



The Open University

**WR0510 Defra Waste & Resources  
Evidence Programme  
Attitudes to the use of organic waste resources to land**

# **Annex 3**

## **Public and Farmers Attitude Surveys Top-line findings Report**

**The Open University and Ipsos MORI  
February 2008**

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# 1 Introduction

This project aims to investigate and enhance understanding of a range of attitudes and perceptions towards the spreading of organic waste-derived materials on land, to help inform Government's future policy initiatives. The research is exploring and capturing the range and extent of attitudes and perceptions of all those involved or affected by the spreading of organic waste-derived resources on land. It aims to provide an understanding of the decision-making processes involved, identify actual and potential barriers, likely geographic variations and key drivers to inform future policy options and communication strategies.

The first stage involved scoping research which has reviewed the relevant literature and identified key issues from work with the project's expert Advisory Panel and through semi-structured, qualitative telephone interviews with selected stakeholders. This helped identify and focus areas of questioning for the second stage of the project which aims to meet the objective of assessing in a quantitative way the extent to which attitudes are held across England, Wales, Scotland and Northern Ireland.

Two quantitative surveys have been carried out to study the attitudes of the general public and farmers. These were designed to explore a range of factors that may influence attitudes including socio-demographics, environmental behaviours and previous experience.

This report presents the *top-line findings* from these two surveys. The results are presented in chart form in sections 2 and 3; and the top-line tables of results attached in appendices 3 & 4. The results here are an overview of the results of the survey sample as a whole. They do not take account of socio-demographic variations, differences between farmers engaged in different types of farming or with different experience of the use of waste on land. Subsequently further analysis will be carried out to fully explore relationships and attitudes in the survey data. This will be included in future project reports.

## 1.1 Methodology

Both surveys were conducted by telephone interviews across the UK by Ipsos MORI. The questionnaires were designed collaboratively by Ipsos MORI and The Open University. The OU research team identified key issues for each survey, which were then translated into suitable questions by Ipsos MORI. Both organisations worked together to refine these into the final questionnaires (which are attached in appendices 1 & 2).

### **General Public Survey:**

Interviews were conducted among 1,106 residents aged 16+, by telephone, across the UK. Of these, 860 were conducted in England, 103 were conducted in Northern Ireland, 88 were conducted in Scotland, and 55 were conducted in Wales. Quotas were set, and weights applied to the data, based on age, gender, class and region to reflect the population profile of Great Britain and Northern Ireland (the number of interviews in Northern Ireland was boosted, to 103, to increase the statistical reliability of results for

this sub-group; Northern Ireland data have been weighted down in the aggregated results however to reflect the regional profile of the UK). The fieldwork was conducted between 23<sup>rd</sup> and 26<sup>th</sup> November 2007. The survey questions were included as part of a larger omnibus survey.

Results for all questions are based on the full sample of all respondents

### Farmers Survey:

Interviews were conducted with 500 farmers, by telephone, across five regions of the UK: West of England; East of England; Scotland; Wales and Northern Ireland (100 interviews in each). The sample was stratified by farm size (in hectares) and farm type (as defined by SIC codes) to ensure *representation* of different farms in the UK. This was to make sure that different groups are represented in the survey and the analysis will be able to say something useful about these sub groups. Although the farmers interviewed represent a robust sample of UK farm types and sizes, the data in these top-line results has not been weighted according to the actual incidence of each group in the target audience and so is *not representative* of the farming profile of the UK.

Fieldwork was conducted between 14<sup>th</sup> and 25<sup>th</sup> January 2008. Results are based on all respondents unless otherwise stated.

## 1.2 Interpretation of the Data

Because a sample of the UK population has been surveyed for the public survey, and a sample of the UK farming population for the farmers survey, the figures obtained may not be exactly those if everybody had been surveyed (the “true” values). However, the variation between the sample results and the “true” values can be predicted from knowledge of the size of the samples on which the results are based and the number of times that a particular answer is given. The confidence with which this prediction can be made is usually chosen to be 95% - that is, the chances are 95 in 100 that the “true” value will fall within a specified range.

The table below illustrates the predicted ranges for different sample sizes and percentage results at the “95% confidence interval”. They provide a broad indication of how reliability is affected by sample size.

### Approximate sampling tolerances applicable to percentages at or near these levels

Sample size	10% or 90%	30 or 70%	50%
	±%	±%	±%
100	6	9	10
250	4	6	6
<b>500</b>	<b>3</b>	<b>4</b>	<b>4</b>
750	2	3	4
<b>1,000</b>	<b>2</b>	<b>3</b>	<b>3</b>

For example, with a total sample size of 1,000 completed interviews, where 50% give a particular answer, there is a ninety five percent chance that the “true” value (which would have been obtained if the whole population had been surveyed) will fall within the range of three percentage points, plus or minus, from the sample result.

When the results are compared between separate sub-groups within a sample, different results may be obtained. The difference may be “real”, or it may occur by chance (because not everyone in the population has been surveyed). To test if the difference is a real one – i.e. that it is “statistically significant” – it is again necessary to know the total population, the size of the samples, the percentage giving a certain answer, and the degree of confidence chosen. Assuming “95% confidence interval”, the differences between the two sub-sample results must be greater than the values shown in the table below.

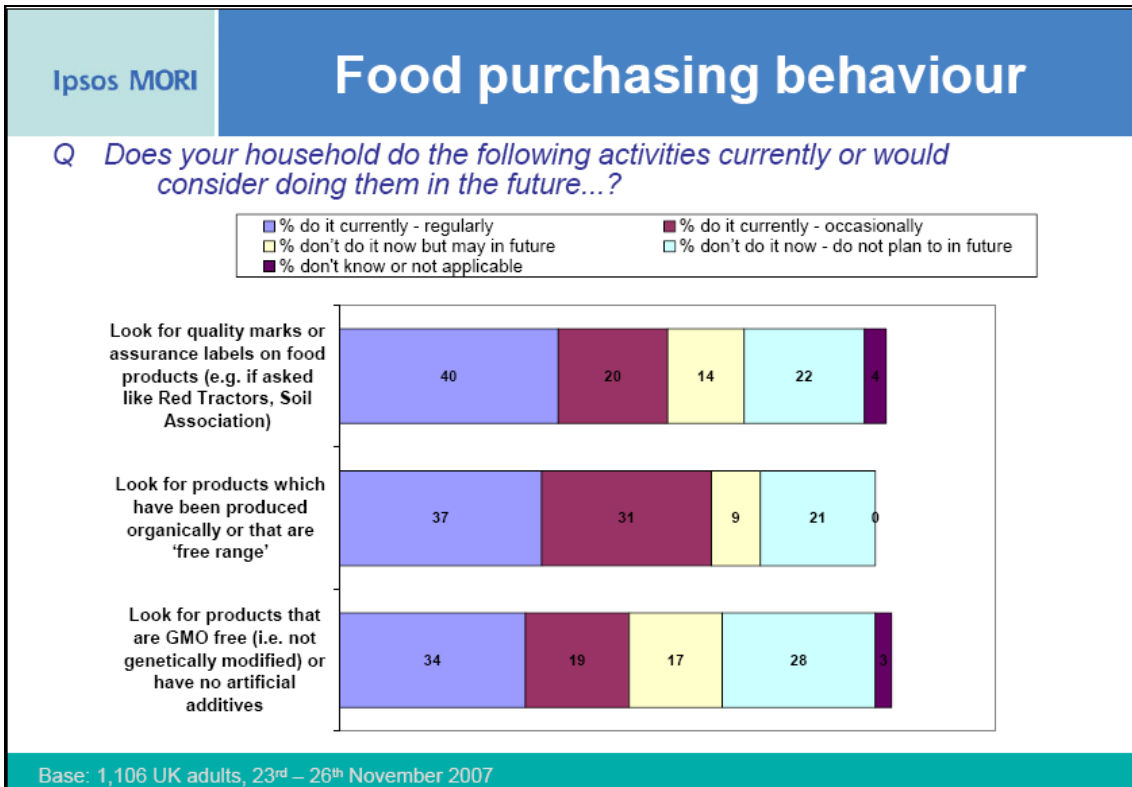
Sample sizes	Differences required for significance at or near these percentage levels		
	10/90% ±%	30/70% ±%	50% ±%
100 and 100	8	13	14
250 and 250	5	8	9
400 and 550	4	6	6
300 and 700	4	6	7

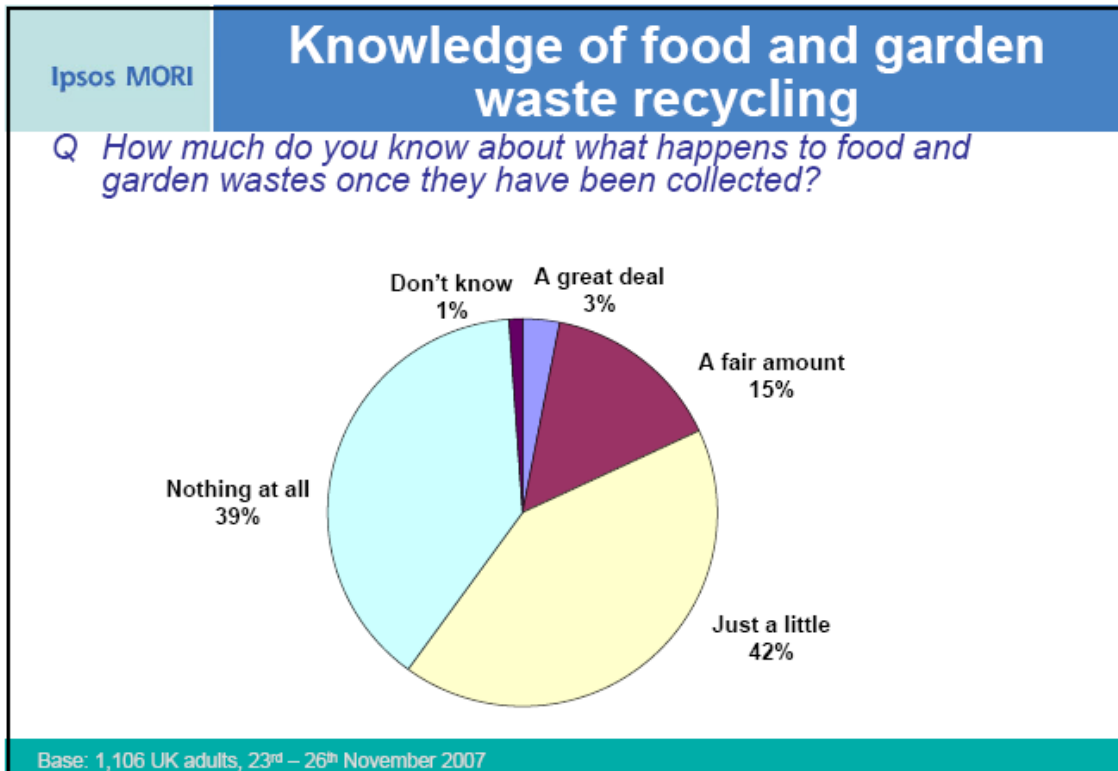
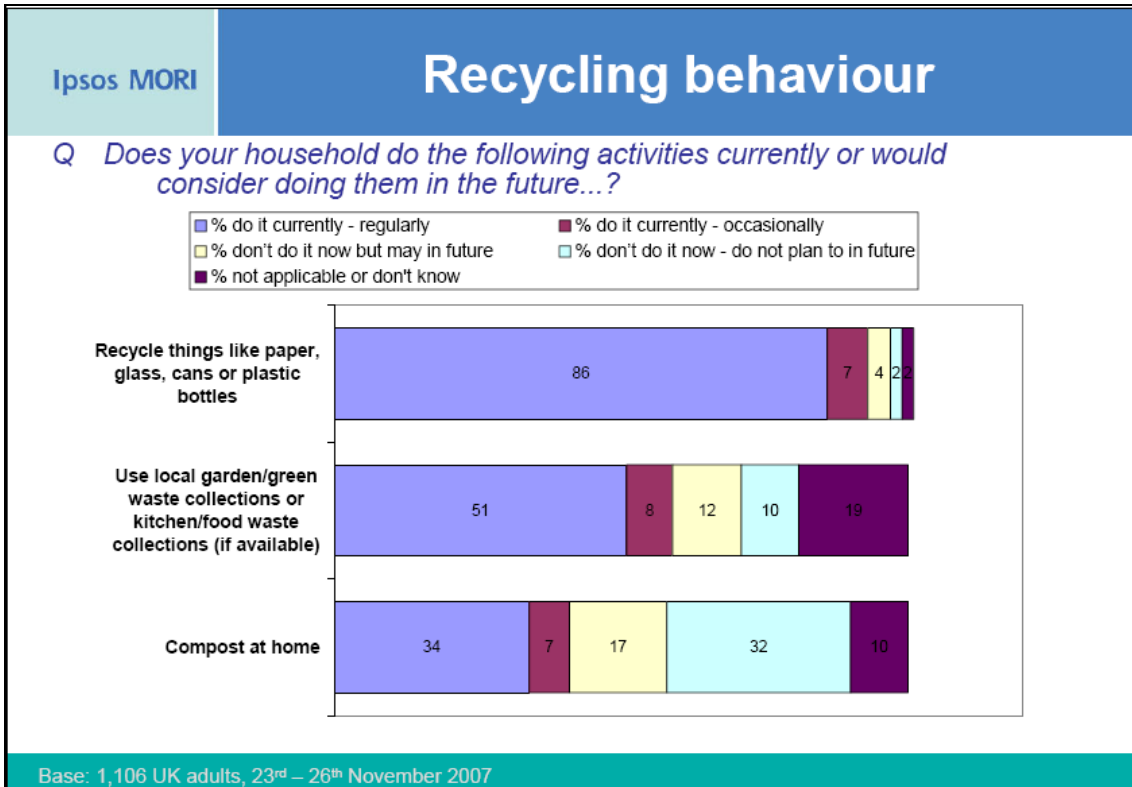
In the computer tables, where responses do not add up to 100%, this may be due to computer rounding or multiple responses or the exclusion of don’t knows/not stated. An asterisk (\*) denotes a finding of less than 0.5% but greater than zero.

