

27 October 2021

College & University Lecturers Day

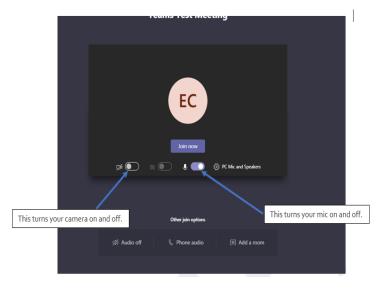


Housekeeping

- Attendees have control to mute/unmute the mic during the session
- If you have headphones, please use them as they can help block out any background noise but it is not a necessity.
- We are split into 3 sessions, that you are able to join and leave as you wish (agenda on the next slide)
- It is great to be able to see peoples faces via webcam if you have this available to you.
- This teams meeting will be recorded and made available after the event.
- Please complete the survey at the end to help us improve our events in future.







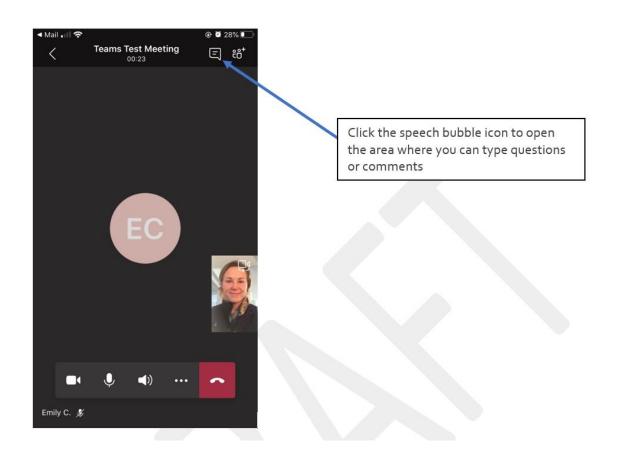


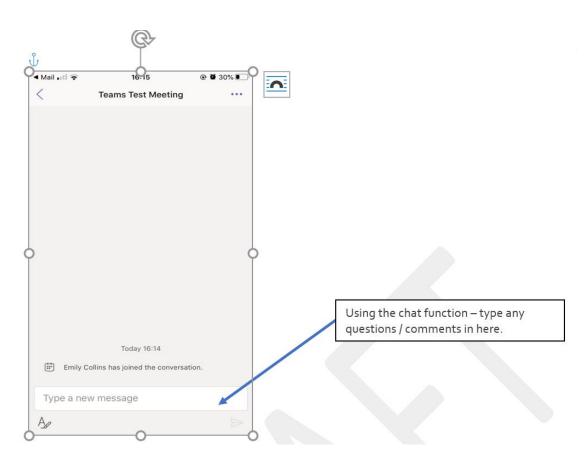
How to ask a question



You can ask questions verbally or by typing; using the chat function, click the speech bubble to access this.

Please mute yourself when you are not talking and remember to unmute yourself when you want to ask a question verbally etc.







Agenda

Session 1 – Livestock: 10.00am – 11.40am

Session 2 - Facilitated panel discussion: 12pm - 1pm

Break

Session 3 – Arable and business: 1.30pm – 3.15pm



Programme

10.00 Introduction/House keeping	Amie Burke
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10.10 GrassPro Siwan Howatson

10.25 Genetics' Marco Winters

10.40 Environment – Air Quality Zanita Markham

10.55 Disease Surveillance Lauren Dimmack/Lauren Turner

11.10 Red Tractor Standards Jemma Holden

11.25 Q&A and wrap up Amie Burke

12.00 Panel Q&A – "Engaging the next generation to the industries new norm"



Programme

Break

13.30 Intro/House keeping Amie Burke

13.40 Business Sarah Hurford

13.55 People Amie Burke

14.10 Environment – Soil Health Amanda Bennett

14.25 Recommended List – Crop selection Paul Gosling

14.40 Red Tractor Standards Duncan Parkinson

14.55 Q&A and wrap up Amie Burke

Agricultural Educator Awards

ABOUT

Agriculture Educator Awards are specifically designed to help those employed in agricultural education to



widen and develop their own technical expertise through study activities either in the UK or abroad.

It is expected that the knowledge

and experience gained will then be disseminated to both students and others involved in the agriculture and agricultural education sector.

Although not an overriding criteria applications are especially welcome from those early in their careers in order to give an opportunity to focus on a particular area of interest which in addition to helping the employing institution will also serve to assist career prospects of individuals.

The subject areas studied by award recipients over recent years have been varied but applications focusing on the integration of science and technology in farming which contributes to the sustainability and profitability of agriculture in the UK as well as improving the future security of our food production will be especially welcome.

Examples of recent Agricultural Educator Awards subject topics can be found on the Farmers Club website. www.tfcct.co.uk

AWARDS

A total of approximately £30,000 is allocated for a number of awards. Normally study activities will be in the region of four weeks duration but longer or shorter term awards will also be considered.

The Trust are offering flexibility with regard to taking up the award due to the current Covid situation.



⇒ Applicants must at the time of application be actively involved in a relevant aspect of agricultural/land-based education or employed in a recognised agricultural establishment in the UK.

APPLICATION

All should provide the following information.

- An outline plan of the programme of study to be undertaken and definitive title for the final report of the study period.
- The country and place(s) where the study would be based.
- The names and addresses of two referees, one of whom should be familiar with applicant's present employment.
- An endorsement by the employer to the effect that the institution will:
 - Support the candidate's outline proposals and
 - Continue to pay the applicant's salary for the duration of the award.
- An endorsement by the applicant to the effect that:

They are prepared to fulfil the conditions of the award, including the completion of a report within 12 months, and if required, the presentation of a paper.

Closing date for applications Friday 11th February, 2022

Interviews Tuesday 15th March, 2022

AHDB

Lisa Turner

07879 625660

ambassador@tfcct.co.uk



College & University Lecturers Day

AHDB Grass Campaign

Siwan Howatson







Aim

To work with farmers and industry partners at all levels of experience in the ruminant sectors to improve the cost-effective use of grass to build profitable and sustainable systems to achieve greater profits and growth potential.

AHDBGRASS





Reach levy payers

- 2
- ↑ production and utilisation of high-quality grass

3

↓ cost of production

4

↑ environmental sustainability

(5)

Programme to upskill the support network

6

Engaged network on resilient grass & forage systems

AHDBGRASS



Principles of getting the most out of grass

Capitalising on the cheapest feed stuff available on-farm will drive profitable and sustainable businesses. Below are the four core pillars to optimise grass as part of your system.



Soil health Grassland management



Nutrient management



Grass, clover and herb varieties





Building farmer confidence to make grassland management decisions

Upskilling the support network

AHDBGRASS

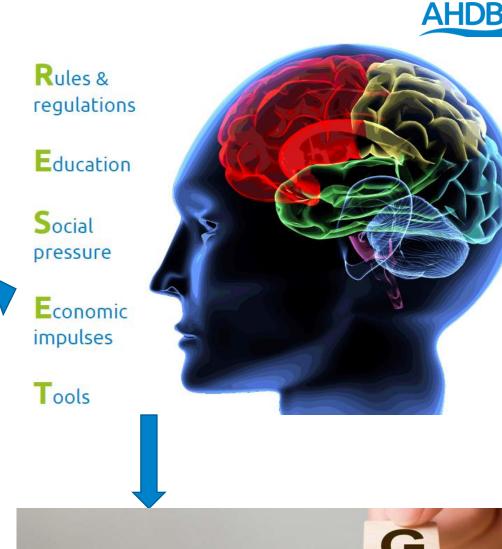
Building farmer confidence

Training courses

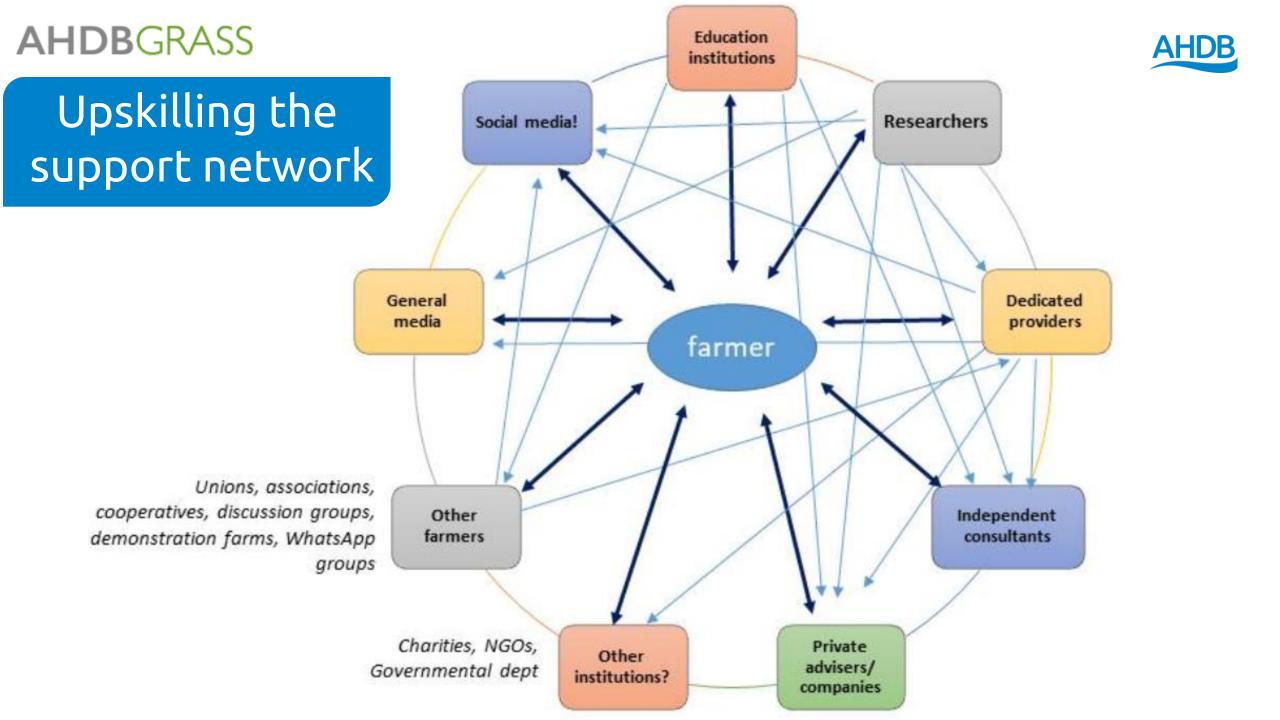
Discussion group framework

Farm Excellence Platfrom

Newsletter, tools & resources



CHAN







Services & tools

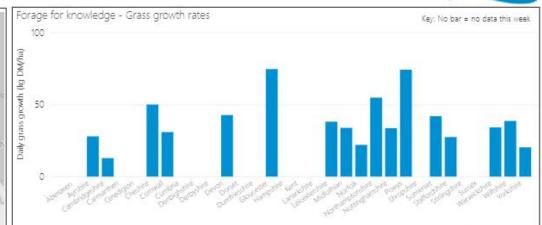
Forage for Knowledge - Grass growth Data updated: Oct 14, 2021

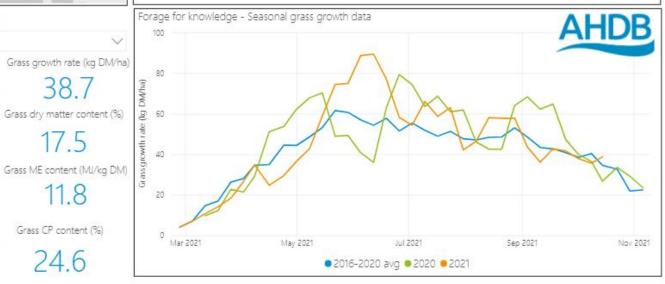
AHDB





Location





Apply now for a chance to receive 1-... Better production and utilisation of

Weekly reminders



October: the start of the last grazing... Andre Van Barneveld of Graise

< 1 of 3 > 10 Microsoft Power BI

Download the PDF version here



AHDBGRASS



Forage management videos and webinars





AHDB Grass resources



Autumn grassland management...

This planner will you you manage you grassland over the autumn



How to assess clover content in pastures

Use the clover content assessment stick to help you estimate the



How to calculate the dry matter (DM) of...

