Case studies

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For recent changes to this guidance, please check the bottom of the page .

Table of Contents

Here are some examples of different types of farm businesses in Scotland and how the Greening requirements affect them. This might help you when considering your Greening requirements.

Case study one – arable farm

Jack Smith is an arable farmer with 100 hectares of cropped land (arable) and 50 hectares of permanent grassland. He needs to consider each of the three greening elements:

- permanent grassland – there are 50 hectares of permanent grassland on the unit but none are designated as Environmentally Sensitive Grassland. Jack must still complete an annual nitrogen fertiliser and lime plan for the permanenent grassland to meet his Greening requirement
- crop diversification – Jack used the table we provided for crop diversification (Annex A) and confirmed that to meet the Greening crop diversification requirement, three separate crops must be grown

He chooses to meet this requirement with the following crops:

- 32 ha winter wheat – 32%
- 28 ha spring barley – 28%
- 21 ha winter oilseed rape – 21%
- 4.80 ha field beans + 0.2 ha associated EFA field margins (TGRS) - 5%
- 2.88 ha peas + 0.12 ha associated EFA field margins (TGRS) - 3%
- 6 ha seed potatoes – 6%
- 5 ha fallow – 5% (EFA fallow)

Total = 100 ha arable land = 100%

There are eight crops for the purposes of crop diversification, the main crop is not more than 75 per cent of the arable area and the two main crops together are not more than 95 per cent of the arable land.

Using the table provided for EFA (Annex B), he also confirmed that to meet the EFA requirement at least five hectares (100 ha of arable land x 5% = 5 ha) must be managed as EFA. Jack's farm meets its EFA requirement by having five hectares of fallow land.

However if he decided not to choose the EFA fallow prescription, he could meet his EFA obligation with one of the following solutions:

Option A

3.4 ha of field margins or buffer strips (3.4 ha x 1.5 = 5.1 ha EFA)

Please note: if Jack includes any of his permanent grassland area as EFA i.e. a buffer strip or field margin, this will mean that the area of EFA on his permanent grassland will now be classed as arable land. He must claim it as permanent cover on his Single Application Form and it will be added to his total arable area calculation, effectively increasing his EFA requirement.

Option B

7.68 hectares of nitrogen fixing crops (field beans 4.8 ha x 0.7 = 3.36 ha and associated EFA field margin 1m wide = 0.2 ha x 1.5 = 0.3 ha) and (peas 2.88 ha x 0.7 = 2.02 ha and associated EFA field margin 1m wide = 0.12 ha x 1.5 = 0.18 ha). Total EFA for this option is: 5.86 ha EFA

Option C

17 hectares of catch crops (17 ha x 0.3 = 5.1 ha EFA)

This is not an exhaustive list of options available to Jack, just an example of how he may choose to meet his EFA requirement.

Case study two – dairy farm

Neil Groves is a dairy farmer with 100 hectares of which 20 hectares is arable crop and 80 hectares is temporary grass. Neil needs to consider each of the three greening elements:

- permanent grassland – there is no permanent grassland on the unit, Neil's farm is exempt from the permanent grassland requirement
- crop diversification – Neil looked at our table on crop diversification (Annex A) and confirmed that as 75 per cent of the holding is temporary or permanent grassland there is no requirement to grow multiple crops
- EFA – Neil used the table provided on EFA (Annex B) and confirmed that as 75 per cent of the holding is temporary grass and he has less than 30 hectares of arable crop, he is exempt from any EFA requirements

Case study three – mixed upland farm

Hilary Chiles is a mixed upland farmer with 120 hectares of which 85 hectares is arable land (including 40 hectares of temporary grass) and 35 hectares of permanent grassland including two designated sites of Environmentally Sensitive Grassland.

Hilary needs to consider each of the three greening elements:

- permanent grassland – there are 35 hectares of permanent grassland on the unit with two areas designated as Environmentally Sensitive Grassland. Hilary must complete an annual nitrogen fertiliser and lime plan for all the permanenent grassland to meet her Greening requirement. Hilary must ensure that the designated grassland is not converted (ploughed or cultivated) or improved. She is familiar with the land as it is designated as a Site of Special Scientific Interest (SSSI) which has been notified and regularly reviewed by Scottish Natural Heritage
- crop diversification – Hilary used our table on crop diversification (Annex A) and confirmed that at least three crops must be grown

She chooses to meet this requirement with the following crops:

- 15 ha spring barley, under sown with grass – 17.6%
- 20 ha winter barley – 23.5%
- 40 ha of temporary grass – 47.1%
- 10 ha of turnips – 11.8%

Total = 100% Two main crops total (23.5% + 47.1%) = 70.6%

There are four crops for the purposes of crop diversification. The main crop is not more than 75 per cent of the arable area and the two main crops together are not more than 95 per cent of the arable land.

Hilary checked our table on EFA (Annex B) and confirmed that to meet the EFA requirement at least 4.25 hectares (85 hectares of arable land x 5 per cent = 4.25 hectares) must be managed as EFA.

Hilary's farm could meet its EFA requirement by having at least:

- 4.25 ha of fallow land (4.25 ha x 1 = 4.25 ha EFA)
  or
- 2.84 ha of field margins or buffer strips (2.84 ha x 1.5 = 4.26 ha EFA)
  or
- 14.17 ha of catch crops (14.17 ha x 0.3 = 4.25 ha EFA)
  or
- a combination of these to meet the required EFA commitment

Case study four – hill farm

David Logan is a hill farmer with 198 hectares of which four hectares is forage rape, 24 hectares temporary grass and 170 hectares permanent pasture. David needs to consider each of the three greening elements:

- permanent grassland – there are 170 hectares of permanent grassland on the unit but none are designated as Environmentally Sensitive Grassland. David completes an annual nitrogen fertiliser and lime plan for all the permanent grassland to meet his Greening requirement. His farm is now “green” as far as permanent grassland requirements are concerned
- crop diversification – David looked at our table on crop diversification (Annex A) and found that he is exempt from crop diversification as more than 75 per cent of the holding is grassland (TGRS) or herbaceous forage (PGRS) and that his remaining arable land (less area of TGRS and herbaceous forage) is four hectares so is less than 30 hectares
- EFA – David used our table on EFA (Annex B) and does not have an EFA requirement as:

- his arable land is more than 15 hectares and less than or equal to 30 hectares

- more than 75 per cent of his arable land is temporary grass (TGRS, fallow, herbaceous forage or leguminous crops)

- more than 75 per cent of his business is grassland (PGRS and TGRS) and herbaceous forage

Recent changes

Section	Change
Case studies one, three and four	Clarification on permanent grassland new nitrogen fertiliser and lime plan

Previous versions

Previous versions of thus guidance

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