News from the Farm Advisory Service:

Managing swards - key differences between herbs and legumes

Leguminous plants and herbs such as red and white clovers, chicory and plantains have a valuable role to play in improving soil health, sward quality and reducing our reliance on purchased nitrogen. In this video, Lorna Galloway from SAC Consulting compares the difference between herbs and legumes, and how they can be managed.

Find this video by scanning the QR code below, or by searching for Scotand's Farm Advisory Service on YouTube.

News

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Benefits of multi-species grassland leys for arable farming

Multi-species grassland leys in crop rotations can improve soil quality and nutrient efficiency, particularly with legume inclusion, which enhances nitrogen availability and reduces the need for mineral fertilisers.

The benefits include:

Nitrogen efficiency: Legume-based mixtures improve nitrogen fixation, reducing the need for synthetic fertilisers. This benefits follow-on arable crops by providing a natural source of nitrogen, which can significantly cut down fertiliser costs.

Soil structure: Deep-rooting species in diverse leys improve soil structure by creating macropores, enhancing water infiltration and root penetration. Improved soil structure is beneficial for arable crops, promoting better root development and access to nutrients.

Weed suppression: Multi-species leys suppress weed growth more effectively than monocultures, reducing the need for herbicides. This leads to lower input costs and less environmental impact.

Soil carbon sequestration: Integrating grassland leys into crop rotations helps increase soil organic carbon stocks, enhancing soil health and fertility. This is particularly advantageous for maintaining long-term arable productivity.

Yield stability: Higher plant diversity in grasslands enhances resilience to climatic stressors like drought, leading to more stable yields over time and across different environmental conditions. This stability is crucial for maintaining consistent pasture plant production if utilised for livestock production.

Implementation strategies

Designing seed mixtures: Effective mixtures should balance species diversity with economic viability. Mixtures with 3-6 species from different functional groups (grasses, legumes, herbs) are typically recommended. The soil type and climate should dictate the species sown as some may not establish or persist if the conditions are unsuitable.

Management practices: Some may choose to simply cut the forage but this will remove nutrients and therefore grazing with livestock is better. Grazing animals should be rotated as they will pick out the nutritious herbs and legumes and therefore reduce their longevity. Pasture rest is important to maintain these species and reap their beneficial effects.

Poppy Frater, SAC Consulting

This article is part of June's Crops & Soils Bulletin. To read the full bulletin, please visit:
www.fas.scot/crops-soils/crops-and-soils-bulletin/

At the Farm Advisory Service we run a range of events both online and in-person.

Visit **www.fas.scot/events** to sign up or contact the advice line and we'll help you get booked on.

Unearthing Local Views on Peatland Management
Thornhill (Stirling), 4th July, 6:00pm - 9:00pm

East Lothian Crop Trials Webinar
Online, 10th July, 12:30pm - 2:00pm

Managing Johnes within your herd

Johne's disease is caused by the bacterium Mycobacterium Avian subspecies Paratuberculosis (MAP) and is mainly seen in ruminant species, particularly dairy cattle. As the incubation period is 2-5 years, clinical symptoms are only generally seen in adult cattle.

Why should we care about Johnes?

Animal Health & Welfare
- Wasting and eventual death
- Untreatable
- Increased susceptibility to other diseases

Economics
- Potential cost of 2 - 4ppl

Public Health
- Potential assosication with Crohn's Disease, Diabetes, Rheumatoid Arthritis

If it can't be cured, how do we control it?

Find out the herd's status through milk testing either by:

- Choosing 30 random cows or whole herd testing every 3 months
- Only 1-5% of infected cows will show clinical signs. Sub clinically infected cows could still be shedding the virus and infecting calves. Over 80% of herds that have tested for Johnes have evidence of infection.
- Don't test within at least 42 days of a bovine tuberculosis test as this can flag up some false positives due to the close relationship between the 2 diseases.
- The results must be used to make the right decisions about managing each cow within the herd. Testing and not acting on the results will not help control Johne's.

Reducing the spread

Culling - The quickest way to reduce the spread of infection and to become Johne's free. If it is not possible to cull all infected animals, then manage them differently within the herd.

Breeding - All positive animals should be bred to a beef bull.

Calving Yard - Positive animals should ideally be housed separately in the lead up to calving. Snatch calving of all dairy heifer calves

Grazing - Avoid grazing calves on pasture that has been grazed by infected adult cows.

Colostrum Management - Avoid pooling colostrum and feeding it to dairy replacement. Pasteurisation will help reduce the levels of MAP in colostrum.

Identification - Inserting red ear tags into positive cows to help staff identify infected cows.

David Darlington, SAC Consulting

To read our full article, please visit:
www.fas.scot/article/managing-johnes-disease-within-your-herd/

Scotland's Farm Advisory Service is funded by the Scottish Government. It is delivered by SAC Consulting, part of Scotland's Rural College, and Ricardo Energy and Environment.

SRDP Farm Advisory Service

National Advice Hub
T: 0300 323 0161
E: advice@fas.scot
W: www.fas.scot

If you need more advice on any topic, the Farm Advisory Service has a range of support and help available:

Advice line
For free telephone advice on a wide variety of topics including cross compliance, water framework directive requirements, climate change and other technical issues call us on **0300 323 0161** or email **advice@fas.scot**. The advice line operates between 9am and 5pm Monday to Friday.

Bespoke Advice and Grants
FAS can also help you to increase the profitability and sustainability of your farming business through Scottish Government grants including Integrated Land Management Plans (ILMPs) – worth up to £1,200.

The ILMP will identify opportunities and cost savings for your business, based on an independent and confidential assessment of your business by an experienced farm business adviser of your choosing. As part of your plan you can choose to benefit from up to two further specialist advice plans.

Online
Our website contains articles, videos and much more at **www.fas.scot**

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