Profiting from Native Pasture

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90 Pedigree Aberdeen Angus Cows
Natural England - Lead Adviser

What is this?

What do we know about cattle and the environment?

Grasslands make up 40% of the terrestrial area of the earth!

What is Natural Grazing?

In 1805, while leading the Corps of Discovery through the northern Great Plains, Meriwether Lewis recorded:

"the country in every direction around us was one vast plain in which innumerable herds of Buffalo were seen attended by their shepherds, the wolves; the solitary antelope which now had their young were distributed over its face; some herds of elk were also seen."

- Tonnage of Herbivores?
- Stocking density/Seed rate

What is Holistic Grazing?

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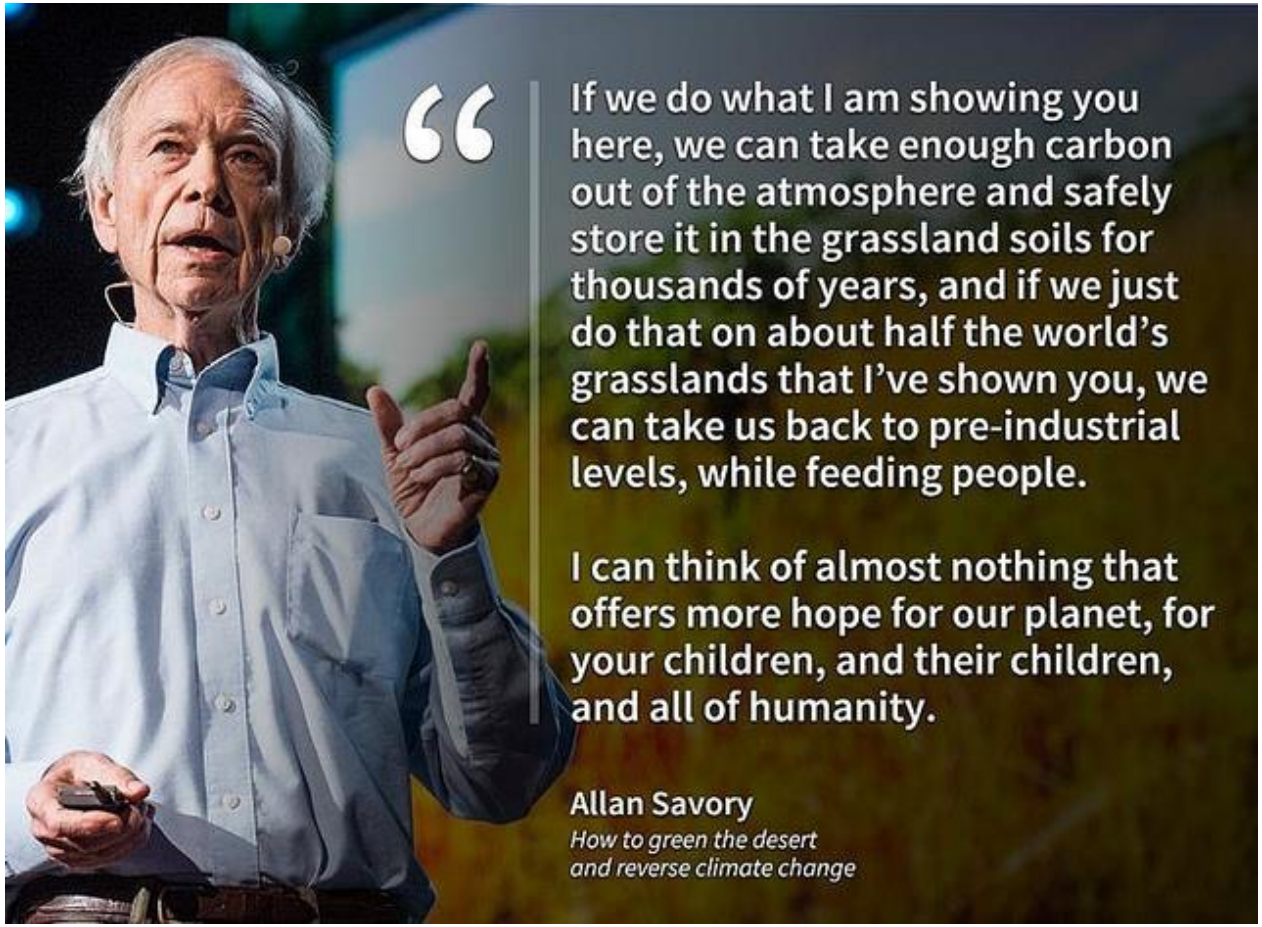
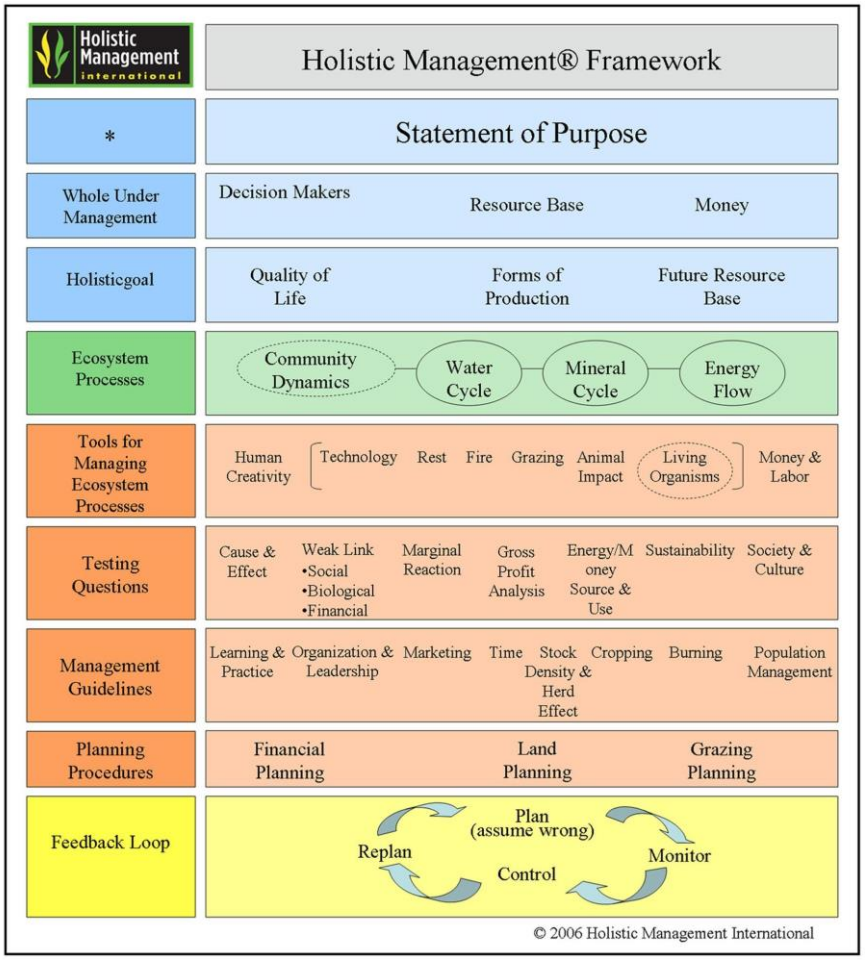


Holistic Management Framework



What is Holistic Grazing?

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Andre Voisin – Grass Productivity - 1959

First law of rational grazing -

“Before a sward, sheared with the animal’s teeth, can achieve its maximum productivity, sufficient interval must have elapsed between two successive shearings to allow the grass to accumulate in its roots the reserves necessary for a vigourous spurt of re-growth.”

- Rest periods.