Find out why sampling forage and calculating its DM value is essential



Electric fencing for livestock

Explore our information on how to

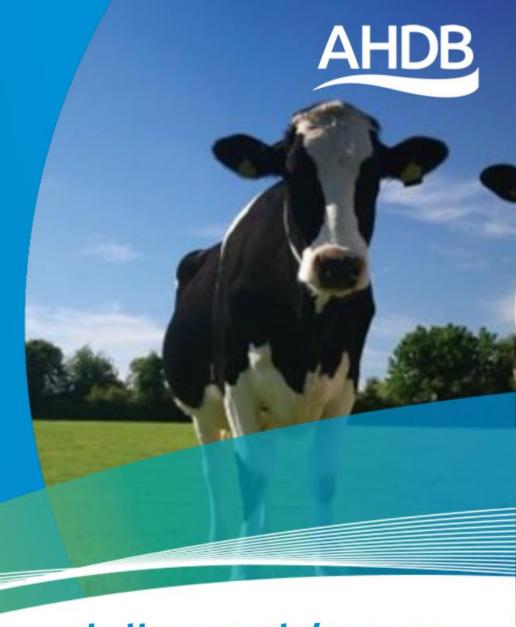
and tanders. Org.uk/grass

Online event

Dairy Research Conference

Hear about the latest results from our Dairy Research Partnership, led by University of Nottingham.

Monday 22 November -Friday 26 November



ahdb.org.uk/events



Thank you for listening!

siwan.howatson@ahdb.org.uk | 07580741010



Dairy genetic and genomic evaluations

Marco Winters

(marco.winters@ahdb.org.uk)

October 2021





AHDB Dairy Breeding

- Provide Genetic Evaluation for all breed and crosses in the UK
 - Independent and Paid for by dairy farmers
- Working in collaboration with many (inter)national industry partners!

Breed Societies

Milk Recording

Service partner

'Others'

Genomic partners



SHORTHORN

























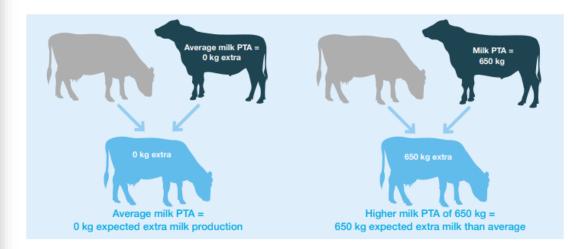
Breeding briefs



Contents



- 3 Introduction
- 4 Genetic indexes: the theory
- 21 Genetic indexes: in practice
- 24 Frequently asked questions
- 25 Glossary
- 27 Where to find the information



Heritability				
tion				
55% (0.55)				
47% (0.47)				

Heritability

Genetic improvement depends on traits being inherited down the generations. Some traits are far more heritable than others. Heritability is defined as the degree to which a trait is observed as being passed down the generations.



Remember; P = G + E

Phenotype

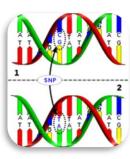
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Genetics

+

Environment





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Remember - Genetic improvement is;

- Permanent; long term solution
- Cumulative over generations



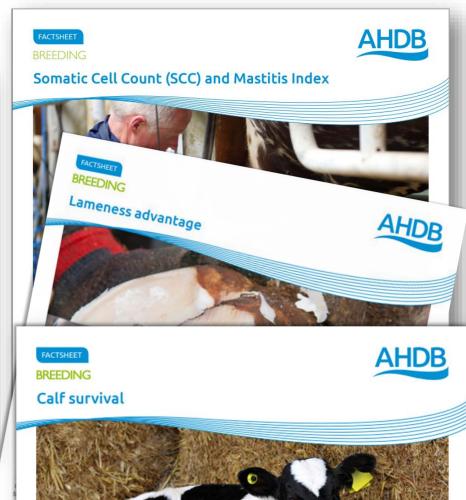


As more data is being recorded on UK farms an ever growing list of valuable genetic indexes are introduced

Genetics can provide significant and permanent improvements to many industry challenges

	HOL	BRF	SHO	AYR	JER	GUE	BSW	MON	FLV
Production	✓	✓	✓	✓	✓	✓	✓	✓	✓
SCC	\checkmark								
Lifespan	\checkmark								
Fertility	\checkmark								
Туре	\checkmark	N/A	N/A						
Maintenance	\checkmark	N/A	N/A						
Calving Ease	\checkmark	\checkmark	N/A						
TB Advantage (2016)	\checkmark								
Mastitis (2017)	\checkmark								
Lameness Adv. (2018)	\checkmark								
Calf Survival (2018)	\checkmark								
Dairy Carcase Idx ₍₂₀₁₈₎	\checkmark								
Digital Dermatitis (2020)	\checkmark								
Gestation Length ₍₂₀₂₁₎	\checkmark								
Feed Advantage (2021)	\checkmark	N/A							

#PoweredByAHDB



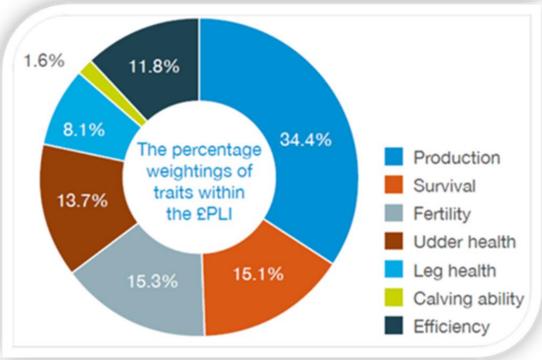


We now have many traits we can select for!

To help to narrow down the data, we provide profit ranking indexes

Match appropriate genetics to UK systems

- £PLI Profitable Lifetime Index
 - All-year-round; Within breed ranking
- £SCI Spring Calving Index
 - Spring block; Across breed ranking
- £ACI Autumn Calving Index
 - Autumn block; Across breed ranking







Two alternative sub-indexes introduce in 2021

HealthyCow

Savings through better health genetics



EnviroCow

Genetic index to reduce CO2 per kg product



Genetics is estimated to contribute a 20% reduction by 2040



Further info please visit;

AHDB

Dairy Breeding and Genetics | AHDB

(ahdb.org.uk/dairy-breeding-genetics)



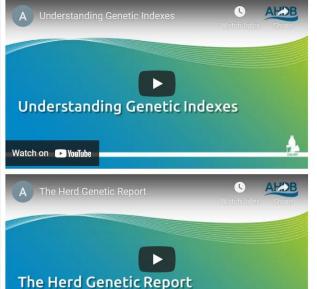
weaknesses of your herd and make informed breeding decisions



EPLI - Profitable Lifetime Index



Introductory dairy genetics videos





ESCI - Spring Calving Index

An across-breed genetic ranking index for spring block-calving herds



An across-breed genetic ranking index for autumn block-calving herds

Dairy genetics guides and factsheets





Autumn Calving Index - £ACI

The Autumn Calving Index (£ACI) is an across-breed genetic ranking index for autumn block calving



Maintenance Index

The maintenance index is also published as a stand-alone trait provides a way of estimating the



Fertility Index

The fertility index is a guide to the fertility of the daughters of bulls in UK herds. Find out how it can be



Lifespan Index

The lifespan index helps farmers select for animals that will have a longer herd life.



Buy semen – Don't be sold semen



Getting the right semen in the tank is critical

Consider how many replacements are needed

- Beef vs Dairy
- Sexed vs Conventional

- Also consider which are the cows to breed from
 - Use Herd Genetic Report as guide
 - Using genomic information to fine-tune breeding



Breeding Trait Selector

Welcome to AHDB Dairy's Breeding Trait Selector - our tool to help you identify and prioritise the genetic traits to meet your breeding goals.

The Selector will consider your calving pattern, contract and breed strategy alongside the areas of performance you would like to improve. Based on this info, it will give you a recommendation of the traits to look for in the next team of bulls you will use on your herd.

This tool will not give recommendation of specific bulls to use but the traits which will help you to reach your breeding goals.

For help in calculating the number of straws to purchase please use AHDB Dairy's Breeding Season Semen Calculator and for more information on selecting the right sires for your herd visit our Breeding Blocks page.

Stage 1: About your herd

1. Calving pattern	~
2. Breed strategy	~
3. Which breed(s) are you interested in?	Holstein
	Friesian





Breeding Season Semen Calculator

This tool allows you to calculate your herd's semen dose needs based on the number of breeding females, conception rates and the use of conventional, sexed or beef semen. White boxes are input fields, green are output and all other fields contain calculations so cannot be edited.

For more information on selecting the right sires for your herd visit our Breeding Blocks page.

Herd details

Milking herd available to breed	
Annual replacement rate %	%
Total number of heifers to breed from	
Number of heifers to breed replacements from out of above heifer group	
Cows and heifers available for replacement breeding	0

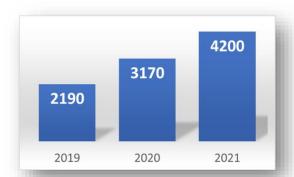
Semen type (conv. vs sexed) and conception rates



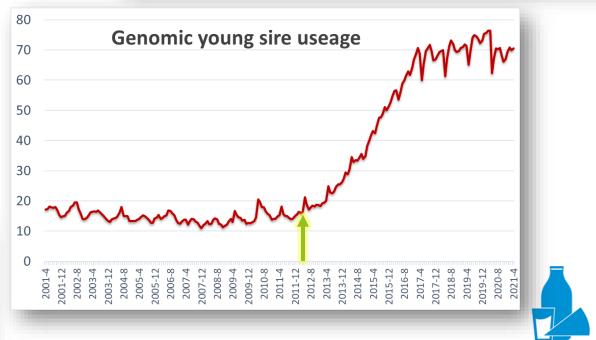


UK dairy breeding in a snapshot

- Use of beef semen
 - √ now ~45% of all inseminations in 2020-21
- Use of sexed dairy
 - √ now ~64% of all dairy inseminations
- Use of genomic young sires
 - ✓ at ~70% of all dairy inseminations
 - Genomic testing of heifer calves
 - ✓ Monthly avg.;







DAIRY



AHDB Herd Genetic Report (HGR)

- Available for fully milk recording herds (NMR, CIS, QMMS, Dale Farm)
- Allows strengths and weaknesses to be easily identified
- Gives the genetic potential of every animal on the farm
- Available for 3rd party access by vets, consultants, breeding advisors

Breeding.Evaluations@AHDB.org.uk



Group of animals Cow Cow Cow % 0-12 56 months 490 138 2.8 4. 4. 12-18 72 months 428 4. 4. 18-24 47 months 411 4. 4. 24+ 30 months 235 4. 4. 1st 102 Lactation 268 85 1.1 4. 4. 2nd 80 Lactation 208 49 0.7 4. 4. 3rd 76 Lactation 137 43 0.4 3. 4.	1.3 34 496 1.7 38 462 1.9 39 438
Group of animals Cow Cow Cow % 0-12 56 months 490 138 2.8 4. 4. 12-18 72 months 428 4. 4. 18-24 47 months 411 4. 4. 24+ 30 months 235 4. 4. 1st lactation 102 268 85 1.1 4. 4. 2nd lactation 80 208 49 0.7 4. 4. 3rd 76 lactation 137 43 0.4 3. 3. 4th 46 75 19 0.3 3. 4.	% (kg) 1.3 34 496 1.7 38 462 1.9 39 438
months 428 4. 12-18 72 428 4. months 411 4. 18-24 47 411 4. 24+ 30 235 4. months 1st 102 268 85 1.1 4. 2nd 80 208 49 0.7 4. Lactation 208 49 0.7 4. 4th 46 75 19 0.3 3.	1.7 38 462 1.9 39 438
months 411 4. 18-24 47 411 4. 24+ 30 235 4. months 1st 102 268 85 1.1 4. 2nd 80 208 49 0.7 4. 2nd 80 208 49 0.7 4. Lactation 137 43 0.4 3. Lactation 4th 46 75 19 0.3 3.	1.9 39 438
months 24+ 30 235 4. 1st 102 268 85 1.1 4. 2nd 80 208 49 0.7 4. 2rd 76 137 43 0.4 3. Lactation 46 75 19 0.3 3.	
1st 102 268 85 1.1 4.	12 40 250
2nd 80 208 49 0.7 4. 2nd 80 208 49 0.7 4. 3rd 76 137 43 0.4 3. Lactation 4th 46 75 19 0.3 3.	40 250
Lactation 137 43 0.4 3. Lactation 45 19 0.3 3.	1.2 57 362
Lactation 4th 46 75 19 0.3 3.	l.1 65 459
	3.4 67 304
	3.5 68 297
5th 22 76 43 0.3 3. Lactation	3.3 69 210
>5th 24 -4 3 0.0 3. Lactation	
Average 555 259 46 0.7 4.	3.1 70 108

