyke

Climate period:

1991-2020



Month	Maximum temperature (°C)	Minimum temperature (°C)	Days of air frost (days)	Sunshine (hours)	Rainfall (mm)	Days of rainfall ≥ 1 mm (days)	Monthly mean wind speed at 10 m (knots)
January	7.93	2.88	6.77	54.48	118.69	15.90	9.05
February	8.18	2.60	6.33	75.09	90.03	13.34	9.16
March	10.10	3.56	3.43	111.94	79.10	12.87	8.40
April	12.62	4.86	1.50	163.11	66.56	11.27	7.40
May	15.54	7.38	0.07	193.75	65.22	10.63	7.06
June	18.25	10.12	0.00	191.56	61.77	9.80	6.84
July	19.92	12.10	0.00	184.70	59.95	10.17	6.63
August	19.76	12.31	0.00	159.99	70.41	11.47	6.93
September	17.66	10.37	0.00	142.48	71.01	10.70	6.83
October	14.13	8.19	0.33	102.66	113.09	15.30	7.50
November	10.77	5.47	1.73	63.39	118.37	16.93	8.13
December	8.49	3.40	5.74	51.12	129.24	16.80	8.64
Annual	13.64	6.96	25.90	1494.27	1043.44	155.18	7.71

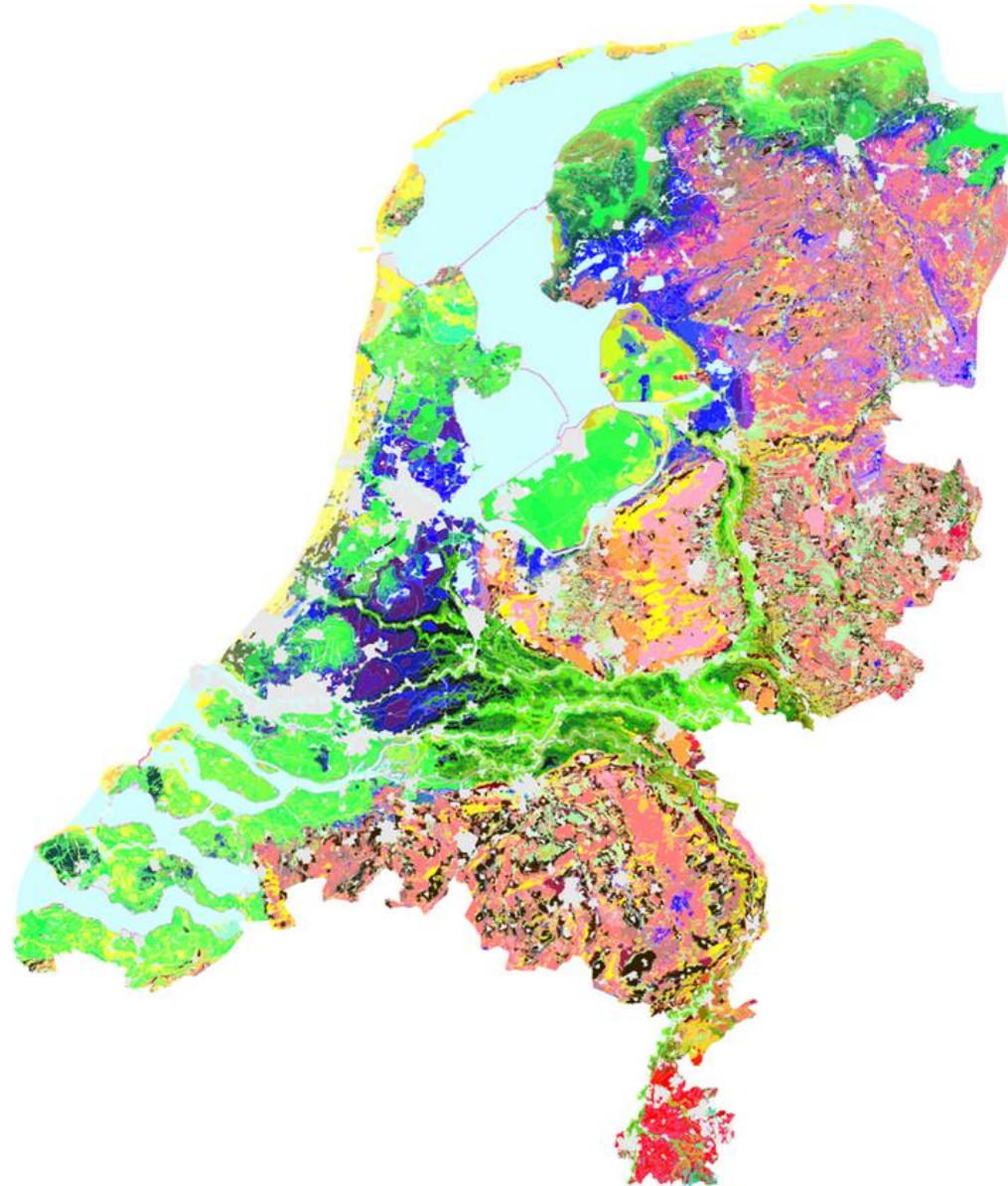
Grond soort: Gabe Brown Bismark

C740A

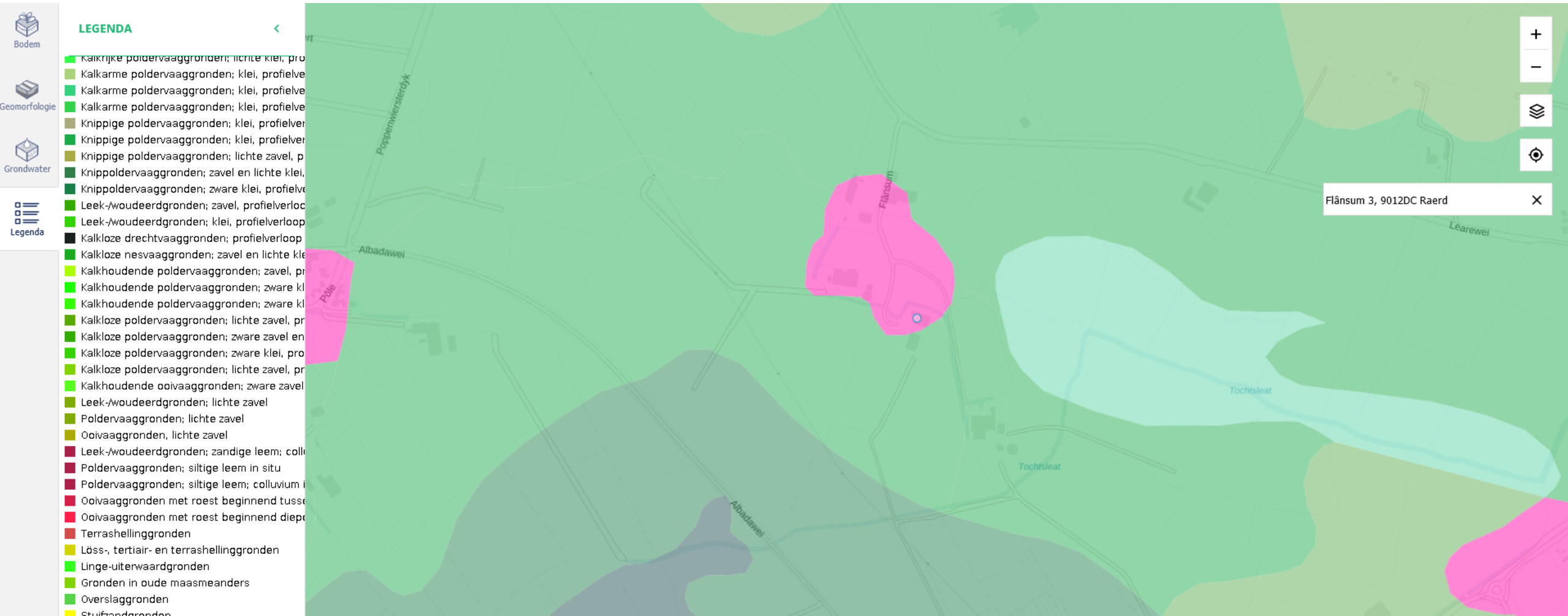
Temvik silt
loam, 0 to 3
percent slopes

[https://websoilsurvey.sc.egov.usda.gov/DSD/Download/Cache/SA/wss_SSA_ND015_soildb_US_2003_\[2024-09-04\].zip](https://websoilsurvey.sc.egov.usda.gov/DSD/Download/Cache/SA/wss_SSA_ND015_soildb_US_2003_[2024-09-04].zip)

