

A holistic view of farm sustainability

The GFM framework is based on a holistic view of farm sustainability which puts agricultural production at the heart of what it means to be sustainable. This definition recognises three aspects of farm sustainability:

- 1 To provide sufficient, high-quality food, fuel, and fibre to meet society's current needs.
- 2 To safeguard the ability of future generations to meet their needs for food, fuel, and fibre by protecting and improving the environmental, social, and economic condition of every farm.
- 3 To move from minimising the negative impacts of farming, towards farming which actively enhances the state of people and planet beyond the farm gate.



Your 'state of the system' GFM assessment

This assessment focuses on the environmental state or condition of your farm in order to identify risks to its ability to produce food, fuel, and fibre products for future generations. We also record the products you are producing to meet the needs of today.

These are the first two key aspects of farm sustainability as defined above.

The third aspect of sustainability – to improve the impacts of farming on people and planet, is closely linked to the first – a farm in good condition in this assessment is also likely to have more positive and fewer negative impacts on people and planet beyond the farm-gate. However, formally assessing some farm outputs and the impacts of the farm requires the use of specialised tools (like carbon footprint calculators and impact assessments). The state of the system approach is a starting point for addressing your impacts and for ensuring that changes to reduce negative and increase positive impacts of the farm are not at the expense of its future viability.

Sustainability is not a one-off target. As external conditions change continually, sustainability means being able to continue to adapt your farm system over time, while also being resilient to continual changes in conditions.

So, this type of assessment should be something you do periodically to track changes in the state of your farm. That way you can see whether your system responds as expected to changes you make, and investigate unexpected issues. Repeated assessment also helps you to spot the effects of outside influences on the environmental, economic and social condition of your farm.

Why take this approach?

We want to move away from assessments which ‘judge’ farms and towards assessments which identify issues and priorities for change both on-farm and off-farm, so that farmers, industry and society in general can work on the same side to bring improvements. This includes highlighting issues for your farm which are outside your control – like pollution from off-site or low prices for farm products.

Through this approach we want to help farmers to highlight the challenges they are facing and to drive change on-farm and beyond the farm gate which can make sustainable farming more viable.

The aims of these trials are:

- 1 To put productive farming at the heart of the sustainability agenda, highlighting positive links between good conditions on-farm and improved impacts on people and planet beyond the farm gate
- 2 To test the usefulness and practicality of this type of assessment
- 3 To use anonymised findings to highlight external pressures affecting farms, in order to drive more supportive policy for sustainable farming
- 4 To explore how to maximise the usefulness of collected data, to support farm management, to inform other assessments, and to meet reporting requirements.
- 5 To encourage tool developers to incorporate the ‘state of the system’ approach into their own on-farm assessments

Using this spreadsheet

The spreadsheet is set up so you can see clearly where your results come from and how different answers to the questions would change them.

All assessments and models are imperfect, so it is important for you to be able to see how they work. This can help you interpret the results appropriately as a starting point for thinking more about your farm's sustainability.

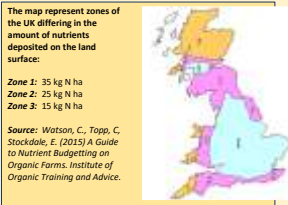
Thanks very much for your support and time trialling this assessment – we

Farm Information

Welcome to the first section of your assessment. This section asks for general information that gets used in several parts of the assessment to calculate your results.

Please select the start date for your farm assessment (Month, Year)

Which systems are present on your farm? Select all that apply (Arable, Vegetables and/or Horticulture, Fruit, Non food crops, Other Food Crops, Forage and Grassland, Livestock)



Where is your farm located? Please provide the initial four digits of your postcode (e.g., SY23) to help us apply the relevant climate data

Using the map to the right as a guide, please select which atmospheric deposition zone your farm is in. (Select Zone)

Nutrients in the atmosphere, including from things like car exhaust emissions, are deposited all over the UK at different levels - knowing this is important in deciding how much nitrogen you need to add to the land yourself, and in estimating how much excess nitrogen you might end up with.

Use the drop down list to select which of these best describes your average rainfall (see the definitions of each level below): Low, Moderate, High

What is the total size of your farm? What is the total utilised agricultural area of your farm?

1 Cropping and Grassland Areas

Table for crop production: i) Please list the crops you produced on your farm in the assessment year. Columns include Area, Marketable yield, Yield, By-product yield, Brought on farm, Sold or sent off farm, Sold as value added product, and Quantity fed to own livestock.

Table for Forage Crops and Temporary Pasture: ii) Please list the Forage Crops and Temporary Pasture (Grassland less than 10 years old) you had on your farm in the assessment year. Columns include Area, Clover content, and Yield (total tonnes).

Clover coverage categories as % of field area: High is greater than 30%, Medium is between 15 and 30%, Low is more than 3% but less than 15%, Zero is less than 3%.

Table for Permanent Grassland: iii) Please list the types of Permanent Grassland (10 years or older) you had on your farm in the assessment year. Columns include Area, Clover content, and Yield (total tonnes).

Improved permanent pasture: Permanent grasslands on good or medium quality soils, used with more frequent defoliations, higher fertilization rates, higher stocking rates and producing higher yields than seminatural grasslands.

Unimproved Permanent Pasture: Grasslands that are not agriculturally improved through cultivation, reseeding, fertilization, irrigation and drainage.

Grassland out of production but maintained: Areas of permanent grasslands, regardless of the grassland type and the previous use, of which the produced biomass is no longer used for agricultural production purposes.

Natural Grassland: Non-agricultural low productivity grasslands, including climax grasslands, with minimum human interference (not mowed, fertilized or stimulated by chemicals which might influence production of biomass).

Table for crop quantities: iv) Use the columns to the right to indicate the quantity of plug plants and seeds brought on farm or taken off farm during the assessment year. Columns include Brought on farm and Sold or sent off farm.

2 Types of Habitats and Features

Boundary Features section: i) Boundary Features. Includes questions about hedgerows, Stone walls, and Ditches, with input fields for length, average width, area, and type of boundary feature.

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
| | | | | | | |

ii) Please list which primary livestock products you produced on your farm during the assessment year (if any) and fill in the amount produced for each:

| | Brought on farm (not produced on farm) | Sold or sent off farm (raw material) | Sold or sent off farm as a value added product (e.g. cheese, yogurt) |
|---------------------|--|--------------------------------------|--|
| Select product type | | | |
| Select product type | | | |
| Select product type | | | |

iii) If you purchased, sourced or sold animal feed during the assessment year, please specify the type and amount:

| | Brought on farm | | Sold or sent off farm | | |
|------------------|-----------------|--|-----------------------|-----------|--|
| Select feed type | Tonnes | | Tonnes | protein % | |
| Select feed type | Tonnes | | Tonnes | protein % | |
| Select feed type | Tonnes | | Tonnes | protein % | |
| Select feed type | Tonnes | | Tonnes | | |
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| Select feed type | Tonnes | | Tonnes | | |

iv) If you purchased, sourced or sold animal bedding during the assessment year, please specify the type and amount:

| | Brought on farm | | Sold or sent off farm | |
|---------------------|-----------------|--|-----------------------|--|
| Select bedding type | Tonnes | | Tonnes | |
| Select bedding type | Tonnes | | Tonnes | |
| Select bedding type | Tonnes | | Tonnes | |
| Select bedding type | Tonnes | | Tonnes | |

4 Fertilisers and Manures

i) How much of the following organic manures did you bring on farm or sell / send off farm during the assessment year (if any)?

- Arable Straw
- Wood chip bedding
- other animal bedding
- Organic fertilisers
- Dairy Cattle Slurry
- Beef Cattle Slurry
- Pig Slurry
- Dirty Water
- Cattle FYM
- Pig FYM
- Sheep FYM
- Broiler litter
- Layer litter
- duck FYM
- Waste Food
- Green waste compost
- Sewage sludge / biosolids - digested liquid
- Sewage sludge / biosolids - digested cake
- Sewage sludge / biosolids - thermally dried
- Sewage sludge / biosolids - lime stabilised
- Potting compost
- Other organic 1
- Other organic 2
- Other organic 3

| | Brought on Farm | | Sold or sent off farm | |
|--|-----------------|--|-----------------------|--|
| | Tonnes | | Tonnes | |
| | Tonnes | | Tonnes | |
| | Tonnes | | Tonnes | |
| | Tonnes | | Tonnes | |
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| | Tonnes | | Tonnes | |

| N | P | K | add units |
|---|---|---|-----------|
| | | | |

ii) How much of the following inorganic fertilisers did you bring on farm and sell / send off farm during the assessment year (if any)?

