# Grower experience with miscanthus

Carried out by the University of Aberdeen in conjunction with Terravesta.

The survey should take 15 minutes to complete. Could you please return your questionnaire before the end of October.

At the end of the survey, once the submit button is pressed, you will be taken out of the survey to a completely separate document where you can optionally provide your email address for a draw for a Wensleydale cheese hamper.

We would like to know why a grower plants miscanthus and what, if any, benefits or drawbacks it brings to their farm business and to identify the barriers to expanding the miscanthus cropping area in the UK.

Results of this questionnaire will be completely anonymous, with no contact details, no growers will be identified. Anonymous questionnaires will be stored on secure computer storage at the University of Aberdeen which will be destroyed after three years. Your participation is purely voluntary and you may withdraw from the research at any time. Collective statistics from all the anonymous survey responses will be used in reports and summaries, which will be available to other researchers and the industry and to inform policy advice.

Email Anita.Shepherd@abdn.ac.uk for questions on completing this survey.

Please tick the box below to show you consent for your data be used in this way. If the consent box is not ticked, the questionnaire will be deleted and of no use. Questions are divided into sections

- About the farm
- About the grower
- Benefits and drawbacks of miscanthus

Response boxes allow an answer up to a 1000 characters long.

Q1 Do you consent to the data from this survey being used anonymously in reports and summaries?

If your answer is No, please close this window to exit the survey.

19 Yes

1 No

### ABOUT THE FARM

Q2	What type of farm(s) do you have? Please tick all that apply.
	<ul> <li>Arable</li> <li>Horticulture</li> <li>Grass/pasture</li> <li>Woody plants</li> <li>Livestock</li> <li>Energy related</li> <li>Rather not answer</li> <li>Other</li> </ul>
	If other, please specify and add its area in hectares
Q3	How many hectares of Arable? (write number only)
Q4	How many hectares of Horticulture? (write number only)
Q5	How many hectares of Grass/Pasture? (write number only) 6
Q6	How many hectares of Woody plants? (write number only)
Q7	How many hectares for Livestock? (write number only) 2
Q8	Which type of land use/crop/activity related to energy do you have? (for example miscanthus, short rotation coppiced willow, biodigestor, solar, wind, etc.) 16
Q9	How many hectares of agriculture related to energy

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- Q10 Based on the Farm Business Survey for England, Wales and N. Ireland definition, what size would you classify your whole farm business?
  - <sup>10</sup> Small (labour required is less than 2 full-time workers)
  - <sup>6</sup> Medium (labour required is 2 but less than 3 full-time workers)
  - <sup>0</sup> Large (labour required is 3 but less than 5 full-time workers)
  - <sup>1</sup> V. large (labour required is 5 or more full-time workers)
  - <sup>0</sup> Rather not say
- Q11 How many hectares is your total miscanthus cropping area (all fields added together)?
  - <sup>1</sup> Less than 5 ha (less than 12acres)
  - <sup>5</sup> 5 ha to 9 ha (12 to 22 acres)
  - <sup>4</sup> 10 ha to 14 ha (24 to 34 acres)
  - <sup>2</sup> 15 ha to 19 ha (37 to 47 acres)
  - <sup>5</sup> 20 ha or over (49 acres or over)
  - 0 Don't know
- Q12 Which year approximately did you first plant miscanthus?
  - <sup>3</sup> Prior to 2004
  - 5 2005-2009
  - 2 2010-2014
  - 6 2015-2019
  - <sup>1</sup> Don't know
- Q13 Before you planted the Miscanthus what was the last use of the field(s)?
  - 2 Fallow
  - <sup>1</sup> Hay/Silage
  - 2 Pasture/Livestock
  - <sup>1</sup> Other fodder crop
  - 14 Arable rotations
  - 0 Horticulture
  - 0 Other vegetables/fruit
  - 0 Hops
  - 0 Wood/Shrubs
  - 0 Other
  - If Other, please specify
  - 0

- Q14 Which crops did you grow in rotation?
  - 14
- Q15 If you had not planted miscanthus, what would you have planted or used the fields for ?

#### Q16 Do you

- <sup>12</sup> implement some agro-ecological strategies (e.g.edge row or field margins with beekeeping)?
- <sup>0</sup> farm organically?
- <sup>9</sup> take part in any environmental schemes?
- 1 was your farm in the Less Favourable Area Support Scheme under CAP
- <sup>0</sup> none of these
- <sup>0</sup> Rather not say
- Q17 Do you have any other renewables (solar, wind, biodigestor crops, etc)?
  - 10 No
  - 7 Yes

which type?

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## ABOUT THE GROWER

- Q18 What age is the business decision-maker?
  - 0 under 25
  - 2 26-40
  - <sup>6</sup> 41-59
  - 8 60+
  - <sup>1</sup> Rather not say
- Q19 Do you have a post-school educational qualification (diploma, ceritificate, degree, etc.?)
  - 15 Yes
  - 2 No
  - 0 Rather not say

Q20 On a scale of 1-5 for each item, 5 being very important to 1 being not important, or not applicable (N/A), how much do you value these / how important are these in farming decisions you take?