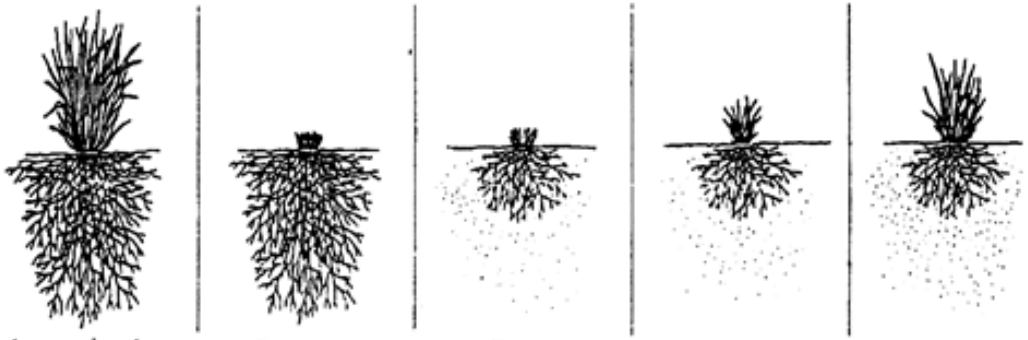
What is Holistic Grazing?

"For thousands of years shepherds have been conversant with that extraordinary, living electric fence, the dog."

Andre Voisin, 1959.

Electric fence

Impacts of Grazing on Plant Physiology



Mature plant ready to be grazed

Day 1
Animal has grazed plant severely. Most leafy material is gone, plant is unable to convert the sunlight energy it needs to grow.

Day 5