- Ammonium Nitrate (34%)
- Ammonium Sulphate (21%)
- Liquid N (24%)
- Calcium ammonium Nitrate
- Calcium nitrate
- Urea
- Triple Superphosphate (TSP)
- Di-ammonium phosphate (DAP)
- Mono-ammonium phosphate (MAP)
- Rock Phosphate
- Muriate of potash (MOP)
- Sulphate of potash (SOP)
- Potassium nitrate
- Rock potash
- kainit
- Sylvinite
- MSL K
- Cumulus K
- Kali Vanesse
- Patent Kali
- steelmaking slag
- Ashed poultry manure
- Lime / other actions to affect soil pH
- Other inorganic fertiliser 1
- Other inorganic fertiliser 2
- Other inorganic fertiliser 3

| | Brought on Farm | | Sold or sent off farm | |
|--|-----------------|--|-----------------------|--|
| | Tonnes | | Tonnes | |
| | Tonnes | | Tonnes | |
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| | Tonnes | | Tonnes | |

| N | P | K |
|---|---|---|
| | | |

5 Farm Workers

i) How many workers are there on your farm? (autofills when you add answers to the next table)

0 Workers

Total Hours Worked by all workers of this type during the assessment year

- Number of owners
- Number of family members involved in the farm business does not include owners
- Number of other farm workers includes seasonal workers and part time workers
- Volunteers

Number
Number
Number
Number

Note: to estimate start with how many hours each person in the category typically works per day or per week, and then multiply up by weeks worked per year. Repeat for each person and enter the total

A FTE is equal to the number of hours a full-time employee works for an organization.

1 FTE = 1,900 hours per year

Sources: AHDB Farm Class/Catcans 2024, Eurostat Annual work unit

How many Full Time Equivalents (FTE) did your workers contribute during the assessment year? (excluding volunteers) (autofills from the hours entered in the previous table)

0 FTE

Total Hours Worked by all employees

6 Green House Gas Emissions

i) Have you completed a carbon footprint assessment in the last 12 months?

If yes, which one? (e.g., AgreCalc, Cool Farm Tool etc)

- Emissions
- Sequestration
- Balance

kg CO2 eq
kg CO2 eq
kg CO2 eq

- Carbon dioxide (CO2)
- Methane (CH4)
- Nitrous oxide (N2O)

kg kg CO2 eq

ii) Do you produce any renewable energy on farm, if so how much did you generate in the assessment year?

kWh

Climate

Overview

You will know the importance of helping to tackle climate change by reducing emissions and increasing carbon storage on your farm, but of course you also need to be aware of climate risks to your farm, so you can take action to reduce your vulnerability (you may spot opportunities too - such as being able to grow crops you couldn't before). This section seeks to highlight those climate risks. Many of the answers here are autofilled (grey boxes) based on information from the previous section. However, please fill in the white answer boxes you see.

Please select your nearest weather data source from the locations in the drop down list:

1 Extreme Events

A) Climate risks to crop yields & quality & livestock health

j) Please indicate if you have experienced any extreme weather events in the last 5 years

| | Y/N | Number of occurrences | |
|-----------------------------|-----|-----------------------|-------------------------------------|
| Droughts | | | Annual counts of 25mm rainfall days |
| Heatwaves | | | |
| Extreme precipitation event | | | |

Extreme Precipitation Events

Average highest day of total precipitation 1990 - 2010
 Average highest day of total precipitation 2017 - 2022
 Highest day of total precipitation 2022

| | |
|------|----|
| #N/A | mm |
| #N/A | mm |
| #N/A | mm |

Average number of days with >= 1 inch/25.4 millimeters in the year between 1990 and 2010
 Average number of days with >= 1 inch/25.4 millimeters in the year between 2017 and 2022
 Average number of days with >= 1 inch/25.4 millimeters in 2022

| | |
|------|------|
| #N/A | Days |
| #N/A | Days |
| #N/A | Days |

Extreme Heat Events

Average extreme max temp of the year 1990 - 2010
 Average extreme max temp of the year 2017 - 2022
 extreme max temp of the year 2022

| | |
|------|-----------------|
| #N/A | Degrees Celcius |
| #N/A | Degrees Celcius |
| #N/A | Degrees Celcius |

Average No. of days >=32 degrees, 1990 - 2010
 Average No. of days >=32 degrees, 2017 - 2022
 No. of days >=32 degrees in 2022

| | |
|------|------|
| #N/A | Days |
| #N/A | Days |
| #N/A | Days |

Extreme Dry Events

Average Number of days with >= 0.01 inch/0.254 millimeter in the year between 1990 and 2010
 Average Number of days with >= 0.01 inch/0.254 millimeter in the year between 2017 and 2022
 Average Number of days with >= 0.01 inch/0.254 millimeter in 2022

| | |
|------|------|
| #N/A | Days |
| #N/A | Days |
| #N/A | Days |

Extreme Cold Events

Average extreme min temp of the year 1990 - 2010
 Average extreme min temp of the year 2017 - 2022
 Extreme min temp of the year 2022

| | |
|------|-----------------|
| #N/A | Degrees Celcius |
| #N/A | Degrees Celcius |
| #N/A | Degrees Celcius |

Average No. of days min temp <=0, 1990 - 2010
 Average No. of days min temp <=0, 2017 - 2022
 No. of days min temp <=0 in 2022

| | |
|------|------|
| #N/A | Days |
| #N/A | Days |
| #N/A | Days |

2 Average Conditions

Whilst weather patterns influence the quantity of rain that falls each day, annual precipitation rates are a useful indicator of climate change. They also provide an explanation behind external factors influencing the farming system

A) Stability in climatic conditions

i) Precipitation

Average Annual Rainfall between 1990 and 2010

| | |
|------|----|
| #N/A | mm |
|------|----|

Provides an indication of past climate conditions, highlighting any risks climate change is having in relation to annual precipitation rates

Average Annual Rainfall between 2017 and 2022

| | |
|------|----|
| #N/A | mm |
|------|----|

Provides a recent average in precipitation rates to evaluate precipitation rates in comparison to the historic average of 1990 - 2010

Average Annual Precipitation 2022

| | |
|------|----|
| #N/A | mm |
|------|----|

ii) Temperature

Average Annual Temperature between 1990 and 2010

| | |
|------|-----------------|
| #N/A | Degrees Celcius |
|------|-----------------|

Provides an indication of past climate conditions, highlighting any risks climate change is having in relation to annual precipitation rates

Average Annual Temperature between 2017 and 2022

| | |
|------|-----------------|
| #N/A | Degrees Celcius |
|------|-----------------|

Provides a recent average in precipitation rates to evaluate precipitation rates in comparison to the historic average of 1990 - 2010

Average Annual Temperature for 2022

| | |
|------|-----------------|
| #N/A | Degrees Celcius |
|------|-----------------|

3 Limitations of Growing Season

A) Growing Season

UK average Growing Degree Days (GDD) 1990 - 2010
 UK average Growing Degree Days (GDD) 2017 - 2021
 UK average Growing Degree Days (GDD) 2021

| | |
|--------|-----|
| 294.9 | GDD |
| 292.88 | GDD |
| 286.4 | GDD |

Growing degree days (GDD) is a weather-based indicator for assessing crop development. It is a measure of heat accumulation used to predict plant and pest development rates such as the date that a crop reaches maturity.

Please provide any feedback on this category here:

Community

Overview

This section looks at the state of your local community and the extent to which it is able to support your farm. It focuses on amenities that farmers, farming families and farm workers are likely to need, the availability of services for the farm business (including how easy it is to find farm workers locally) and on your professional network. In the long term all these things obviously affect the viability of your business, so it is important to keep them in mind in order to adapt to changes or to support / campaign for improvements in services likely to benefit you and future generations of local people. We hope the results from everyone who fills in this part of the assessment (shared with consent and made anonymous) can also be used to help highlight to policymakers and other stakeholders the challenges facing rural businesses and their communities.