View herd sire lis

View youngstock repor

View milking herd report

Inbreeding Checker



- Good for;
 - £PLI
 - Production (kg)
 - Lifespan
 - SCC
- Watch for;
 - Fertility
 - Maintenance
 - Components

												AH	DB
Percentile	£PLI	Healthy Cow	PTA Milk (kg)	PTA Fat (kg)	PTA Prot (kg)	PTA Fat (%)	PTA Prot (%)	Lifespan	SCC	Fertility Index	Inbreeding	Mastitis	Maintenance
1	284	113	448	16.2	13.4	0.14	0.10	75	-8.2	10.4	0.0	-1.5	-25.2
5	226	93	333	13.0	10.1	0.10	0.07	55	-6.4	7.6	0.2	-1.1	-16.2
10	197	81	277	10.9	8.5	0.08	0.05	46	-5.5	5.4	0.7	-0.9	-10.4
15	174	73	233	9.5	7.3	0.07	0.04	39	-4.9	4.2	1.2	-0.7	-6.8
20	156	67	195	8.3	6.3	0.06	0.04	35	-4.3	3.5	1.7	-0.6	-4.5
25	141	62	162	7.3	5.5	0.05	0.03	31	-3.9	2.8	2.1	-0.6	-3.1
30	126	57	132	6.3	4.7	0.04	0.03	28	-3.5	2.3	2.6	-0.5	-1.9
35	113	52	106	5.3	4.0	0.04	0.02	26	-3.1	1.9	2.9	-0.4	-1.1
40	98	48	79	4.4	3.2	0.03	0.02	23	-2.7	1.5	3.3	-0.4	-0.3
45	85	44	50	3.4	2.4	0.03	0.01	20	-2.3	1.2	3.6	-0.3	0.3
50	70	39	23	2.3	1.6	0.02	0.01	18	-1.9	8.0	3.9	-0.3	0.9
55	55	34	-9	1.3	8.0	0.02	0.01	15	-1.5	0.4	4.2	-0.2	1.6
60	41	30	-43	0.1	-0.2	0.01	0.00	13	-1.0	0.1	4.4	-0.2	2.2
65	25	25	-80	-1.1	-1.2	0.01	0.00	10	-0.5	-0.3	4.6	-0.1	2.8
70	7	19	-121	-2.5	-2.4	0.00	0.00	6	0.1	-0.7	4.9	0.0	3.3
75	-11	12	-168	-4.1	-3.7	0.00	-0.01	2	0.9	-1.1	5.1	0.1	4.0
80	-36	3	-233	-5.9	-5.3	-0.01	-0.01	-3	1.8	-1.5	5.3	0.2	4.7
85	-78	-10	-305	-8.0	-7.2	-0.02	-0.01	-12	3.0	-2.1	5.5	0.3	5.5
90	-136	-36	-391	-11.2	-10.1	-0.03	-0.02	-25	4.7	-2.8	5.7	0.5	6.5
95	-228	-76	-524	-15.9	-14.1	-0.04	-0.03	-52	6.9	-3.7	6.0	0.7	7.9



Youngstock

- Good progress on;
 - HealthyCow
 - Fertility
 - Mastitis

- Keep focus on;
 - Components
 - Maintenance

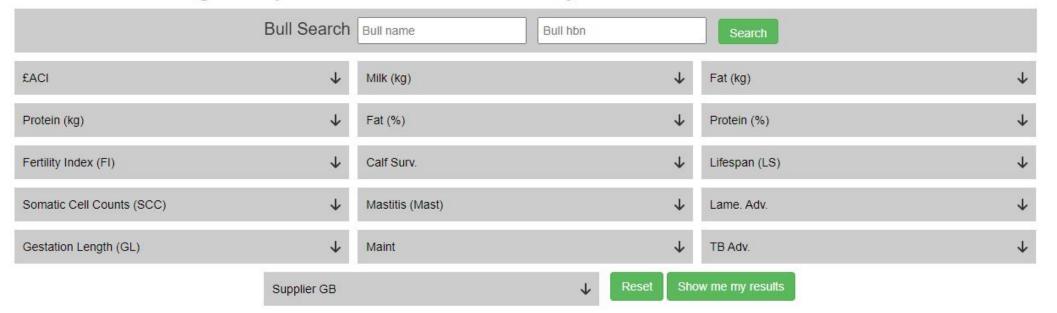
Percentile	£PLI	Healthy Cow	PTA Milk (kg)	PTA Fat (kg)	PTA Prot (kg)	PTA Fat (%)	PTA Prot (%)	Lifespan	SCC	Fertility Index	Inbreeding	Mastitis	Maintenance
1	487	162	545	26.5	19.0	0.20	0.14	118	-15.1	11.4	0.0	-2.1	-22.7
5	433	148	463	23.0	16.5	0.15	0.09	106	-13.0	9.2	0.3	-1.7	-13.8
10	404	139	415	21.0	15.0	0.13	0.07	100	-12.1	8.1	0.9	-1.6	-8.4
15	385	132	376	19.7	14.0	0.11	0.06	96	-11.5	7.4	1.5	-1.4	-4.7
20	367	127	349	18.7	13.2	0.10	0.05	93	-11.0	6.9	2.1	-1.4	-2.5
25	351	122	322	17.6	12.4	0.09	0.05	90	-10.6	6.5	2.7	-1.3	-1.0
30	336	115	300	16.7	11.7	0.08	0.04	87	-10.2	6.2	3.2	-1.2	0.0
35	320	111	279	15.8	11.1	0.08	0.04	84	-9.8	5.8	3.7	-1.2	0.9
40	304	106	256	14.9	10.5	0.07	0.03	81	-9.4	5.5	4.1	-1.1	1.6
45	290	101	234	13.8	9.7	0.06	0.03	79	-9.0	5.2	4.4	-1.1	2.3
50	272	97	211	12.7	8.9	0.06	0.03	76	-8.5	4.9	4.7	-1.0	2.9
55	251	91	182	11.6	8.1	0.05	0.02	73	-8.0	4.5	4.9	-1.0	3.5
60	232	84	148	10.3	7.2	0.04	0.02	70	-7.5	4.1	5.1	-0.9	4.2
65	206	76	114	8.7	6.0	0.04	0.02	67	-6.8	3.8	5.3	-0.8	4.9
70	177	63	72	7.1	4.7	0.03	0.01	63	-6.0	3.3	5.5	-0.8	5.6
75	141	49	16	4.7	2.8	0.02	0.01	59	-5.0	2.9	5.7	-0.7	6.3
80	100	28	-65	1.4	0.1	0.02	0.00	54	-3.6	2.3	5.9	-0.6	7.2
85	57	-20	-179	-2.2	-2.7	0.01	0.00	48	-1.8	1.6	6.1	-0.5	8.1
90	-2	-66	-340	-6.4	-6.2	0.00	-0.01	38	0.4	0.7	6.3	-0.3	9.3
95	-77	-101	-517	-11.1	-10.4	-0.02	-0.02	17	3.0	-0.9	6.7	0.1	11.3

Selecting bulls (example)



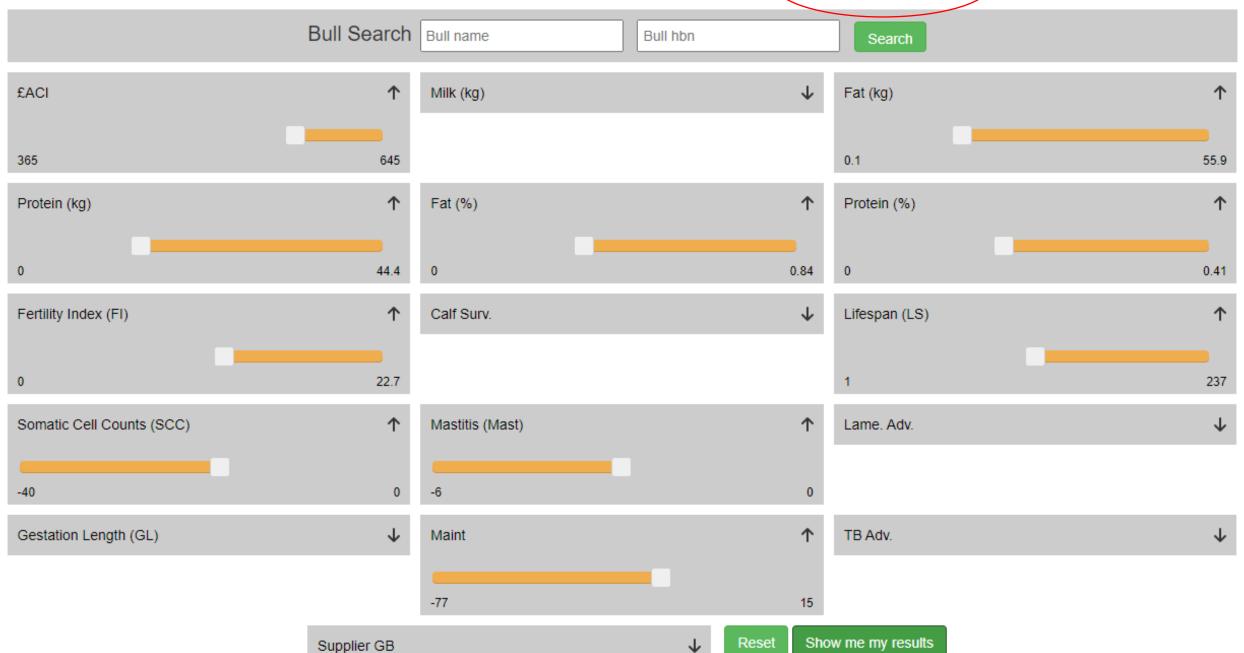


Available daughter proven bulls ranked by £ACI - 1554 results





Available daughter proven bulls ranked by £ACL - 36 results





Breeding.Evaluations@AHDB.org.uk



Recording

2021-10-22 10:26 UTC

Recaided.to

Zanita Markham

Organized by-

Zanita Markham



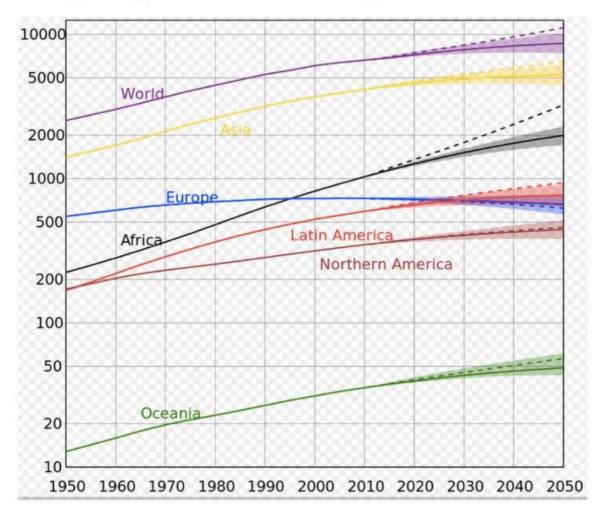
Livestock and One Health

Lauren Turner – Animal Health & Welfare Scientist

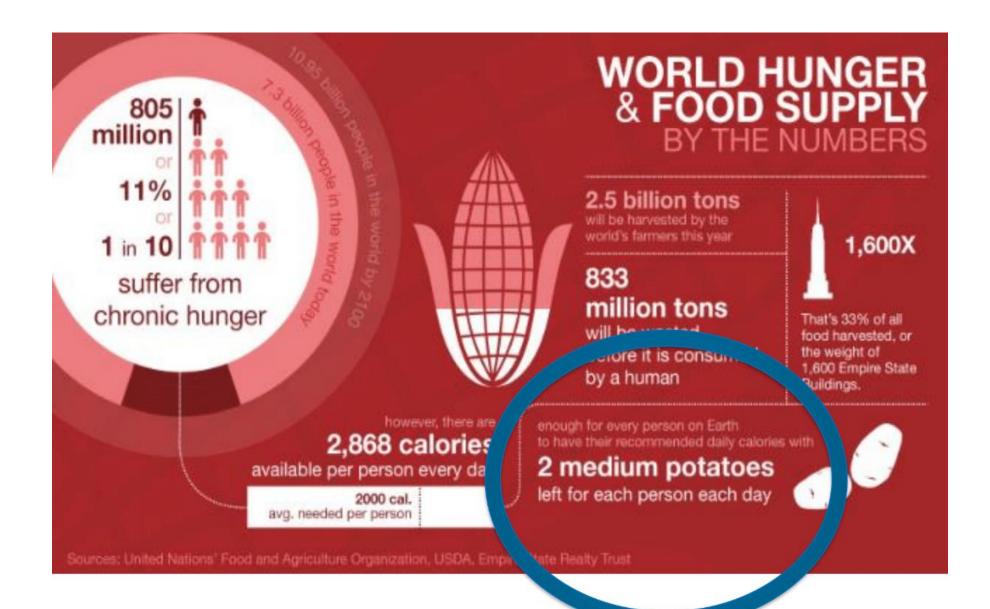
Lauren Dimmack – Animal Health & Welfare Scientist