It is worth emphasising that the survey deals with attitudes and perceptions rather than facts; in particular, where behaviour is self reported these perceptions may not accurately reflect behaviour in reality. Furthermore, we need to consider if there may have been some misunderstanding with more unfamiliar terms in the responses to certain questions. For instance farmers said they knew little about compost-like outputs – a term used for some outputs of mechanical biological treatment – as well as for anaerobic digestates or compost from food waste. Other questions about the use of these materials need to be considered in the light of this limited understanding.

## 2 Public attitude survey

The first group of questions are concerned with the respondents' behaviour in relation to food purchasing and environmental behaviours such as recycling and composting and their knowledge of food and garden waste recycling. Later analysis will explore these behaviours with respondents expressed attitudes taking into account socio-demographic factors.



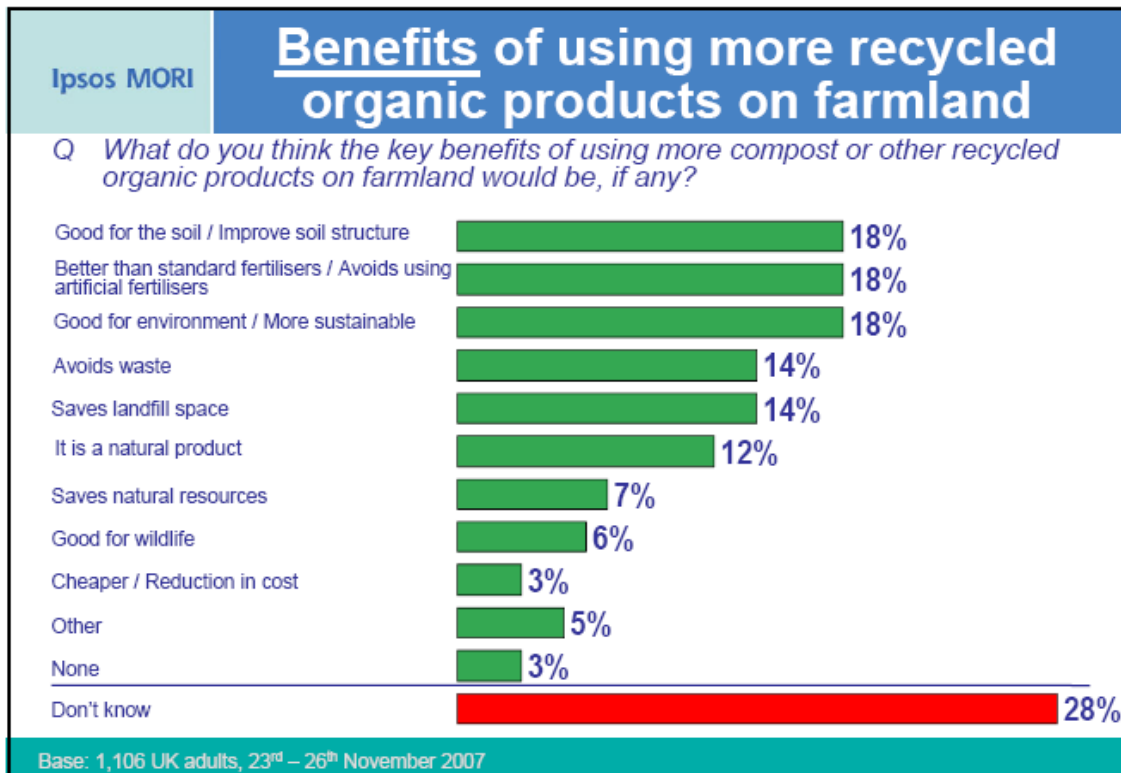


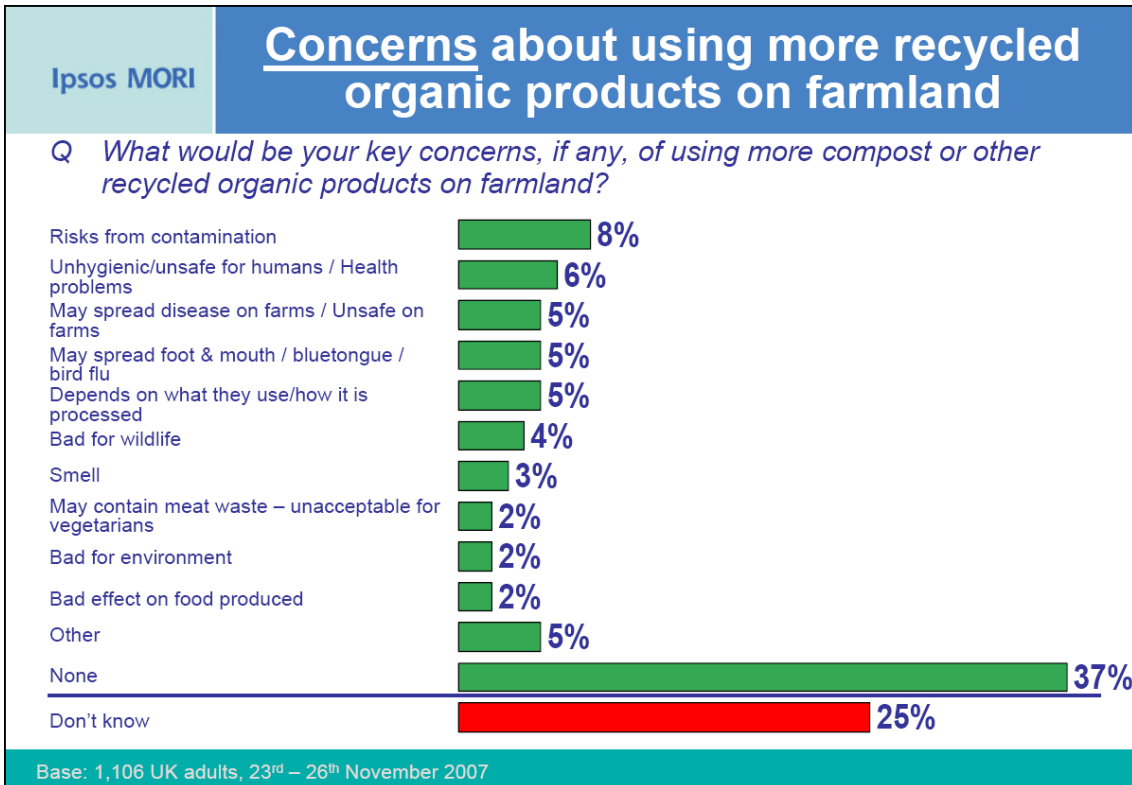


## 2.1 Benefits and concerns

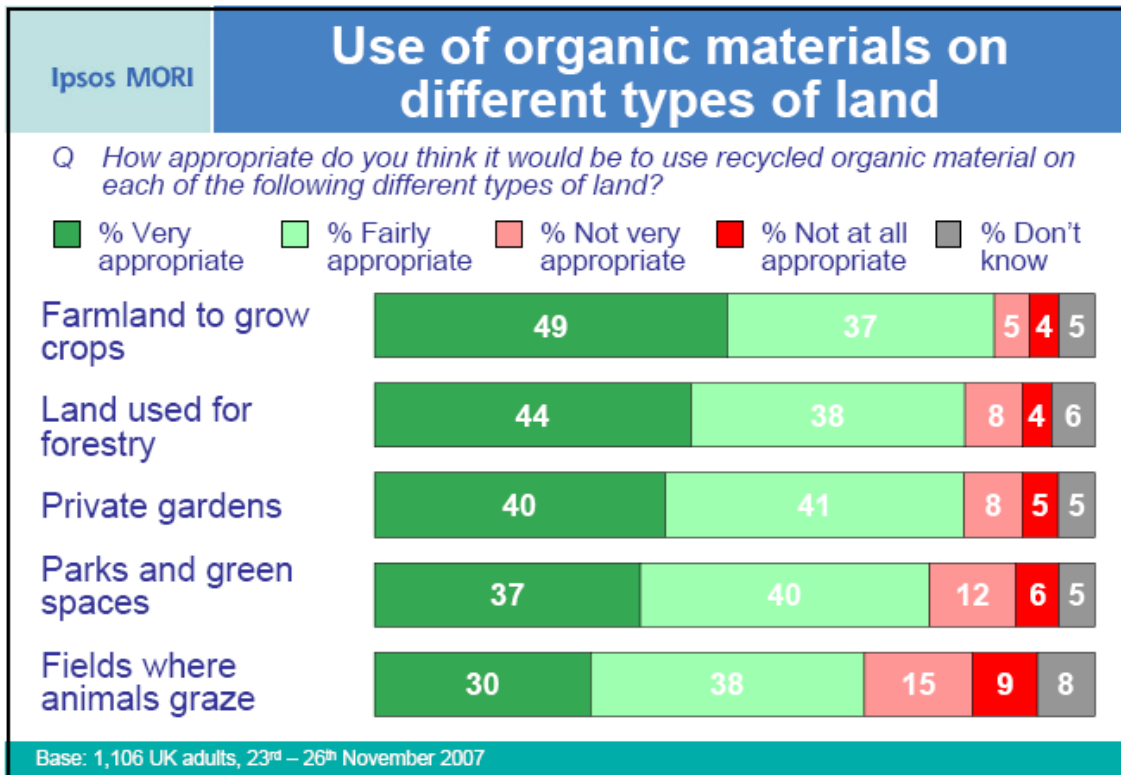
Respondents were primed with a description of what was meant by organic resources used on land before being asked about their attitudes to certain practices. The focus of the questions for the public was deliberately restricted to the use of compost or anaerobically digested material from plant waste or waste food, and this was what was defined as organic wastes in the survey questions. The script that was read out was as follows:

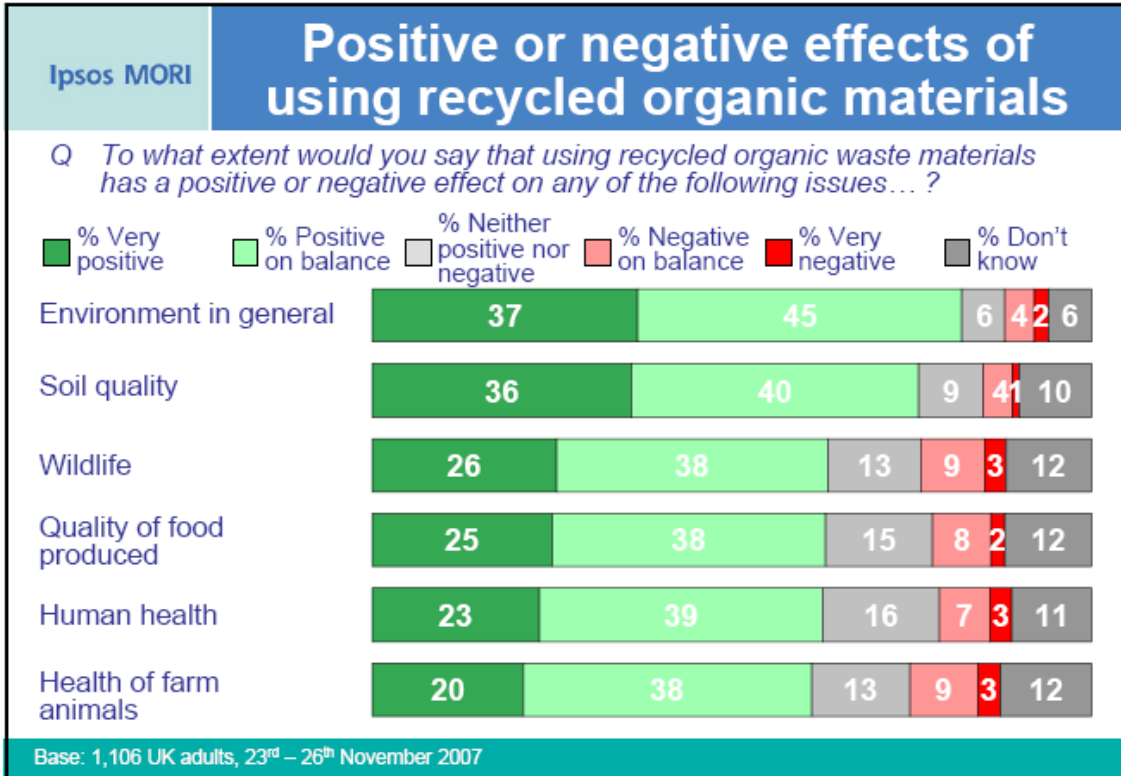
*“There is potential to increase the amount of recycled organic material used on land, for example in farming. This could come from collecting waste food from households, restaurants or food manufacturers, and from waste plant material from gardens or parks. These wastes would then be processed, for example they could be composted and/or treated in biogas plants. The following questions ask about these recycled organic materials and their use on land.”*