1 Local Services

A) Access to Key Amenities

External services & infrastructure (access to healthcare, education, culture, food, childcare)

i) How far do you have to travel to reach your nearest...
(distance traveled refers to a one way journey)

- Nursery
- Primary School
- Secondary School
- Pub, Café, or Restaurant
- Primary care centre or GP
- Hospital with A+E
- Cinema, theatre, gallery or museum
- Food shop
- Clothes shop
- Leisure centre or sports club

| Miles |
|-------|
| |
| |
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2 Farming Services

A) Access to key farming services

Farming services & infrastructure (access to supplies; market access; financial services; knowledge services; DSS tools)

i) How far do you have to travel to reach your nearest...
(distance traveled refers to a one way journey)

- Vets
- Farm Supplies (e.g. mole valley, torne valley)
- Machinery services
- Bank
- Solicitors or legal firm
- Advisory services
- Contractor services
- Substrate Producer

| Miles | To what extent does this distance cause you problems in accessing this service: | Service not available |
|-------|---|-----------------------|
| | | |
| | | |
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| | | |

ii) How far do you need to travel to sell your products? Or if your buyer comes to the farm, how far do they travel to reach you?

| Customer | Buyer comes to farm? | If a buyer comes to the farm and you're not sure of the distance they travel, you can put N/A here | Miles |
|----------|----------------------|--|-------|
| | | | Miles |
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| | | | Miles |
| | | | Miles |

Distance travelled refers to a one way journey. If you have supplied more than fifteen companies, you can just enter the most important. Treat direct sales to private consumers as a single customer rather than listing each person and estimate an average distance for these customers overall

B) Availability of Workers

i) Currently, do you feel you would have problems recruiting new or replacement workers from your local community (living within 20 miles of the farm)?

For each type of worker choose the option that fits best from the drop down list. We'd like to know what you think even if you're not planning to recruit

- Permanent Full Time
- Permanent Part Time
- Seasonal Full Time
- Seasonal Part Time
- Occasional Staff

| |
|--|
| |
| |
| |
| |
| |

3 Farmer Network

A) Support from Community of practice

Size of professional network

i) How many farming groups or associations are you an active member of, if any?

(e.g. professional or sector organisations, farmer discussion groups, marketing organisations or co-operatives)

| Number |
|--------|
| |

please provide details if you would like to

4 Landscape, Access and Engagement

This final set of questions relate to how your farm provides access to and engagement with nature and farming, and contributes to the beauty of the landscape. These aspects of the state of your system are not scored in terms of risk to your farm's ability to produce food, fuel and fibre to meet the needs of future generations, but highlight the extent to which you are delivering these 'public goods'.

A) Access

- i) If the public can access your land either by legal right or with your permission, please record the length/amount of land affected and the condition of these areas

| | Amount | Unit | Condition |
|-------------------------------------|--------|----------------|-----------|
| Public footpath / bridleway / byway | | Length, Meters | |
| Permissive path | | Length, Meters | |
| Open access (legal right) | | Area (ha) | |
| Open access (permissive) | | Area (ha) | |

B) Heritage and designations

- i) Are there any designated areas or archaeological sites on your farm?

| | Present/Absent | If yes, what area is covered (ha) | Condition (when last formally assessed or 'unknown') | Access Status |
|--|----------------|-----------------------------------|--|---------------|
| Site of Special Scientific Interest (SSSI) | | | | |
| Area for Geology | | | | |
| Archaeological Site | | | | |

C) Landscape Quality

- i) Rural landscapes can provide enjoyment and have positive psychological effects for local people and visitors. Please choose the option below which best describes the area of your farm

D) Delivery of education services

The provision of education services is a diversified enterprise as it goes beyond the core activities of farming. However, education represents an important way in which farms can help children and adults engage with the world of food and farming and is part of one of Defra's 6 public goods from farming.

- i) Does this farm deliver farm education services?
- ii) How many person-hours have you delivered through educational courses during the assessment period (e.g., a 5 hour session attended by 10 people would be 50 person-hours)
- iii) Have these services been validated by an external body?
- iv) Has the feedback from these services been mainly positive, mixed, poor?
- v) How would you describe the business intent of your educational courses?
- vi) Did this venture break even?
- vii) Indicate which of these best describes the importance of the enterprise to your overall business

Please provide any feedback on this category here:

Nature

Overview

The state of nature on your farm is vital to its ability to produce food, fuel and fibre products in the long term. Farms are integral to the environment around them, and that environment supports and protects production in many ways. Nature on your farm will be affected by external influences (positive and negative) as well as by your actions - so the results from this section should be a starting point for improvement, rather than being judgemental. The section requires some survey work 'in the field', so you'll need to plan that before you can complete it all (there's nothing to stop you completing the rest of the assessment and coming back to the survey parts). In other trials people reported that the surveys take time - but also said they got the most out of these results, because they showed things they hadn't thought about before.

1 Environmental hazards

A) Level of Soil Pollution

- i) Measured soil elements that have the potential to have toxic effects
This table will be automatically filled in when you complete the 'Soil & Water' category, so you don't need to add anything here

| | |
|---------|---------------|
| Lead | not monitored |
| Copper | not monitored |
| Cadmium | not monitored |
| Zinc | not monitored |

B) Level of Water Pollution

- i) Are there lakes, large ponds, stream, or river on your farm?

| | |
|------------------------|----------------|
| Pond(s) and/or Lake(s) | Present/Absent |
| Stream/River | Absent |
| | Absent |

- ii) Please use the method found via the link below to fill in this table recording the number of the listed water quality species observed in your ponds, lakes, rivers or streams?

CAUTION: Avoid disturbing streams/rivers during spawning times for Salmon and Trout (October to February, depending on local conditions)

https://www.imperial.ac.uk/media/imperial-college/research-centres-and-groups/opal/WATER-16pp-booklet_legacy.pdf
<https://www.imperial.ac.uk/media/imperial-college/research-centres-and-groups/opal/WATER-4pp-chart.pdf>

Water Quality Species Observed in sampled water body
(enter Y/N)

| | Pond/Lake | Stream / River |
|---|-----------|----------------|
| Caddisfly larvae | N/A | N/A |
| Dragonfly larvae | N/A | N/A |
| Damselfly larvae | N/A | N/A |
| Alderfly larvae | N/A | N/A |
| Mayfly larvae | N/A | N/A |
| Water beetles (adults and larvae) | N/A | N/A |
| Water bugs (water boatman, water scorpions, water stick insect) | N/A | N/A |
| Pond Skaters | N/A | N/A |
| Water shrimp | N/A | N/A |
| Water slaters (water hoglice) | N/A | N/A |
| Worm like animals | N/A | N/A |
| Water snails | N/A | N/A |

- iii) At what time of year was the water quality survey undertaken?

C) Level of Air Pollution

- i) Please use the OPAL protocol found via the link below to fill in the table about the lichens on your farm - lichen are indicators of air quality

https://www.imperial.ac.uk/media/imperial-college/research-centres-and-groups/opal/AIR-16pp-booklet_legacy.pdf

| | Amount of each indicator lichen on the trunk of each tree (0, 1, 2 or 3) | | | | |
|-----------------------------|--|--------|--------|--------|--------|
| | Example | Tree 1 | Tree 2 | Tree 3 | Tree 4 |
| Nitrogen-sensitive | | | | | |
| 1. <i>Usnea</i> | 0 | | | | |
| 2. <i>Evernia</i> | 0 | | | | |
| 3. <i>Hypogymnia</i> | 1 | | | | |
| Intermediate | | | | | |
| 4. <i>Melanelia</i> | 1 | | | | |
| 5. <i>Flavoparmelia</i> | 2 | | | | |
| 6. <i>Parmelia</i> | 1 | | | | |
| Nitrogen-loving | | | | | |
| 7. <i>Leafy Xanthoria</i> | 2 | | | | |
| 8. <i>Cushion Xanthoria</i> | 1 | | | | |
| 9. <i>Physcia</i> | 3 | | | | |

- ii) At what time of year was the air quality survey undertaken?

2 Farm biodiversity

A) Health of farm biodiversity

In order to understand more about the health of your farming system please complete bird surveys across at least one of the habitats present on your farm.

- i) On your farm, which of these habitat types are present and cover >5% of your land?

| | Present/Absent | Time of Survey (Winter/Spring) |
|--------------|----------------|-----------------------------------|
| Agricultural | | |
| Upland | | |

Woodland
Wetland/Aquatic

| | |
|--|--|
| | |
| | |

ii) Please record which species you observed in the respective winter or spring bird survey tables. You can find the method for counting birds in the purple box below.

For each habitat type, enter the time the survey was undertaken and the weather conditions. Mark with an 'x' each species you saw in the habitat during your survey.

Winter Bird Survey Results (December - February)

Time of Survey
e.g dawn 7am, mid day 1pm
Weather Conditions
e.g. clear skies, cloudy and windy, raining
Method used to complete the survey
(sound app, visual observations)

| Species Observed/Identified | Observed in Agricultural Habitats | Observed in Upland Habitats | Observed in Woodland Habitats | Observed in Wetland/Aquatic Habitats |
|-------------------------------|-----------------------------------|-----------------------------|-------------------------------|--------------------------------------|
| xx <i>Example: black bird</i> | X | | X | |
| 1 select species | | | | |
| 2 select species | | | | |
| 3 select species | | | | |
| 4 select species | | | | |
| 5 select species | | | | |
| 6 select species | | | | |
| 7 select species | | | | |
| 8 select species | | | | |
| 9 select species | | | | |
| 10 select species | | | | |
| 11 select species | | | | |
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| 27 select species | | | | |
| 28 select species | | | | |
| 29 select species | | | | |
| 30 select species | | | | |
| 31 select species | | | | |
| 32 select species | | | | |
| 33 select species | | | | |
| 34 select species | | | | |
| 35 select species | | | | |
| 36 select species | | | | |
| 37 select species | | | | |
| 38 select species | | | | |
| 40 select species | | | | |
| 41 select species | | | | |

How to count your birds?