World population prediction



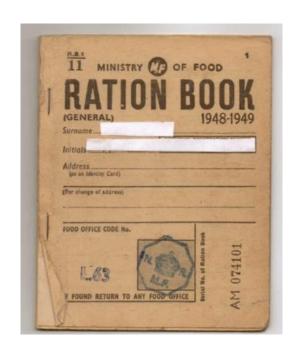






Livestock Food Production

- In developed countries:
 - Available
 - Cheap
 - Safe (welfare, low environmental impact)
 - Many have never known a food shortage



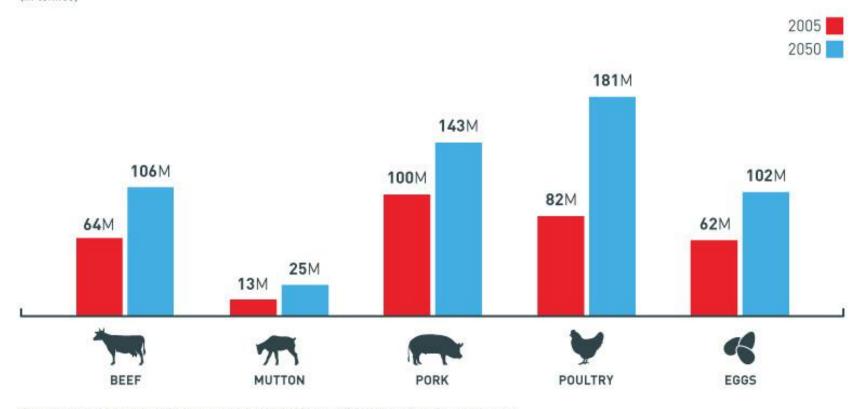
- Low and middle income countries:
 - Livestock play a significant role in rural livelihoods and the economics of developing countries
 - Approx. 50-80% of the population will work in agriculture/produce their own food (e.g. poultry)

Global Protein Demand



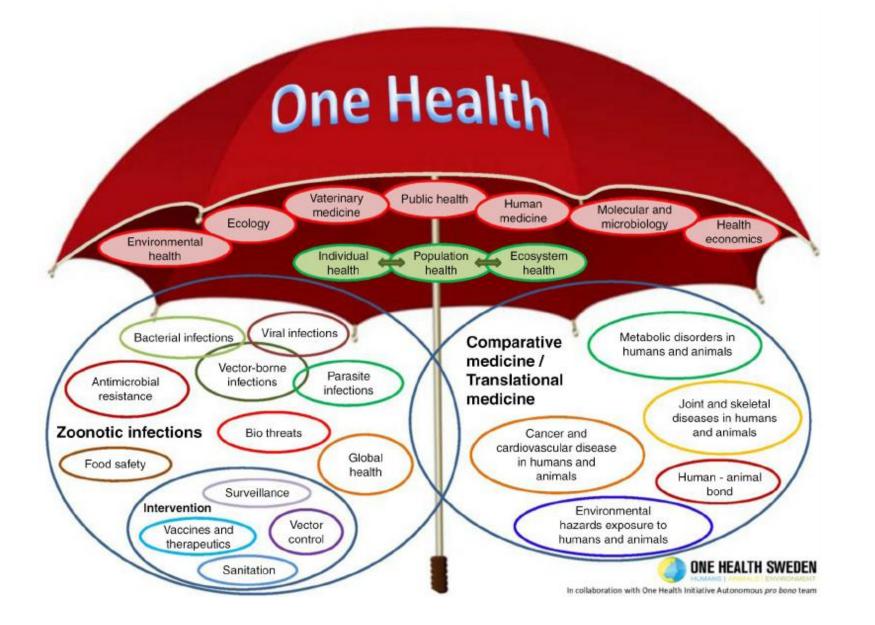
GLOBAL DEMAND FOR MEAT

2005 VS. 2050 [in tonnes]



Source: Food and Agriculture Organization of the United Nations, ESA Working Paper No. 12-03, p. 131

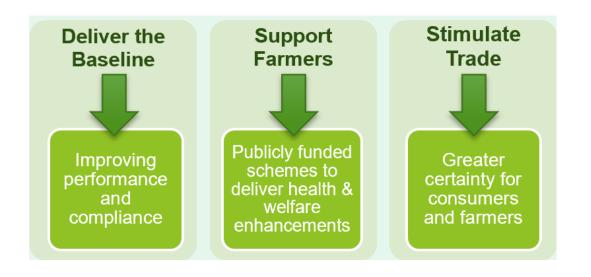


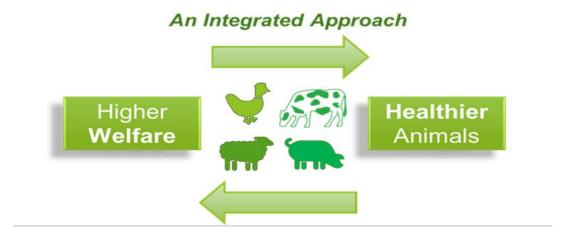






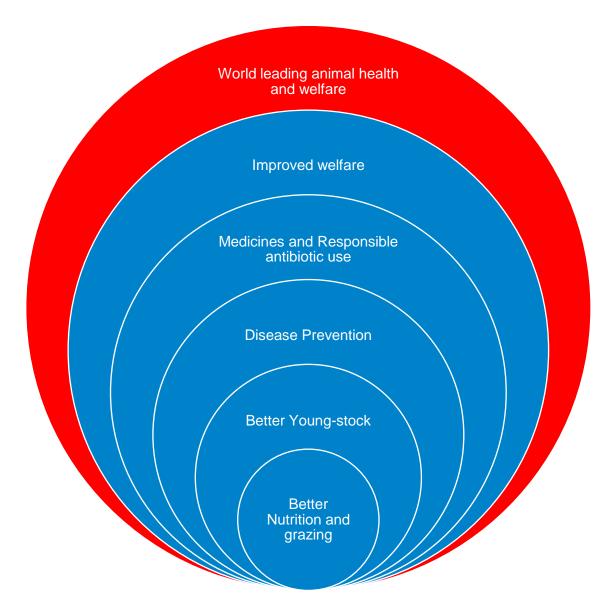
Animal Health & Welfare Pathway







AHDB – what part are we playing?





Key Products, Tools & Services

























Thank you









TRACEABLE, SAFE & FARMED WITH CARE

RED TRACTOR OVERVIEW



In 2000 when Red Tractor was established its purpose was:

"To reassure consumers that food & drink bearing its logo was safe and responsibly produced"

- That remains the core purpose today ...but what consumers demand under "responsibly produced" constantly evolves
- Since 2000 Red Tractor has evolved to include amongst others: stronger traceability, the Sustainable Use Directive, welfare outcomes, antibiotic usage ...and in the Fresh Produce sector worker welfare



RED TRACTOR STANDARDS MUST BALANCE KEY STAKEHOLDER REQUIREMENTS



Shoppers

Require : Food that has been produced

safely & responsibly

Retailer/Caterer/Brands

Getting it wrong: Consumers will

disregard Red Tractor and buy on price

Government

Require: Comprehensive standards that deliver a buying specification and a strong defence

Getting it wrong: Retailers and Foodservice will undertake their own inspections, set their own standards and have more reason to import

Require : A tool for earned recognition and exports

Getting it wrong: Government will increase their inspections on Farms

Farmers

Require: Manageable standards, market access and positive impact on their returns

Getting it wrong: Lose market access, lose control of standards, see inspections rise and have to compete on price



RED TRACTOR OVERVIEW



























CERTIFIED STANDARDS FOR FARMS

DAIRY SCHEME



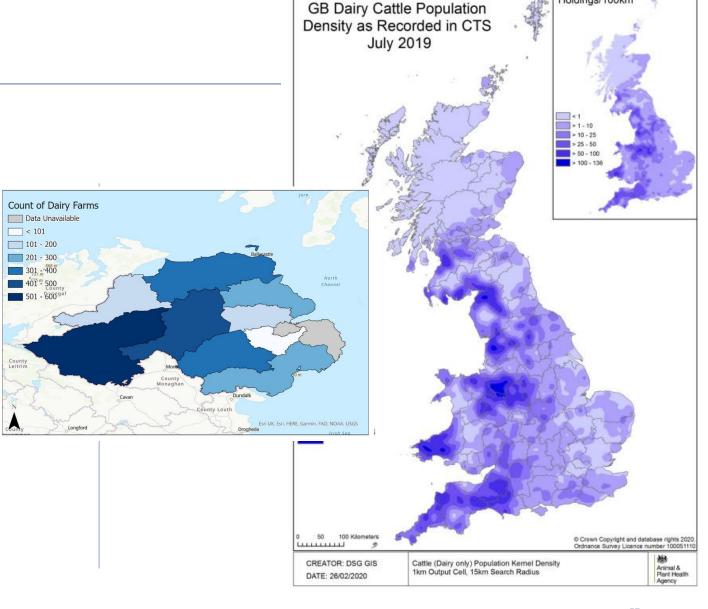
UK DAIRY SECTOR

OVERVIEW

There are approx. 1.8 million dairy cows on UK agricultural holdings

- ➤ 60% in England
- > 17% in N. Ireland
- ➤ 13% in Wales
- ➤ 10% in Scotland
- Red Tractor Dairy operates throughout the UK
- Over 11,000 dairy members

• 95% of the dairy sector are assured

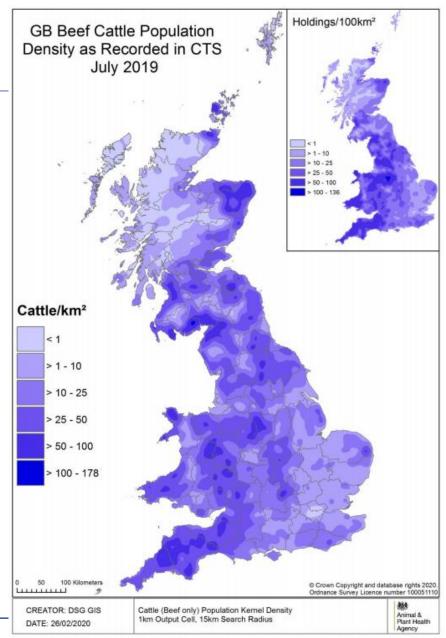


Holdings/100km²

UK BEEF SECTOR

OVERVIEW

- There are approx. 7.7 million beef animals on UK agricultural holdings
 - > 52% in England
 - > 17% in N. Ireland
 - ≥ 20% in Scotland
 - ➤ 11% in Wales
 - QMS B&L Scheme in Scotland
 - FAWL Scheme in Wales
 - NIBL FQAS in N. Ireland
- Over 22,000 Beef and Lamb members
- Approx. 82% of finished cattle are assured

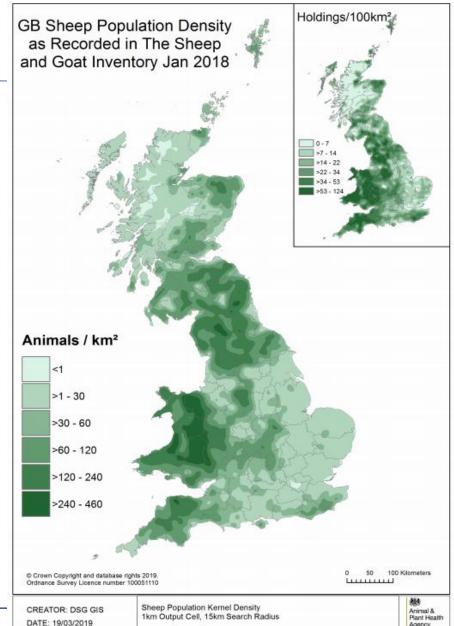




UK LAMB SECTOR

OVERVIEW

- There are approx. 32.7 million sheep and lambs on UK agricultural holdings (June 2020)
 - > 46% in England
 - ≥ 27% in Wales
 - ➤ 21% in Scotland
 - > 6% in N. Ireland
 - QMS B&L Scheme in Scotland
 - FAWL Scheme in Wales
 - NIBL FQAS in N. Ireland
- Over 22,000 Beef and Lamb members
- Approx. 65% of finished lambs are assured





WHAT DO CONSUMERS CARE ABOUT?