Thus, the plant kills off roots to mobilize the energy needed to produce more leaf.

Day 10
Leaves are beginning to grow on root energy. If animal returned now, plant would be overgrazed

Day 20
Leaves are now convert-ing enough sunlight energy to not only grow but to re-establish roots. If animal returned now, plant would be overgrazed.

Rest Period

Impacts of Grazing on Plant Physiology

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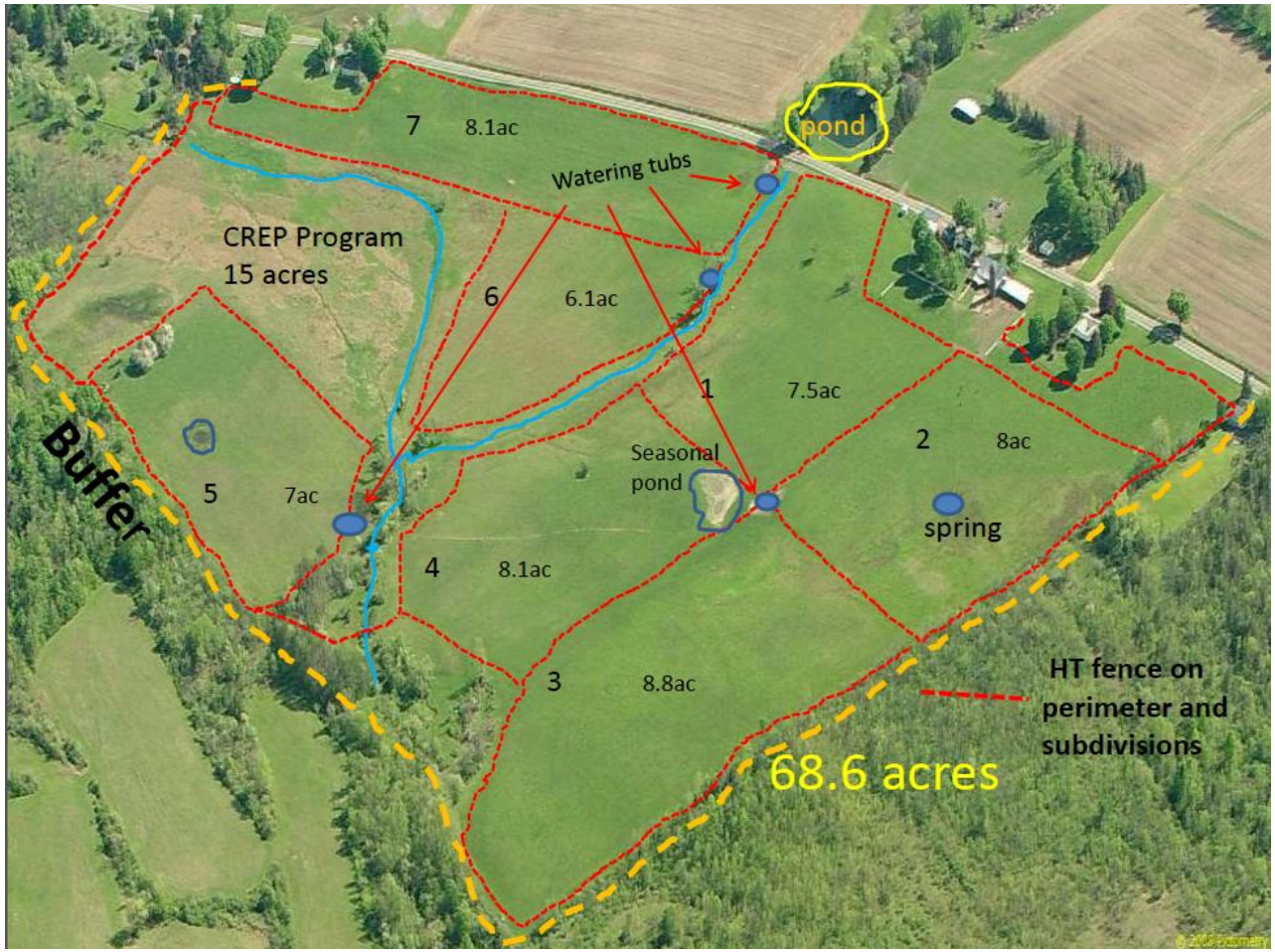
Continuous Grazing