- Choose a day between December and February (inclusive) for Winter Surveys and between April and June (inclusive) for Spring Surveys, ideally the weather should be calm and clear.
- On the day of your survey spend about 30 minutes recording the species of birds seen in your chosen habitat (Agricultural, Upland, Woodland, Aquatic/Wetland). Your chosen survey location should be somewhere with a good view of the habitat - a view across 2 ha of the habitat type would be ideal.
- Ideally, counting should take place at first light as this is when the birds are most active. However, it is more important that you take part, so timings should suit you.
- The more of your habitats you survey, and the more you survey in both spring and winter, the more chance you have of accurately recording the range of species present on your farm - but even if you can only do one or two surveys that is still really valuable information.

*Methodology adapted from GWCT Big Farmland Bird Count
<https://www.bfbc.org.uk/take-part/how-to-take-part/>*

Resources which can help you identify birds are the BirdNET app and Merlin app. Just record the bird sounds at your survey locations over the 30 minutes to generate an estimated list of species present

Spring Survey Results (April - June)

Time of Survey
e.g dawn 7am, mid day 1pm
Weather Conditions
e.g. clear skies, cloudy and windy, raining
Method used to complete the survey
(sound app, visual observations)

| Species Observed/Identified | Observed in Agricultural Habitats | Observed in Upland Habitats | Observed in Woodland Habitats | Observed in Wetland/Aquatic Habitats |
|-------------------------------|-----------------------------------|-----------------------------|-------------------------------|--------------------------------------|
| xx <i>Example: black bird</i> | X | | X | |
| 1 select species | | | | |
| 2 select species | | | | |
| 3 select species | | | | |
| 4 select species | | | | |
| 5 select species | | | | |
| 6 select species | | | | |
| 7 select species | | | | |
| 8 select species | | | | |
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| 31 select species | | | | |
| 32 select species | | | | |
| 33 select species | | | | |
| 34 select species | | | | |
| 35 select species | | | | |

| | | | | | |
|----|----------------|--|--|--|--|
| 36 | select species | | | | |
| 37 | select species | | | | |
| 38 | select species | | | | |
| 39 | select species | | | | |
| 40 | select species | | | | |

3 Farm Habitats

A) Farm habitat health

i) Agricultural vs Natural Habitats



- Arable and Horticulture
- Temporary Pasture and Forage Crops
- Permanent Pasture
- Natural Grassland
- Boundary Features
- Woodlands
- Heathland and Shrub
- Wetlands
- Sparsley Vegetated Areas
- Rivers and Lakes
- Marine Inlets and Transitional Waters

ii) Recorded Indicator Species
This table autofills from your survey responses

The indicator species you spot might be specialist or generalist. The colour coding in the table to the left highlights in yellow the number of specialist species you have observed during the bird surveys on your farm and in blue the number of generalists.

This will help you to identify which indicator species you are supporting and if those are specialists within their habitat. Specialist are adapted to specific types of habitat and are likely to be more vulnerable to climate change and other disturbances. By having them present you are likely to be providing valuable habitats that support these species.

You might see species from a neighbouring area.

| Agricultural | Upland | Woodland | Wetland/Aquatic |
|--------------|--------|----------|-----------------|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
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| | | | |
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| | | | |
| | | | |

B) Connectedness of farm habitats

i) Thinking about the land immediately surrounding the land you own or rent, which single description fits best?

C) Quality of land for farming

i) What percentage of your productive land is at each agricultural grade using the Agricultural Land Classification (ALC) system? (see the purple box below for descriptions of grades if needed)

| | % |
|---------------|----------------------------------|
| Grade 1 & 2 | |
| Grade 3a & 3b | |
| Grade 4 & 5 | |
| | 0 % of Land Accounted for |

Definiton of grades (source: <http://www.lra.co.uk/services/agricultural-land-classification>)

Grade 1: excellent quality agricultural land with no or very minor limitations.

Grade 2: very good quality agricultural land with minor limitations which affect crop yield, cultivations or harvesting.

Subgrade 3a: good quality agricultural land with moderate limitations that affect the choice of crop, timing and type of cultivation/harvesting or level of yield. This land can produce moderate to high yields of a narrow range of crops or moderate yields of a wide range of crops.

Subgrade 3b: moderate quality agricultural land with strong limitations that affect the choice of crop, timing and type of cultivation/harvesting or level of yield. This land produces moderate yields of a narrow range of crops, low yields of a wide range of crops and high yields of grass.

Grade 4: poor quality agricultural land with severe limitations which significantly restrict the range and level of yield of crops.

Grade 5 - very poor quality agricultural land with very severe limitations which restrict use to permanent pasture or rough grazing with the exception of occasional pioneer forage crops.

Please provide any feedback on this category here:

Soil & Water

Overview

For any farm system the state of the soil* and water are vital to their long term survival. This section focuses on the state of these vital components. Just like for the Nature section, you will need to go out into the field to take samples and carry out some survey work to complete every part of this section, so have a read through and plan that in advance (you can come back and complete the survey parts after the rest of the assessment if you like - but they are a vital to you receiving meaningful results).

*just water in the case of some indoor systems using hydroponics or substrates

1 Soil Health

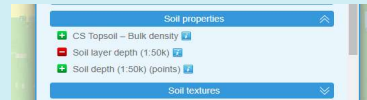
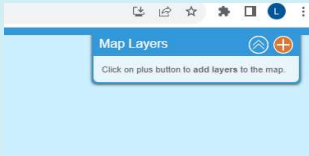
A) Structural health of soil for growing Soil depth

- i) What depth is the majority of soil on your farm (use the link and instructions below to find the answer)?

<https://mapapps2.bgs.ac.uk/ukso/home.html>

Use the link above to identify the depth of your soil. To find this information on the website enter your farm's location (postcode) in the blue box on the left of the screen. Then go to map layers box (top right) and click the 'plus' symbol. From the list of options choose 'Soil Properties'. Press the green 'plus' symbol next to the option 'Soil layer depth (1:50k)'. The symbol will turn red when the layer has been added to the map and you will see that the map is now coloured. The colour represents the soil layer depth you need to answer the question, using the colour codes listed here in the key on the left. You can also make this key appear on the website screen by pressing the 'legend' icon (a table symbol) in the map layers box.

| SOIL_DEPTH | |
|---|---|
| ■ | DEEP: The soil and subsoil can be easily dug to a depth of more than 1 metre. |
| ■ | DEEP-INTERMEDIATE: The soil and subsoil can be easily dug to a depth of 1 metre, sometimes more in places. |
| ■ | INTERMEDIATE: The soil and subsoil can be easily dug to a depth of 1 metre, sometimes more in places. |
| ■ | INTERMEDIATE-SHALLOW: The soil and subsoil can be dug to depths of more than half a metre, but less than 1 metre. |
| ■ | SHALLOW: The soil and subsoil can be dug to depths of only half a metre, sometimes less. |
| ■ | NA: No data applicable (typically inland water bodies). |



- Visual Erosion Signs
ii) Do you have any signs of erosion on the farm?
Choose one option from the drop down list that best represents your farm

- Soil Assessments
iii) Choose three fields that are representative of your farm (e.g. representing different soil types, enterprises or management approaches)

| Field Name | Field 1 | Field 2 | Field 3 |
|--|---------|---------|---------|
| What is the land use of the selected fields / polytunnels? | | | |

- Soil Structure
iv) What is the VESS score for your chosen fields
VESS = Visual Evaluation of Soil Structure

https://soils.vidacycle.com/wp-content/uploads/2019/08/VESS_score_chart.pdf

| | Field 1 | Field 2 | Field 3 |
|---------------------|---------|---------|---------|
| Sample 1 | | | |
| Sample 2 | | | |
| Sample 3 | | | |
| [optional] Sample 4 | | | |
| [optional] Sample 5 | | | |

- Soil chemistry
v) For the same 3 fields you chose above, please enter the Soil Organic Matter (SOM) % from Loss on Ignition (LOI) at 0 - 15cm

| | Field 1 | Field 2 | Field 3 |
|------------------------------|---------|---------|---------|
| SOM (%) from LOI at 0 - 15cm | | | |