Grond Soorten: Nederland

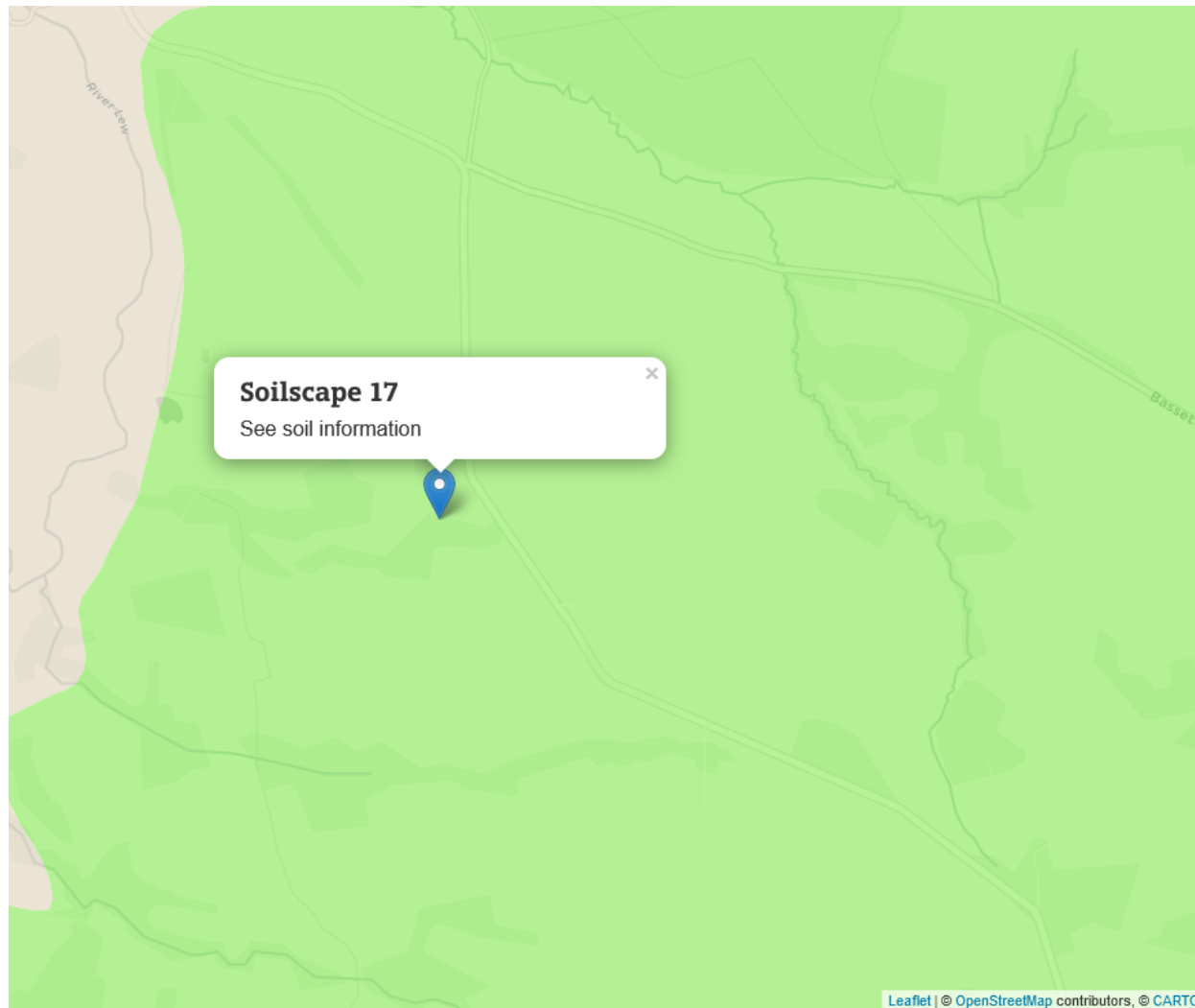


Grond Type: Jaring Brunia



<https://www.wur.nl/nl/show/bodemkaart-van-nederland.htm>

Grond Soort: Hatherleigh, VK



Soilscape 17:

Slowly permeable seasonally wet acid loamy and clayey soils

Texture:

Loamy and clayey

Coverage:

England: 7.0%, Wales: 15.1%, England & Wales: 8.2%

Drainage:

Impeded drainage



Fertility:

Low



Landcover:

Grassland with some arable and forestry

Habitats:

Seasonally wet pastures and woodlands

Carbon:

Medium

Drains to:

Stream network

Water protection:

Main risks are associated with overland flow from compacted or poached fields. Organic slurry, dirty water, fertiliser, pathogens and fine sediment can all move in







Grond beheer:

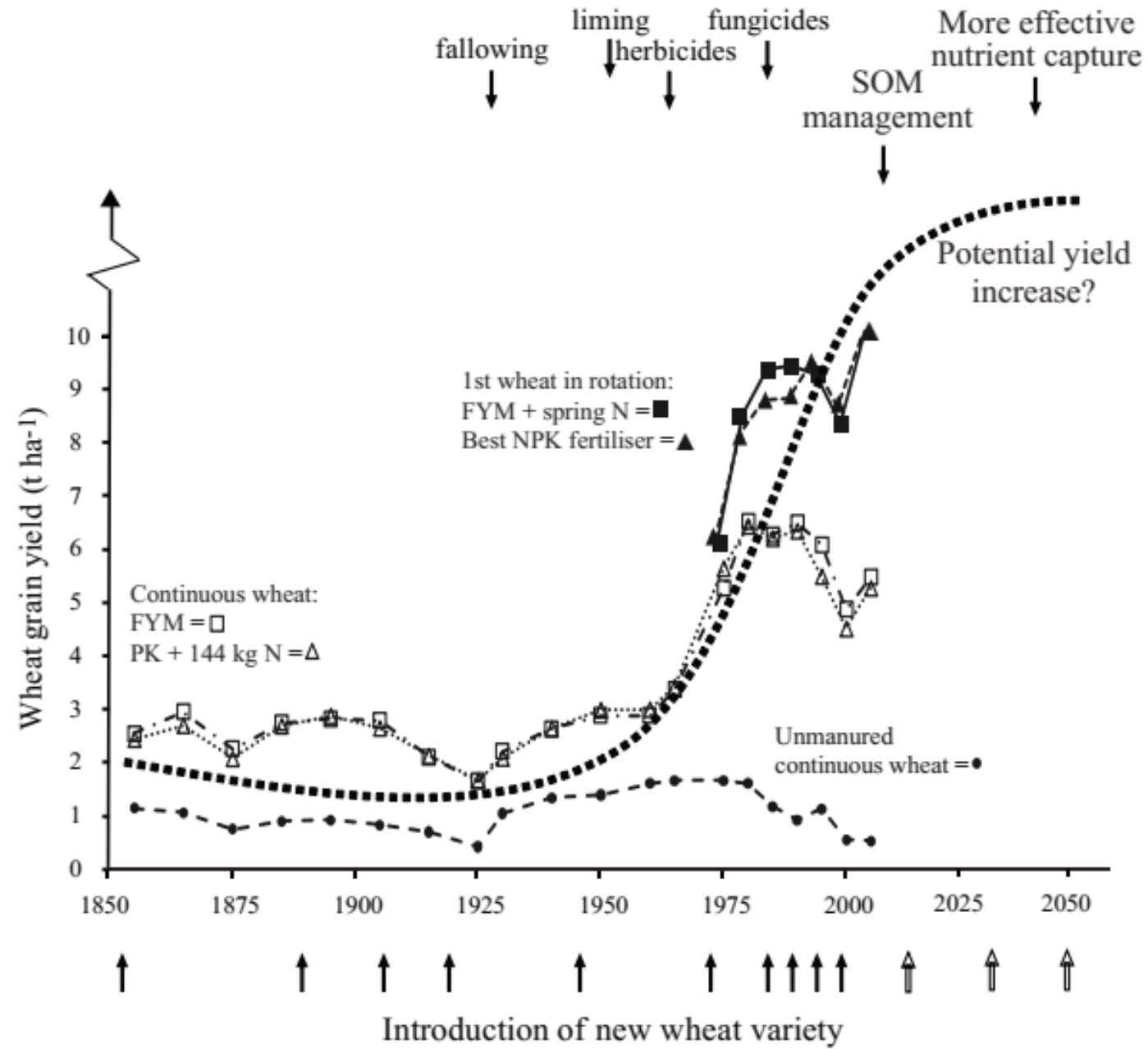
Goed Grond

Gabe Brown, Bismark, North Dakota

Onze Grond



Rothamsted Research, Tarwe opbrengst 20t/ha in 2032?



Goed grond!

Slechte vuil!



Soil aggregate stability is best test for soil organic carbon

Soils with good physical structure are generally associated with larger soil organic carbon contents.

A constant supply of soil organic carbon is needed for aggregate formation and stability.

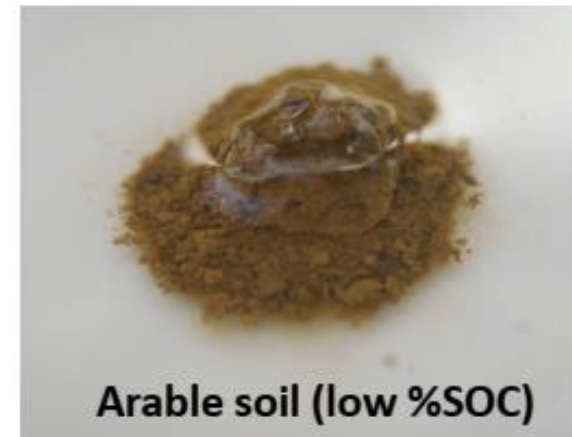
Stable aggregates indicate the level of soil organic carbon in farm soils

Farmers rated the slake test and earthworm counts as the top 2 methods at the PFLA AGM in 2017.

Full report available on-line



Grassland soil (high %SOC)



Arable soil (low %SOC)

FW Finalist Grassland Manager 2019:

Dan Burdett

Cockhaise Farm, Haywards Heath, West Sussex

It takes courage to challenge convention, but Dan Burdett is doing just that by pioneering multi-species leys and grazing techniques on his organic dairy farm.