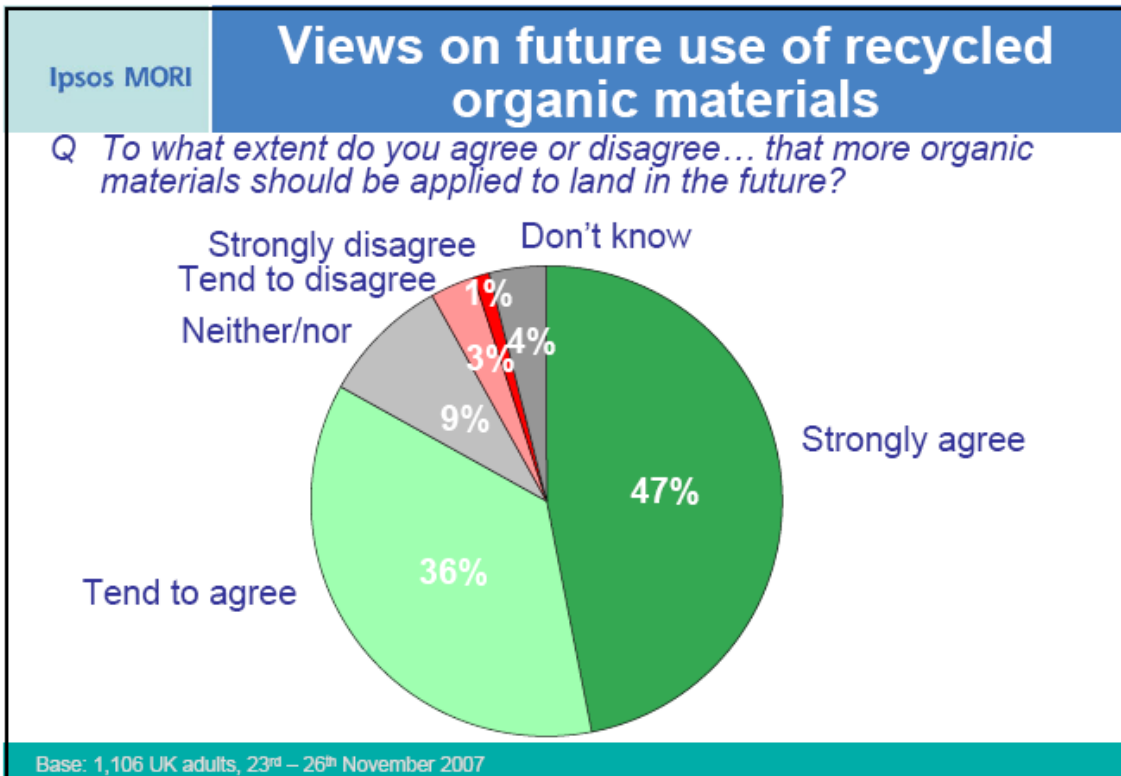


## 2.2 Views on use and effects



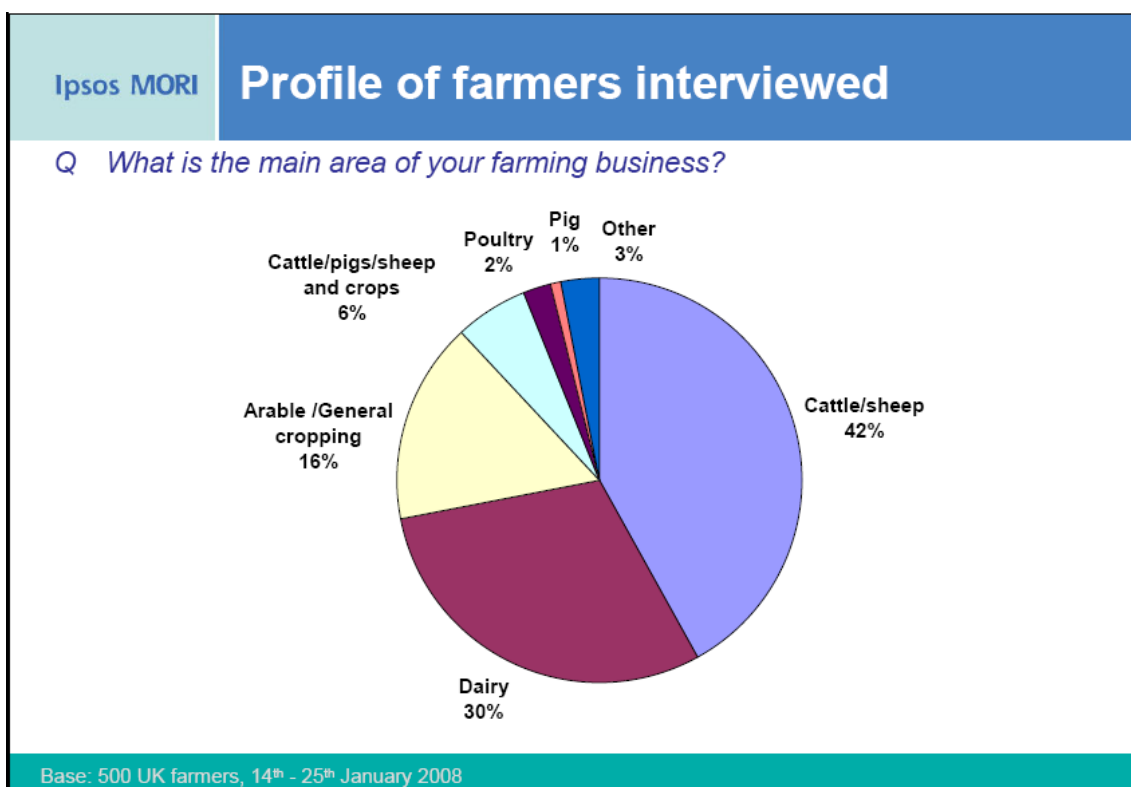


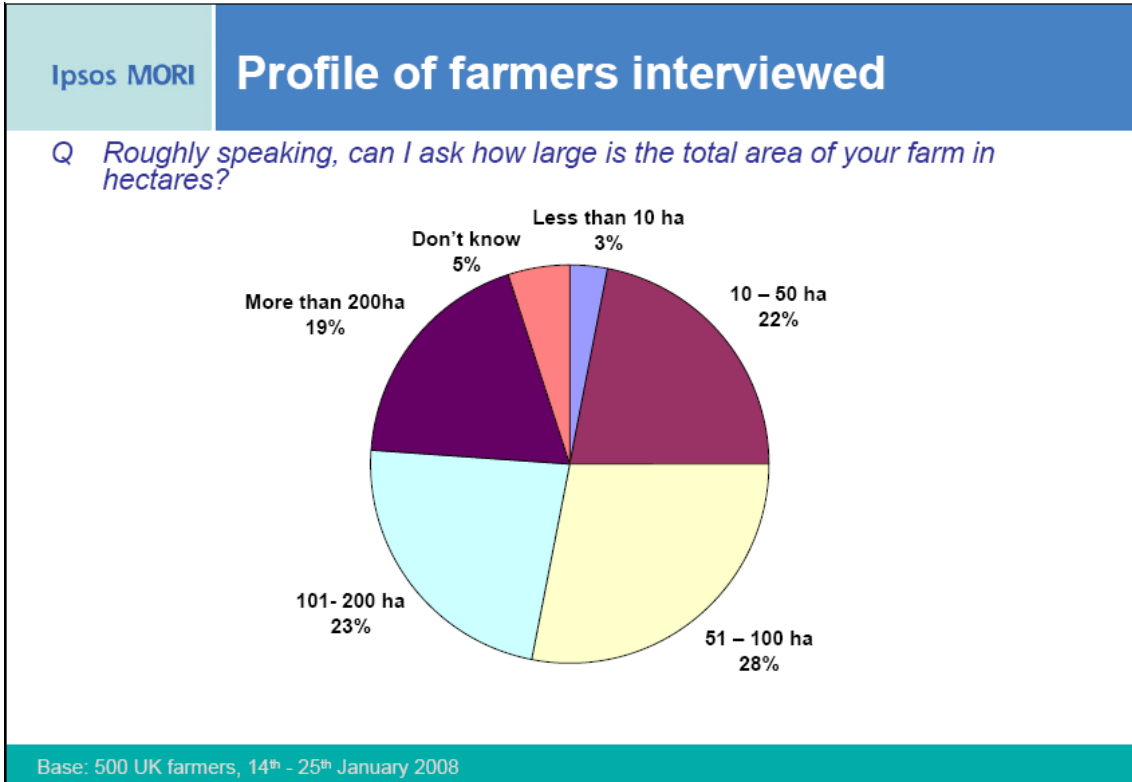
### 2.3 Views on future use



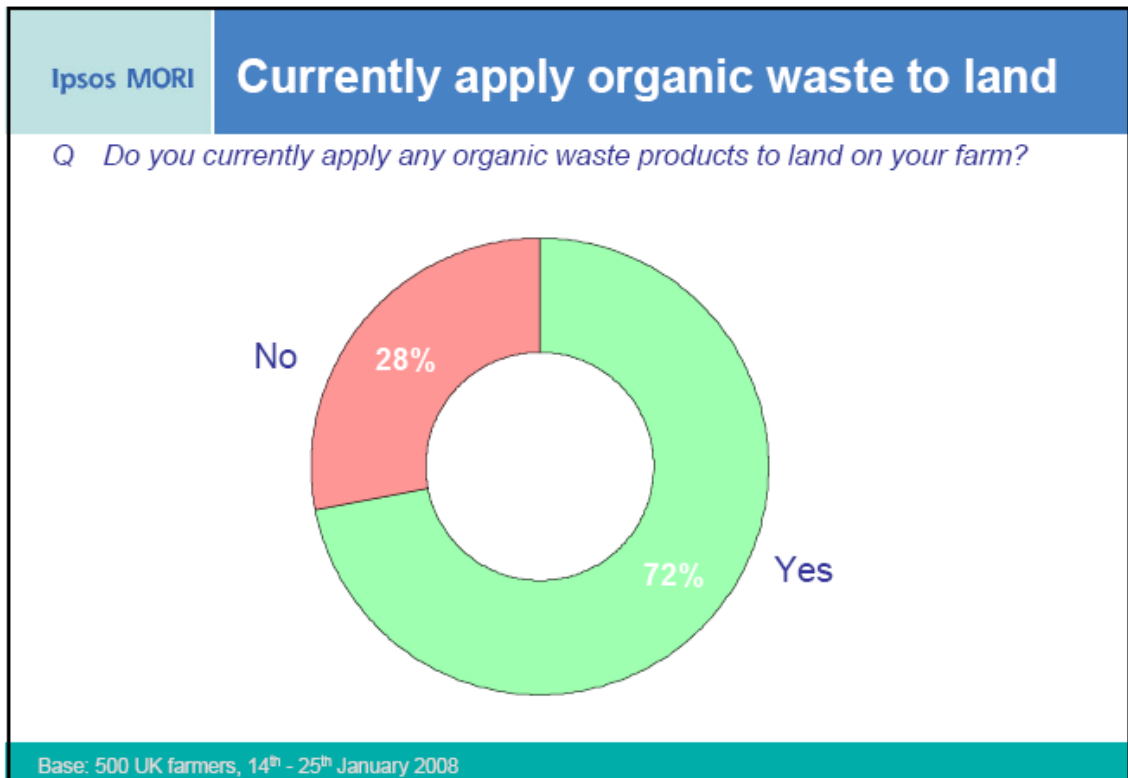
### 3 Farmers survey

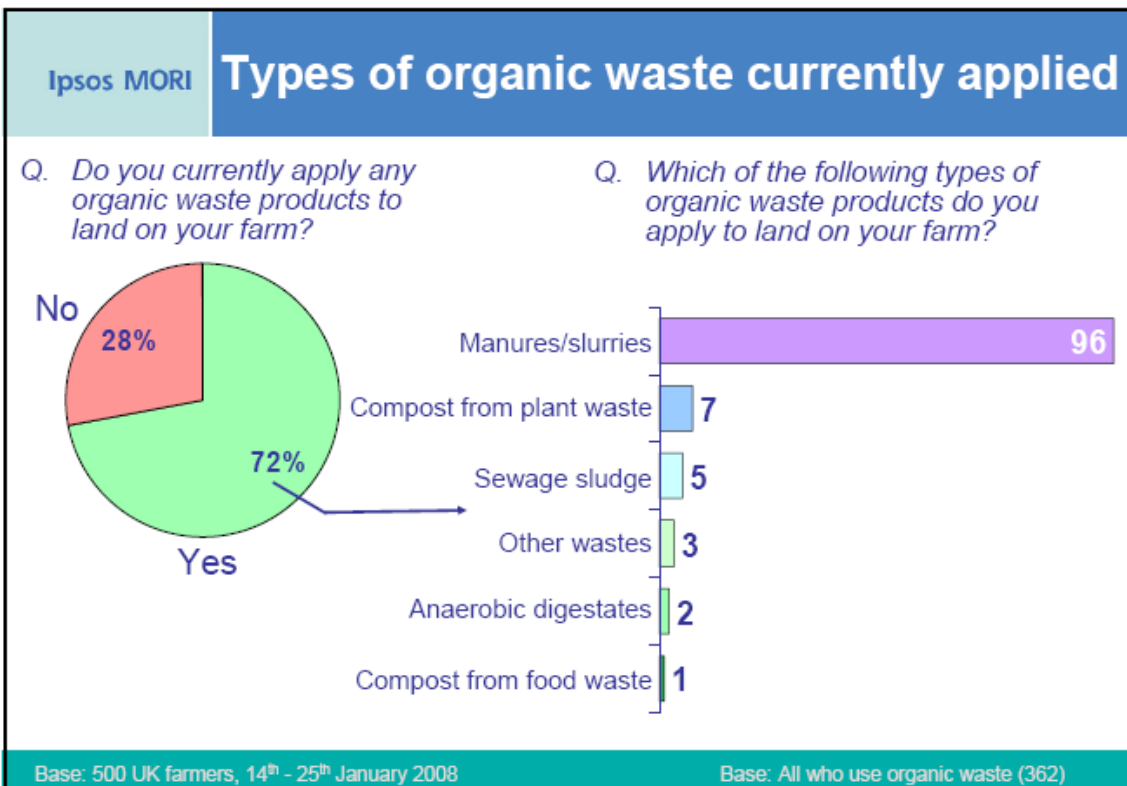
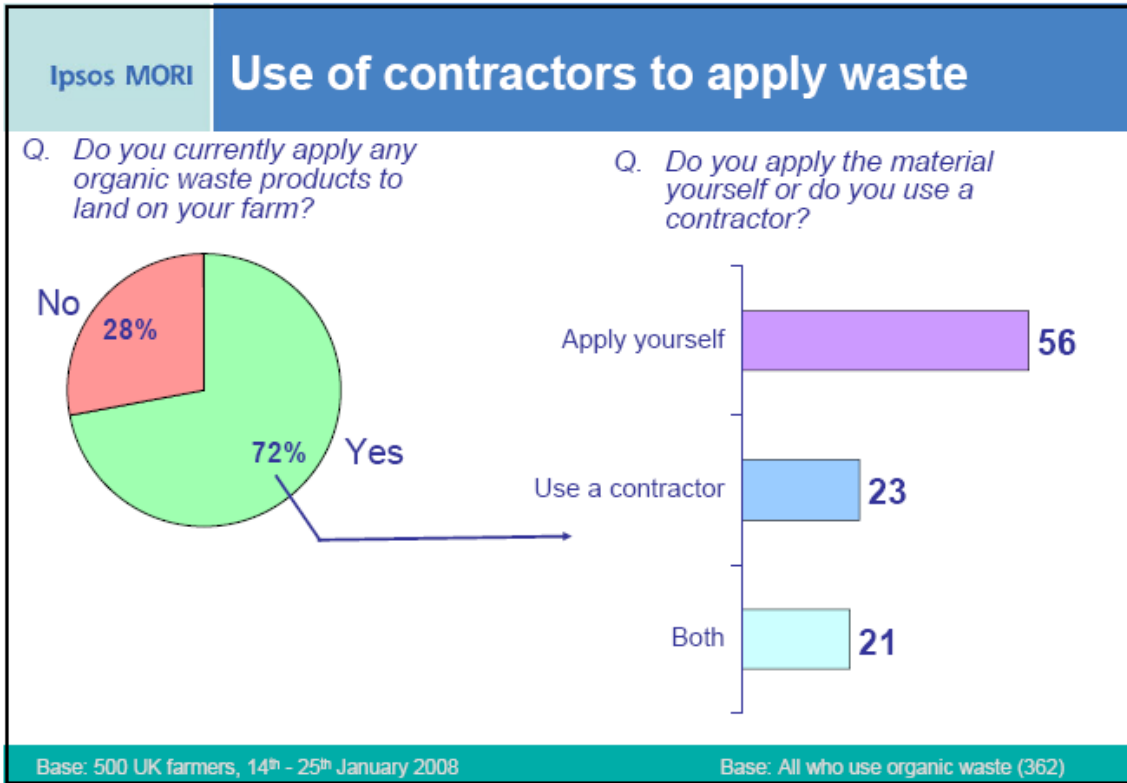
The profile of the types and sizes of the farming businesses surveyed is shown in the chart below. Of the total, 93% did not have certified organic status and 5% had it for their entire farm, with 2% for part only. Only 7% of the farmers interviewed carried out any composting on the farm and 1% anaerobic digestion. Of those who did carry out composting or anaerobic digestion on the farm the majority of waste processed was manure (64%) followed by plant or crop wastes (19%), slurries (12%), household green waste (10%) and food waste (10%). Most of the compost produced was used on the farm (88%).