- vi) For the same 3 fields you chose above, please enter the SOM (%) from LOI at 0 - 30cm for each sample:

Note that this question is optional - it is important data for us to collect but we can provide you with a score without it

Organic matter is crucial for supporting soil fertility and soil health by enhancing the physical, chemical and biological properties of soil. In each of your three fields, take at least 10 soil samples (to a depth of 15cm) in a W shape running across the field. Combine all samples from a single field together, mix well and send away for analyses of SOM by a process called loss on ignition (LOI)

| | Field 1 | Field 2 | Field 3 |
|------------------------------|---------|---------|---------|
| SOM (%) from LOI at 0 - 30cm | | | |

B) Health of Soil Biology Soil biology

i) Following the method described, for each of the 3 fields you chose above please enter how many earthworms on average there were in each sample:

Map a W across the field you intend to sample. Walk this 'W' stopping to collect a sample 3 - 5 times

| | Field 1 | Field 2 | Field 3 |
|------------------------------------|---------|---------|---------|
| Sample 1 | | | |
| Sample 2 | | | |
| Sample 3 | | | |
| [optional] Sample 4 | | | |
| [optional] Sample 5 | | | |
| Average (automatically calculated) | n/a | n/a | n/a |

2 Soil Fertility

A) Level and availability of soil nutrients to plants

Soil chemistry (macro & micro nutrients)

i) Which of these soil elements do you measure (if any)?

| | Yes / No |
|--------------------------------------|----------|
| Nitrogen | No |
| (ammonium nitrate extract) Potassium | No |
| (olsen test) Phosphate | No |
| Sulphate | No |
| Active Carbon | No |
| Calcium | No |
| Sodium | No |
| Molybdenum | No |
| (ammonium nitrate extract) Magnesium | No |
| Boron | No |
| Iron | No |
| Lead | No |
| Copper | No |
| Cadmium | No |
| Zinc | No |
| Other | No |

Collect your soil samples using, one composite sample (W) per field, take at least 10 soil samples

All nutrients are automatically set to no

ii) Please enter the nutrient and micronutrient levels for each field assessed (using the same 3 fields chosen above):

| | Field 1 | Field 2 | Field 3 | |
|----------------|---------|---------|---------|-------|
| Nitrogen | | | | mg/kg |
| Potassium | | | | mg/L |
| Phosphate | | | | mg/L |
| Sulphate* | | | | mg/kg |
| Active Carbon* | | | | mg/kg |
| Calcium* | | | | mg/kg |
| Sodium* | | | | mg/kg |
| Molybdenum* | | | | mg/kg |
| Magnesium | | | | mg/L |
| Boron* | | | | mg/kg |
| Iron* | | | | mg/kg |
| Lead | | | | mg/kg |
| Copper | | | | mg/kg |
| Cadmium | | | | mg/kg |
| Zinc | | | | mg/kg |
| Other | | | | mg/kg |

iii) If you measure pH, what were the levels in the fields assessed?

| | | |
|--|--|--|
| | | |
|--|--|--|

3 Water

A) Level of water reserves on farm

Amount of water held in farm habitats (including in man-made storage)

i) Quantity of water holding habitats (automatically calculated from your previous answers)

Includes ponds, reservoirs and other wet features like boags

0 ha

Please provide any feedback on this category here:

Governance

Overview

This section is all about how you make choices, what supports or constrains those choices, and the extent to which your farm is in a stable, certain place in terms of its long term future. Because they are at the centre of how your farm is managed, issues like uncertainty about the future, lack of support for decision-making, or being constrained from taking beneficial action, can affect every part of the system negatively. In contrast, having a sound basis in terms of governance can support you in enhancing the resilience and sustainability of the whole farm. Being aware of issues relating to governance, even ones which you might not be able to change, can help focus your thinking on how to adapt to these issues.

1 Status

A) Level of legal protection

i) Use the drop down list to select the ownership type that best applies to the majority of land you farm:

If other, please specify

B) Management stability

i) Please select the option that best describes your plans for who will take over the farm from you when you retire:

2 Decision making

A) Approach to managing decisions

i) Select the option that best describes how often you think about the consequences your management decisions might have for:

Nature
Community
Farm Business

B) Level of Inclusivity

i) If you have a difficult decision to make, please indicate how likely you would be to ask for advice from:

Farm workers
Family members
Owners (if you are not the owner)
Other farmers
People in local community
Farm advisor
Other friends not included above
Other farming professionals not included above

3 Priorities & Support

A) Prevalence of sustainability in farm priorities

i) Please indicate whether or not you are part of a certification or standards scheme that includes the following:

Product quality
Workers rights
Animal welfare
Ethical trade
Environment

ii) Please let us know which certification or standards schemes you are part of (you can just write in the names):

B) External support for farm sustainability

i) Briefly list any external factors (e.g. laws, regulations, traditions), if any, that you feel constrain the management choices you want to make:

ii) Overall, how serious are these constraints?

iii) Advice from professional advisors, charities, other farmers, local communities, and others as well as supportive regulations, laws, and traditions can help when making management choices.

Do you feel you have this type of external support to help you make your farm more resilient and sustainable?

Please provide any feedback on this category here:

Resources

Overview

This section assesses the condition of your farm equipment, infrastructure and buildings - if any of these are in a poor condition that clearly represents an issue for your farm, for you and other workers, for visitors and for livestock. We realise most farmers will be well aware of the state of their resources but, we include this because 1) even if you know what needs doing, having that information in one place can help clarify things and prioritise action, 2) we want to emphasise that improving the state of farm resources is integral to sustainability - the farm's ability to produce food, fuel and fibre products now and in the future, and the impacts the farm has on people and planet, 3) across many farms, this information (with your consent and made anonymous) can be shared to help focus investment and support on types of resources needing most attention.

1 State of equipment

A) State of equipment owned or rented by farm & used for farming in the assessment year

i) Considering only the equipment you need to use regularly, what percentage of...

manually operated equipment is in good working condition?

animal powered equipment is in good working condition?

machines for general farm use is in good working condition?

tractors bulldozers and other equipment is in good working condition?

crop machinery and equipment is in good working condition?

crop maintenance machinery is in good working condition?

post harvest machinery is in good working condition?

livestock machinery and equipment is in good working condition?

If not present on farm or not used regularly, input N/A

| | |
|-----|---|
| | % |
| N/A | % |
| | % |
| | % |
| | % |
| | % |
| | % |
| | % |

2 State of infrastructure

A) State of infrastructure owned or rented to the farm business & used for farming in the assessment year

i) Considering only the infrastructure you need to use regularly, what percentage of....

roads & tracks are in good working condition?

gates, fences and walls are in good working condition?

water storage (wells, reservoirs) are in good working condition?

irrigation system are in good working condition?

water troughs are in good working condition?

If not present on farm or not used regularly, input N/A

| | |
|--|---|
| | % |
| | % |
| | % |
| | % |
| | % |

slurry and manure storage and lagoons are in good working condition?

 %

utilities are in good working condition?

 %

3 State of buildings

A) State of buildings owned or rented to the farm business & used for farming in the assessment year

If not present on farm, input N/A

i) Considering only the buildings you need to use regularly, what percentage are in good repair?

 %

Please provide any feedback on this category here:

Inputs

Overview

This section focuses on the supplies of consumables, services and shared equipment that your farm uses as well as the use of land you don't own or rent. In particular, we are looking at how much your business relies on each of these inputs and how easy it would be to find alternatives. The aim is not to imply that these inputs should not be used, but to help you recognise potential vulnerabilities so you can put plans in place in case things go wrong. Often you might be reliant on something for which there is no alternative but be confident of your access to it (like common land for example) so the fact a risk shows up doesn't necessarily mean you always need to act, but just that you should be aware of it. In this assessment we don't look at impacts on people and planet arising from the production of inputs before they reach you. Instead, we are focusing on the long term ability of the farm to maintain production in the long-term - but these environmental and social costs are clearly something you should take into account. You might search for or even ask your suppliers for information about these impacts, so you can choose inputs associated with fewer negative effects.

1 Inputs of consumables

A) Flexibility sourcing external inputs

Type & amount of farming inputs - like feed, seeds, fuel, electricity, buy-in animals]

- i) Please fill in this table about different farm inputs, using the most relevant options from the drop down lists. This is about inputs that come into the farm, not those you source from the farm itself:

Crop/pasture seeds
New livestock
Livestock feed
Livestock bedding
Fertilisers (organic or inorganic)
Pesticides (including approved Organic)
Livestock treatments/medicines
Fuel
Electricity

Choose the option from the dropdown list which best reflects your use of each input

If the current source of this input was no longer available, how easy would it be to identify an alternative supply?

| | |
|--|--|
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

B) Flexibility in land access

Type & amounts of farm inputs from use of common land or of other land by agreement (not rented or owned) e.g., nutrients from grazing, materials extracted

- i) Which of the following best describes your use of common land or other land not rented or owned by the farm (e.g for grazing)
- ii) If you lost access to common or other land not rented or owned by the farm, how easy do you feel it would it be to access alternative land?
- iii) Which of the following best describes your use of rented land
- iv) If you lost access to your rented land, how easy do you feel it would it be to access alternative land?