The low-cost, autumn calving unit has been under organic stewardship for 20 years, but productivity began to decline about five years ago, encouraging Dan to look for solutions.

His tonic to low grass output has been to use herbal leys comprising birdsfoot trefoil, alsike, chicory, plantain, cocksfoot and Timothy, alongside high-sugar grasses to restore soil health. The deeper-rooting varieties are also having the added benefit of maintaining growth when the farm burns off in the summer.

The result is a spectacular sight of biodiversity, with plants attracting an array of wildlife. Soil health has also reaped the rewards, and productivity has more than doubled from 5t/DM/ha grown in 2014, to 12.6t/DM/ha grown last year.



... people, searching for
solutions to inherited problems.

**'Destruction leads to a
very rough road but it
also brings creation'**

California, 1990s
© 1999, Massachusetts State

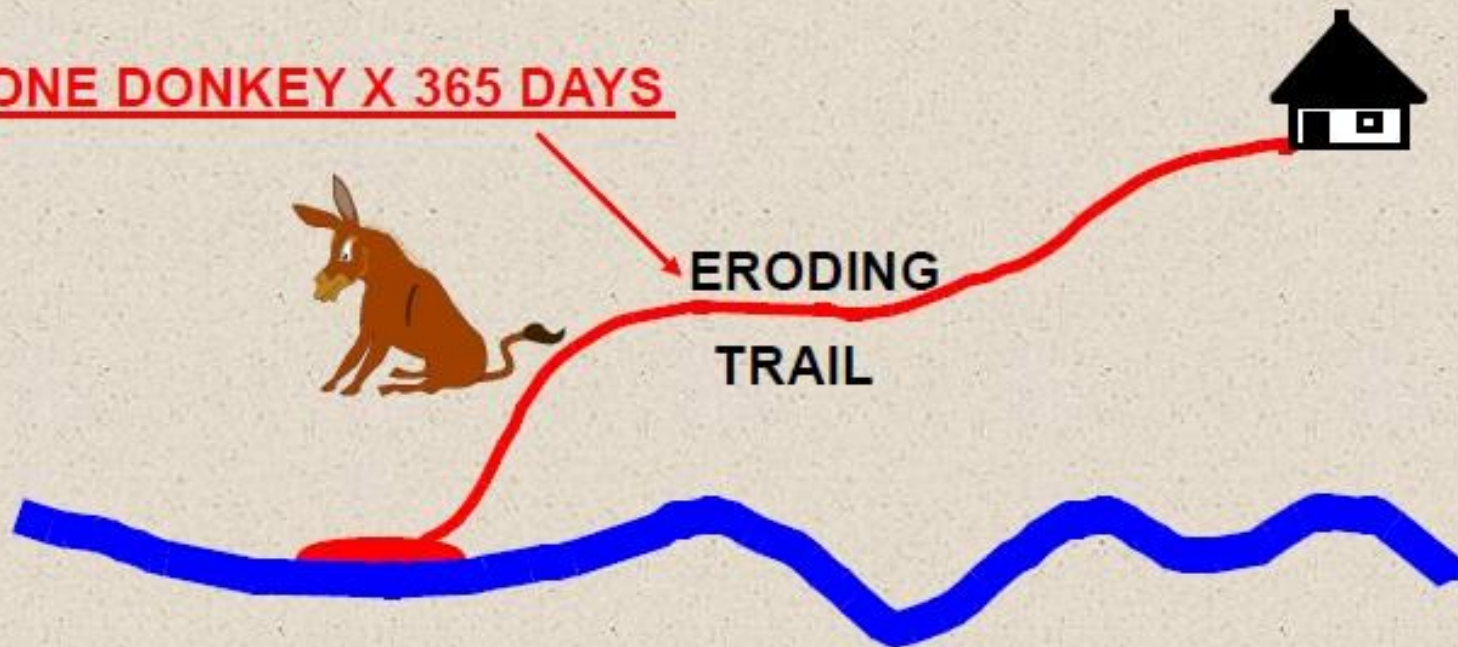
Pure grazing,
Mob Grazing,
Holistisch
Grazing:

- **Grazing met vee:**
 - Op een bepaalde oppervlak
 - Voor een bepaalde uitkomst
 - Op het juiste tijdstip
 - Voor een bepaalde duur



IMPORTANCE OF TIME IN OVERGRAZING AND TRAMPLING

ONE DONKEY X 365 DAYS



BAD TRAILING & EROSION
DAMAGED STREAM BANK

IMPORTANCE OF TIME IN OVERGRAZING AND TRAMPLING

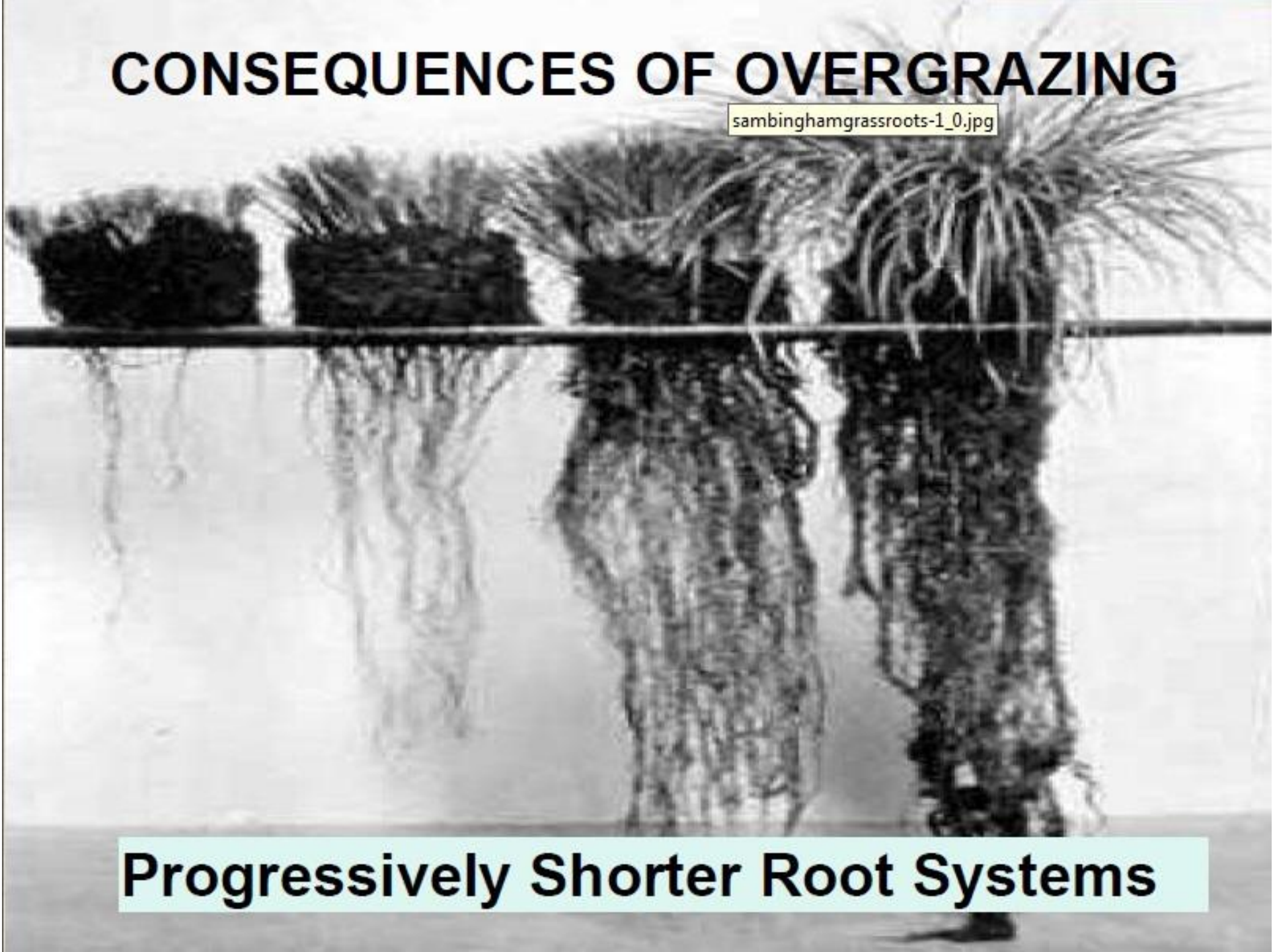
365 DONKEYS X 1 DAY



HEALTHY LAND ON TRAIL AND STREAM BANK

CONSEQUENCES OF OVERGRAZING

sambinghamgrassroots-1_0.jpg



Progressively Shorter Root Systems

Grond Bemesting “≠” Grond Gezondheid

- Grond Bemesting Parameters:

- pH, (Zuur/Alkaline, ideaal pH 6.4)
- Kalium (K) Index 2 - (121-180mg/l)
- Fosfaat (P) Index 2 (16-25 mg/l)

- Andere
 - Grond Mineraal Stikstof (Nitraat en Ammonium)
 - Grond Stikstof voorziening (SNS)
 - Macro Elementen: Kalium, Calcium, Magnesium, Natrium, Sulfer, Chlorine
 - Micro elementen, Kopper, Zink, Boron, Kobalt, ijzer, Manganese, Molybdenum, Selenium, Silicaten etc.