Impacts of Grazing on Plant Physiology

- Forb – definition.
  - a herbaceous flowering plant other than a grass.
- Unlike grasses, forbs do not tend to grow form the base/crown.
- The impact/stress of no rest/regrazing on forbs is far greater and leads to loss of forb species.
- So is continuous grazing suitable for species rich sites?

Using holistic grazing principles to increase/maintain diversity



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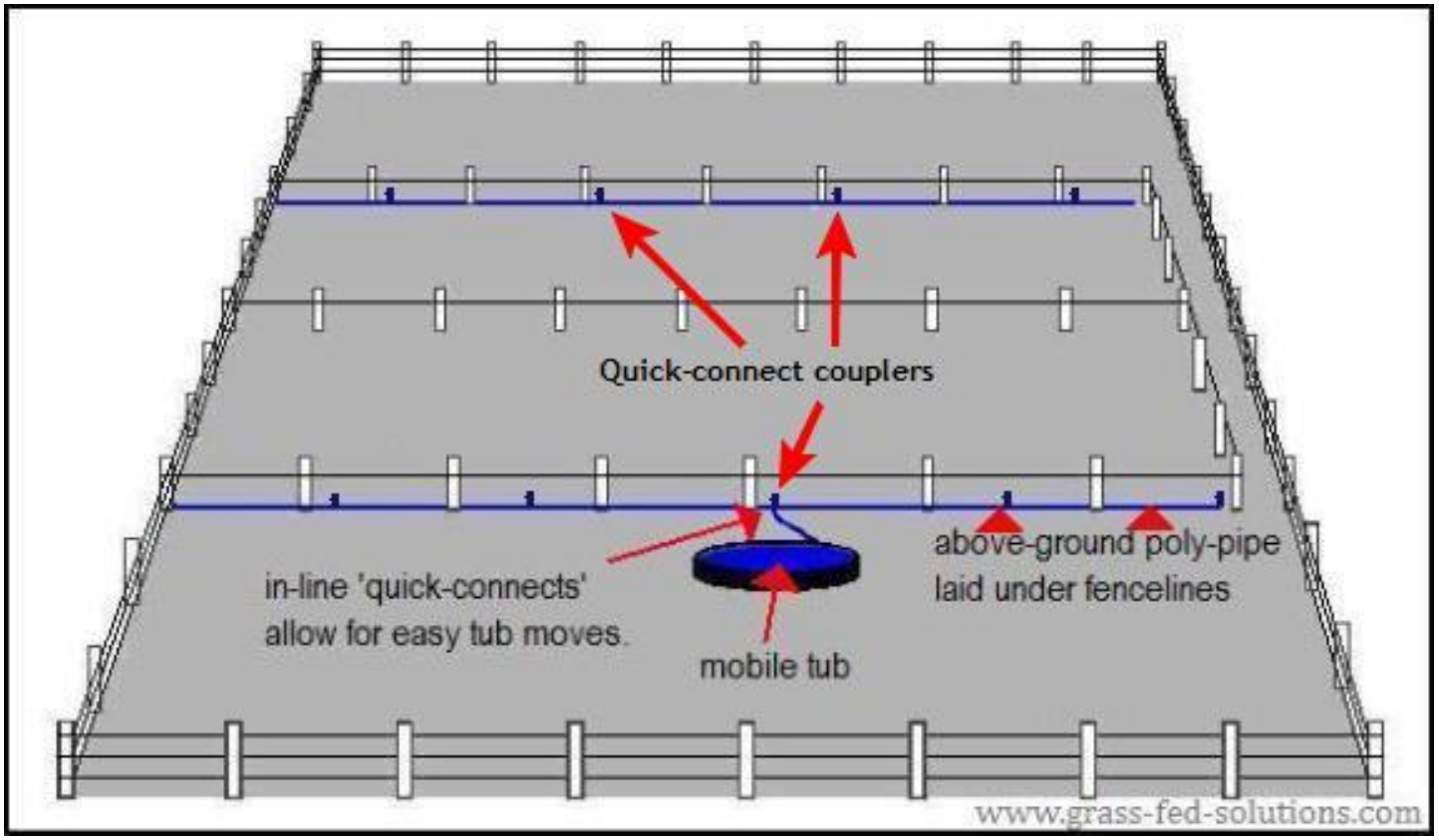


