Vet Sustain and Pasture for Life: Support Document

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Vet Sustain supports veterinary professionals to drive change towards a more sustainable future. <u>vetsustain.org</u>

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Pasture for Life champions the restorative power of grazing animals on pasture

pastureforlife.org



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This is a jointly authored resource for the farm animal veterinary team to support them when working with Pasture for Life clients. It is intended as a briefing document and resource, with more in-depth information links, to assist the team to develop a proactive and fruitful 'vet/ Pasture for Life' client relationship that will benefit the clients, the team, and the health and welfare of the ruminant livestock.



What is Pasture for Life?

Pasture for Life - Certified 100% grass-fed meat, milk and dairy was founded in 2009 by a small group of farmers, and originally called the Pasture Fed Livestock Association, or the PFLA. Since then, membership has grown to over 800. Pasture for Life membership is not exclusive to farmers, and there is a very engaged community of diverse individuals (farmers, butchers, retailers, veterinarians, academics, and consumers) interested in maximising the quality of 100% pasture-fed ruminant livestock, while maximising soil health, biology, fertility and biodiversity, both above and below ground - within plant, animal and fungal kingdoms. There is a rich online discussion forum, regional groups with regular meetings and farm walks, plus an active Research Group, working to increase

the knowledge and evidence base for 100% pasture-fed produce.

Membership is not equivalent to certification. Pasture for Life run a certification scheme for ruminant livestock producers, using their distinct certification mark. The recently updated standards (which are periodically reviewed) are detailed and thorough, with sections specific to 100% pasture-based dairy systems, and lamb/sheep production systems - which carry their own inherent challenges. The standards can be found and downloaded here. The website has a Directory of Pasture for Life certified producers, and a wealth of other information, resources and interesting articles.

What is Pasture for Life all about?

'Grazing animals on 100% pasture brings positive impacts for biodiversity and carbon, human health and wellbeing, and animal health chains. Certifying products and welfare. Pasture for Life works on the ground, every day, to restore ecosystems, implement positive change in better labelling standards. our food and farming systems, and demonstrate the benefits of 100% pasture fed.

'We work across every step of this process. Learning from farmers who are already there and supporting those who are on the journey. Pressing for the return of local abattoirs so

animals can experience the most humane end of life possible. Developing routes to market and novel supply so people can have confidence in what they are buying, and advocating for

'We are a diverse movement of farmers, vets, butchers, artisans and academics, working together to champion ways of farming which are restorative for all life!

*Text from the homepage of the Pasture for Life website (August 2022)

3.4 Overall feed and nutrition

- Animals must be provided with pasture and forage that provide suitable nutrition for their 3.4.1 age and stage of production.
- Animals must have free access to clean, fresh water at all times. 3.4.2
- Pasture and forage must be the only feed source consumed for the lifetime of the animal, 3.4.3 with the exception of milk consumed by youngstock prior to weaning. Animals must not be fed grain or any other form of feed concentrate.

Note: Pasture and forage includes grass (annual and perennial), legumes (e.g. clover, trefoil, vetches), brassicas (see section 3.6) and herbs within pasture leys. Also permitted are forbs, browsing of shrubby growth, and arable silage or wholecrop, harvested in the vegetative (pre-grain) state (see section 3.7). All of the above may be provided for grazing or as conserved products (e.g. hay and silage).

- 3.4.4 The following sources of feed are specifically prohibited under the Certification Standards and any animal that consumes them will lose certified status:
 - Grains
 - Dry harvested grain legumes (e.g. peas, beans, lupins) ٠
 - Maize and maize silage
 - Soya
 - Sunflower and safflower grains and meals •
 - Oilseed and expeller products
 - Grain residue or by-products including brewer's grains
 - Any harvested root crops and root crop products including sugar beet and derived products
 - Any by-products from food processing or animal feed processing industries
 - Stock feed potatoes, vegetables or fruit
 - Waste food products such as bread
 - Urea

Note: The feeds listed above must not be used as feeds, feed additives or feed supplements. A lack of a specific prohibition for any feed or supplement within the Certification Standards does not imply that their use is permitted. It should be assumed that any non-forage supplements or feedstuffs are prohibited unless otherwise specifically stated within the Certification Standards. The PFLA approved Certification Body should be consulted if there is any doubt whether a particular ingredient is permitted.