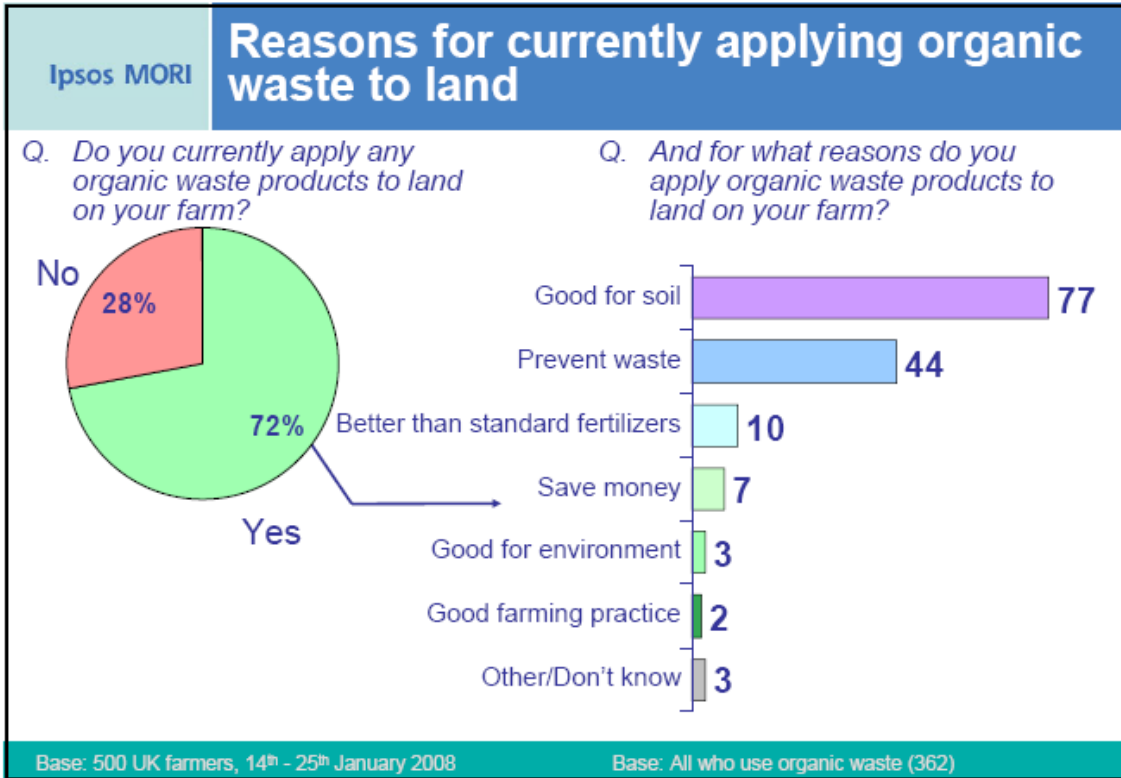




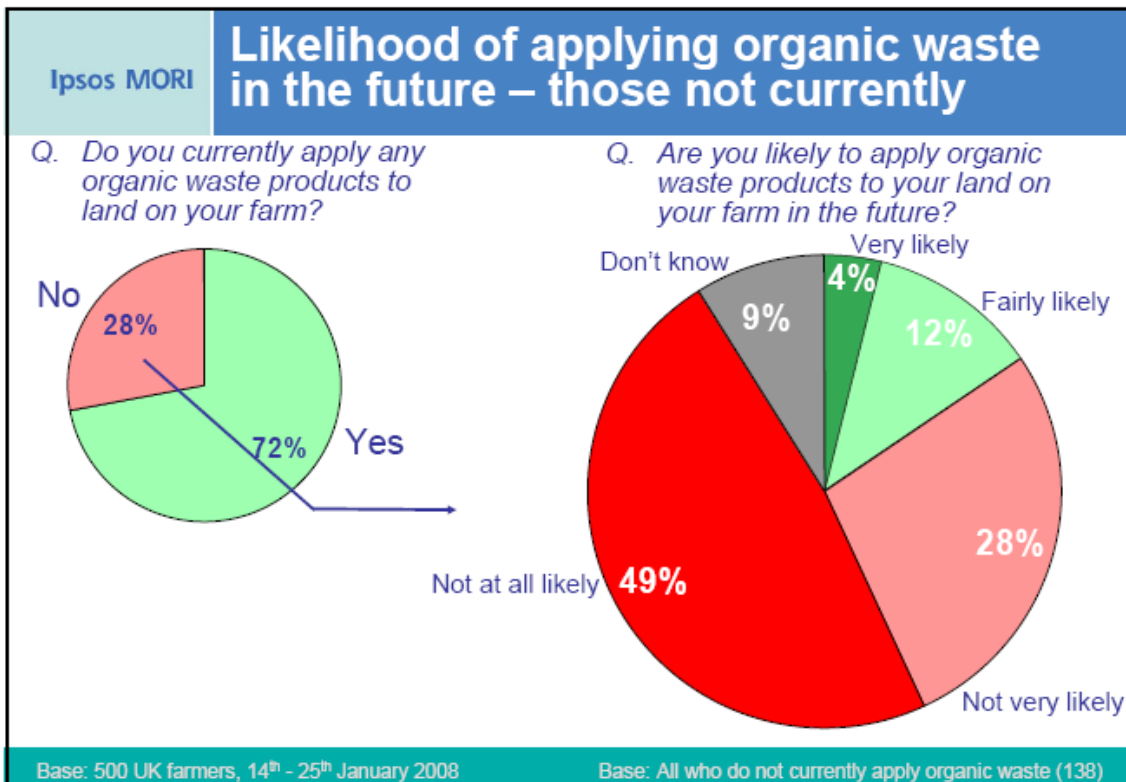
### 3.1 Current State of Play

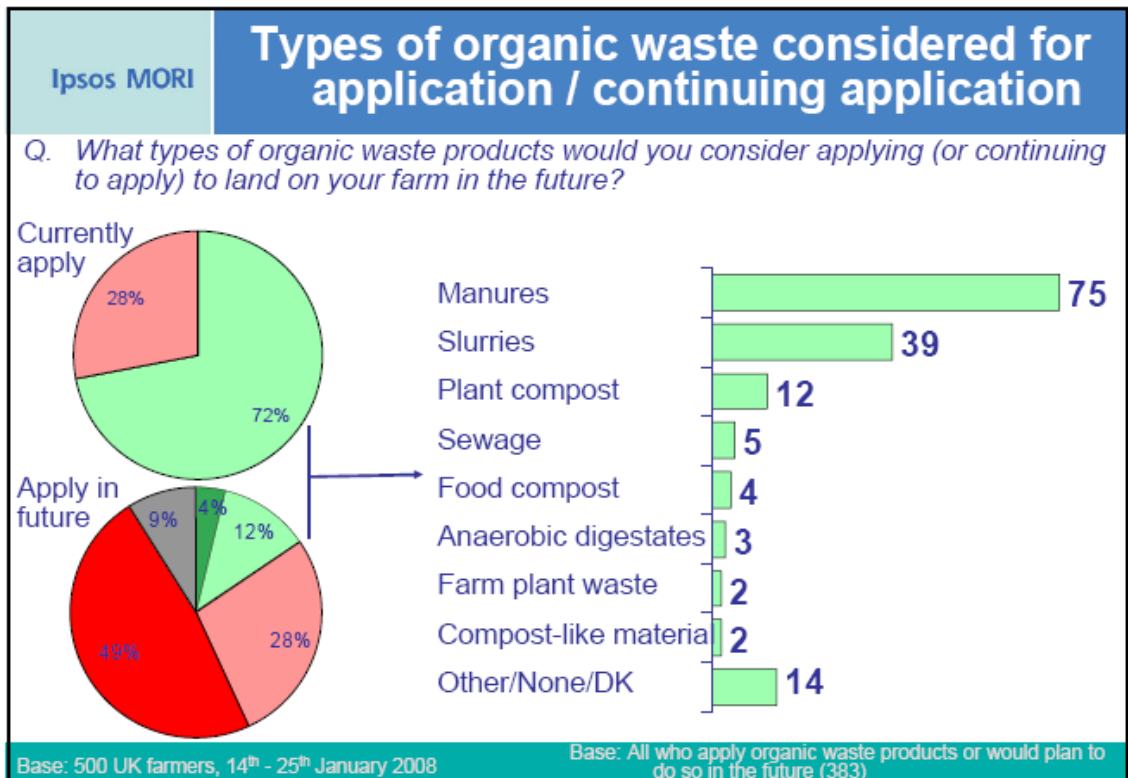
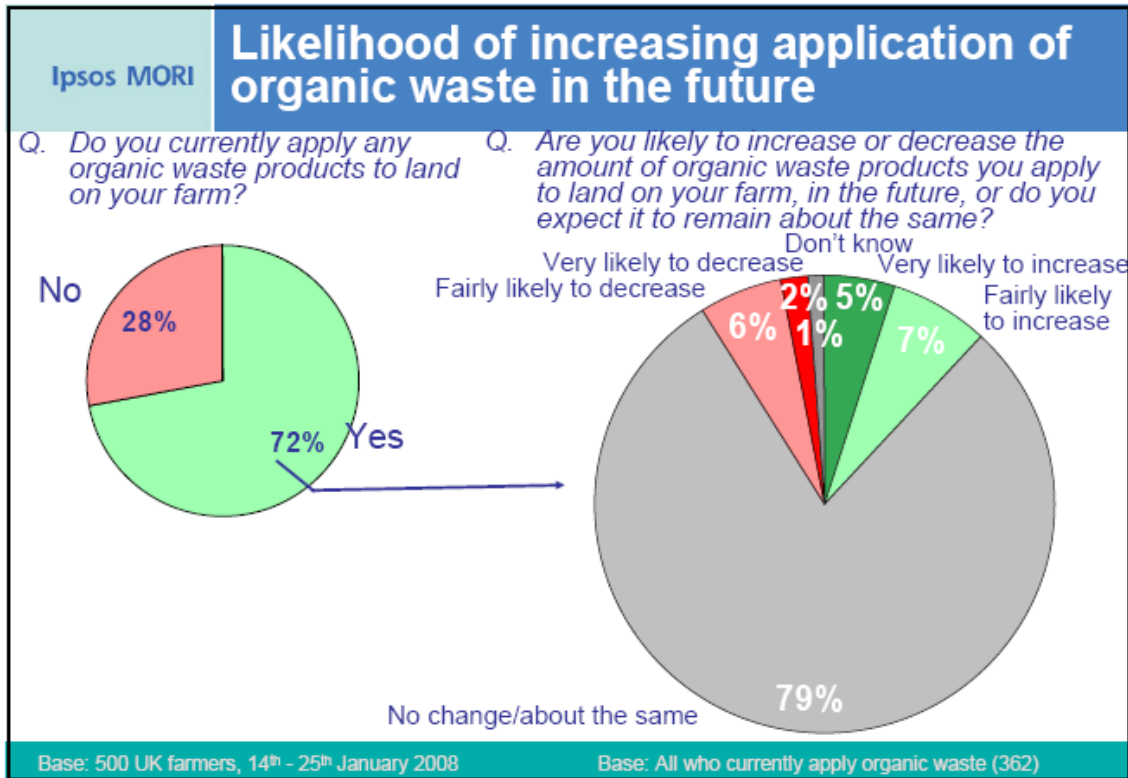






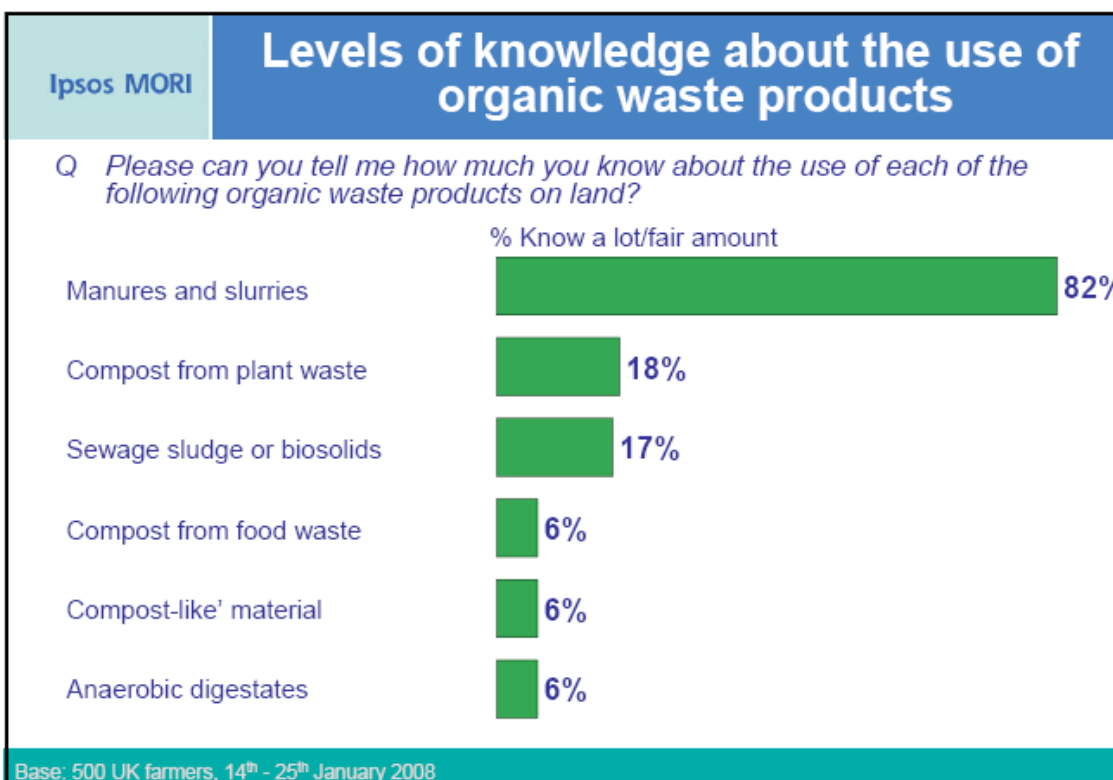
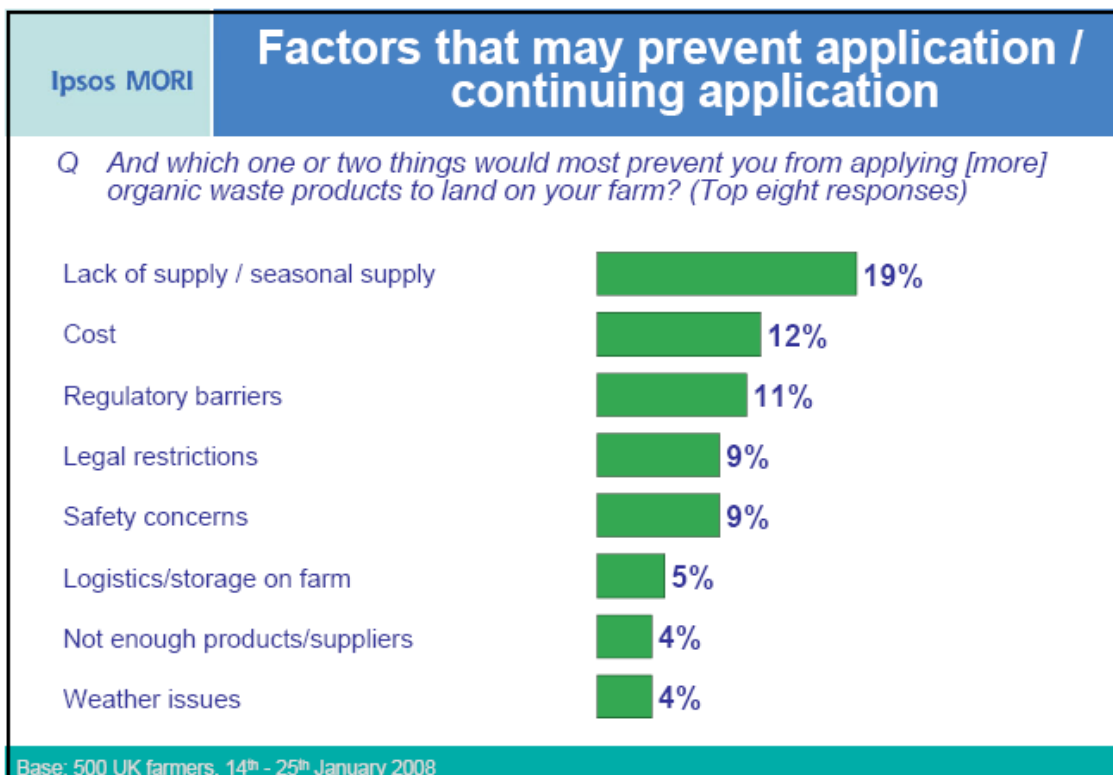
### 3.2 Future prospects