Using holistic grazing principles to increase productivity

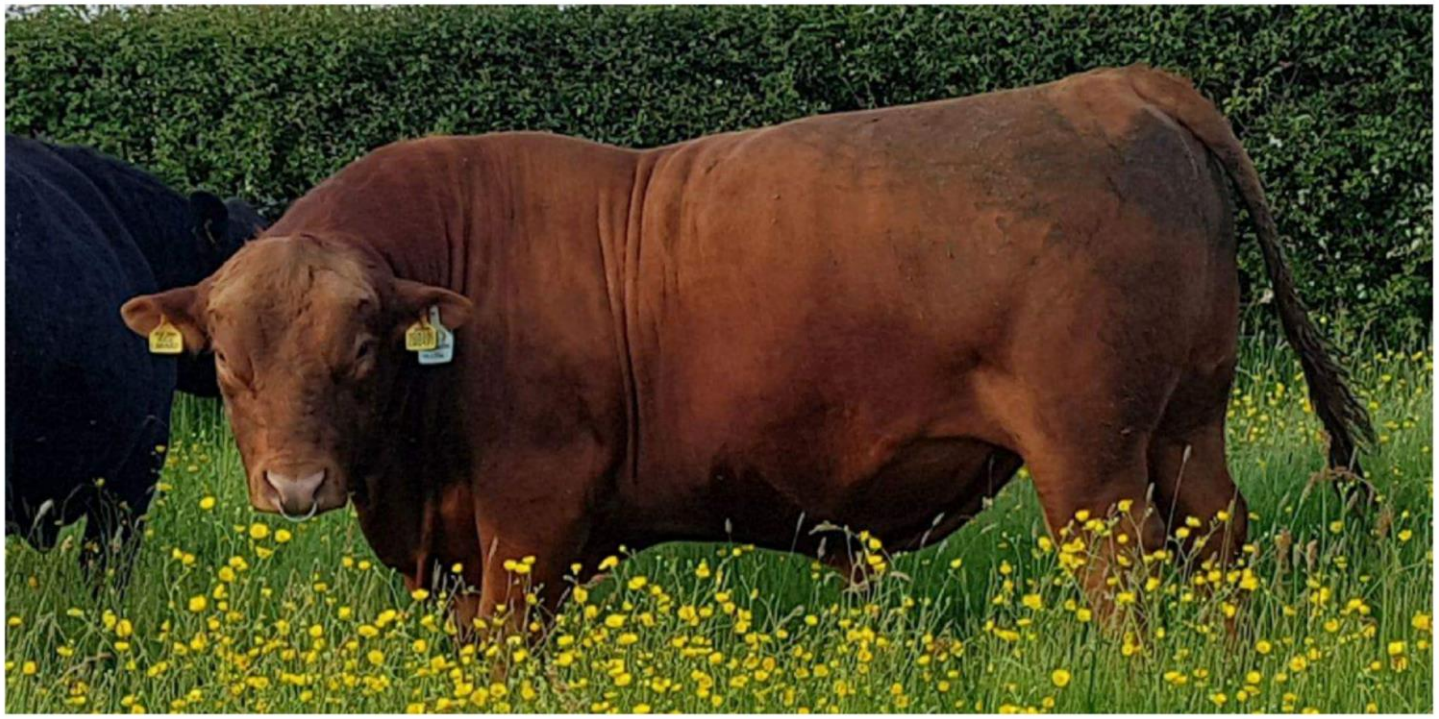
NATURAL ENGLAND

Daily bite of + - equal nutrition

Is this forage good enough?????!!

Business performance

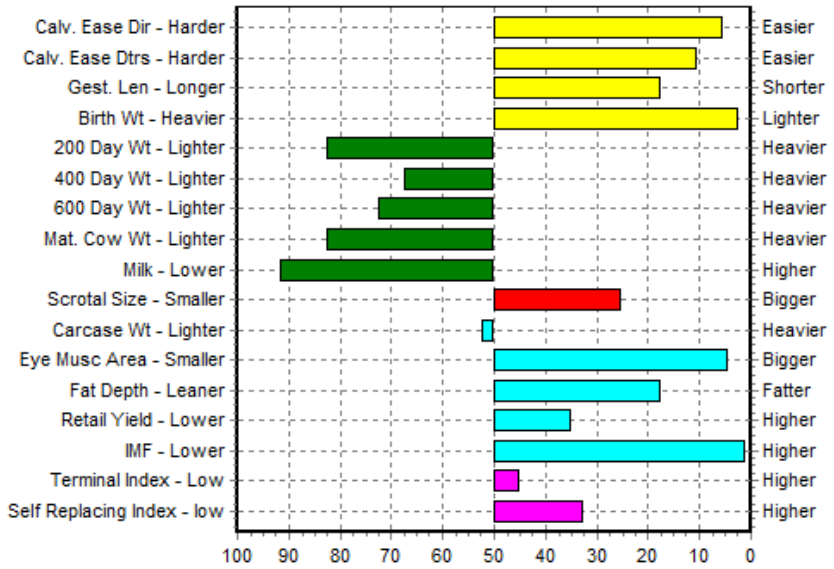
- Gross Margin on 12 month fattening Native store cattle - Over £600 per head
- All cattle finished off grass alone by 28 months average – all under 30 months
- Average daily live-weight gain of 0.8 kg per day – Even though they were out wintered with no hay.
- System has allowed me to expand my operation from small family farm of 44 acres to 420 acres. I now rent 180 acre farm and 190 acre farm. Next year?