- 3.4.5 Genetically Modified Organisms (GMOs) or derivatives of GMO are specifically prohibited.
- 3.4.6 Molasses must only be used as a binding agent for mineral and/or vitamin supplements. It cannot be used as a feed in its own right nor as a binder for grass nuts or similar feeds.
- 3.4.7 A list of ingredients or specification for any feed or supplement made available to a group of certified animals must be retained and be made available at inspection.

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What approaches, techniques and practices are Pasture for Life farmers likely to be using that differ from more mainstream ruminant livestock production practices?

There is no one single approach that all PfL farmers use to ensure that their ruminant livestock have a 100% pasture-based diet whilst maintaining high welfare standards. However, there are a number of principles that many adopt, and adapt to fit their own farming system.

Diverse pasture at Hollis Mead Dairy

Photo: Angus D. Birditt

Livestock species, breed and individual animal selection

Choosing species and breed of livestock, and individuals for breeding replacements that thrive in the system. This should include culling out/ selling on of breeding animals that do not thrive in the system. Factors that affect these decisions include the following:

- The geography of the farm enterprise, and thus the forage (volume, quality, and diversity) that can be produced
- The expectations of livestock productivity the more traditional locally adapted breeds, or dual-purpose breeds might be common examples
- The infrastructure available (water and fencing are key ones)
- The expertise and number(s) of staff on the farm

Livestock management

Minimise the necessity for mutilations, while ensuring anaesthesia and/or analgesia are provided, and veterinary advice is followed, where mutilations are deemed necessary. Success in reducing the necessity will likely be underpinned by choice of livestock species and breed, management set-ups, and forward planning

Handling systems that assist with grazing management such as electric fencing and remotely controlled virtual fences

Recognise the social needs of ruminant livestock. Key issues include appreciating herd/flock dynamics, the social hierarchy within the group and maternal care. Management for the latter could include:

- Weaning at an older age or using a phased approach.
 Some farmers allow the dam to wean her own offspring naturally
- Use Cow-with-Calf or nurse cow options within the dairy sector

Adaptive grazing planning

Ensure pastures are not undergrazed or overgrazed

There may be a variety of terms used to describe different adaptive grazing approaches such as holistic planned grazing, adaptive paddock grazing, mob grazing, rotational grazing, extensive or conservation grazing, and so on. These may involve:

- Shorter duration, higher intensity periods of grazing, with longer rest periods than commonly utilised in setstocked more conventional grazing systems, or
- Low-density extensive or 'conservation' grazing systems

During the non-growing months this may also involve using pastures that have been rested during most of the growing season (deferred grazing)-or bale grazing (rolling out of conserved forage from the growing season onto pastures, or strategic placement of bales into grazing pods/cells)

Extension of the grazing season is a desirable outcome – housing criteria are specified in the Section 5.4 of the <u>current standards</u>.

Aim for maximum diversity within swards (not monocultures). Inclusion of scrub or tree browse, may enable all essential nutrients to be derived from on-farm forage

- Moving to silvopastoral systems takes this a stage further
- The more dietary diversity, the greater the likelihood of complete dietary needs being met, especially minerals but achieving this can take time, and needs to be carefully monitored

Ensure all life-stages have access to adequate nutrition. Success is likely to be underpinned by:

- Choice of livestock species and breed
- Timing of breeding/lambing/calving, and whether indoor or outdoor
- Timing and methods of weaning

Minimise the pathogenic effects of endo and ectoparasites. Success in this aspect is likely to be multifactorial and underpinned by:

- Primary choice of livestock species and breed (e.g. native resilient breeds)
- Selection of resilient/resistant individuals within the herd/flock, combined with removal of less resilient/resistant individuals
- Encouraging plant diversity which, when eaten by ruminants has the potential to maximise general health and immune function, and may offer opportunities for anti-parasitic self-medication
- Short duration grazing periods, long rest periods, tall grass grazing, or extensive low-density grazing systems, which may reduce likelihood of ingestion of infective parasitic stages
- Diversity at all trophic levels within the entire farm enterprise lowers the likelihood of parasite dominance (soil health and wider biodiversity monitoring are recommended within the Pasture for Life standards)
- A monitoring approach that enables focused and appropriate treatment, using faecal egg counts for example

Optimise animal welfare - environmental and behavioural needs

• Provision of shade, shelter and browse options through three dimensional pastoral diversity, e.g. hedges, walls, trees, tall grasses etc. and access to indoor shelter if/when required e.g. if pastures are not providing adequate protection

Avoidance of poaching

• Through grazing planning and pasture management, avoidance of fixed feeders at pasture, matching livestock to land, improving water, mineral and nutrient cycling in pastures, and developing an 'understorey' of plant material

Permanent Pasture on PfL Certifed Farm

Photo: Angus D. Birditt

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Specific livestock health areas where the expertise of the veterinary team will add value

Overarching livestock health and production

Working closely with farmers to create bespoke and detailed animal health plans – based on calendar year timelines

Providing insights and advice relating to the following factors:

- The importance of biosecurity measures
- Livestock health schemes the diseases involved, how to join etc.
- Potential value of available vaccines
- Available tests to support successful production e.g. bull/ram fertility testing
- Observational skills for dung scoring, body condition scoring, rumen fill
- Lambing and calving management

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- Selection and breeding; identifying key traits; monitoring herd fertility
- Low stress handling systems and methods

The transition period from a more conventional system to a 100% pasture-fed system can take some time depending on the state of both pastures and livestock on the holding, and the management strategies and livestock selection criteria deployed

During any such transition, there is the potential for unintended animal health and welfare consequences, such as under-nutrition, poor fertility, parasite burdens through reducing treatments, and toxicity from novel plants to mention but a few. Veterinary input and a close working relationship with the farming team have the potential to minimise the likelihood of these occurring.

Silvopasture at Westerlogie Farm

Photo: Angus D. Birditt

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Mutilation management

To ensure animal welfare is considered in its entirety

- Considering the consequences of not carrying out certain procedures e.g. not castrating and unwanted pregnancies – the complexities of these discussions are considerable; our aim is to highlight the topic
- Breed selection advice
- Advice on age of onset of puberty to aid animal grouping plans
- Providing detailed veterinary services and advice relating to methods, including anaesthesia and analgesia, for interventions that are deemed necessary

Parasite control

- There is a key opportunity for veterinary involvement here – Integrated Parasite Management Programmes, incorporating regular FECs, pasture risk mapping, utilising multiple livestock species in the grazing planning, carefully considered treatment planning where required (e.g. avoiding avermectins and use of boluses where possible)
- Educational opportunities to upskill farmers in FEC as an example
- Providing farmers with the insight to understand the life cycles of the parasites that are potentially pathogenic on their farms

Native sheep at Tamarisk Farm

Photo: Angus D. Birditt

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MINING STATISTICS

Antimicrobial medicine usage

- Providing farmers with advice and support about when and how to intervene with veterinary medicines
- Providing reports to benchmark and help drive down antibiotic usage by flagging issues, and help find solutions to avoid adverse health events

Mineral and micronutrient status

Providing testing support, and advice about how and when to intervene, and understanding the value (and potential limitations) of diverse swards, especially during transition to a PFL approach

Understanding physiological needs at different life stages

Working with farmers to optimise the monitoring of animal health and welfare, to enable early detection of potential problems

Soil sampling on PfL farm walk

Photo: Clem Sandison

Bridging the potential gaps - key issues

Creating and building mutual trust

Creating alternative models of delivery/receipt of veterinary services

- Particularly with changes in subsidies
- Attitudes to vaccination

Attitudes to differing medicinal approaches e.g. complementary therapies

Attitudes to the rationale for farming in this way-supporting nature's recovery being a primary objective-nutrient-dense meat and/or milk being a fantastic consequence