- Grond gezondheid Parameters:

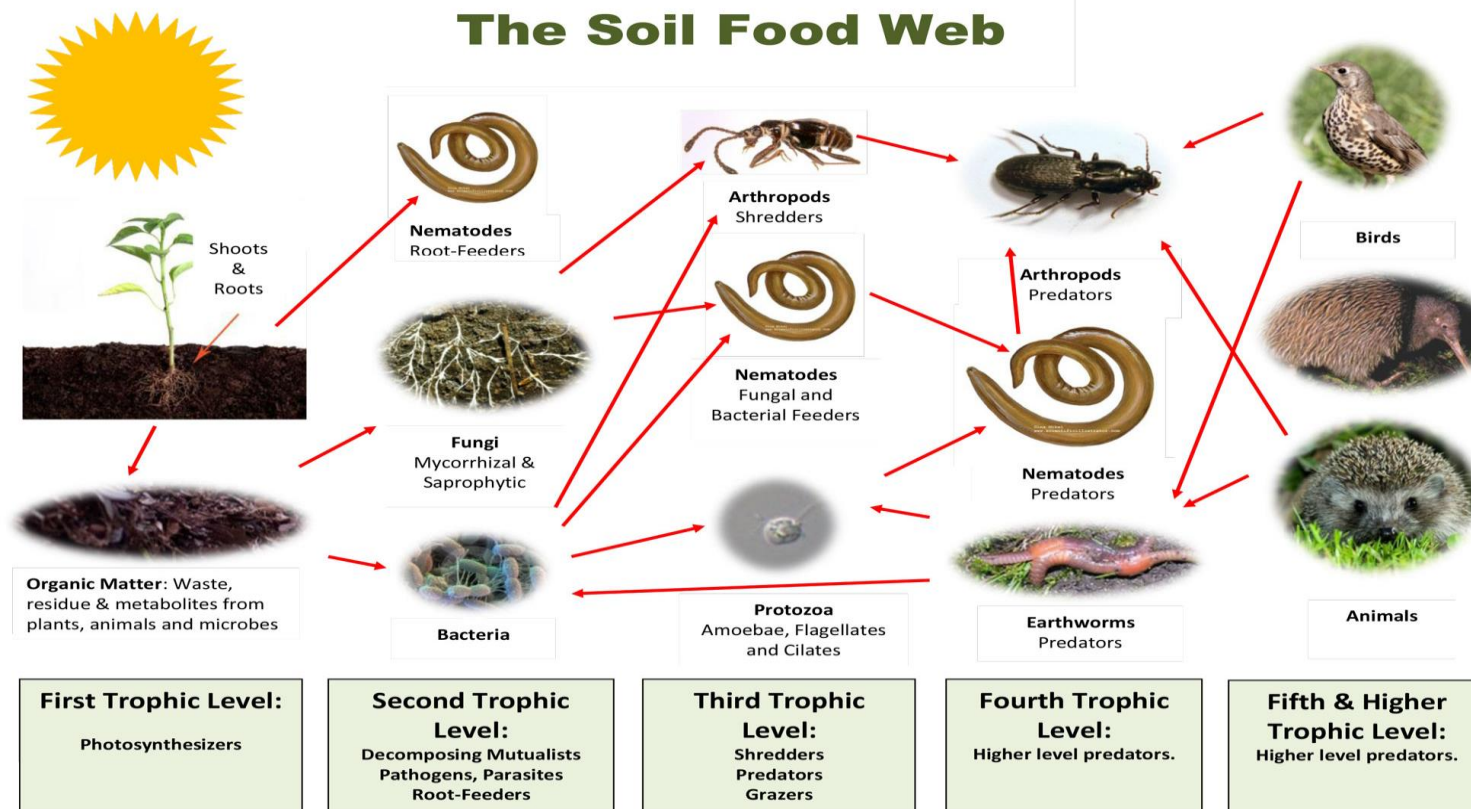
- Visual:
 - Grond wormen
 - Dode planten/mest verwijdering
 - Mest kevertjes
 - Slaking test
 - VESS (Visual Evaluatie Grond Structuur)

- Microscopish:
 - Bacterie
 - Fungi
 - Trichoderma
 - Aalwormens (Nematodes)
 - Anthropoids

- Grond samenstelling :
 - Klei, Zilt en zand
 - Grond Organische Stof
 - Plant Beschikbare Mineralen
 - CO2 (Solivita test)

Voordelen van Grond Organische Stof

- Trekt negatieve ionen aan, zoals NO_3 en Cl net zo goed als positieve nutriënten zoals Na, K en Ca.
- Voedsel voor microben, fungi en andere leven in Grond Voedsel Web uiteindelijk wormen, vogels, Mollen etc.:



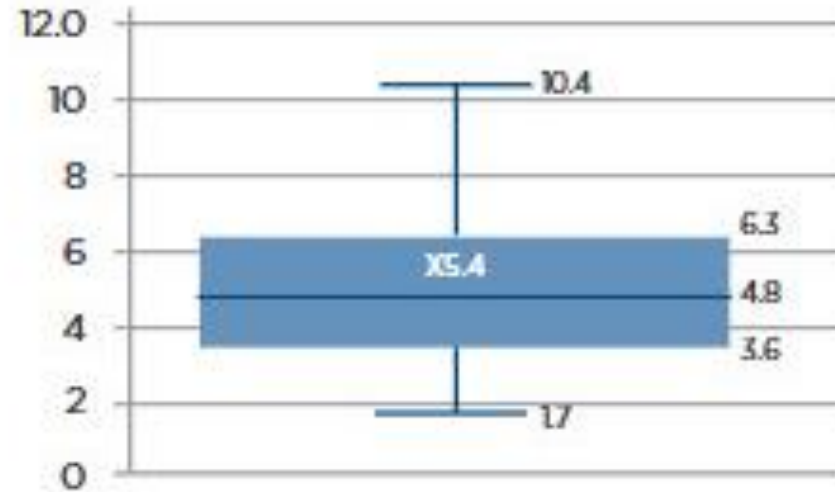
VK: Gedeelte van SFI Betalingen: Test grond voor organische stof:

Field Details		Soil Organic Matter [LOI%] Result
No.	Field Name or Reference	
1	MEADOW	7.9
2	HOUSE CLOSE	8.3
3	FRONT MEADOW	10.6
4	HIGHER BEADOWN	10.3
5	WHEAT PARK	9.3
6	HIGHER FISHGUARD	11.1

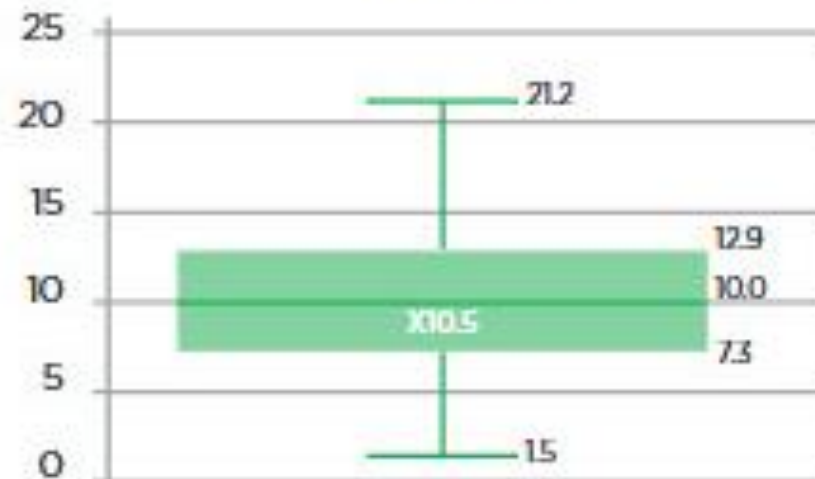
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

Natural Resource Management (NRM) Grond Report 2024

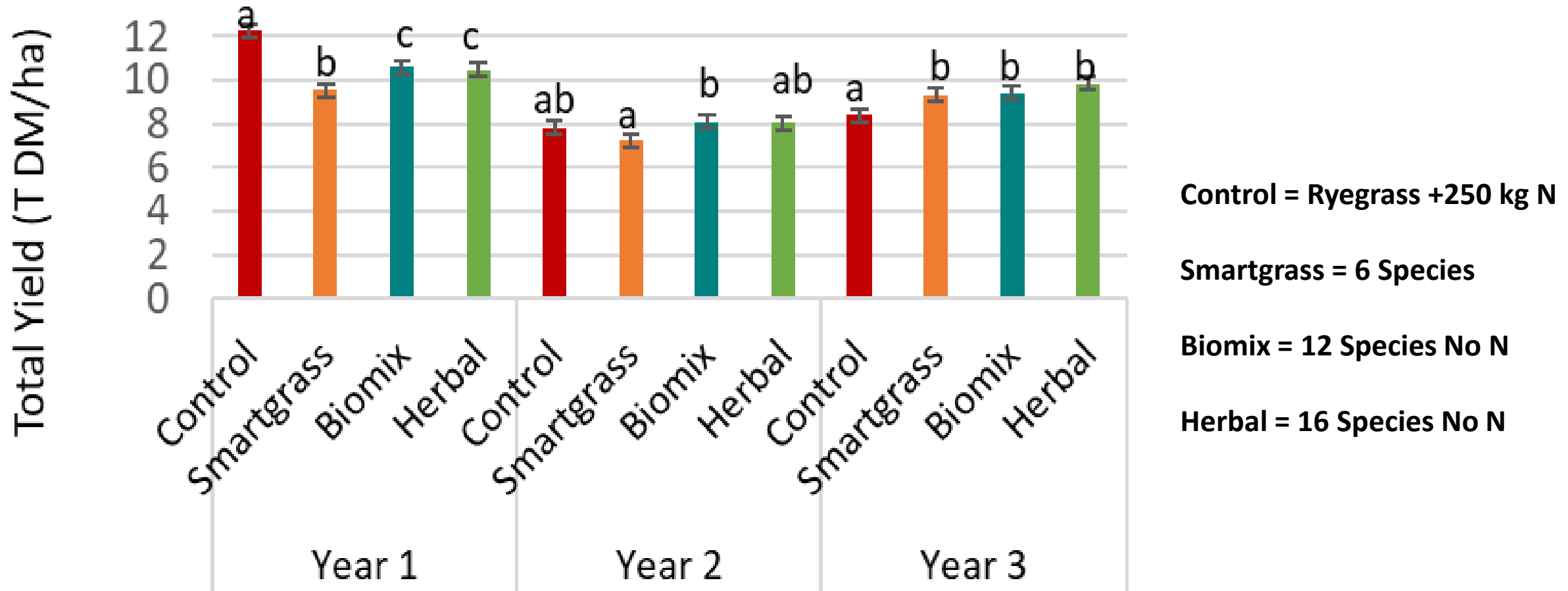
**Soil Organic Matter %
- Arable Fields**