2 Inputs of non-consumables shared / used by agreement

A) Flexibility in use of external infrastructure & equipment

Type & amounts of infrastructure or equipment shared or used by agreement (not owned or rented)

- i) Which of the following best describes your use of external infrastructure, e.g.. off-farm buildings not owned or rented?
- ii) If you lost access to external infrastructure shared or used by agreement, how easy do you feel it would it be to access alternatives?

iii) Which of the following best describes your use of machinery or equipment shared or used by agreement?

iv) If you lost access to machinery or equipment shared or used by agreement, how easy do you feel it would be to access alternatives?

v) Which of the following best describes your use of rented machinery or equipment?

vi) If you lost access to currently rented machinery or equipment, how easy do you feel it would be to access alternatives?

3 Inputs of services

A) Reliance on contractors & service providers

Type & amount (hours of work) of contractors, advisors, vets etc

i) Which of the following best describes your use of contractors involved in farm work?

ii) If you lost the services of your current contractor(s) how easy do you feel it would be to replace them?

Please provide any feedback on this category here:

FARMERS & WORKERS

Overview

This section looks at the health and safety of you as the farmer and of your workers - including family members - at the level of experience they have and at the extent to which they are able to survive and thrive through farm profits or their wages. The section also covers the availability of workers. Health problems, injuries, low income and limits to experience and skills among the workforce all represent risks to the ability of the farm to produce food, fuel and fibre products today and for future generations. Issues here are obviously important to resolve for the people involved as well as for the farm. Some might arise from external pressures that can be highlighted to bring change off-farm, in other cases there will be changes you can make on-farm to improve things directly.

1 Health

A) Health & safety of farmer & workers

- i) How many working days have been lost to sickness on the farm in the last 12 months?
(adding up the days lost to sickness for each worker)

 Days

FTEs on farm (automatically completed from Farm Information)

Days of sickness/FTE (automatically calculated)

| | |
|---|---------|
| 0 | #DIV/0! |
|---|---------|

2 Skills

A) Level of skills, knowledge & experience in workforce

- i) How experienced are your workers?
- Number of workers with 0-2 years of experience?
- Number of workers with more than 2 years and less than 5 years of experience?
- Number of workers with more than 5 years of experience?

| | | | |
|----------------------|---------|---|-----|
| <input type="text"/> | workers | % | N/A |
| <input type="text"/> | workers | % | N/A |
| <input type="text"/> | workers | % | N/A |

3 Work & Life

A) Adequacy of farm work to meet needs (farmer, employed family, & workers)

- i) If you live from the profits of the farm business (rather than a salary) to what extent is your income from farming activities enough to meet your needs?
- ii) To your knowledge how many salaried farm employees have second jobs?

B) Availability of workers

- i) Currently, how easy do you feel it would be to recruit new workers for the farm?

Permanent Full Time
Permanent Part Time
Seasonal Full Time
Seasonal Part Time
Occasional Staff

| |
|----------------------|
| <input type="text"/> |
| <input type="text"/> |
| <input type="text"/> |
| <input type="text"/> |
| <input type="text"/> |

This question is about recruiting workers from anywhere - in the community section we focused just on the availability of local workers - that's why we're asking a separate question on this here

Please provide any feedback on this category here:

Crops & Pasture

Overview

This section focuses on the health of any crops and grasslands you have on-farm, from their establishment to the incidence of disease and pest problems, pre-harvest losses and the longevity of perennial crops. Maintaining crop and grassland health is obviously key to short term and long term production on farms which grow crops and grass. Highlighting issues facing farms in these respects - particularly around changes over time as the planet warms - is important to galvanising support for farmers and in helping you to focus on adapting to particular problems. This might mean changes in management or in the varieties, species and mix of species you grow.

1 Crop Establishment

A) Germination Success Level

% of seeds Germinating

According to your answers, your dominant arable / horticultural crop (covering the biggest area) this year was: [answer box populated from Farm Information section. If none, reads 'no arable / horticultural crops reported'].

If you do not have arable / horticultural crops, please move to section 2 on crop health

- i) For your dominant sown crop (e.g., arable or horticultural species covering the biggest area) are you able to use the method below to assess germination rates?

Calculating Germination Success

1. Using a 50cm ruler, place it at random between two rows of the crop.

2. Count and record the number of crop plants along each row on both sides of the ruler. This figure is referred to as the total plant number per metre row of crop.

3. Repeat measurements for a total of ten sites within the crop.

Source: <https://www.agric.wa.gov.au/mycrop/monitoring-seedling-number>

Seed rate seeds sown/m²

Total plant number per meter row of crop

| | |
|----------------|--------------------------------------|
| Sample 1 | <input type="text"/> |
| Sample 2 | <input type="text"/> |
| Sample 3 | <input type="text"/> |
| Sample 4 | <input type="text"/> |
| Sample 5 | <input type="text"/> |
| Sample 6 | <input type="text"/> |
| Sample 7 | <input type="text"/> |
| Sample 8 | <input type="text"/> |
| Sample 9 | <input type="text"/> |
| Sample 10 | <input type="text"/> |
| Average Sample | <input type="text" value="#DIV/0!"/> |

Row Spacing cm

Germination rate (automatically calculated) plants/m²
Germination success (automatically calculated) %

2 Health

A) Crop and pasture health levels

- i) What percentage of your dominant crop was affected by health problems (e.g. pests, diseases, nutrient imbalances, water or heat stress) this year? (Enter 'N/A' if there are no arable / horticultural crops on your farm)

 %

- ii) How serious would you describe the problem?

- iii) If you have grasslands used for production on your farm, what percentage of your grassland was affected by health problems (e.g. pests, diseases, nutrient imbalances, water or heat stress) this year? (Enter 'N/A' if there are no arable / horticultural crops on your farm)

 %

- iv) How serious would you describe the problem?

3 Lifecycle

A) Level of pre-harvest loss

- i) What percentage of your dominant (arable or horticulture) crop was lost before reaching harvestable state (e.g. to pests and diseases, wind lodging)? (after germination i.e. not accounting for germination success)

 %

Please enter 'N/A' if you do not have arable/horticultural crops

B) Perennial crop productive lifespan

i) For the perennial crops listed here (from your earlier answers), please enter the average lifespan in years for each of them (the lifespan is the interval between planting and re-planting/re-seeding (including over-

| | |
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Please provide any feedback on this category here:

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iii) Mortalities within visiting livestock
(*autofilled from previous answers*)

| Visiting Livestock Deaths (no. animals) | # of Visiting Livestock | Mortality Rate |
|--|----------------------------|----------------|
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B Productive Longevity
Productive longevity (includes fibre and draught animals)

i) On average how long is the productive or working life of each livestock group below on your farm?
Do not include Visiting Livestock when considering your answer

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C Fertility Level
Conception Rate

i) What was the conception rate for each of your own breeding livestock species over the last 12 months?
Conception rate = % of breeding animals that became pregnant. Grazing and fattening livestock are not included

| Used for Breeding (Yes/No) | % |
|-------------------------------|---|
| | % |
| | % |
| | % |
| | % |
| | % |
| | % |
| | % |
| | % |
| | % |
| | % |
| | % |

Please provide any feedback on this category here:

Products

CATEGORY RISK RATING

Overview

This section takes an overview of your farming system to highlight vulnerabilities of production to changes in conditions. There are different pathways farms can take to address these vulnerabilities, depending on context. For example, if you rely on a single livestock breed or crop variety, that's clearly a risk - diversifying or changing breed/variety/species would be one option to reduce that risk, but if that would be difficult you could instead breed or purchase a crop variety or livestock breed better adapted to changing conditions. It's also important to think about how protected your crops and livestock are from extreme or changing conditions, as well as about how well adapted they are - you might choose to use varieties/breeds/species well-adapted to local conditions or to protect crops and livestock more, or you might do both, depending on the circumstances of your farm.