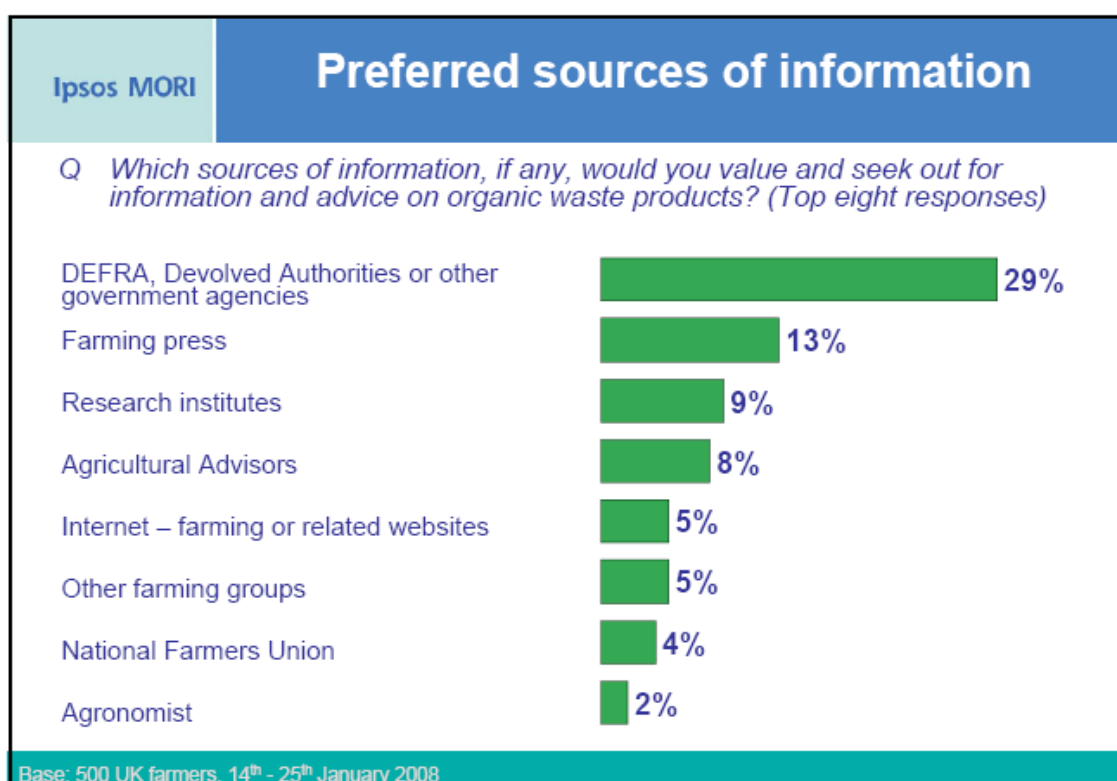
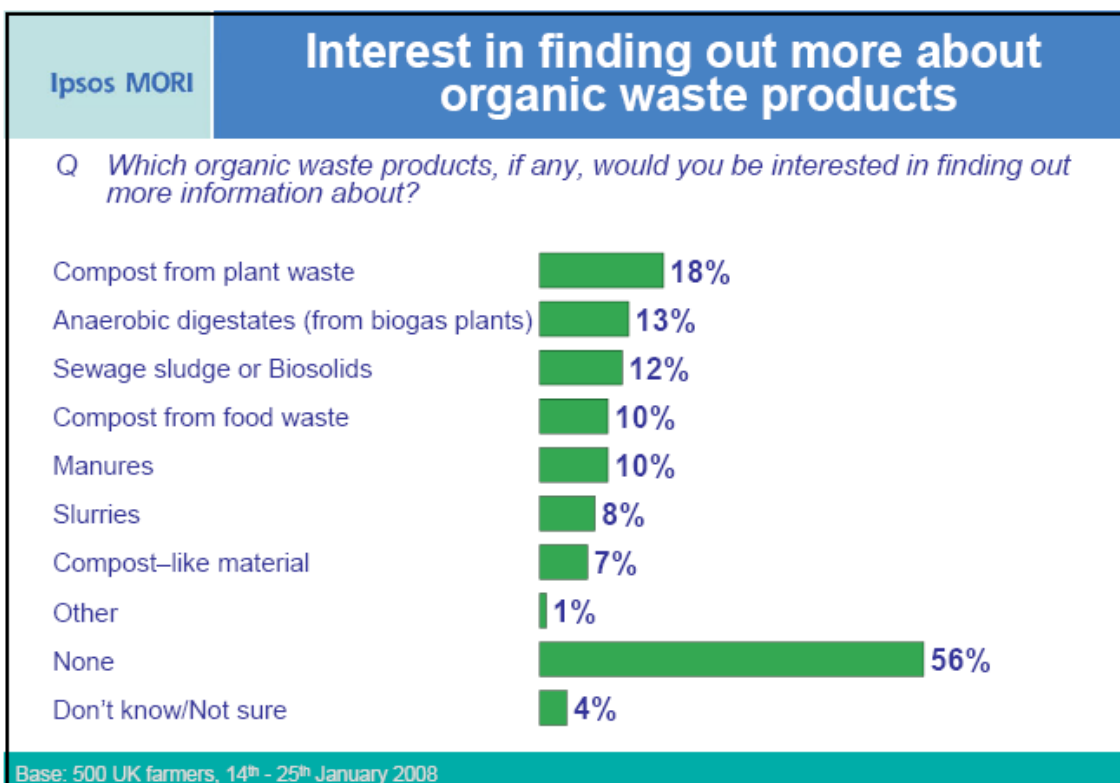






### 3.3 Barriers to increasing in future



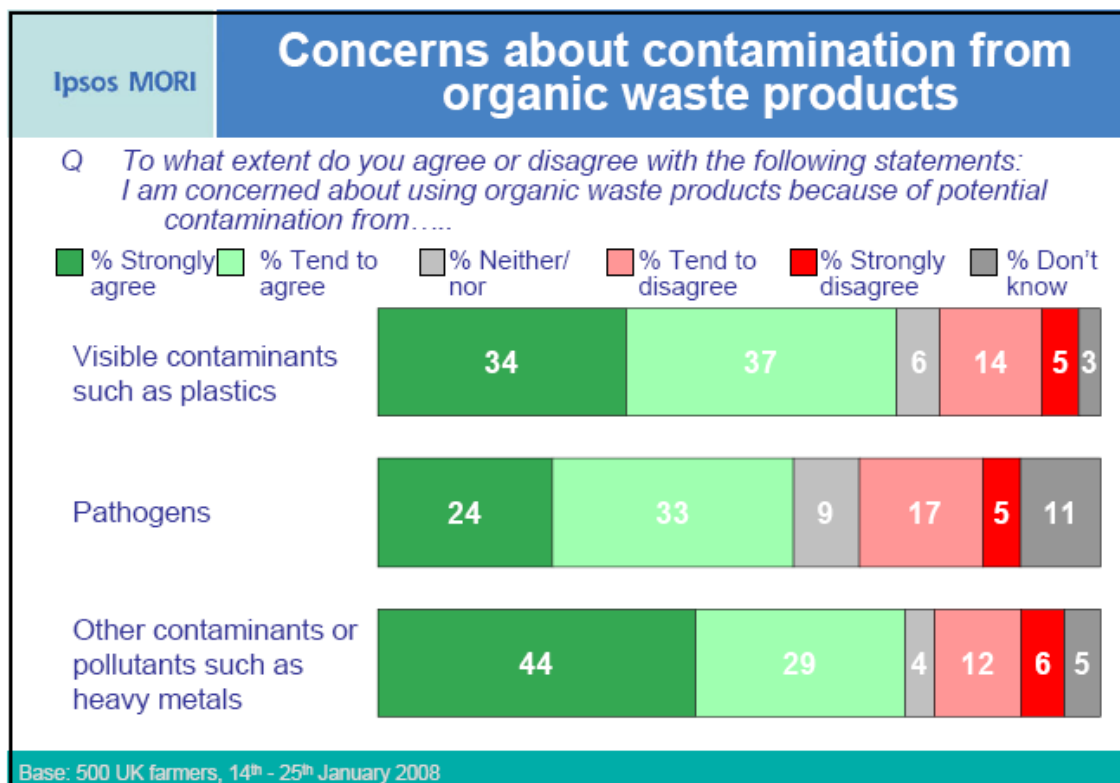
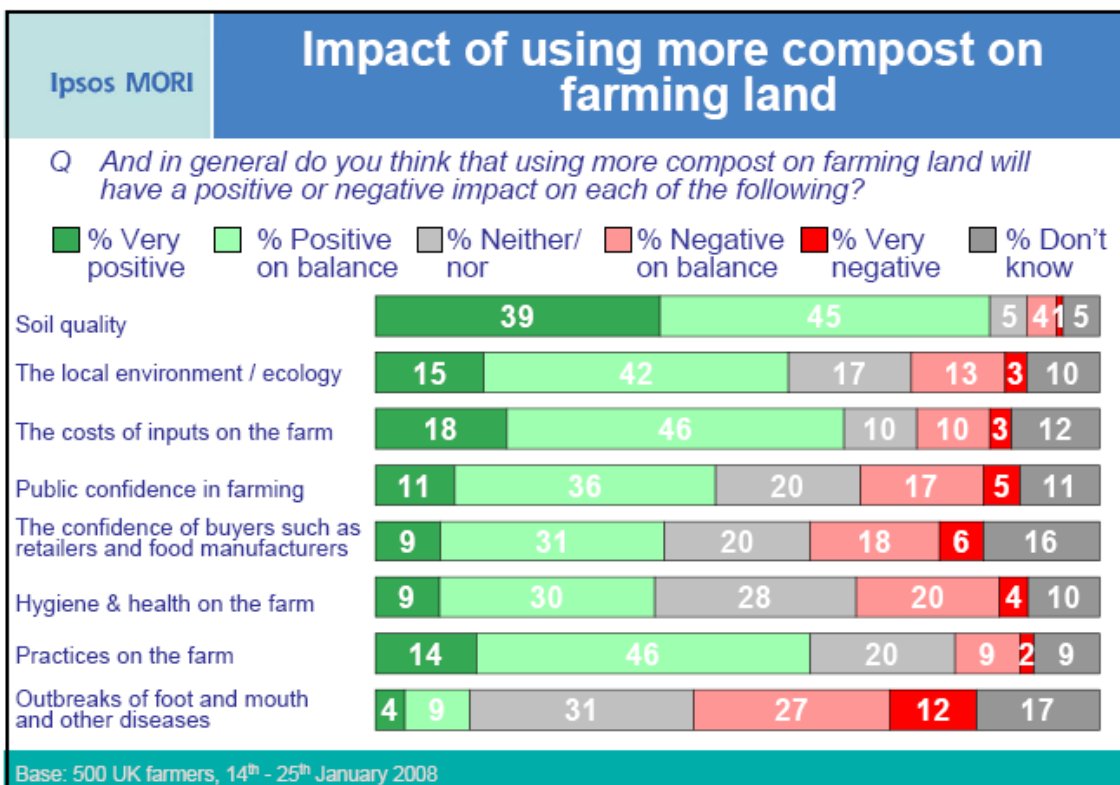


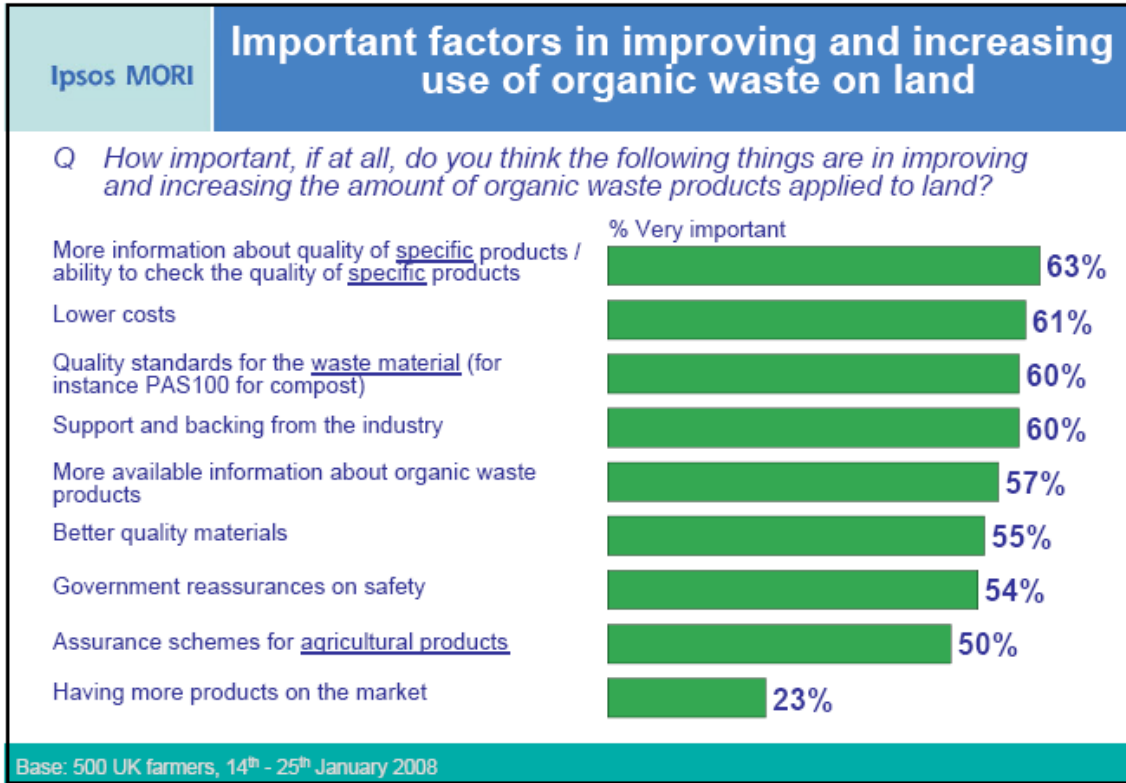
Ipsos MORI		Q. For each of the organic products we're talking about, can you tell me which land use you consider them to be suitable for?						
	%	Food crops	Grazing land	Forestry	Fallow land	Horticulture	None	Don't know
Compost from plant waste		68	61	58	60	64	3	15
Compost from food waste		45	39	49	48	43	6	22
Sewage sludge or biosolids		27	32	41	42	27	13	19
Manures		84	85	60	67	72	1	4
Slurries		65	80	47	59	54	3	6
'Compost-like' material		29	25	42	37	28	13	25
Anaerobic digestates		36	33	34	34	30	5	46

Base: 500 UK farmers, 14<sup>th</sup>-25<sup>th</sup> January 2008

The table above is best interpreted by bearing in mind that each number represents the proportion of farmers who feel that particular waste product is suitable for that particular type of land. Out of all the organic waste types asked about, manures come out as the most suitable for all types of land. Slurries and compost from plant waste are seen as the next most suitable across land types, with slurries seen as more suitable for grazing land, and plant waste more suitable for forestry and horticulture.