Understanding the nutritional aspects of browse, and grazing more diverse swards

Metrics of success which drive 'replacement animal selection criteria' – these may differ between individual Pasture for Life farmers, and also between Pasture for Life farmers and their veterinarians

 A focus on the shared goal of 'positive animal welfare' may be safe common ground from which to start discussions

A mutual appreciation of the challenges of transition in terms of animal health and welfare

Many Pasture for Life farmers are by nature the 'early adopters' who research their own ideas widely. Therefore, veterinarians can expect progressive, novel, and potentially unusual suggestions/ideas. Similarly, farmers working with forward-thinking veterinarians should expect healthy appropriate challenge. Combined, this should produce informed, respectful debate and discussion

PfL farm walk in Scotland

Photo: Clem Sandison

Specific Resources to support the farm animal veterinary team

Benefits of Pasture for Life research outputs

- Pasture for Life it can be done. Booklet describes the farm business case for feeding ruminants on 100% pasture-based diet
- <u>The animal welfare and environmental benefits of Pasture for Life farming interim findings</u> | Agricology
- <u>Research Articles Pasture for Life</u> Certified 100% grass-fed meat, milk and dairy

Adaptive grazing planning

- Tall Grass Grazing: watch different farms and projects try out mob grazing on their land YouTube
- Teague, R. and Kreuter, U. (2020). Managing Grazing to Restore Soil Health, Ecosystem Function, and Ecosystem Services. Frontiers in Sustainable Food Systems 4, 534187. doi:10.3389/fsufs.2020.534187

Conservation grazing strategies

- <u>GAP Resources</u> | Rare Breeds Survival Trust (rbst.org.uk)
- <u>Conservation Grazing</u> | Celtic Rainforests Wales

Case studies of PfL Dairy

<u>Farmers see how Pasture for Life dairying can be done</u> – Pasture for Life – Certified 100% grass-fed meat, milk and dairy and/or Cow with Calf Dairy

Dietary diversity and health

- <u>The Gut Microbiome: What Is It and Why Should You Care About Yours?</u> | ZOE Podcast YouTube; This is about humans and the gut microbiome, but illustrates the importance of diversity in diet The Gut Microbiome
- <u>Research demonstrates the human health benefits of Pasture for Life Meat</u> Pasture for Life Certified 100% grass-fed meat, milk and dairy
- Provenza F (2018) Nourishment: What animals can teach us about rediscovering our nutritional wisdom. Chelsea Green Publishers ISBN 9781603588027
- <u>behave.net</u>

Sward diversity and minerals

- <u>Herbal Leys</u> (cotswoldseeds.com)
- <u>https://wildseed.co.uk/</u>
- <u>Charles Flower</u> | Wild Flower Consultancy & Seed Business

Research and case studies: silvopasture/integrating trees into pasture

- Pairing agroforestry with livestock: the major benefits (soilassociation.org);
- Kendall N.R., Smith J., Whistance L.K., Stergiadis S., Stoate C., Chesshire H. and Smith A.R. (2019) Tree leaves as supplementary feed for ruminant livestock - Woodland Trust Briefing Document

IPM

- (84) PASTURE FOR LIFE Webinar Dung Beetle Deep Dive with Sally-Ann Spence YouTube
- <u>https://vetsustain.org/assets/downloads/An-Introduction-to-Sustainability-in-Farm-Vet-Practice-May21.pdf</u>. See the section on IPM on page 14
- BCVA CPD see <u>Continuing Professional Development | BCVA</u>
- <u>www.dungbeetletrust.co.uk</u>
- dungbeetlesforfarmers.co.uk
- Dung Beetles Direct The Bug Farm fact sheets about dung beetles and sustainable use of parasiticides

Soil health monitoring and carbon calculators

- <u>Soilmentor</u> The app for regenerative farmers (vidacycle.com)
- <u>The Farm Carbon Calculator</u> (farmcarbontoolkit.org.uk);
- <u>Agrecalc</u> is a tool to produce accurate farm carbon reports
- <u>Cool Farm Tool |</u> An online greenhouse gas, water, and biodiversity calculator

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