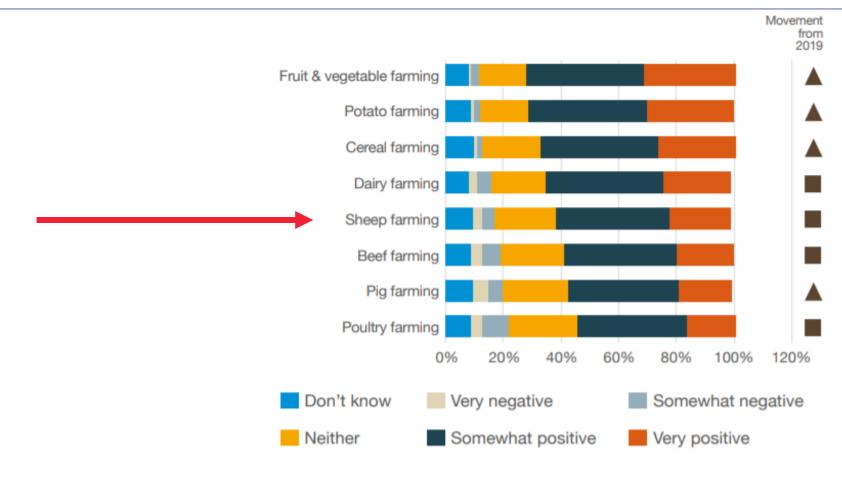


Figure 2. Impressions of UK farming sectors 2020

Source: AHDB/Blue Marble 2020

(Q – Please indicate your overall impression of the following... Base: All respondents (1,500))







Panel Session

Engaging the next generation to the industries new norm







Welcome back

Session 3: Arable and Business



Presentation Information

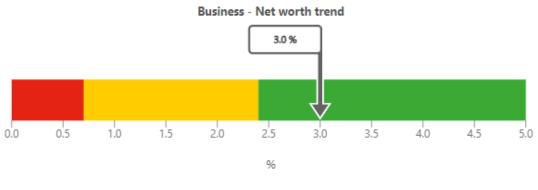
Business

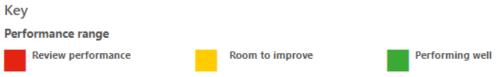
Sarah Hurford, Business content manager



Financial KPI's

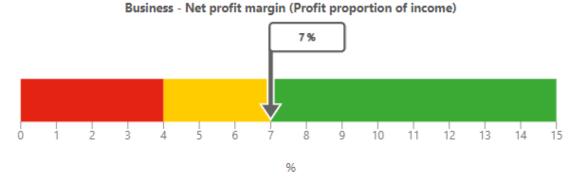
- Balance sheet Net worth trend
- P&L Net profit margin
- Cash Cash retained





Definition:

Annual percentage change in Net Worth compared to the Annual Inflation Rate (CPIH) for the same period.



Key Performance range Review performance Room to improve Performing well

Definition:

The proportion of income/turnover/sales that is retained as profit for the whole business.



Basic business review

- Proportional analysis
- Flow of funds to cash
- Profit requirement

Figure	My farm	Calculation	Target
Total income/sales incl. BPS (A)			
BPS amount (B)		B/A x 100	
Total variable cost/costs of sales (C)		C/A x 100	>35
Gross margin		(A-C)/A x100	>65
Labour (D)		D/A x 100	<15
Machinery (inlc. depreciation) (E)		E/A x 100	<20
Property and administration (incl. depreciation, excl. rent) (F)		F/A x 100	<10
Overhead costs before rent and finance		(D+E+F)/A x 100	<40
Rent and finance (G)		G/A x 100	<16
Total overhead costs		(D+E+F+G)/A x 100	<57
Net profit (H)		H/A x 100	>15
Net profit excluding BPS		(H-B)/(A-B) x100	



Understanding farm business finances

- Basic business review
 - Proportional analysis
 - Flow of funds to cash
- Restructuring borrowing or refinancing existing loans
- Different types of borrowing
- Getting finance and speaking to your bank
- Managing cashflow
 - Cashflow forecast template





Writing a business plan

- Market analysis
- Farm financials
 - P&L template
 - Cashflow template
 - Balance sheet template
- Sales and operations
 - Risk matrix
 - Pestle worksheet
- HR structure





Changing your business

- Considering business viability
 - Profit requirement
- Succession planning
- Diversification
- Selling assets
- Scaling up
- Moving to a different sector
- Working as a contractor
- Doing a partial budget





Farm resilience fund

FARM **BUSINESS** REVIEW



Helpline: 02475189300 ♀ Sign In

BPS IMPACT CALCULATOR

BUSINESS RESILIENCE
ASSESSMENT

How will Basic Payment Scheme reductions impact your business?

Learn more

Register

KPI EXPRESS CALCULATOR

How well is your farm performing?

Learn more

Help Information

Help buttons are available throughout this tool indicated by this icon (2) Hover your mouse over the help icons throughout this tool for hints and tins

If you get stuck using this tool please give the AHDB helpline a call on **02475 189300** or email <u>farmbusinessreview@ahdb.org.uk</u> and the team will be able to guide you through.



Where do I register?

 Sign up through the AHDB Farm Business Review tool <u>https://farmbusinessreview.ahdb.org.uk</u>

For more information on the support that is available visit our website

https://ahdb.org.uk/farm-business-review

 For help call our helpdesk on 0247 5189 300 email FarmBusinessReview@ahdb.org.uk





Developing People in our industry AgriLeader 2030 "Bridging the Gap", Promar 2021

Amie Burke

Knowledge Exchange Manager, Agrileader

Objective and Process



AHDB Ambition: For farmers to adopt a more business focussed mind-set for long-term adaptability and profitability

WP 1-4

- Establish rationale for L&M development
- Assess current baseline
- Establish future need (>2030)

Gap analysis

Workshop

WP 5-6

- Recommend how to increase adoption
- Give guidance on AHDB's future offer (including agri leader)
- Final report





Leadership and management defined

A leader is a future shaper: they convert the preferable to the predictable. (Niamh O'Keefe)

You can't lead without managing and you can't manage without leading (Henry Minzberg)





How much LMD is undertaken



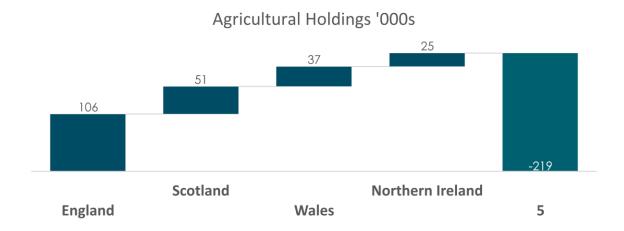


- Known courses, excludes Lantra and other courses offered by Land Based Colleges
- Wales and Scotland 44% of total
- If conference and forums excluded 0.3% of holdings 3 per 1000 engaged

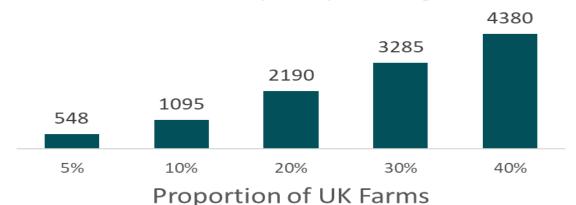


How much LMD is needed









As a minimum assume 1 LMD event per career (over 20 years)

- To achieve 20% of UK farms would require 2200 LMD events per year
- To achieve 40% of UK farms would require 4400 LMD events per year
- To achieve 100% of farms would require 10,000 LMD events per year

Over 470,000 individuals employed in Agriculture at least 50% of these are managers / directors



What are future challenges......



AHDB



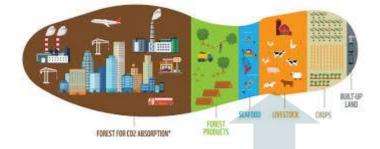
Disruptive digital technologies



Growing population



GB all prime average deadweight cattle price



Ecological footprint



Information



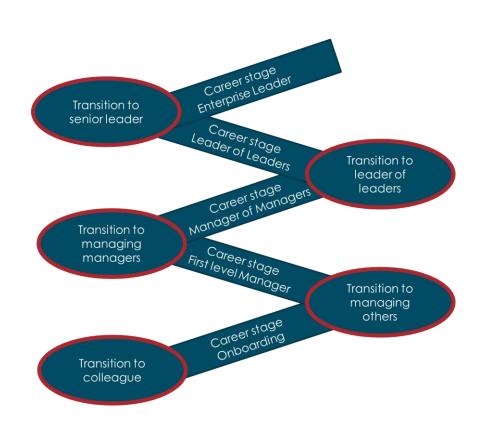
Social Change



Significant challenges exist with quantifying benefits of LMD.....



LEARNING IS CUMULATIVE



Isolating the impact of discrete LMD activity when the effects are cumulative

Attending a course does not make you into an effective leader



What mindsets, traits and skills are needed to be a successful farm manager/leader in the future?



evaluating

performance

Priorities	Lec	ading Self	Leadir	ng Others	Leading Business			
Traits of effective farm leaders	Growth Mindset	Resilience	Inspirational Leadership	Decision Making	Profit & Entrepreneurial Mindset	Detail Consciousness Critical questioner Improves standards and routines Builds better Habits Uncovers blindspots		
Desirable Behaviours	 Embrace change Persist in face of setbacks See effort as the path to mastery Love to learn 	 Socially adaptive Fearless Recognise power is in your hands Prioritises & delegates Recharge your battery 	 Inspire a shared vision(for family & workers) Be trustworthy Embrace diversity Empathy Gives and receives feedback 	 Strategically aligned Evaluate risk and reward Distinguish between facts and opinions Decide without perfect information 	 Ignite your passion Cultivate your curiosity Convert problems into solutions Risk taking but will never run out of cash 			
Un- desirable	 Defend current state Give up easily See effort as fruitless or worse Know what I 	 Inwardly focussed Fearful/ afraid Blame others for your predicament Micromanage Working 	 Feeling trapped and stuck in a rut Low trust in others Expect others to think like you 	 Over-reliance on emotion Impulsive Procrastination Overly optimistic or 	 Feeling trapped Expect things to stay the same Leave to others to sort out Perceive income and returns are fixed 	 Accepts problems Defends existing standards and routines Sticks to old habits and ways of evaluating 		

pessimistic

Critical

excessively long

hours



Behaviours

need to know

Is the leader of 2030 going to be different to the leader of today?