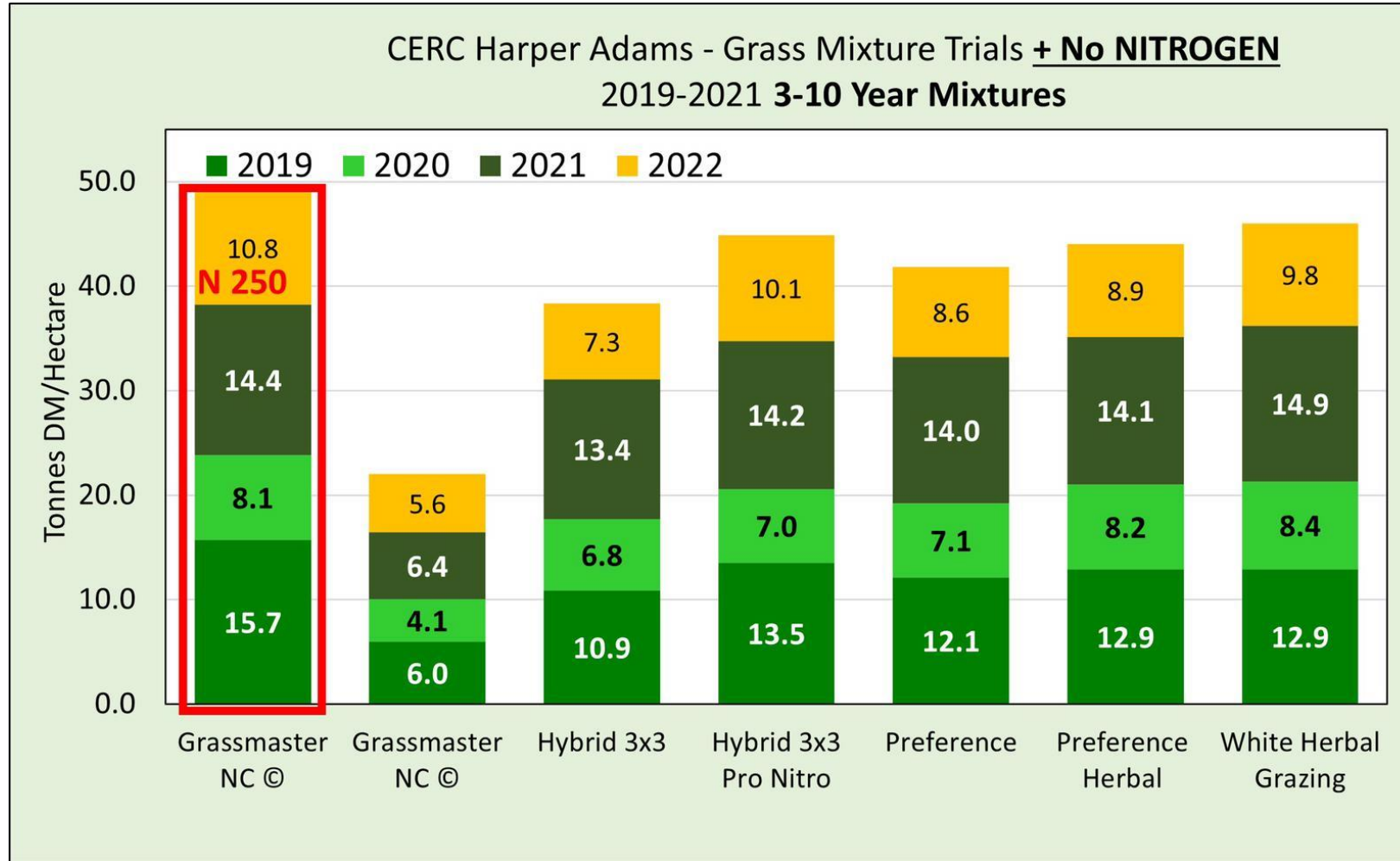
**Soil Organic Matter %
- Grassland**



3 jaar onderzoek op kruidrijke gras : Duchy College, North Wyke and Reading Universiteit

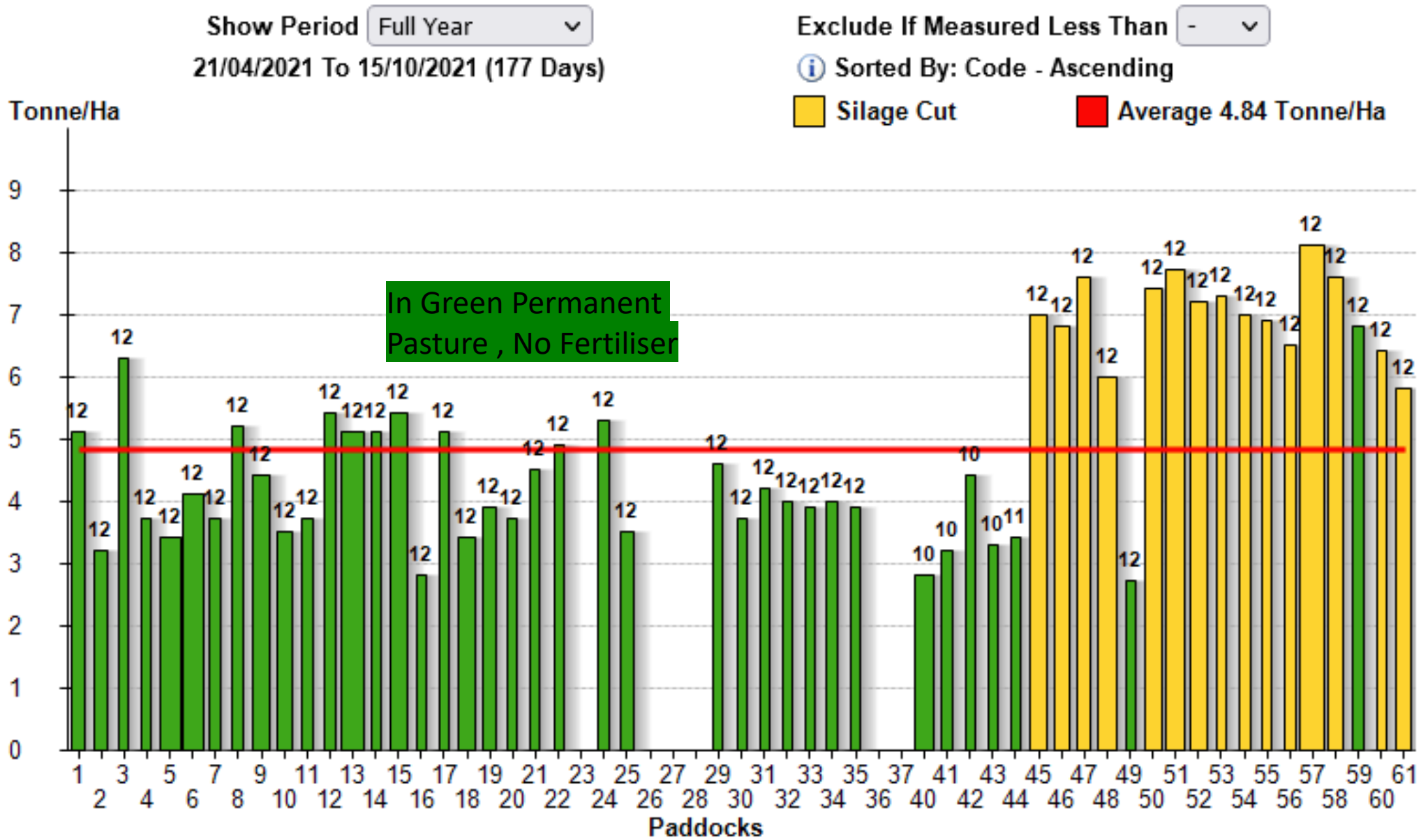


4 jaar demonstratie Project on Kruidrijke gras. Harper Adams Universiteit:



Actuele gemeten gras in blijvend grasland VS Kruidrijke gras productie:

Oorsprong: Johnny Haimes, West Sherford, AHDB Beef and lamb Strategic Farm 2017-2021



Balen grazen of drooge land vlakbij Plymouth.:



Laten groeien in droge periode → Natuurlijke doorzaai!