	5	4	3	2	1	N/A	Rather not say
A transition to a green energy	6	7	2	2	0	0	0
Combatting climate change	6	8	3	0	0	0	0
Biodiversity	6	8	3	0	0	0	0
Healthy pollinators	8	6	2	0	1	0	0
More wildlife in your fields	8	5	2	1	1	0	0
Soil health	9	8	0	0	0	0	0
Reduced concentrations of agri- chemicals in soil and water	7	8	1	0	1	0	0

### **BENEFITS AND DRAWBACKS OF MISCANTHUS**

Q21 Have you found miscanthus to be beneficial to your business?

- 16 Yes
- 1 No
- 2 Don't know
- <sup>0</sup> Rather not say
- Q22 What problems have you found with miscanthus, please answer on a scale of 1-5 for each item, 5 being very important to 1 being not important

	5	4	3	2	1	N/A	Rather not say
yields were lower than expected / underperformed	1	0	0	0	0	0	0
loss of flexibility in reacting to markets by changing crop type	0	1	2	0	0	0	0
immature market for Miscanthus straw	0	1	2	0	0	0	0
increase of pest species?	0	1	1	1	0	0	0
not found problems	1	2	0	0	0	0	0

Q23 If there are any other reasons you answered 'no' to miscanthus being beneficial other than above, please tell us

<sup>0</sup> 

On a scale of 1-5 for each item, 5 being very important to 1 being not important, how has Q24 miscanthus helped your farm economy

	5	4	3	2	1	N/A	Not known
Improved profit margins in comparison to growing alternative crops on that field	4	5	2	2	0	0	0
Increased profit margin of farm as a whole	1	4	4	4	0	0	0
Reliable market	5	3	1	4	0	0	0
Miscanthus has not helped my farm economy	1	0	3	2	3	5	0

If there are any other reasons miscanthus helped your farm economy, please tell us Q25

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Q26 On a scale of 1-5 for each item, 5 being very important to 1 being not important, how has miscanthus helped the practical aspect of farming

	5	4	3	2	1	N/A	Not known
enabled cropping in remote fields/difficult to access fields	4	3	3	1	3	0	0
reduced spraying near houses/ playgrounds	4	1	2	3	2	4	0
reduced crop vandalism	1	2	1	3	4	5	0
Miscanthus has not helped the practical aspect of farming	2	2	2	2	2	5	0

If there are any other ways miscanthus has helped the practical aspect of farming, please Q27 tell us

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Were there any particular benefits of having Miscanthus during the time of: Q28

	Yes	No	No Difference / Not noticed
Brexit	2	6	8
Covid-19 restrictions	4	5	7

Q29 If you answered yes to Brexit or Covid-19, how did miscanthus help?

- <sup>3</sup> Secured contract with end-user (reliable market)
- <sup>1</sup> Reduced need for hired labour
- <sup>2</sup> More time to spend on other matters
- <sup>3</sup> Did not answer yes to benefits of miscanthus during Brexit or Covid-19

Other, please specifiy

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- Q30 Thinking back to when you first invested in miscanthus, do you think you had enough advice on growing the crop?
  - 11 Yes
  - <sup>6</sup> No
  - <sup>0</sup> No opinion
  - 0 Rather not say
- Q31 If you have ever removed a miscanthus crop, how did you find the operation?
  - <sup>3</sup> Difficult
  - 0 Not difficult
  - <sup>13</sup> Never removed a miscanthus crop
  - <sup>0</sup> No opinion
  - 0 Rather not say
- Q32 If you were left with any field or crop problems after miscanthus removal, please specify?
  - 2

Q33 On a scale of 1-5 for each item, 5 being very important to 1 being not important, what do you think is the largest barrier to expanding miscanthus cropping area?

	5	4	3	2	1	N/A	Not known
Cost of establishment	9	3	3	1	1	0	0
Ongoing management costs	1	1	6	5	3	0	1
Availability of suitable land	2	3	9	1	1	1	0

Limited understanding of the crop within the wider farmer community	1	3	7	2	2	2	0
Crop vandalism	0	2	3	2	7	3	0
Trust of crop / company	1	4	5	2	2	1	1
Environmental: Increase of pest species/ water scarcity	0	5	4	3	3	1	1
Use of contractors	1	5	5	3	2	1	0

Q34 If you see a different barrier than the above to expanding miscanthus, please tell us

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- Q35 If the same total amount was given as a subsidy for growing miscanthus, would you rather it was paid
  - <sup>7</sup> as a planting grant
  - 6 annually at harvest
  - <sup>2</sup> no preference
  - 1 rather not say
- Q36 What is the main one or two characteristics that you think could increase miscanthus production across the UK? (open question, can include crop breeding characteristics, distribution, agronomy, govt incentives, etc.)

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- Q37 Would you ever consider expanding your cropping area of miscanthus in the future?
  - 12 Yes
  - 2 No
  - <sup>3</sup> Don't know
  - <sup>0</sup> Rather not say

Results from this questionnaire will help us discover growers' experience on the benefits of and barriers to growing miscanthus and why they chose to grow it. All data you have provided will be collected with other growers surveys and converted into statistics, and will be anonymous.

Please press the Submit button, and you will be taken to a separate document where you can optionally add your email address to be entered into a draw for a Wensleydale cheese hamper. Could you please return your questionnaire before the end of October.

Thank you for your time in completing this survey. Please click Submit to send your replies.