Stay the same	Change
 Mainly small family businesses Integration of work and life Vision for the future Create and execute business plan Invest wisely Succession challenges Aware of policy shifts and government support packages 	 Increasing number of very large farm businesses Impact of leader will increase Pace of change will increase More ethical and responsible Champion social and environmental causes Increase staff engagement Embrace IT and digital technology Comfortable with uncertainty and volatility Entrepreneurial and profit mindset Collaboration in supply chain

Conclusions: Overcoming barriers and exploiting drivers



- Make LMD more normal
- Make it more accessible Move to blended approach
- Address diversity issues
- Make it more relevant to smaller family owned and run businesses with few employees
- Keep it practical (less policy & presenting)
- Focus on the audiences who want to learn
- Use case studies and stories / podcasts of diverse farming businesses to show benefit from LMD



"you don't need a title to be a leader"

GREATSOILS



Soil health

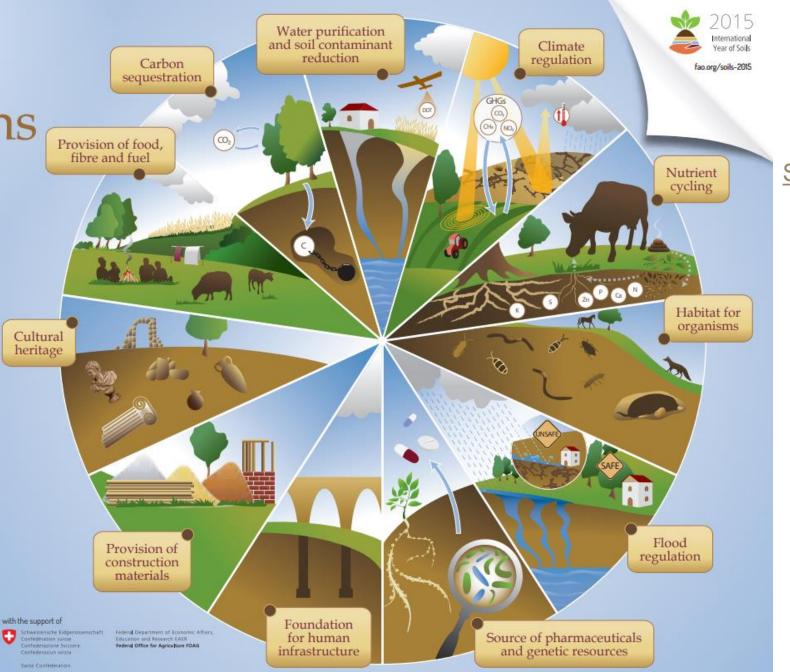
Dr Amanda Bennett, AHDB amanda.bennett@ahdb.org.uk



Soil

Food and Agriculture Organization of the United Nations

Soils deliver ecosystem services that enable life on Earth





Soil functions (fao.org)





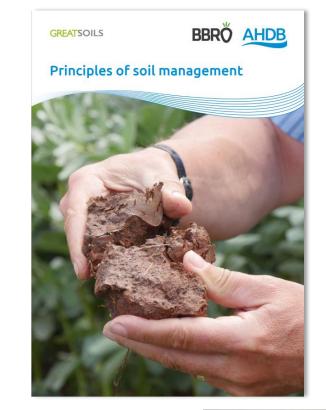
Principles of soil management: Soil health

Physical

• "In a healthy soil, the interactions between chemistry (pH, nutrients and contaminants), physics (soil structure and water balance) and biology (including earthworms, microbes and plant roots) are optimised for the conditions in that place"

Chemical

Biological







All soils are different

















Physical

- Texture
- Structure
- Drainage

Chemical

- pH
- N, P, K, Mg
- Minor nutrients

Biological

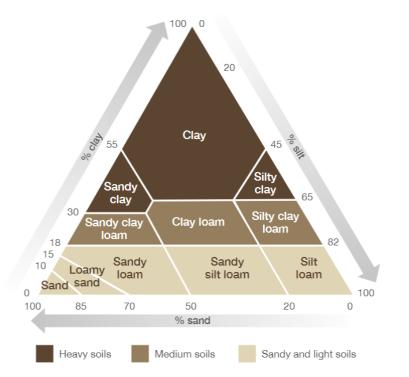
- Earthworms
- Soil food web
- Microbiology





Physical

- ✓ Know soil textures to understand limits to workability and trafficability
- ✓ Improve soil structure to provide an effective continuous pore space
- ✓ Optimise water balance, through drainage if necessary











www.ahdb.org.uk/greatsoils







AHDB







This factsheet outlines a simple method for measurin, infiltration in the field. It also explains how adding organic matter to soil can improve soil structure and water infiltration.

Improve soil structure to increase the ability of soil to absorb and retain water

- The use of organic materials such as compost and green manuree can improve infiltration and the ability of soil to absorb increasingly intense winter rainfall
- When ramain Use the drainpipe test as a cheap and simple way to measure the infiltration of water into soil. When combined with the spade test, the causes of reduced infiltration (eg compaction at depth) can be quickly identified
- Improved infiltration of rainfall helps to reduce soil erosion and the loss of nutrients from land



Challenges
Athough awage annual rainfall for England and Walee
hann't changed significantly since records began in 1776,
all legions of the UK have experienced an increase in
heavy rainfall events in winter. These events are not
necritated to writter: the apring of 2012 caw exceptionally
wet weather which affected all of England, Walee and
eastern Scotland.

An increase in the intensity of single-day rainfall events could lead to an increase in soll evotion and the associated load of ruinertes such as phosphate to claims and rivers. Managing soll health, in particular maintaining good coll structure, as in essential part of the attractive to improving resilience to changing rainfall intensity, improving the ability of soil to absorb water intensity, improving of reliables of soil or disposition of education of evotion. Improving of influence in calcium or eventual results are consistent or eventual results and the contraction of evotion. Improving of influence in calcium or eventual results are consistent or eventual results.

within the soil rooting zone for use by crops and reduces the risk of subsurface flow and leaching.

There are several ways to assess the rate of infiltration of water into soil (the hydraulic conductivity), with the more

sophisticated methods giving more detailed information. For example, a Mini Diak Infiltrometer (Figure 1) not only

Improving soils for **Better Returns**

BETTERRETURNS



Chunt A & Aus Healthy grassland soils Four quick steps to assess soil structure

Lobs at the quality of the tweed to literary potentially duringed areas that require further assessment. Where the tweed is moderate to poor, this may indicate that further investigation of the toll quality is required.



No pouching
 Few wheelings



Step two: Soil extraction

Step one: Surface assessment



Wheelings in pluces











 Dig out one space-sized block of soil (depth appraix, 90cm). Cut down on three sides and then lever the block out, leaving one side undeburbed Lay the soil block on a plastic sheet or tray.

Tips When starting our, it is useful to dig in an area where you know there may be problem (ag a gateway) and get familiar with organ of coll structure damage. Remembert Cample when the topock is most – if the soil is 100 dry or 100 well, it is demant to distinguish again of poor and structure.

Step three: Soil assessment

Gently open the soil block the a book to breek it up.

- . If the bruchure is uniform assess the brock as a whole If there are two or more noncomist layers of differing structure, spanish the layer with the population school (the intering layer)
 Carry out the risk of the absorption into similing layer.

Step four: Soil scoring

- Assign a score by matching what you see to the description and prices overself.
- A score of 1 or 2 is through a score of 3 is Mindanule and 4 or 5 is Poor and requires management action Record the depth of the limiting layer to addeds management























Chemical

- ✓ Maintain an optimum pH
- ✓ Provide plant nutrients in the right amounts in the right place at the right time



Action points for farmers and growers Know the texture and type of soils on your holding

Test your soil pH regularly (at least once every four years and ideally once every two years if you are a high value crop grower on a light soil) and interpret the results correctly for your own soil

Choose an appropriate sampling strategy for your own farm and be prepared to spend money on more samples where you find evidence that soil pH could be impacting on crop yield or where you suspect big differences in soil pH within fields

Be aware that some organic materials applied to nprove soil health (e.g. composts, digestates and some types of paper crumble) have a liming (or neutralising) value. It is easy to test these materials for their liming value so that you can determine the likely effect of using them at different application rates on soil pH

types of liming agents and their relative advantages and disadvantages. As well as bearing in mind price, choose those appropriate for your

Maintaining optimum soil pH values in all parts of the field is essential in order to maintain soil quality and health, crop quality and yield. This guidance document explains why soil pH is important and outlines the impact of soil type and xture on pH. It describes how and when to test soils for pH, how to calculate the amount of lime or other neutralising materials required, which liming product(s) to use and how

Soil pH is a measure of the relative acidity or alkalinity of a soil. While the scale goes from 0 to 14 (with a neutral pH represented by 7.0) most agricultural soils have pH values of between 5.5 and 7.5. The pH scale is logarithmic: that is a pH of 5 is ten times more acidic than a pH of 6. The natural pH of a soil is determined by its chemical composition, but most agricultural soils with natural pH values of less than will gradually acidify over time and regular applications of lime will be needed to maintain soil pH at target (Figure 1).

Soil pH has a profound effect on nutrient availability to available to most crop plant species within the pH range of 6.0 to 6.5. Crop quality and yield can be severely affected where soil pH is not maintained close to target for the soil and crops in question and total crop failure is possible n vegetable crops where trace element deficiency has resulted from inappropriate soil pH. Soil pH also affects uptake of potentially toxic elements (PTEs), with PTEs such as cadmium made more available for crop uptake at lower pH values. Soil pH also affects the numbers, diversity and functions of beneficial and pathogenic micro-organisms as well as the larger organisms including both soil-dwelling pest species and beneficial macrofauna species. For example, the soil-borne pathogen Plasmodiophora brassicae, which causes clubroot in vegetable brassicas and oilseed rape, prefers more acidic soils, and liming to raise the soil pH is a management option for clubroot control. Earthworms are most abundant and active in soils with pH values between 5.5 and 7 and most species cannot function well in soils with pH values lower than 5.0.

Failure to correct soil acidity can cause substantial yield losses and a decline in soil quality and health. Over-use of lime (or certain organic materials which have neutralising values) create problems with trace element availability. A survey by the Professional Agricultural Analysis Group in 2015/16 found that soil pH was less than 6.0 in 17% of grable soils tested and less than 5.5 in 19% of grassland soils tested





Food and fibre crops need suitable soils that are and nutrient availability. The physical, chemical and biological properties of soil interact to deliver these functions. Measuring soil health, therefore, requires an integrated approach, combining the assessment of these ree factors. The chemical and physical constraints of soil on crop and grassland productivity are well understood, but the role of soil biology is less clear. A key aim of the Soil Biology and Soil Health Partnership is to improve our understanding of soil biology and to explore the ways in which farmers can measure and manage soil health. The Partnership has developed a soil health scorecard, which aims to provide information on key indicators of soil chemical, physical and biological condition, to help guide soil and crop management decisions. This is now being tested at long-term experimental sites (LTEs), where the key drivers of soil biology - food source, physical and

Long-term experiments at SRUC Craibstone

Soil pH is a key component of soil health because it affects soil chemical (e.g. availability of nutrients), biological (e.g. microbial activity) and physical properties (e.g. aggregation of clay minerals). The long-term pH trial in Woodlands Field at SRUC Craibstone near Aberdeen was set up in 1961.

Here, the effects of pH levels ranging between 4.5 and 7.5 (in 0.5 increments) on soil properties and crop performance are being tested. The trial involves an winter wheat, potatoes, spring barley, swede and spring oats (undersown with grass/clover). Each crop in the rotation is present every year, enabling a comparison of the response of all crop types within the same season (Figure 1), Measurements of topsoil chemical, physical potatoes and spring oats) at four pH levels (4.5, 6.0, 6.5

Soil health scorecard

The scorecard brings together information about soil chemical, physical and biological properties. The integrated report uses traffic light coding to identify those properties requiring further investigation to determine the management steps peeded to minimise potential risks to scorecard for those soil properties that already have an established evaluation framework (e.g. soil nutrients, visual evaluation of soil structure score [VESS]). Research continues to develop interpretation frameworks for more soil properties, including biological indicators



www.ahdb.org.uk/rb209







Biological

- ✓ Feed the soil (organisms) regularly with organic matter
- ✓ Move soil only when you have to
- ✓ Diversify crops in space and time





Action points

- Aim to increase your Soil Organic Matter (SOM) levels, as this can have multiple benefits for soil health. Adding compost to your soil is an effective way of increasing SOM. In trials, compost increased SOM in half the time of farmward manure
- Check guidelines before using compost. Most UK farm assurance schemes now permit the use of quality PAS 100 composts*, as do most produce
- Determine if adding compost to your soil is cost-effective by comparing the costs of buying, hauling and spreading compost with the financial value of the nutrients compost supplies and the
- Bear in mind that soil quality and yield benefits can take several years of continued compost use to develop

"Nearby compost suppliers can be found by entering the holding's postcode at the UK Compost Certification Scheme website qualitycompost.org.uk/broducers

ckground

Soil Organic Matter (SOM) is the organic component of soil, consisting of three main parts:

- Fresh plant residues and small living soil organisms
 Decomposing (active) organic matter and
- Stable organic matter (humus).

station organic means (number).
 Organic metals is important for soil fartility and crop productivity; building and maintaining it is a vital component of sustainable soil management. The amount of organic matter in soils depends on soil leadure, climate, the input and composition of organic materials, decomposition, and the type of farming system orraploys.

Sols used for artists and suppliable production hybrially contains in 1-2% corparis matter (promorally higher in Boottein Solis), a general, in 5 or any one organisy system, the natural level of SOM in a day sol will be higher than in a sarry sol, and greasland solic usually contain more relative to a continuous arable relation. Threadens, which is a primarily good to inchease year SOM threadens, which is a primarily good to inchease year SOM control to a continuous and married in the care in SOM control to a solice solic

Many soils are safting from a lock of organic matter. Farmers and growes often went to maintain or enhance SOM content as this can have a range of benefits for coll health. However, recent work has shown that, where improved oof quality to concerned, not all forms of organic matter are equal. Glewn the applying bully organic matter has a financial cost, it is important to undestand the morths of different organic matterials.



What is soil organic matter?