- 5 Jaar oud Kruiden rijk weide.
- Had op dat moment een 10 week hergroei periode gedurende een 8 week droge spel.
- Het grass 2 weken na het einde van droogte afgegraast. Foto 3 September 2013 , 1 week na een beetje regen
- Niet eerder hergezaaid dan 7 jaar later! Toen een 12 jaar oude Perseel met meer Rijgrass en witte Klaver





Importance of clover (RB209):

Grazing of Grass/Clover Swards – Nitrogen

Generally little fertiliser nitrogen is needed on swards with an appreciable clover content. On average, a good grass/clover sward will give annual dry matter yields equivalent to that produced from about 180 kg N/ha applied to a pure grass sward. However newly sown grass clover leys may yield even more nitrogen depending on the percentage of clover. It is often difficult to decide how much nitrogen will be supplied from grass/clover as the clover content can be very changeable from year to year and within a given season. The following photographs indicate how to estimate clover content and assess nitrogen supply.

Assessing nitrogen supply from clover

Percentage ground cover from clover

Potential nitrogen supply



180 kg/ha



240 kg/ha



300 kg/ha

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Protein Self Sufficiency (Nederlandsche boer gegevens):

50 shades of green

Three paddocks seeded in 2015

→ 100% grass

→ Grass + clover

• Grass + clover + 'rich species'



→ 10% higher dry matter yield
→ 10 gr./kg dry matter more protein

Minerals, vitamins, biodiversity
and the neighbours like it

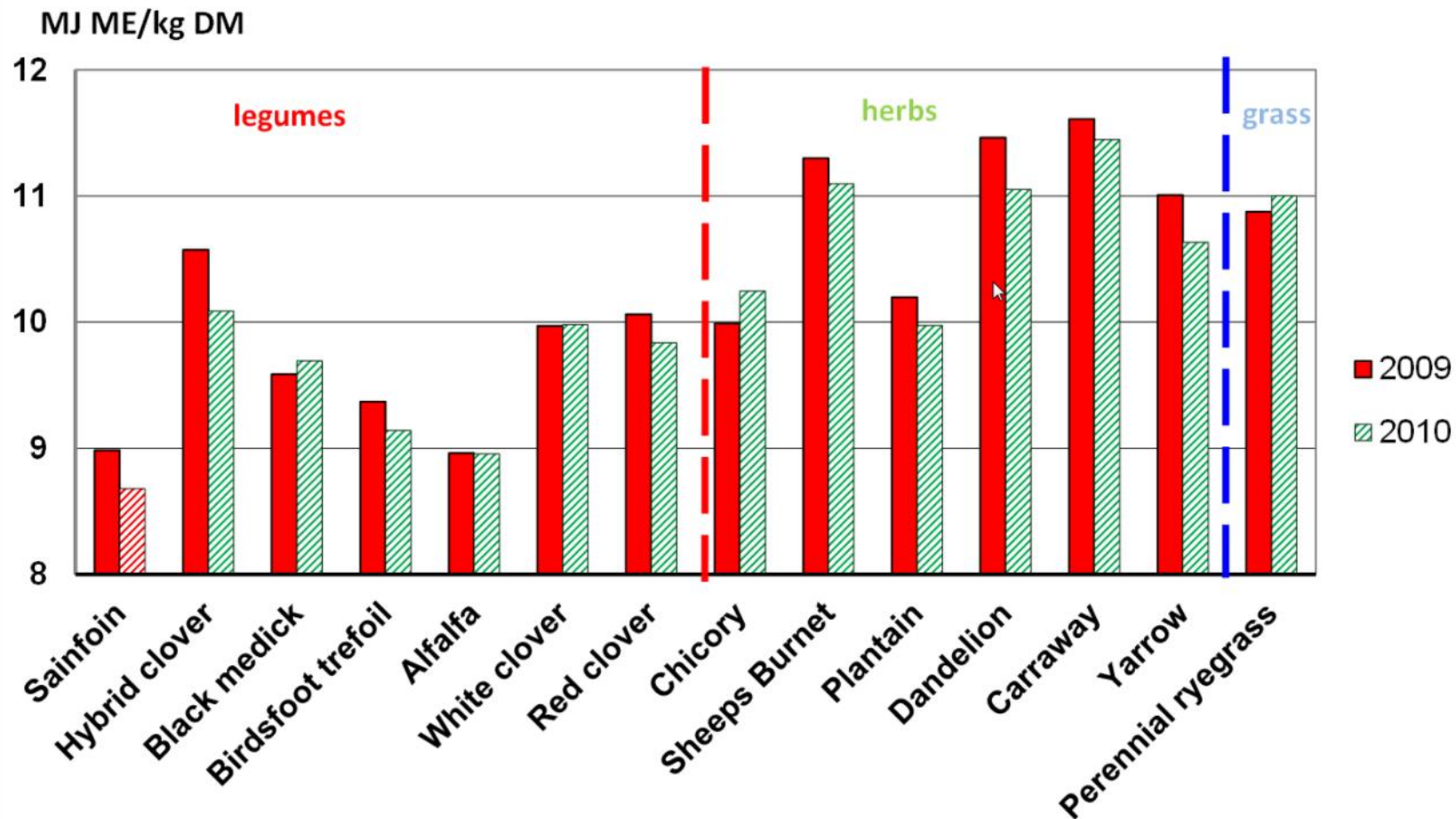
Nutritieel qualiteit kruidrijk gras: Dr Ralf Loges, Kiel University

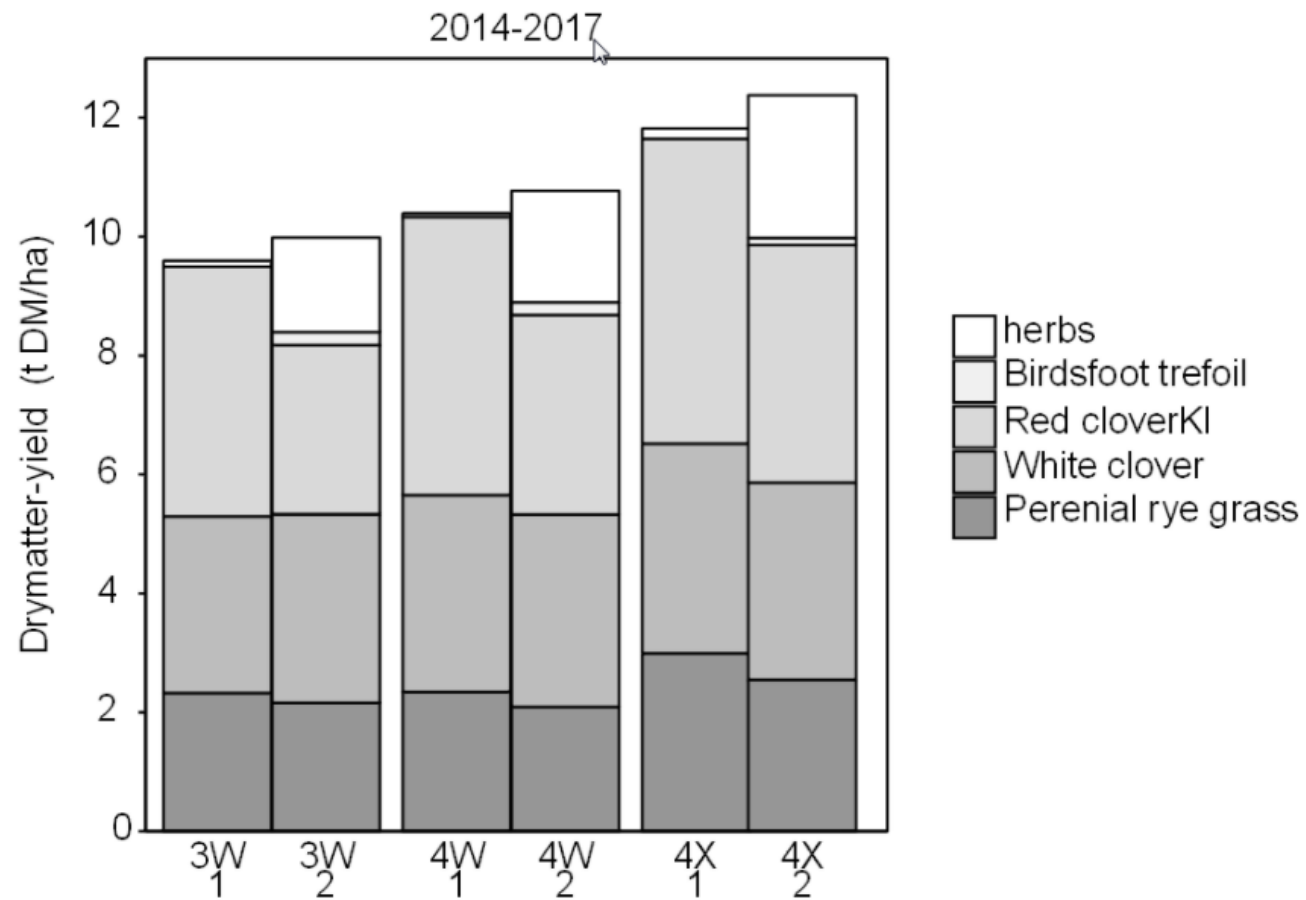
Energy content of pure stands without added N
3 times cut for silage per year (+ 1 after grazing)