1 Diversity

N/A SUB-CATEGORY RISK RATING

A) Spread of production risk Livestock species diversity

N/A INDICATOR RISK RATING
N/A Indicator Score

- i) For each of your livestock groups, please enter the percentage of each different breed/crossbreed you have (in the last column you can note what they are)

| % Breed / Crossbreed 1 | % Breed / Crossbreed 2 | % Breed / Crossbreed 3 | % Breed / Crossbreed 4 | % Breed / Crossbreed 5 | Please note which breeds/crossbreeds are present |
|------------------------|------------------------|------------------------|------------------------|------------------------|--|
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- ii) Livestock Diversity (autofilled from your previous answers)

Shannon's Diversity Index 0.00

N/A

- iii) Diversity of Crops (autofilled from your previous answers)

| | Proportion of cropped area (Pi) | Diversity Calculation (Pi * log(Pi)) |
|----|---------------------------------|--------------------------------------|
| 1 | | 0.00 |
| 2 | | 0.00 |
| 3 | | 0.00 |
| 4 | | 0.00 |
| 5 | | 0.00 |
| 6 | | 0.00 |
| 7 | | 0.00 |
| 8 | | 0.00 |
| 9 | | 0.00 |
| 10 | | 0.00 |
| 11 | | 0.00 |
| 12 | | 0.00 |
| 13 | | 0.00 |
| 14 | | 0.00 |

Shannon's Diversity Index 0.00

N/A

- iv) If you have grassland on your farm, please use the drop down list to select the option which best describes the level of diversity in the sward:

N/A

- Farming system diversity (e.g. mixed or specialist)
v) Farming system Diversity (automatically calculated from your previous answers)

N/A

N/A

High: when farm has both crops and livestock diversity and either one has high + one low diversity, or one has high + one medium or both are medium, or when its either only crops or livestock on farm and has high diversity
Medium: when farm has both crops and livestock but both are low diversity, or one medium+ one low, or farm has crops only or livestock only with medium diversity
Low: when there are only crops or livestock with low diversity present on farm

2 Adaptability - ability for the farmer to change the crops or livestock produced in response to challenges

N/A SUB-CATEGORY RISK RATING

A) Capacity to alter production

N/A INDICATOR RISK RATING

- i) How easy would you find it to change the main crops or livestock you produce in response to serious problems affecting them? (Choose the option from the drop down list that fits best)

N/A Question Risk Rating

3 Vulnerability - extent to which crops and livestock are protected from changing conditions via their genetics or via their on-farm environment

N/A SUB-CATEGORY RISK RATING

A) Level of vulnerability to conditions Livestock

N/A INDICATOR RISK RATING
N/A INDICATOR SCORE
#N/A Question Risk Rating

Livestock present

Yes/No

- i) If you have livestock, what percentage of the time are your main type of livestock housed?

 %

- ii) If your livestock are housed for some of the year, are conditions in the housing controlled (e.g., temperature, mechanical ventilation)?

- iii) If your animals are outside for all or part of the year, what best describes the environment they are in?

- iv) If you have livestock on your farm, are they adapted to local conditions by breed or by selection within breed (e.g., via breeding index of male, or by on-farm selection)?

Crops

Cropland present

Yes/No

- v) Is your main crop grown indoors (greenhouse etc.)

#N/A Question Risk Rating

- vi) If you have crops on your farm, please select the description of the growing environment which applies best from the drop-down list, considering your main type of grassland

- vii) If you have crops on your farm, are they adapted to local conditions by variety, by use of land races, or by on-farm/local selection within variety?

Grassland

Grassland present

Yes/No

- v) If you have grassland on your farm, please select the description of the growing environment which applies best from the drop-down list, considering your main type of grassland
- vi) If you have grassland on your farm, are the grasses adapted to local conditions by variety, adapted by on-farm selection or unsown natural grasslands?

#N/A Question Risk Rating

Please provide any feedback on this category here:

| | | |
|--|--|--|
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Gini-Simpson's Diversity Index (automatically calculated)

N/A

ii) If your biggest customer stopped buying from you, how big an issue would this be for the business?

Please provide any feedback on this category here:

Farm Outputs

1 Waste

A Level of waste of materials & substances

Types & amount of unutilised waste (including materials as well as excess nutrients, GHG emissions, & chemicals entering the environment)

i) What percentage of non-organic farm waste (e.g: plastics, metals, etc.) was recycled? %

2 Quality

A Useability of Products

Livestock products and crops meeting standards of intended buyer

i) At what quality levels do you sell your farm produce?

| | High Quality Product | Average Quality Product | Low Quality Product | Quality doesn't matter | Calculation Check |
|--|----------------------|-------------------------|----------------------|------------------------|-------------------|
| Percentage of livestock products (meat, milk, eggs etc) sold at... | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | 0% |
| Percentage of crops sold at... | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | 0% |

B Service standards (specific to service type, including meeting external standards for managing heritage sites, education etc)

i) Do you offer any Education or Training Courses? Yes/No

ii) Have your education or training courses been formally accredited?

iii) What feedback have you received on your educational/training courses?

C Non-food & fuel product standards (including fibres, genetic materials etc)

i) Have your fuel products reached industry standards?

ii) Have your fibre products reached industry standards?

After an assessment all of us are most interested in seeing the overall results, so we know you'll scroll down and look at them first - but after you do, please take the time to come back and have a read of the following info to help you understand better what those results mean

Your influence over identified issues

How much are you in control of the state of your farm system? Some issues affecting the long term capacity of your farm to produce food, fuel and fibre may be at least partly outside your control -- others are things you can do a lot to improve. You can act to alter the indicators which are at least partially in your control - but you may also need to adapt to those that are fully or partially outside your control. The table to the right of the results table gives general information about how much control you are likely to have over each of the indicators. There might be reasons that on your farm, you have more or less control than we suggest - so the information is just to start you thinking about what is affecting your farm and how. If you see lots of issues that are likely to be outside your control, these are areas where people affecting your farm need to take some responsibility and make changes. You (or your union) might want to explore these issues further and advocate for change.

Nobody's perfect

Sustainability is an ongoing process, not a target you can reach and then forget about because, as you know, the context of your farm is changing all the time. So regular assessments of your farm are really important. At the same time, no assessment is perfect, and ours is no exception. This is our first attempt to create an assessment which focuses on the long term future of farms and farming, and what issues might affect that. We have also prioritised giving an holistic view of farms, which is challenging when farm systems are so complex. As with every assessment, you should use the findings as a starting point for thinking about the success stories and issues on your farm, not as an end point or something to accept uncritically. This assessment is a trial to show the value of this type of approach - a starting point for others to build on - so your feedback (critical as well as positive!) is really important to us, especially if you feel important things for your farm have been overlooked or misrepresented.

What's the logic behind this assessment?

We believe that working to get the indicators of the economic, environmental and social state of a farm moving in the right direction will also deliver farming which has fewer negative and more positive impacts beyond the farm-gate. However, in some contexts and for some parts of the farm system these things might not always be aligned, and - most challenging - actions taken to ensure a farm survives in the short term might cause impacts beyond the farm and undermine its own long term capacity to sustain production. We want to support the development of practical assessments that can identify opportunities for improving all aspects of farm sustainability and highlight the trade-offs, so that society can work together to improve things. This can help everyone to recognise the challenges farmers face, emphasise the need to reward the work of farmers making positive changes, and highlight areas in which the responsibility for change lies beyond the farm-gate.

The future of farm sustainability assessment - our work

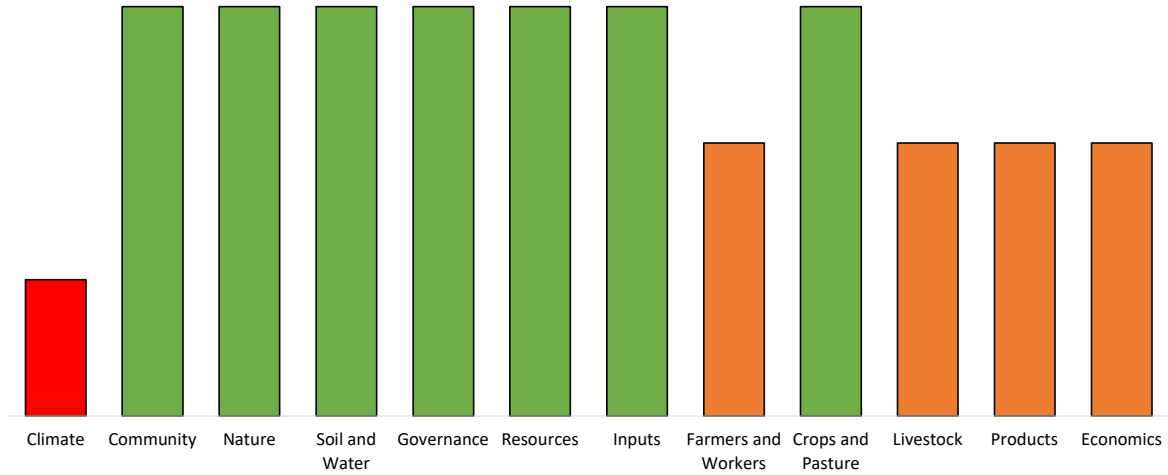
This assessment looks at the environmental, economic and social state of farms and what it means for the long term ability of farming to meet the needs of future generations for food, fuel, and fibre. It also pulls together the yield data you provide to show how your farm is contributing to today's needs for food, fuel and fibre. These are two of the three aspects of farm sustainability as we define it. However, much of the data we are collecting can also tell us about the wider outputs of the farm system (like nutrient run-off or employing people) and through this, indicate potential impacts of the farm on people and planet. Our work going forward will look at how assessments can cover all three of these aspects of sustainability in a practical way to drive the transition to more sustainable farming.