Soil organic matter is the term used for all living, or none-living, materials within, or added to, the soil. This includes roots developing during the growing season, incorporated crop stubble or added marunes and sturies. All organic matter contains carbon (C), but it also contains integer (N), phosphorus (P), sulphur (S), potissium (N), magnesium (Mg), calcium (Ca) and a nine (Zn)), and contains the contains integer (N).

Soil organic matter is found in all sorts of forms with a range of ages. If we look very carefully at the C atoms, we find some that were fixed from carbon dioxide by photosynthesis last week and some that date back of 10,000 years. The intermisigning of organic matter with minerals from the underlying parent material (geology) is a key process in soil formation.

Organic matter is more than half carbon. Researchers more often talk about soil organic carbon than soil organic matter, but these are different ways of measuring the same basic soil To help understand how organic matter cycles in the soil and how it affects soil processes, we usually consider organic matter as three main pools:

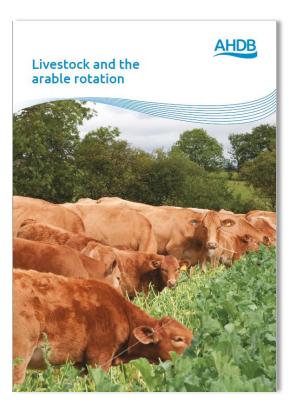
- Fresh plant residues (litter, decaying roots) and small living soil organisms
- Decomposing (active) organic matter
- Stable organic matter, often linked tightly to the clay minerals (sometimes called humus)

Some soils also contain very stable materials that were originally organic matter, such as charcoal and coal fragments.

What does soil organic matter do?

Organic matter adds to soil fertility and overall soil health by enhancing the physical, chemical and biological properties of soil (Figure 2):

- Fresh plant residues fuel biological life in soil
 The amount of active decomposing organic matter in soil has a large impact on biological properties, nutrient cycling and soil structure
- Stable organic matter changes the colour of soil and adds significantly to the active surface area, thereby changing the physical and chemical properties and processes in soil. This is very important in sandy and light sitry soils









Q Search Strategy 2021-2026 Marketing Markets and prices Knowledge library

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Home > Knowledge library > Principles of soil health

Principles of soil health

- > Soil is an essential natural resource
- > Soil classification (type)
- > Soil structure
- > Soil organic matter
- > Water and soils
- > Principles to improve soil health
- > Useful links

Although soil type cannot be easily changed, knowing which soil type is present helps determine how to manage the soil to optimise its structure, water relations, and nutrient supply.

Soil is an essential natural resource

Healthy, fertile soil is a dynamic living system with physical, chemical and biological properties that promote plant and animal health and maintain environmental quality.

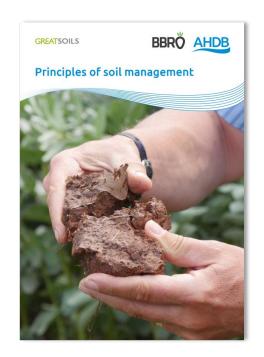
Soil classification (type)

Soils are formed over thousands of years and reflect geology, past climate, vegetation, landscape, human activity, and management.

Find out more about the inherent properties of different soil types









Knowledge library

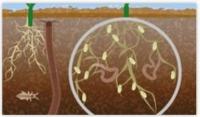
Missed an online event or webinar? Browse our video archive

Filter by						2
Sector	~	Topic	¥	soil biology	Search	Reset



Soil organisms stabilise soil structure

Soil organisms help bind soil into stable aggregates.



The function of soil biology

Soil biology drives soil functions – find out more.



Soil microorganisms – fungi and bacteria

Soil microorganisms play a central role in driving soil processes.



Soil management for horticulture

This soil management guide is a practical manual for growers and agronomists with the primary focus on



Soil macrofauna – earthworms

Earthworms incorporate organic material into the soil and provide

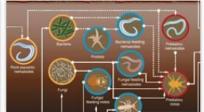


Measuring and Managing Soil Organic Matter

Soil organic matter is the term used



Research Case Study: Testing the effect of organic material additions on soil health



The soil food web and nutrient cycling

Soils contain a very high diversity of organisms. These soil organisms





Measuring and monitoring indicators of soil health











Overview

- Approaches to improve soil health:
 - ✓ Increasing organic matter inputs
 - ✓ Increasing crop rotation (length and diversity)
 - ✓ Reducing tillage intensity, where possible

- A soil health review can be used to:
 - highlight areas for investigation
 - measure and monitor improvements over time
 - start conversations about management approaches











Soil Biology and Soil Health Partnership





























Soil health scorecards at Harper Adams University Long-term experiment: Comparison over time on same replicated plots





October 2017 – 2 year Grass/clover ley

Attribute	Control	FYM (23 yrs)	Green compost (13 yrs)
SOM (%LOI)	3.0	4.1	4.0
рН	6.4	7.0	7.0
Ext. P (mg/l)	56	73	60
Ext. K (mg/l)	80	311	187
Ext. Mg (mg/l)	44	87	63
VESS score	2	2	1
Earthworms (No./pit)	11	13	11
PMN (mg/kg)	23	90	43
CO ₂ -C (mg/kg)	198	228	222

October 2020 – cereal stubbles

Attribute	Control	FYM (25 yrs)	Green compost (15 yrs)
SOM (%LOI)	2.7	3.2	3.4
рН	6.3	6.7	6.7
Ext. P (mg/l)	73	82	72
Ext. K (mg/l)	82	212	144
Ext. Mg (mg/l)	33	69	50
VESS score	3	3	3
Earthworms (No./pit)	1	1	1
PMN (mg/kg)	24	37	37
CO ₂ -C (mg/kg)	87	111	109



Continue rotational monitoring



GREATSOILS



Unearth a wealth of resources on soil management at:

www.ahdb.org.uk/greatsoils

Visit the AHDB knowledge library for further information and access to research reports

www.ahdb.org.uk/knowledge-library



www.ahdb.org.uk/soil-biology-and-soil-health-partnership













Recommended Lists

Paul Gosling

Recommended Lists Senior Scientist

Trials

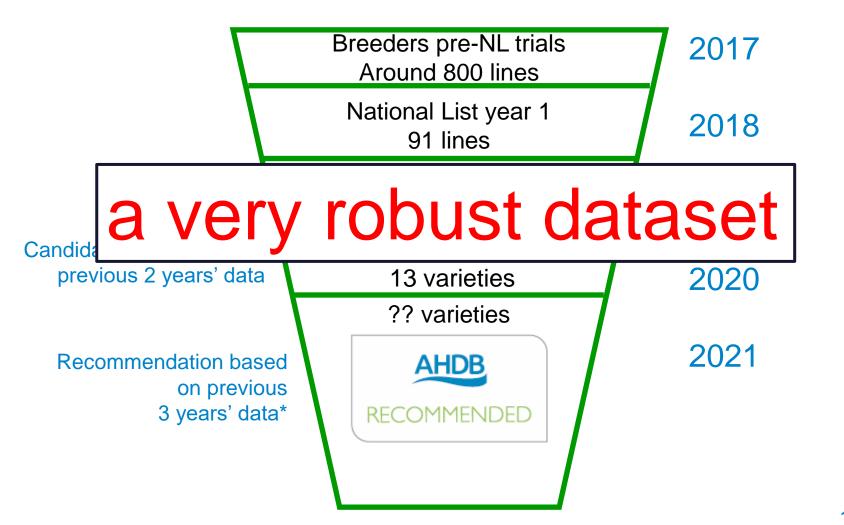




RECOMMENDEDLISTS

Pyramid of selection – Winter wheat





71 yield trials
36 YR trials
17 BR trials
31 S. tritici trials
10 mildew trials
3 eyespot trials
10 fusarium trials



Data were assembled with care but treat differences below LSD cautiously. Performance variation is not AHDB's responsibility. AHDB Harvest Results 2021



Winter Wheat RL 1-year results 2021

10-Sep	Prov	ision	al Resu	lts: Treate	d grain	yield (t/ha)									
Name	Co	de	Mean	%	Count	Croft	Burdon	Terringtn	Coates	W-Charlt	Spalding	Spalding	ESaltoun	Bleasby	Osberto
				Cont		NYorks	Sundland	Norfk	Gloucs	Devon	Lincs	Lincs	ELoth	Lincs	Notts
Year						2021	2021	2021	2021	2021	2021	2021	2021	2021	2021
Trial mean			10.84	10.83		11.56	12.88	11.77	10.33	10.48	8.64	10.20	12.54	10.68	8.29
LSD 5%			0.24	2.20		0.80	0.41	0.36	0.47	0.43	0.74	0.77	0.87	0.42	0.57
CV%			3.9			4.0	1.8	1.7	1.9	2.4	4.9	4.2	4.1	2.2	3.8
Sowing date						01-Oct	18-Sep	19-Oct	11-Oct	15-Oct	20-Oct	19-Nov	29-Sep	01-Oct	26-Nov
Previous crop						W-rape	W-rape	V-pea	W-rape	W-rape	Potato	V-pea	W-rape	W-rape	F-beet
Soil type						Medium	Medium	D-silt	Medium	D-silt	D-silt	D-silt	Medium	Medium	L-sand
Skyfall (C)	WW	2138	10.53	97	26	10.41	12.58	12.18	9.90	10.37	8.22	10.49	11.71	10.58	7.97
KWS Barrel (C)	WW:	2311	10.70	99	26	10.74	12.99	11.40	10.64	10.29	8.23	10.48	13.00	10.55	7.80
KWS Siskin (C)	WW:	2315	10.43	96	25	11.57	12.37	11.82	-	10.12	8.36	9.37	11.33	10.30	8.07
Gleam (C)	WW:	2546	11.36	105	26	11.74	13.45	12.53	10.85	10.80	9.70	10.64	13.13	11.25	8.67
LG Skyscraper (C	C) WW2	2626	11.11	103	26	11.65	13.38	12.65	10.58	10.75	8.96	10.24	13.02	10.82	8.56
Crusoe	WW:	2009	10.45	97	26	12.01	12.35	11.42	9.54	10.72	7.57	9.28	12.03	10.83	7.92
RGT Illustrious	WW:	2265	10.18	94	26	11.90	12.10	10.56	9.29	9.91	7.89	8.96	11.75	10.38	8.22
Graham	WW:	2337	11.20	104	26	12.08	12.78	12.65	10.90	11.40	8.38	10.38	13.64	10.75	8.27
Costello	WW:	2363	10.86	100	26	12.09	13.19	12.01	10.48	10.32	8.67	10.44	12.84	10.73	9.01
KWS Zyatt	WW:	2417	10.90	101	26	11.52	12.53	12.34	10.79	10.93	8.41	10.05	13.05	10.82	7.90
KWS Kerrin	WW:	2420	11.21	104	22	11.54	-	12.11	10.77	10.50	9.07	10.64	12.87	10.53	8.83
Elation	WW:	2490	11.00	102	18	11.11	13.29	12.21	10.79	10.59	9.04	10.73	12.22	-	8.78
Elicit	WW:	2492	10.53	97	26	10.49	13.29	11.30	9.91	10.09	8.32	10.28	12.34	10.26	7.95
RGT Gravity	WW:	2517	10.97	101	26	11.13	13.11	11.93	10.19	10.03	8.68	10.48	12.15	10.76	8.41
KWS Jackal	WW:	2565	10.43	96	18	10.78	12.40	11.37	9.19	10.03	8.77	10.17	12.05	-	8.47
LG Spotlight	WW:	2619	11.13	103	26	11.97	12.89	12.62	11.19	10.79	8.66	10.52	12.74	10.86	8.95
KWS Firefly	WW:	2664	10.63	98	26	10.75	12.89	11.34	10.44	9.26	8.36	10.20	12.27	10.39	8.37
KWS Extase	WW:	2672	11.12	103	26	12.01	13.00	12.63	11.45	10.86	8.65	9.83	13.40	11.00	8.89
RGT Saki	WW:	2702	10.98	101	26	12.02	12.61	11.53	10.13	10.77	8.47	10.31	13.08	10.88	8.97
Theodore	WW	2711	10.69	99	15	11.19	-	11.25	9.98	10.63	8.09	9.59	12.28	-	8.65
SY Insitor	WW	2745	11.56	107	26	12.35	13.68	12.66	10.82	11.28	9.98	11.04	13.60	11.48	8.44
< → Int	troduction	ww1	yt-yld-pc	ww1yt-y	/ld w	w1yt-lod	ww1yt-ht	ww1yt-rip	oe ww1	yt-prot	ww1yt-hfn	ww1yt-	spwt w	w1yu-yld-p	c ww