C | A | U

Christian-Albrechts-Universität zu Kiel

Metabolisable-energy-content of pure sown swards





Factor	Factor level
1. Harvest frequency	1.1 every 3rd week (simulated grazing 1) (3W)
	1.2 every 4th week (simulated grazing 2) (4W)
	1.3 4 cuts per year (4x)
2. Seed mixture	2.1 grass clover (KG 1) perennial ryegrass + red clover + white clover
	2.2 grass clover with herbs (KG+ 2) perennial ryegrass + red clover + white clover + birdsfoot trefoil + caraway + salad bumet + Chicory + lancelet plantain

Rijgras vs Kruidrijk Gras and grond:

- Martin's Field:

- 20 cm boven grond,
- Een paar wormen:
- 10 cm diep wortel niveau
- Hoge Magnesium Level Index 4:
- Water infiltratie 10 mm in 30 mins



- Julian's Field:

- 25 cm bovengrond
- Veel wormen >10
- 30 cm diep wortel niveau.
- Water infiltratie 25 mm in 10 Mins



Grass			Duurzaamheid			
			Lang	Gemiddelt	Kort	Verdringt
Engels	Nederlands	Latin				
Perennial Ryegrass	Engels Rijgras	Lolium Perenne	■			
Italian Ryegrass	Italiaans Rijgras	Lolium Multiflorum		■		
Timothy	Timothee	Phleum Pratense	■			
Smooth Stalked Meadowgrass	Veldbeemd gras	Poa Pratensis				■
Meadow fesque	Weidezwenkgras gras	Festuca Pratense	■			
Creeping Fesque	Rood Zwenkgras	Festuca Ruba				■
Tall fesque	Rietzwenkgras	Festuca Arundinacea	■			
Festulolium				■		
Cocksfoot	Kropaar	Dactylis Glomeratt	■			■
Yorkshire Fog	Getreepete Witbol	Holcus Lanatus				
Rough Stalked Meadow Grass	Ruw beemdgras	Poa Trivalis				

Clovers:			Duurzaamheid			
			Lang	Gemiddelt	Kort	Verdringt
White Clover	Witte Klaver	Trifolium Repens	■			■
Red Clover	Rode Klaver	Trifolium Pratense		■		
Alsike Clover	Basterdklaver	Trifolium Hybridum	■			
Lucerne	Luzerne	Alfalfa		■		
Sainfoin	Esparcette	Onobrychis Viciifolia	■		■	
Crimson Clover	Karmozijn rode klaver	Trifolium Incarnatum			■	
Birdsfoor Trefoil	Rol Klaver	Lotus Corniculatus	■			
Sweet Clover	Gele Honingsklaver	Melilotis officinalis			■	
Kidney Vetch	Wondklaver	Anthyllis Vulnerraria			■	
Vetch	Voederwikke	Vicia Sativa			■	

			Duurzaamheid			
Herbs			Lang	Gemiddelt	Kort	Verdringt
Chicory	Chichorei	Cicorium intybus				
Plantain	Weegbree	Platago Major				
Salad Burnet	Kleine Pimpernel	Sanguisorba Minor				
Parsley	Peterselie	Petroselinum Crispum				
Cows Parsley	Fluitenkruid	Anthriscus sylvestris				
Sheeps Parsley	Peterselie	Petroselinum Sativum				
Common Knapweed	Zwart Knoopkruid	Centaurea nigra				
Parsnip	Witte Peen	Daucus Carota				
Yarrow	Duizendblad	Archillea Millefolium				

Wat is in kruidrijk gras?... erg variable!

GS4 Spec: 5 Grassen, 4 flinderbloemen and 4 Kruiden

SFI SAM 3: 5 Grassen, 3 Finderbloemen and 5 Kruiden

SFI CSAM 3: 1 Grassen, 2 Flinderbloemen, 2 Kruiden/Wildebloemen

Month & Year sealed: Aug 2017

Weight: **26.00 Kg** 2 acre bag
Gross

List of Species and Varieties:

Special GS4 Herbal Mixture

11.92 %	certified Perun festulolium
20.77 %	certified Premium perennial ryegrass
11.54 %	certified Erecta timothy
15.38 %	certified Sparta cocksfoot
6.15 %	certified Senu meadow fescue
2.31 %	certified AberPearl white clover
1.92 %	certified Leo birdsfoot trefoil
3.08 %	certified Merula red clover
15.38 %	commercial Sainfoin
1.92 %	certified Luzelle lucerne
1.92 %	certified Puna II chicory
1.54 %	certified Endurance ribgrass (plantain)
3.85 %	Burnet forage herb
1.54 %	Sheeps Parsley forage herb
0.77 %	Yarrow forage herb

Month & Year sealed: 49338/1062

Weight: 11.5 KG

List of Species and Varieties:

Acres Special ORG OP4 MIX
*****WITH MYCORRHIZAE*****

3.00kg	Org Toddington Late Dip
1.00kg	Org Nashota Late Tet
1.00kg	Org Liheroid Meadow Fescue
0.50kg	Org Swaj Tall Fescue
1.00kg	Org Persious Festulolium
1.00kg	Org Polarking Timothy
0.40kg	Leo Birdsfoot Trefoil
0.40kg	Dawn Alsike
0.55kg	Org Milvus Red Clover
0.45kg	Diplomat Red Clover
0.50kg	White Clover Blend (Alice & Rivendel)
0.30kg	Choice Chicory
0.30kg	Tonic Plantain
0.20kg	Yarrow
0.40kg	Sheeps Parsley
0.50kg	Sheeps Burnet
11.50kg	mixture

AGRICULTURAL

Ref No. 55366/1062

Month & Year sealed: February 2023

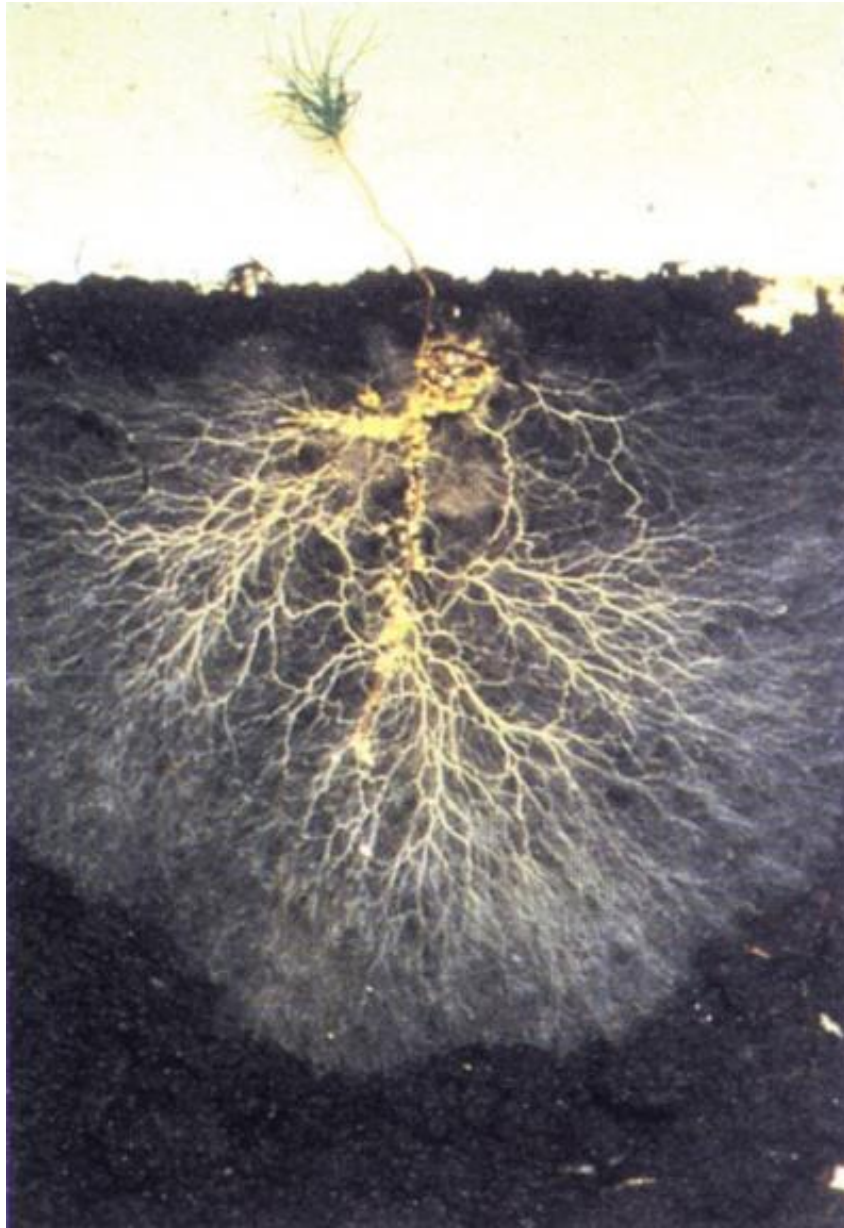
Weight: 14KG

List of Species and Varieties:

HM.28 HEAVY LAND HERBAL LEY

0.4KG	MERLYN, W CLOVER
2.2KG	PARDUS, MEADOW FESCUE
2.85KG	TODDINGTON, LATE DIPLOID
1.85KG	ERECTA, TIMOTHY
1KG	LOFA, FESTULOLIUM
1.2KG	KORA, TALL FESCUE
0.1KG	YARROW 0.1KG PARSLEY 0.1KG BURNET
0.2KG	BIRDSFOOT TREFOIL
1.4KG	MERULA, RED CLOVER
0.25KG	SWEET CLOVER
0.7KG	ALICE, W CLOVER
0.4KG	ALSIKE, CLOVER
0.25KG	CHICORY 0.2KG TONIC PLANTAIN
1KG	COMMON VETCH

Mycorrhizal Fungi rondom Plant wortels



Wat is in kruidrijk gras?... erg variabel!