The meaning of your scores

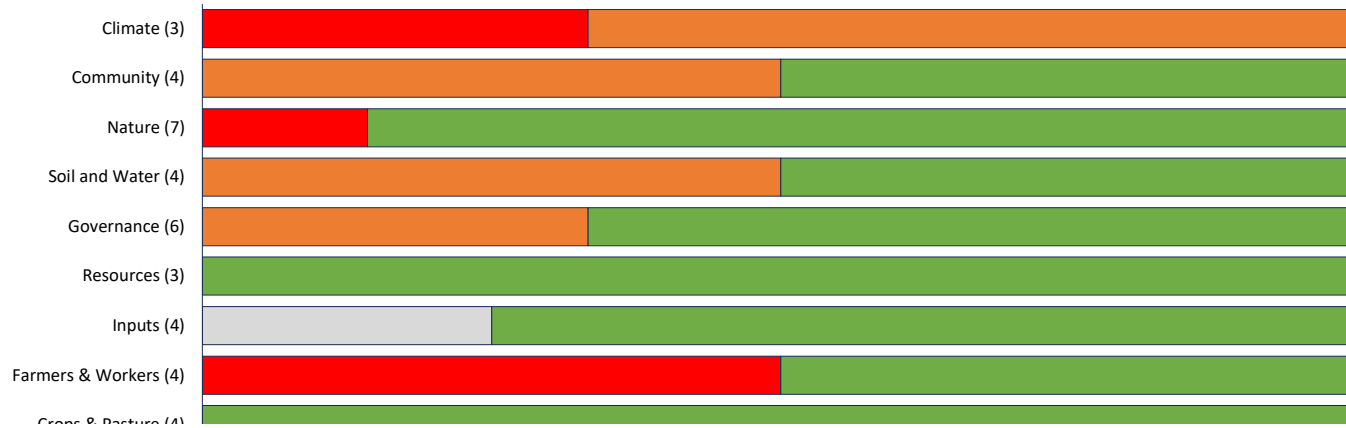
| Meaning of traffic light scores | Colour | What next? |
|--|--------|---|
| Your responses indicate that in this area there are problems for the long term capacity of your farm to sustain production | | Think about the reasons for the red score. How much of the problem relates to issues off farm that you need to adapt to or which others need to change, and how much can you improve yourself? If needed seek advice, talk to other farmers and others with expertise on this specific topic, check out information available from sources you trust, and look at the types of support available to help you adapt or change. Repeat the assessment over time to track improvement and to maintain awareness of how external risks are changing. |
| Your responses indicate that in relation to this area there is room to improve the long term capacity of your farm to sustain production | | Think about the reasons for the amber score. It shows that there are some issues to think about for the long term future of the farm - if the amber score is at category or sub-category level look down at the indicators to see what is going well and what is not so good. How much of the problems relate to issues off farm that you need to adapt to or which others need to change, and how much can you improve yourself? If needed seek advice, talk to other farmers and others with expertise on this specific topic, check out information available from sources you trust, and look at the types of support available to help you adapt or change. Repeat the assessment over time to track improvement and to maintain awareness of how external risks are changing. |
| Your responses do not reveal any current problems affecting the capacity of your farm to sustain production in the long term | | Think about the reasons for the green score. At the moment it means that there are no obvious issues in this area - either within the farm or beyond. But remember that even holistic assessments can't cover every aspect of the different areas of your farm or its context. The green score is something to build on and to think about critically - taking a holistic view of your farm, are there things under the surface you know about which could become problems going forward? Are there areas that look good but could be improved further? Keep talking to others, taking in advice and information and working to improve - sustainability is an ongoing process. Repeat the assessment over time to track change and identify changing external risks |

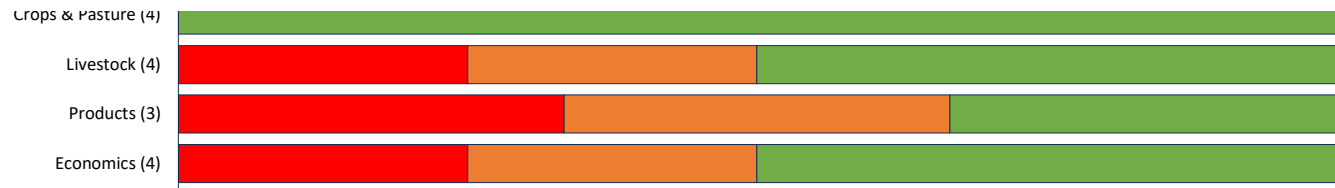
The environmental, economic and social state of your farm - maintaining food, fuel and fibre supply for future generations

The graph below shows your category level scores, with the top of the bar indicating your risk level and performance



The graph below shows your performance within each category, displaying where you are performing well (Green = low risk), not so well (Red = high risk), and where question were not applicable or not complete (Grey)





| Category | Sub Category | Indicator | |
|---------------------|--|---|--|
| Climate | Average Conditions | Stability in Average Conditions | |
| | Extreme Events | Climate risks to crop yields and quality and livestock health | |
| | Growing Season | Limitations of the Growing Season | |
| Community | Local Services | Access to Key Amenities | |
| | Farming Services | Access to key farming services Availability of Workers | |
| | Farmer Network | Support from Community of Practice | |
| Nature | Environmental Hazards | Level of Soil Pollution | |
| | | Level of Water Pollution | |
| | | Level of Air Pollution | |
| | Farm habitats | Farm Habitat Health Connectedness of Farm Habitats Quality of Land for farming | |
| Farm Biodiversity | Health of Farm Biodiversity | | |
| Soil and Water | Soil Health | Structural Health of Soil for Growing Health of Soil Biology | |
| | Soil Fertility | Level and Availability of Soil Nutrients for Plants | |
| | Water | Level of Water Reserves On Farm | |
| Governance | Status | Level of Legal Protection Management Stability | |
| | Decision Making | Approach to managing decisions Level of inclusivity | |
| | | Priorities and Support | Prevalence of Sustainability in Farm Priorities External Support for Farm Sustainability |
| | Resources | State of Equipment | State of equipment owned or rented by farm & used for farming in the assessment year |
| | | State of Infrastructure | State of infrastructure owned or rented to the farm business & used for farming in the assessment year |
| State of Buildings | | State of buildings owned or rented to the farm business & used for farming in the assessment year | |
| Inputs | Inputs of Consumables | Flexibility Sourcing External Inputs Flexibility in Land Access | |
| | Inputs of non-consumables shared / used by agreement | Flexibility in use of external infrastructure & equipment | |
| | Inputs of Services | Reliance on contractors & service providers | |
| Farmers and Workers | Health | Health & safety of farmer & workers | |
| | Skill | Level of skills, knowledge & experience in workforce | |

| The state of each indicator is most likely due to: | | |
|--|---|------------------------------------|
| Mainly on-farm factors (work to alter) | Some on-farm and some external factors (work to alter & adapt to) | Mainly external factors (adapt to) |
| | | X |
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|---------------------|--|---------------------|--|--|--|
| Farmers and workers | | Worklife | | Adequacy of farm work to meet needs (farmer, employed family, & workers) | |
| | | | | Availability of workers | |
| Crops and Pasture | | Crop Establishment | | Germination Success Level | |
| | | Crop Health | | Crop and pasture health levels | |
| | | Lifecycle | | Level of pre-harvest loss | |
| | | | | Perennial crop productive lifespan | |
| Livestock | | Health | | Health level of livestock | |
| | | Lifecycle | | Livestock losses | |
| | | | | Productive Longevity | |
| | | | | Fertility Level | |
| Products | | Diversity | | Spread of production risk | |
| | | Adaptability | | Capacity to alter production | |
| | | Vulnerability | | Level of vulnerability to conditions | |
| Economics | | Profits and Costs | | Economic sustainability of rewards for farming | |
| | | Financial Resources | | Vulnerability to cost price changes | |
| | | | | Financial Flexibility | |
| | | Diversity | | Spread of economic risk | |

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