Extra information

RL 'Ultimate Guide' webinars



Watch on YouTube Ontrol



Wheat yellow rust watch list



Recommended Lists archive

Access historic data from the AHDB

Recommended Lists for cereals

change and control (UKCPVS 2021)

Yellow rust watch list

Releasing the RL: AHDB Recommended Lists (RL) for cereals and oilseeds 2021/22

Calculating rust ratings

Webinar: Making the most of the Recommended List: 4 Mar 2020

Ultimate Guide to the Barley & OSR Recommended List

Ultimate Guide to the Wheat Recommended List

Wheat yellow rust watch list

Use the list to help understand disease risk and focus in-season

Growing wheat for exports

Typical specifications	ukp 🕮	uks
Minimum specific weight (kg/hl)	76	75
Maximum moisture content (%)	14	14
Maximum admix (%)	2	2
Minimum Hagberg Falling Number (HFN; s)	250	220
Protein (%)	11.0-13.0	10.5–11.5
W	170 (min)	70–120
P/L	0.9 (max)	0.55 (max)





Extra information

Downloads

- RL Crop Committee Handbook 2021
- ♣ RL protocol for cereal trials (CER22–26, Jan 2021)
- 🖶 RL protocol for early sown winter wheat trials (EARLY22-26, Jan 2021)
- ♣ RL protocol for fungicides on cereal variety trials (20-21)
- L protocol for winter wheat vernalisation assessment plots (VERN22-26, Jan 2021)
- 🖶 RL protocol for plant growth regulators on cereal variety trials (20-21)
- NL protocol for plant growth regulators on cereal variety trials (20-21)
- L protcol for special growth and development plots
- lack L RL protocol for assessment of sterility and shedding in winter wheat (STER and SHED22-26, Jan 2021)
- ♣ RL protocol for sprouting assessment wheat plots (SPR22-26, Jan 2021)
- 🖶 RL protocol for wheat milling sample production plots (MILL22-26, Jan 2021)
- L special spring barley high nitrogen plots for grain distilling tests
- Lack transfer in the protocol for barley ear loss assessment plots (17-21)
- LP RL protocol for market suitability predictive quality tests for oats (17-21)
- L protocol for market suitability predictive quality tests for cereals (except oats) and oil content of oilseed rape (17-21)
- RL protocol for cereal trials sampling
- ♣ RL protocol for inoculated disease tests for cereals and winter oilseed rape (17-21)
- Left Protocol for winter oilseed rape trials (WR22-26, Jan 2021)



RECOMMENDEDLISTS

Version: June 2021

Recommended Lists

Crop Committee Handbook

RECOMMENDEDLISTS



Tools



RL app

Adding value to the online tables and booklet, our RL app provides a powerful and pintsized way to deliver variety data to your fingertips.

Recommended Lists app



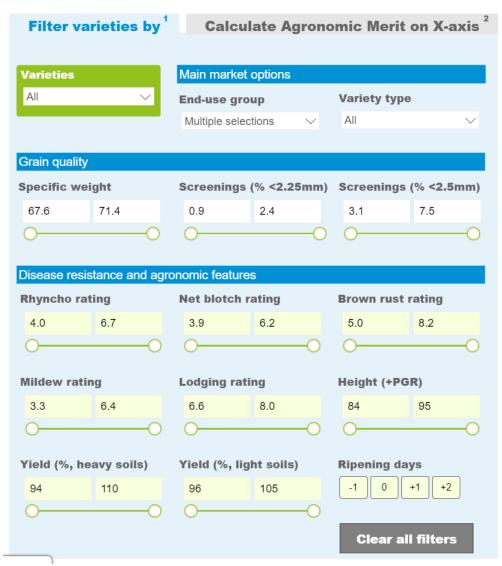
- RLs and DLs
- Searchable
- Favourites
- Notes
- Most up to date information on candidates
- Works offline

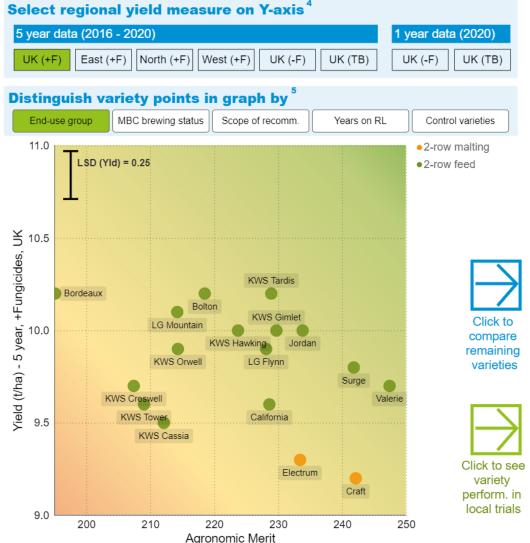




TOOLS VARIETY SELECTION







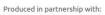




Recommended Lists

- Lists
- Data
- Tools
- Protocols
- Supporting links











Team







VISION & PURPOSE



Over 20 years since our launch and our purpose hasn't changed, we are simply trying to be bigger and bolder

The Flagship for British Food & Farming ...

A scheme that Shoppers demand, Customers insist on,

Farmers aspire to and Government are proud of



RED TRACTOR'S VISION & PURPOSE BALANCES THE NEEDS OF EACH STAKEHOLDER ...



Shoppers

Want : Food that has been produced safely & responsibly

Retailer/Caterer/Brands

Want : Comprehensive standards that deliver a buying specification, due diligence and a strong defence



Government

Want: An additional inspection service and an export sales tool

Farmers

Want : Manageable standards, market access and positive impacts on their returns

HOW ARE THE CHANGES DECIDED?



Changes in legislation

Earned recognition requirements

Future proofing the scheme



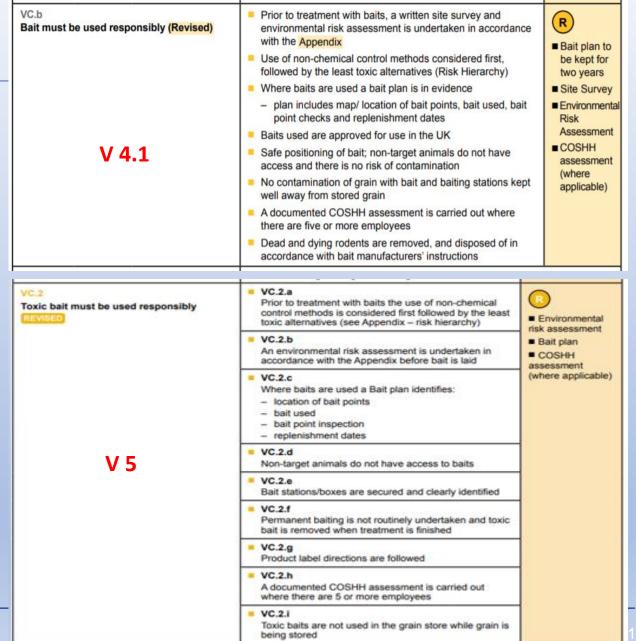


VERSION 5 LAYOUT CHANGE

Coding Change – Letters to number

Version 4.1 – If an assessor raised a non-conformance against VC.b the data could not easily recognise which part the member was not complying with

Version 5 gives the assessor the ability to raise a nonconformance under a specific point and the data can be easily interpreted to recognise trends and will help when the 'risk based approach' is introduced to combinable crops



NEW PL.5 – HEALTH AND SAFETY POLICY

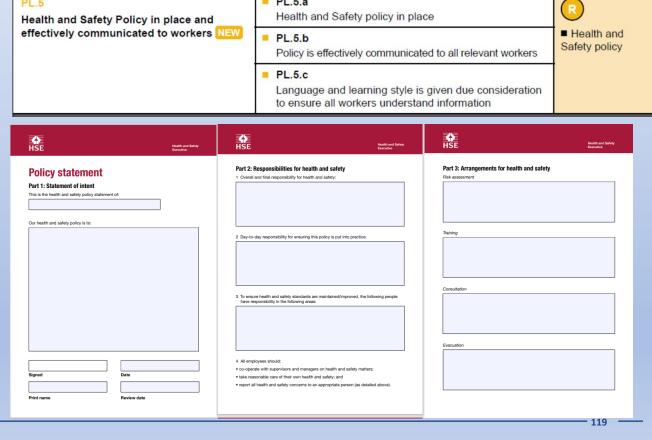
PL.5



Inclusive of a workforce made up of partners in the business and unpaid family members who undertake duties/work on the farm.

Prepare a health and safety policy - HSE

Example health and safety policy (hse.gov.uk)



PL.5.a

NEW EC.9.5 – FERTILISER PURCHASE TRACIBILITY (NEW)



- The member must be able to demonstrate that the fertiliser on farm has been purchased from a reputable source e.g., FIAS
- Logo on paperwork
- AIC checker



https://www.aictradeassurance.org.uk/assurance-checker/

EC.9.5 Documentary evidence must be kept which demonstrates that manufactured fertiliser is responsibly sourced and traceable, e.g. from a Fertiliser Industry Assurance Scheme (FIAS) approved supplier NEW

J R L Clarke

Scope: The Merchanting of Fertiliser

Dunchurch Trading Estate London Road Dunchurch RUGBY Warwickshire

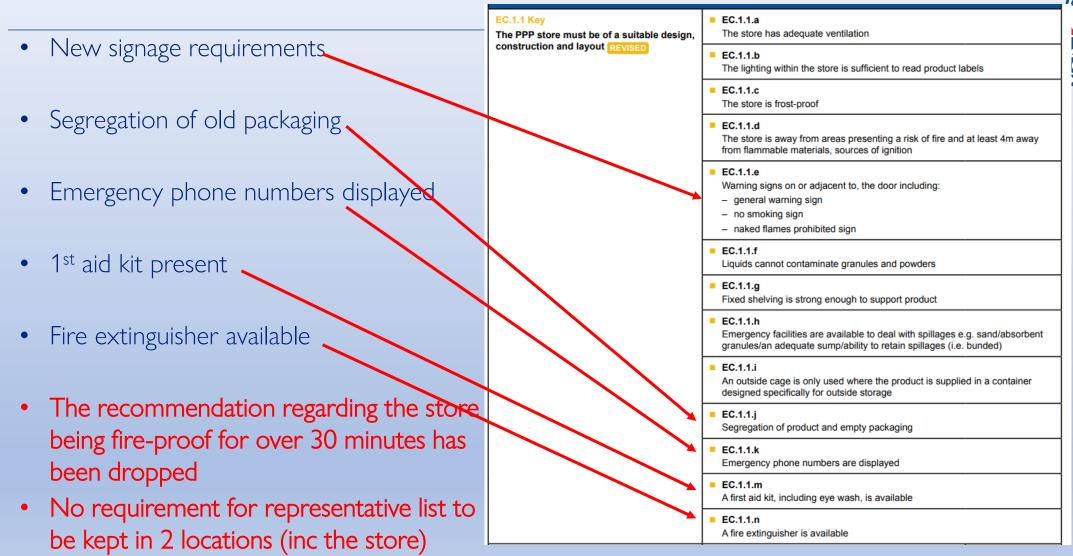
CV23 9LN

Scheme: FIAS Scheme ID: FI0161

Status: Fully Approved / Certified

Expires: 30-Sep-2022

SIGNIFICANT REVISION EC.1.1 – PPP STORAGE



SMALL REVISION EXAMPLE. ST.19 – TREATED SEED IN GRAIN STORES



• Clarification of how treated seed is stored in grain stores when grain is in store

ST.19 Treated seed must not contaminate stored grain REVISED	ST.19.a This is achieved through secure segregation/a rigid physical barrier/ separated by a distance of at least 3m
	ST.19.b PPP treated seed is not stored loose in a grain store containing grain

ASSESSOR TRAINING



- Learning paths for each scheme inc generic and scheme specific
- Training slides covering each section of the standards e.g a section on vermin control
- 20 multi choice questions –90% pass mark
- 10 free text scenario-based questions 90% pass mark

Roll on 1st November



- New standard manuals, templates and guidance documents available at
- https://redtractor.org.uk/



News

AHDB

New service to help 4,000 farmers and growers in England mitigate the reduction in direct payments

ahdb.org.uk/farm-business-review



What's Next?

- Feedback form
- Recording will be circulated with one-page summary for each session
- To sign up to our CRM and receive future event communication please go to: https://ahdb.org.uk/keeping-in-touch
- Tools, resources and other events recordings are available at www.ahdb.org.uk
- Please follow us on Facebook and / or Twitter at: @TheAHDB