Nu

SFI CSAM 3: 1 Grassen, 2 Vlinderbloemen, 2 Kruiden/Wilde bloemen

- Meeste weilandeden hebben al 2 vlinderbloemen, meestal witte klaver en Rol klaver/basterd klaver
- En: 2 Kruiden, meestal Plataan en Paardenbloemen.
- Vraag alleen aan om betaling, zonder het herzaaien, van £384/ha, voor 3 jaar.

Voor succesvolle kruide weide

- Goed grond beheer, verbeter het GOS, en los op drainage problemen
- Goede beweiding, niet te laag af eten/maaien, en als een kans heeft 1 keer per jaar tot zaad laten groeien, of een strip langs paden met puur klavers en kruiden die tot zaad uitlopen.
- Behalve witte klaver , vermijdt alles dat horizontaal groeit: kruipende botterbloem, kweek, bent, ruwbeend etc.

Organish

2006

- **6400L**
- 480 kg MS/koe
- 1.9 t Brock
- 1.8 koe/ha
- **864 kg MS/ha**
 - Met £7.50/kg MS en £400/t Brok:
 - MOC/koe = £2840
 - MOC/ha =£5100

2025?

- **3000L**
- 300 kg MS/koe
- 0 t Brock
- 2 koe/ha
- **600 kg MS/ha**
 - Met £7.50/kg MS en £400/t Brok:
 - MOC/koe = £2250
 - MOC/ha =£4500



POWER SUPPLY

OPEN AIR
DAIRY SYSTEMS

LITTLEBREDY, DORSET

NEIL GRIGG 07974 213 744
TOM FOOT 07973 634 354



(Organisch) bijvoeren of niet?

Geen bijvoeding:
(Roaming Dairy) 3000
L @ 72ppl = 2160 marge

Hier extra 1.92 t droge stof
toegevoerd @ 565 = 3435
marge

Wat zijn dan uw uitvoering
kosten: arbeid, machines,
brandstof, verzekering,
reparatie, bank rente etc.

MILK PRODUCTION								
Yield (ltrs/cow)	6668		11096	8159	7909	6728	6717	7223
Yield from all forage (ltrs/cow)	2930		4069	3574	3598	3459	3435	3121
Yield from grazed forage (ltrs/cow)	1724			1483				
% of total yield from forage	46%		37%	44%	45%	51%	51%	43%
Butterfat (%)	4.25		4.43	4.07	3.99	4.54	4.48	4.41
Protein (%)	3.32		3.49	3.15	3.15	3.52	3.57	3.33
Hygiene	28		34	31	6	21	20	22
Cell count	169		112	95	92	109	152	109
Milk price (pence)	50.69		42.76	52.79	51.83	54.89	54.91	52.53
FEED								
Concentrate use per cow (kg)	1851		3707	2238	2118	1730	1746	2233
Concentrate use (kg/ltr)	0.26	0.00	0.33	0.27	0.27	0.26	0.26	0.31
Concentrate price per tonne (£)	441	0	332	467	494	458	470	392
Other purchased feed cost per cow (£)	27		0	0	0	0	0	56
All purchased feed cost (p/ltr)	12.41	0.00	11.10	12.79	13.22	11.77	12.23	12.90
MARGINS								
MOPF per cow (£)	2497		3513	3264	3053	2901	2867	2862
MOPF per litre (p)	37.83		31.66	40.00	38.61	43.12	42.69	39.63





13/05/2006







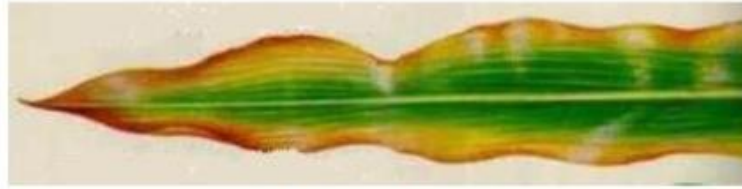
Healthy Plant



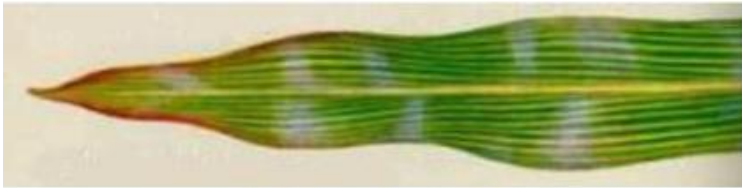
Nitrogen



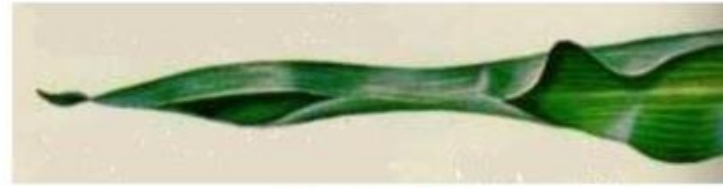
Phosphorus



Potassium



Magnesium



Drought



Herbicide



Disease

Figure 1. Common symptoms of nutrient deficiencies. Source: International Plant Nutrition Institute.

Plant sap-sample 202204221062

Sample Date: 11-4-2022

Name: Straight Line Nutrition Ltd
Address: East Barn, Westworthy
 EX20 2DJ North Tawton, Devon
 United Kingdom

Location/plot: ██████████
Cultivation: 2022 Acorn Farm 3 Gras
Crop: Grass
Plant part: Leaf (young)

Remarks
 05

Mineral		Current Level	Optimum			
Total Sugars	%	4,2	0,8 - 2,1			
pH		6,4	5,9 - 6,4			
EC	mS/cm	21,2	12,8 - 16,1			
K - Potassium	ppm	7855	4950 - 7075			
Ca - Calcium	ppm	1360	505 - 925			
K / Ca		5,78				
Mg - Magnesium	ppm	331	240 - 380			
Na - Sodium	ppm	360	89 - 241			
NH4 - Ammonium	ppm	1861	110 - 265			
NO3 - Nitrate	ppm	33	< 140			
N in Nitrate	ppm	7	< 32			
N - Total Nitrogen	ppm	4225	1270 - 2260			
Cl - Chloride	ppm	3869	1800 - 2900			
S - Sulfur	ppm	437	280 - 530			
P - Phosphorus	ppm	420	390 - 690			
Si - Silica	ppm	36,9	26,0 - 50,0			
Fe - Iron	ppm	1,99	2,55 - 6,55			
Mn - Manganese	ppm	9,56	3,10 - 12,90			
Zn - Zinc	ppm	2,62	2,65 - 4,80			
B - Boron	ppm	0,91	0,50 - 1,00			
Cu - Copper	ppm	0,52	0,60 - 1,00			
Mo - Molybdenum	ppm	0,07	0,15 - 0,30			



Tim Parton Brewing up Azotobacter Bacteria and Trichoderma Fungi



Tim Partons video diary 2021 - Pt1

298 views • 30 Apr 2021

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Aiva Fertiliser
37 subscribers

SUBSCRIBE



Total savings on wheat £307.5/Ha
Total on 117 ha £35977.5



Conventional vs Conservation Regen Ag

Fertilizer	£548
P&k	£100
Fungicides	£160
Protein spray	£60
Growth reg	£19
Insecticides	£7.5
Total	£894.5

Fertilizer	£587
P&K	£0
Fungicides	£0
Protein	£0
Growth reg	£0
Insecticides	£0
Total	£587



Onbehandeld en behandeld





Kruidrijke gras Engels ervaringen

<https://www.soilhealthexpert.com>

<https://all4oneconsultancy.uk>

<https://www.timpartonfarming.com>

www.acresusa.com

www.nuffieldinternational.org

https://www.nuffieldscholar.org/sites/default/files/reports/2006_UK_Ben-Mead-2005-Scholar_Improving-Pasture-Quality-For-Animal-And-Ultimately-Human-Nutrition-And-Health.pdf

https://www.nuffieldscholar.org/sites/default/files/reports/2011_UK_Rob-Richmond_The-Benefits-To-Agriculture-And-The-Environment-Of-Rebuilding-Soil-Carbon.pdf

<https://www.nuffieldscholar.org/news/nuffield-farming-report-transition-regenerative-agriculture-published>

<http://www.pasturepromise.tv>

<http://www.landalive.online>

<https://www.youtube.com/watch?v=pPWij-1M5i4>

<https://www.agritechcornwall.co.uk>

<https://www.rothamsted.ac.uk/north-wyke-farm-platform>

<https://doi.org/10.1016/j.geoderma.2018.07.002>

<https://www.pastureforlife.org/news/pasture-for-life-it-can-be-done>

<http://www.improvingfarming.uk>

<https://www.youtube.com/watch?v=QUSu1MFSjk4>

<https://www.youtube.com/watch?v=aRD4kuRQ7Qw&t=1394s>

<https://www.youtube.com/watch?v=J9OH07CSzIQ&t=1689s>

https://www.youtube.com/watch?v=ox_xHf1kkCM&t=902s

Gabe Brown Book: Dirt to Soil



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