Regarding compost-like materials, one in four (25%) of farmers did not know about its suitability for use on any type of land, but 42% feel it is suitable for forestry, and 37% for fallow land. However at an earlier question only 6% of farmers knew 'a lot' or 'a fair amount' about compost-like material, with a further 21% saying they know only a little about it. So these judgements are likely to be based on a limited level of understanding. That there is some variation though in the suitability of compost-like material for different land types (i.e. only 25% for grazing land, up to 42% for forestry) indicates that farmers do have an opinion about what it is and what it's suitable for, even if this is based on a limited amount of information.





## Appendix 1: General public survey questionnaire

### DEFRA OMNIBUS QUESTIONS – GENERAL PUBLIC

Final

19 November 2007

We now have some questions about food and recycling.

Q1 For each of the following activities I read out, please tell me if your household does it currently, does not do it currently but is interested or thinking about it, or does not do it now nor plans to in the future?

READ OUT. RANDOMISE A-F. SINGLE CODE ONLY. IF DO IT CURRENTLY, PROMPT WITH 'IS THAT REGULARLY OR OCCASIONALLY'?

	Do it currently – regularly	Do it currently - occasionally	Not now – may in future	Not now – does not plan to in future	Don't know	Not available/ not applicable
A <b>Look for quality marks or assurance labels on food products (e.g. if asked like Red Tractors, Soil Association)</b>	1	2	3	4	5	6
B <b>Look for products which have been produced organically or that are 'free range'</b>	1	2	3	4	5	6
C <b>Look for products that are GMO free (i.e. not genetically modified) or have no artificial additives</b>	1	2	3	4	5	6
D <b>Recycle things like paper, glass, cans or plastic bottles</b>	1	2	3	4	5	6
E <b>Use local garden/green waste collections or kitchen/food waste collections (if available)</b>	1	2	3	4	5	6
F <b>Compost at home</b>	1	2	3	4	5	6

READ OUT: *There is potential to increase the amount of recycled organic material used on land, for example in farming. This could come from collecting waste food from households, restaurants or food manufacturers, and from waste plant material from gardens or parks. These wastes would then be processed, for example they could be composted and/or treated in biogas plants. The following questions ask about these recycled organic materials and their use on land.*

Q2 How much do you feel you know about what happens to food and garden wastes once they have been collected? Would you say you know...READ OUT. SINGLE CODE ONLY

( )

<b>A great deal</b>	1
<b>A fair amount</b>	2
<b>Just a little</b>	3
<b>Nothing at all</b>	4
<b>Don't know</b>	5

( )

Q3 How appropriate do you think it would be to use recycled organic material on each of the following different types of land?

READ OUT. RANDOMISE A-E. SINGLE CODE FOR EACH

		Very appropriate	Fairly appropriate	Not very appropriate	Not at all appropriate	DK
A	<b>Land used for forestry</b>	1	2	3	4	5
B	<b>Fields where animals graze</b>	1	2	3	4	5
C	<b>Farmland to grow crops</b>	1	2	3	4	5
D	<b>Private gardens</b>	1	2	3	4	5
E	<b>Parks and green spaces</b>	1	2	3	4	5

**Thinking now just about the use of recycled organic waste materials on farmland.**

Q4 To what extent would you say that using recycled organic waste materials has a positive or negative effect on any of the following issues...?

SINGLE CODE ONLY. RANDOMISE A-F.

		Very positive	Positive on balance	Neither positive nor negative	Negative on balance	Very negative	Don't know
A	<b>Soil quality</b>	1	2	3	4	5	6
B	<b>Quality of food produced</b>	1	2	3	4	5	6
C	<b>Environment in general</b>	1	2	3	4	5	6
D	<b>Human health</b>	1	2	3	4	5	6
E	<b>Health of farm animals</b>	1	2	3	4	5	6
F	<b>Wildlife</b>	1	2	3	4	5	6

Q5 What do you think the key benefits of using more compost or other recycled organic products on farmland would be, if any? DO NOT PROMPT. MULTICODE.

<b>It is a natural product</b>	1
<b>Good for the soil / improve soil structure</b>	2
<b>Saves landfill space</b>	3
<b>Avoids waste</b>	4
<b>Better than standard fertilizers / avoids using artificial fertilisers</b>	5
<b>Good for environment / more sustainable</b>	6

<b>Saves natural resources</b>	7
<b>Good for wildlife</b>	8
<b>Other (specify)</b>	9
<b>None</b>	10
<b>Don't know</b>	11

( )

Q6 **And what would be your key concerns, if any, of using more compost or other recycled organic products on farmland? DO NOT PROMPT. MULTICODE.**

<b>Unhygienic/unsafe for humans/health problems</b>	1
<b>May spread disease on farms/unsafe for farms</b>	2
<b>May spread disease (any specific mention re foot and mouth/bluetongue/bird flu)</b>	3
<b>May contain meat waste – unacceptable for vegetarians</b>	4
<b>May contain meat waste – unacceptable for certain religious/ethnic groups</b>	5
<b>Bad for environment</b>	6
<b>Risks from contamination – e.g. plastics, other waste</b>	7
<b>Smell</b>	8
<b>Bad for wildlife</b>	9
<b>Have a bad effect on food produced</b>	
<b>Other (specify)</b>	10
<b>None</b>	11
<b>Don't know</b>	12

( )

Q7 **Which of the following best describes the area where you live? READ OUT. SINGLE CODE ONLY**

<b>In the centre of a city or town</b>	1
<b>In the suburbs of a city or town</b>	2
<b>In a village, hamlet, or other rural area</b>	3
<b>Other</b>	4



- Q8 **As far as you are aware, is there any land near you, for instance farms, forests or horticultural systems, where recycled organic waste materials such as compost and products from biogas plants are applied?**  
SINGLE CODE ONLY

<b>Yes</b>	1
<b>No</b>	2
<b>Don't know</b>	3

- Q9 **To what extent do you agree or disagree with the statement that more recycled organic materials should be applied to land in the future?**

<b>Strongly agree</b>	1
<b>Tend to agree</b>	2
<b>Neither agree nor disagree</b>	3
<b>Tend to disagree</b>	4
<b>Strongly disagree</b>	5
<b>Don't know</b>	6

## Appendix 2: Farmers survey questionnaire

### DEFRA QUESTIONS – FARMERS

#### Questionnaire 30 November 2007

Good morning/afternoon/evening. I'm from Ipsos MORI, the Market & Opinion Research Company.

We're conducting a survey for a project being carried out and managed by The Open University with funding from the Department for Environment, Food and Rural Affairs (DEFRA). The survey will be exploring the use of a range of materials on land, including compost, manure and other treated organic waste-derived materials.

I would be very grateful if you can spare some time to answer our questions. This interview will last about 15 minutes and I would like to assure you that all the information we collect will be kept in the strictest confidence, used for research purposes only. It will not be possible to identify any particular individual or address in the results.

If reassurance is sought that this is a genuine survey, please give the named day-to-day agency contact (provided by Ipsos MORI), Stefan Durkacz (020 7347 3908) at Ipsos MORI.

#### DEMOGRAPHICS

**D1. Which of the following best describes your role on the farm? READ OUT**

1. Owner/Partner
2. Tenant
3. Manager
4. Other THANK AND CLOSE

**D2. What is the main area of your farming business? SINGLECODE**

1. Dairy
2. Cattle/sheep
3. Pig
4. Poultry
5. Cattle/pigs/sheep and crops
6. Arable /General cropping
7. Horticulture
8. Other (specify)

**D3. Does all or part of your farm have certified organic status? IF YES Is that all, or part? SINGLECODE**

1. Yes, all
2. Yes, part
3. No
4. Don't know

**D4. Roughly speaking, can I ask how large is the total area of your farm in hectares?**

**SINGLECODE**

1. Less than 10 ha
2. 10 – 50 ha
3. 51 – 100 ha
4. 101- 200 ha
5. 201 – 300 ha
6. 301 – 400 ha
7. 401 – 500 ha
8. 501 – 600 ha
9. 601 – 700 ha
10. 700+ ha
11. Don't know
12. Refused

**D5. Please tell me which, if any, of the following is the highest educational or professional qualification you have obtained. READ OUT. IF STILL STUDYING CHECK FOR HIGHEST ACHIEVED SO FAR. SINGLE CODE ONLY**

1. GCSE/O-Level/CSE
2. Vocational qualifications (=NVQ1+2)
3. A-Level or equivalent (=NVQ3)
4. Bachelor Degree or equivalent
5. Masters/PhD or equivalent
6. Other PLEASE SPECIFY
7. DO NOT READ OUT No formal qualifications
8. Don't know
9. Refused

**A. KNOWLEDGE & EXPERIENCE**

*We are interested in a range of organic waste and waste-derived materials that could be applied to farming land – these will be referred to in the questions as organic waste products. These can be both untreated or processed organic wastes; and those produced on the farm or from other sources. It includes compost from plant waste, compost from other sources such as food waste, sewage sludge, manures and slurries, other farm wastes, and anaerobic digestates.*

ASK ALL

**Q1 Do you currently apply any organic waste products to land on your farm?**

Yes GO TO Q2  
No GO TO Q6

ASK Q2 IF YES (CODE 1) AT Q1

**Q2 Do you apply the material yourself or do you use a contractor?**

Apply yourself  
Use a contractor  
Both – apply yourself AND use a contractor

ASK Q3 IF YES (CODE 1) AT Q1

**Q3 Which of the following types of organic waste products do you apply to land on your farm?**  
 READ OUT. **First of all...** RANDOMISE A-F. SINGLE CODE ONLY FOR EACH.

		Yes	No	DK
A	Compost from plant waste	1	2	3
B	Compost from food waste	1	2	3
C	Sewage sludge or biosolids	1	2	3
D	Manures and/or slurries	1	2	3
E	Anaerobic digestates (from biogas plants)	1	2	3
F	Other wastes including Industrial or Commercial waste (e.g. paper sludge, coffee grounds) and ditch dredgings	1	2	3

ASK Q4 IF YES (CODE 1) AT Q3D

**Q4 Do you import any of the manures or slurries that you apply to land on your farm?**

Yes  
 No  
 Don't know

ASK Q5 IF YES (CODE 1) AT Q1

**Q5. And for what reasons do you apply organic waste products to land on your farm?**

DO NOT READ OUT. MULTICODE OK

Good for the environment  
 Prevent waste  
 Save money  
 Good for the soil (e.g. adds nutrients)  
 Good for the image of the farm  
 Better than standard fertilisers  
 Good farming practice  
 Other (specify)  
 Don't know

ASK Q6 IF 'NO' AT Q1. OTHERS GO TO Q6b

**Q6. Are you likely to apply organic waste products to your land on your farm in the future? SINGLE CODE ONLY.**

Very likely  
Fairly likely  
Not very likely  
Not at all likely  
Don't know

ASK Q6b IF 'YES' AT Q1. OTHERS GO TO Q7

**Q6b Are you likely to increase or decrease the amount of organic waste products you apply to land on your farm in the future, or do you expect it to remain about the same? SINGLE CODE ONLY. IF LIKELY TO INCREASE/DECREASE PROMPT WITH: IS THAT VERY OR FAIRLY LIKELY**

Very likely to increase  
Fairly likely to increase  
No change/about the same  
Fairly likely to decrease  
Very likely to decrease  
Don't know

ASK Q7 IF 'VERY/FAIRLY LIKEY' TO APPLY ORGANIC WASTE PRODUCTS AT Q6 OR IF 'YES' AT Q1

**Q7 What types of organic waste products would you consider applying [IF 'YES' AT Q1 ADD: or continuing to apply] to land on your farm in the future? DO NOT READ OUT. MULTICODE OK**

Compost from plant waste  
Compost from food waste  
Compost-like material (i.e. from mechanical biological treatment from mixed household waste)  
Sewage sludge or Biosolids  
Manures  
Slurries  
Farm plant waste e.g. straw, sugar beet waste  
Anaerobic digestates (from biogas plants)  
Other (specify)  
None  
Don't know/Not sure

ASK Q8 IF 'VERY/FAIRLY LIKEY' TO APPLY ORGANIC WASTE PRODUCTS AT Q6 OR IF 'YES' AT Q1

**Q8 And for what reasons would you consider applying this/these organic waste products?**

DO NOT READ OUT. MULTICODE OK

Good for the environment  
Prevent waste  
Save money  
Good for the soil (e.g. adds nutrients)  
Good for the image of the farm  
Better than standard fertilisers  
Good farming practice  
Other (specify)  
Don't know

ASK ALL

**Q9. Do you currently carry out any composting or anaerobic digestion on your farm? IF YES PROMPT WITH: IS THAT COMPOSTING, ANAEROBIC DIGESTION, OR BOTH?**