EBVs – Very Useful but be careful

- Important and valuable
- It is not a race to the highest number
- Avoid Single trait selection
  - Calving Ease Direct vs Calving Ease Daughters
- Antagonistic traits
  - Growth vs Sexual Maturity for calving at 2/Structural Soundness/Finishing
  - Marbling vs Meat yield
- Feet and leg structure EBV?
- Epi-genetics
- Be careful what you wish for – you might just get it!

EBV Percentiles for DONAUMOOS LORD ZORRO J602



50th Percentile is the Breed Avg. EBVs for 2016 Born Calves

Switch Graph Graph Explanation

September 2018 Aberdeen-Angus BREEDPLAN															
	Calving Ease DIR (%)	Calving Ease DTRS (%)	Gestation Length (days)	Birth Wt. (kg)	200 Day Wt (kg)	400 Day Wt (kg)	600 Day Wt (kg)	Mat Cow Wt (kg)	Milk (kg)	Scrotal Size (cm)	Carcase Wt (kg)	Eye Muscle Area (sq cm)	Fat Depth (mm)	Retail Beef Yield (%)	IMF (%)
EBV	+3.6	+2.3	-0.1	+0.3	+30	+59	+71	+60	+4	+1.3	+52	+6.3	-0.4	+1.2	+0.7
Acc	56%	37%	72%	93%	84%	86%	78%	62%	56%	82%	70%	57%	70%	58%	55%
Breed Avg. EBVs for 2016 Born Calves Click for Percentiles															
EBV	-1.7	+0.2	+0.7	+3.2	+38	+67	+83	+79	+11	+0.9	+52	+3.4	-1.2	+1.0	+0.0

Traits Observed: BWT

Cow Size

Cow size

- How many 650kg cows can you keep compared to 900kg cows?
  - 100 / 72
  - 90 calves compared to 65 @ 90% weaning rate. That is a **£16,250** difference.
- Optimal not extreme growth
- Optimal not extreme frame size/weight
- I aim for my smallest heifers to finish at 275kg DW to avoid penalties.
- Cows as small as I can get to deliver that for my Bull customers.

Functional Traits

- Feet/Legs
- Hair coat/fly resistance
- Udder
- Fertility – a function of body condition?
- Ability to maintain condition in your environment.
  - UK environment is much kinder than US/Canada
- What is the future of the cattle industry? How many units of labour per 1000 cows?
- Welfare

Conclusion

The savings outlined above are additive. This means an average producer could make a saving of 16 p/kg on production costs.

Management Changes	Cost per kg weaned calf per cow served (p/kg)
Average variable costs	**67**
Increase calf survival to 95%	-3
Reduce calving period	-2
Reduce feed costs by 10%	-5
Use a terminal sire of high EBV	-2
Increase cow longevity	-4
Possible production costs	**51**

For a 250kg weaned calf a reduction of 16p/kg in variable costs is equivalent to £40 per calf.

Further information

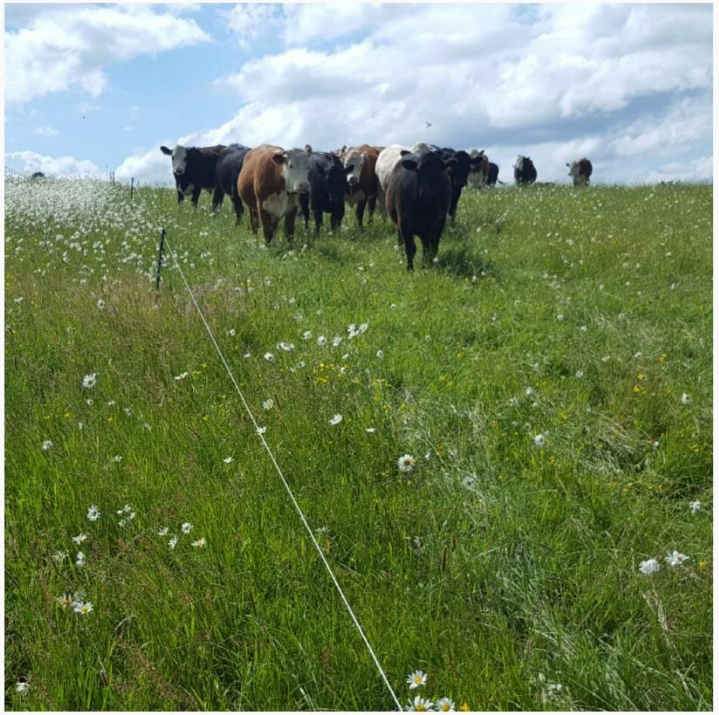
Please contact HCC's Industry Development Team
Tel: 01970 625050 or email: enquiries@hccmpw.org.uk
For further information on this brochure or the work of HCC please visit
www.hccmpw.org.uk

