



FARMER LED, FARMER DRIVEN

East Lothian
All things cover crops
12th January 2025



All things cover crops

Farmers gathered at Bielgrange Farm for a Monitor Farm meeting, focusing on the benefits, challenges, and practical applications of cover crops in Scottish agriculture.

Niall Jeffrey, farmer and host, kicked off the day by introducing Bielgrange Farm and sharing his experiences with cover crops, which he has been experimenting with since 2021. Niall outlined his vision for using cover crops:

What does he want to achieve?

- **Soil cover:** To reduce soil erosion.
- **Living roots:** To improve water infiltration and keep the soil alive.
- **Animal integration:** To recycle nutrients efficiently.
- **Weed reduction:** To allow for the emergence of sterile and great brome before ploughing.

What does it have to be/do?

- **Easy:** Low labour requirements.
- **Low cost:** Affordable seed and minimal wear on equipment.
- **Sustainable:** Must not jeopardize the rest of the crop rotation—avoiding brassicas and legumes.
- **Grow:** Must be able to grow successfully in the East Lothian climate



Niall highlighted oats as a standout choice for his farming system from his experience. Oats offering simplicity, affordability, and the ability to integrate sheep grazing. This approach has added value to his system while supporting soil health.

MIXED Project

Efficient and resilient mixed farming

Graham Lofthouse and Fergus Younger shared findings from the **MIXED project**, a Scottish trial as part of a bigger project exploring how cover crops can boost arable yields, support winter grazing, and meet greening regulations.

The grand challenge: How do we best deliver and measure arable/livestock collaboration mixed farming benefits?

What they did: Implemented 3x cover crop grazing trials to identify best agronomic practise and to measure the impacts.

| Sub Challenge | Lessons Learned |
|---|---|
| Can a viable cover crop be established in Scotland year on year that as sufficient biomass for a livestock farmer to utilise? | Earlier sowing is better- every week lost in August results in estimated 10-20% loss in cover crop yield. If cover crops for grazing not sown by mid-August, do not sow- not enough biomass to graze. |
| What is the nest species mix for a grazed cover crop? | Arable farmers are concerned with having clean seed bed for following arable crop (e.g. no winter rye). Standard cover crop species for arable consider rooting, nitrogen fixation etc- not grazing potential i.e may be high nutritional content but unpalatable for grazing. |
| How can we improve cover crop establishment? | Seeds such as barley, oats and beans established with greater success, likely due to the fuel reserve in their larger seed and ability to establish to a viable size quickly. |
| Conflicting priorities of the arable and livestock farmers | The focus of the arable farmer at harvest is securing their harvest, not establishing a cover crop. Consideration should be given to broadcasting the cover crop seed into the standing arable crop thus avoiding the conflict of priorities. |



Conclusions:

- If planting cover crops to graze, prioritise palatability over other factors.
- Success is down to early establishment and appropriate species selection to address arable and livestock needs.

Trials and Soils

Ollie Johnston, Head of Farming Systems and Agronomy at AHDB, presented updates on cover crop trials at Castleton Farm as part of a project with the Monitor Farm Program. He explained the trial setup, comparing cultivated and non-cultivated ground and the impact of sowing techniques using a spinner, Claydon drill, or Bednar drill. Ollie underscored the importance of planting early to give crops the best chance of success in Scotland's shorter growing season.



See set up of the trial

The results of this trial will be shared once the final soil samples have been taken.

| C | Application | Cultivated | Non-Cultivated |
|-------|-------------|------------|----------------|
| Mix 1 | 1- Spinner | | |
| | 2- Bednar | | |
| | 3- Claydon | | |
| Mix 2 | 1- Spinner | | |
| | 2- Bednar | | |
| | 3- Claydon | | |
| Mix 3 | 1- Spinner | | |
| | 2- Bednar | | |
| | 3- Claydon | | |



Tom Fairfax from Mindrum Estate provided insights into soil health and the benefits of cover crops. He said "complexity is important but doesn't have to be complex". Tom compared soil temperatures in areas with and without cover crops, showing how living roots help protect and warm the soil. You can hear more of Toms thoughts on soil by reading his blog by clicking [here](#).





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