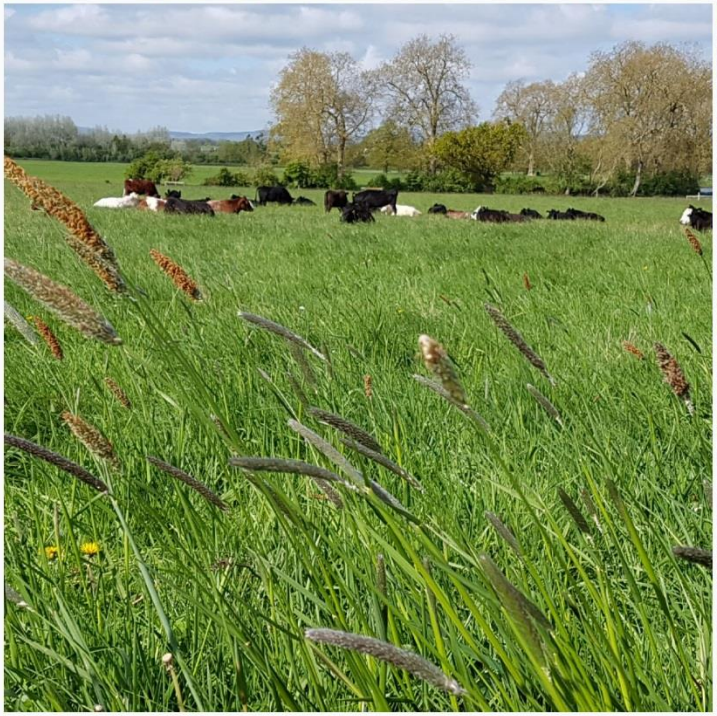
Fertility/Maternal

- 85% Weaned vs 95% weaned on 100 cows is 10 calves
- @300kg weaned that is 3000kg or about £6000.
- You would have to increase your average weights by more than 30kg a head to have the same impact.
- Increasing growth/weight has unintended consequences as discussed.

Keep it simple

- If she rears a calf every year trouble free, holds condition and breeds back on time then she's alright.
- Foot EBV or longevity?
- Old Granny
- Pinebank – From NZ
- Wye – From North America
- Native Angus
- Add in modern growth genetics to hit carcasse specs and keep functional cattle only.





Using holistic grazing principles to increase/maintain diversity

Advantages of Holistic grazing:

- Wintering COSTS! – Old saying from Twitter:
  - "Every day without feeding silage is a day without feeding silage".
- Low Fixed costs.
- No additional feed costs
- Low barriers to entry for young farmers
  - Cheap Infrastructure
  - Contract grazing other peoples stock
- Farming is fun when you are moving forward.

Opportunities/Challenges identified by YOU!

- 3 leaf vs Holistic – Top 3/Diversity/Difference now or in 10 years?
- Drought tolerant species – Species diversity and choice important!
- Pedigree Herd?
  - Holistic Goal? Does it fit?
  - Terminal or Maternal?
- Wintering Costs/Winter Forage/Straw
  - » Forage Rye??Kale??
- Machinery Costs/Labour Costs/**Fixed Costs**
- Time
- Brexit – Circle of Influence vs Circle of Concern
  - » Subsidies – What will farming look like?