Yes – composting	GO TO Q10
Yes – anaerobic digestion	GO TO Q10
Yes – both	GO TO Q10
Neither	GO TO Q12

ASK Q10 IF 'YES' AT Q9. OTHERS GO TO Q12

**Q10. What types of organic waste products are you currently composting or anaerobically digesting on your farm?**

DO NOT READ OUT. MULTICODE OK

Plant/crop waste from your farm  
Green waste from households/local authority  
Food waste  
Sewage sludge or Biosolids  
Manures from your farm  
Manures from other farms  
Slurries from your farm  
Slurries from other farms  
General/other farm wastes  
Other (Specify)  
Don't know/Not sure

ASK Q11 IF 'YES' AT Q9. OTHERS GO TO Q12

**Q11. And which of the following best describes what you do with the compost or digestate you produce on your farm? READ OUT. SINGLECODE ONLY.**

Use all of it on the farm  
Use most of it on the farm  
Use about half, sell about half  
Sell most of it  
Sell all of it  
Other (specify)  
Don't know

ASK ALL

**Q12 And which one or two things would most prevent you from applying [IF YES AT Q1 ADD: more] organic waste products to land on your farm? DO NOT READ OUT. MULTICODE UP TO TWO**

Logistics/storage on farm  
Legal restrictions (such as from assurance schemes, rent contracts)  
Regulatory barriers (including too much red tape, too difficult to comply)  
Unfavourable public reaction  
Unfavourable reaction from buyers of farm produce  
Lack of personal experience/knowledge  
Lack of industry experience/knowledge  
Safety concerns (from potential contaminants like pathogens, heavy metals)  
Visible contaminants (such as bits of plastic)  
Not enough products/suppliers  
Lack of supply / seasonal supply  
Cost  
Other (specify)  
Don't know

## **B. INFORMATION**

ASK ALL

**Q13 Which sources of information, if any, would you value and seek out for information and advice on organic waste products?**

DO NOT READ OUT. MULTICODE OK

Agronomist  
Internet – farming or related websites  
DEFRA, Devolved Authorities or other government agencies  
Research institutes  
Newspapers  
Farming press  
Radio  
National Farmers Union  
Other Farming groups

Local contacts/Word of mouth  
 Friends and family  
 Other farmers  
 Agricultural Advisors  
 Contractors  
 Other (specify)  
 Don't know  
 None

ASK ALL

**Q14 Please can you tell me how much you know about the use of each of the following organic waste products on land? READ OUT. First of all... RANDOMISE A-F. SINGLE CODE ONLY FOR EACH.**

		Know a lot about it	Know a fair amount about it	Know a little bit about it	Have heard of it but know almost nothing about it	Have never heard of it	Don't know
A	Compost from plant waste	1	2	3	4	5	6
B	Compost from food waste	1	2	3	4	5	6
C	Sewage sludge or biosolids	1	2	3	4	5	6
D	Manures and slurries	1	2	3	4	5	6
E	'Compost-like' material - meaning material from mechanical biological treatment from mixed household waste	1	2	3	4	5	6
F	Anaerobic digestates (from biogas plants)	1	2	3	4	5	6

ASK ALL

**Q15. Which organic waste products, if any, would you be interested in finding out more information about? DO NOT READ OUT. MULTICODE OK**

Compost from plant waste  
 Compost from food waste  
 Compost-like material (i.e. from mechanical biological treatment from mixed household waste)  
 Sewage sludge or Biosolids  
 Manures  
 Slurries



- Anaerobic digestates (from biogas plants)
- Other (specify)
- None
- Don't know/Not sure

**C. ATTITUDES TOWARDS ORGANIC WASTE PRODUCTS**

ASK ALL

**Q16 I want to ask you whether you think that some organic waste products are more or less suitable for certain agricultural land uses – for example for food crops, livestock, forestry, horticulture and fallow land. For each of the organic waste-products we're talking about, can you tell me which land use you consider them to be suitable for?**

READ OUT. **First of all... RANDOMISE A-G...do you think this is acceptable for food crops? Grazing land? Forestry? Fallow land? Horticulture?** MULTICODE OK FOR EACH INTERVIEWER NOTE: REpondent MAY MENTION THAT SOME OF THESE OPTIONS ARE NOT PERMITTED. ALL OPTIONS ARE INCLUDED HERE FOR SIMPLICITY AND BECAUSE ALTHOUGH NOT PERMITTED AT PRESENT THE FARMERS MAY STILL CONSIDER THEM ACCEPTABLE

		Food crops	Grazing land	Forestry	Fallow land	Horti-culture	None	Don't know
A	Compost from plant waste	1	2	3	4	5	6	7
B	Compost from food waste	1	2	3	4	5	6	7
C	Sewage sludge or biosolids	1	2	3	4	5	6	7
D	Manures	1	2	3	4	5	6	7
E	Slurries	1	2	3	4	5	6	7
F	'Compost-like' material - meaning material from mechanical biological treatment from mixed household waste	1	2	3	4	5	6	7
G	Anaerobic digestates (from biogas plants)	1	2	3	4	5	6	7

ASK ALL

**Q17 And in general do you think that using more compost on farming land will have a positive or negative impact on each of the following? INTERVIEWER CLARIFY IF NECESSARY:  
COMPOST FROM PLANT AND/OR FOOD WASTE**

READ OUT. **First of all...** RANDOMISE A-H. SINGLE CODE ONLY.

		Very positive	Positive on balance	Neither positive nor negative	Negative on balance	Very negative	DK
A	Soil quality	1	2	3	4	5	6
B	The local environment/ ecology	1	2	3	4	5	6
C	The costs of inputs on the farm	1	2	3	4	5	6
D	Public confidence in farming	1	2	3	4	5	6
E	The confidence of buyers such as retailers and food manufacturers	1	2	3	4	5	6
F	Hygiene & health on the farm	1	2	3	4	5	6
G	Practices on the farm	1	2	3	4	5	6
H	Outbreaks of foot and mouth and other diseases	1	2	3	4	5	6

ASK ALL

**Q18 To what extent do you agree or disagree with the following statements:  
I am concerned about using organic waste products because of potential contamination from.....**

READ OUT. RANDOMISE A-C. SINGLE CODE ONLY.

		Strongly agree	Tend to agree	Neither agree nor disagree	Tend to disagree	Strongly disagree	Don't know
A	Visible contaminants such as plastics	1	2	3	4	5	6
B	Pathogens	1	2	3	4	5	6
C	Other contaminants or pollutants such as heavy metals	1	2	3	4	5	6

ASK ALL

**Q19 How important, if at all, do you think the following things are in improving and increasing the amount of organic waste products applied to land?**

READ OUT. **First of all...** RANDOMISE A-I. SINGLE CODE ONLY.

		Very important 1	Fairly important 2	Not very important 3	Not at all important 4	DK 5
A	Quality standards for the <u>waste material</u> (for instance PAS100 for compost)					
B	Assurance schemes for <u>agricultural products</u> (for instance supermarket schemes like Assured Food Standards or Red Tractor)	1	2	3	4	5
C	More available information about organic waste products	1	2	3	4	5
D	More information about quality of <u>specific</u> products / ability to check the quality of <u>specific</u> products	1	2	3	4	5
E	Having more products on the market	1	2	3	4	5
F	Support and backing from the industry	1	2	3	4	5
G	Government reassurances on safety	1	2	3	4	5
H	Better quality materials	1	2	3	4	5
I	Lower costs	1	2	3	4	5

## Appendix 3: Top-line result tables for public survey

### ATTITUDES TO THE USE OF ORGANIC RESOURCES ON LAND GENERAL PUBLIC SURVEY

30<sup>th</sup> November 2007

- Interviews conducted among 1,106 residents aged 16+, by telephone, across the UK. Of these, 103 were conducted in Northern Ireland
- Fieldwork was conducted between 23<sup>rd</sup> and 26<sup>th</sup> November 2007
- Data are weighted according to age, gender, social class, and area to reflect the population profile of Great Britain and Northern Ireland
- When results do not add up to 100%, this is due to computer rounding or multiple response
- An asterisk (\*) denotes a finding of less than 0.5% but greater than zero
- Results for all questions are based on all respondents

Q1 For each of the following activities I read out, please tell me if your household does it currently, does not do it currently but is interested or thinking about it, or does not do it now nor plans to in the future?

	Do it currently – regularly %	Do it currently – occasionally %	Not now – may in future %	Not now – does not plan to in future %	Don't know %	Not available/ applicable %
Look for quality marks or assurance labels on food products (e.g. if asked like Red Tractors, Soil Association)	40	20	14	22	3	1
Look for products which have been produced organically or that are 'free range'	37	31	9	21	*	*
Look for products that are GMO free (i.e. not genetically modified) or have no artificial additives	34	19	17	28	2	1
Recycle things like paper, glass, cans or plastic bottles	86	7	4	2	*	2
Use local garden/green waste collections or kitchen/food waste collections (if available)	51	8	12	10	2	17
Compost at home	34	7	17	32	2	8

Q2 How much do you feel you know about what happens to food and garden wastes once they have been collected? Would you say you know...

	%
A great deal	3
A fair amount	15
Just a little	42
Nothing at all	39
Don't know	1

Q3 How appropriate do you think it would be to use recycled organic material on each of the following different types of land?

	Very appropriate %	Fairly appropriate %	Not very appropriate %	Not at all appropriate %	Don't know %
Land used for forestry	44	38	8	4	6
Fields where animals graze	30	38	15	9	8
Farmland to grow crops	49	37	5	4	5
Private gardens	40	41	8	5	5
Parks and green spaces	37	40	12	6	5

Thinking now just about the use of recycled organic waste materials on farmland...

Q4 To what extent would you say that using recycled organic waste materials has a positive or negative effect on any of the following issues...?

	Very positive %	Positive on balance %	Neither positive nor negative %	Negative on balance %	Very negative %	Don't know %
Soil quality	36	40	9	4	1	10
Quality of food produced	25	38	15	8	2	12
Environment in general	37	45	6	4	2	6
Human health	23	39	16	7	3	11
Health of farm animals	20	38	15	8	5	14
Wildlife	26	38	13	9	3	12

Q5 What do you think the key benefits of using more compost or other recycled organic products on farmland would be, if any?

	%
Good for the soil / improve soil structure	18
Better than standard fertilizers / avoids using artificial fertilisers	18
Good for environment / more sustainable	18

Avoids waste	14
Saves landfill space	14
It is a natural product	12
Saves natural resources	7
Good for wildlife	6
Cheaper/reduction in cost	3
Other	5
None	3
Don't know	28

**Q6 And what would be your key concerns, if any, of using more compost or other recycled organic products on farmland?**

	%
Risks from contamination – e.g. plastics, other waste	8
Unhygienic/unsafe for humans/health problems	6
May spread disease on farms/unsafe for farms	5
May spread disease (specific mention re: foot and mouth/bluetongue/bird flu)	5
It depends on what they use/How it is processed	5
Bad for wildlife	4
Smell	3
May contain meat waste – unacceptable for vegetarians	2
Bad for environment	2
Have a bad effect on food produced	2
Other	5
None	37
Don't know	25

**Q7 Which of the following best describes the area where you live?**

	%
In the centre of a city or town	20
In the suburbs of a city or town	44
In a village, hamlet, or other rural area	36

**Q8 As far as you are aware, is there any land near you, for instance farms, forests or horticultural systems, where recycled organic waste materials such as compost and products from biogas plants are applied?**

	%
Yes	19
No	51
Don't know	29

**Q9 To what extent do you agree or disagree with the statement that more recycled organic materials should be applied to land in the future?**

	%
Strongly agree	47
Tend to agree	36
Neither agree nor disagree	9
Tend to disagree	3
Strongly disagree	1
Don't know	4

### Demographics

Gender	%
Male	48
Female	52

Age	%
16-24	20
25-34	24
35-44	14
45-54	12
55-64	12
65-74	12
75+	6

Working Status	%
Working	55
Not working	45

Class	%
AB	18
C1	22
C2	27

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DE	33
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**Region**

	%
North (including Scotland)	34
Midlands (including Wales)	30
South	33
Northern Ireland	3

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**Tenure**

	%
Being bought on mortgage	38
Owned outright	31
Rented (private)	11
Rented (council/HA)	19
Other	1

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**Newspaper readership**

	%
Broadsheet	44
Tabloid	17

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**Children under 16 in household**

	%
Yes	32
No	68

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## Appendix 4: Top-line result tables for farmers survey

### ATTITUDES TO THE USE OF ORGANIC RESOURCES ON LAND FARMERS SURVEY

29 January 2008

- Interviews were conducted with 500 farmers, by telephone, across five regions of the UK: West of England; East of England; Scotland; Wales and Northern Ireland (100 interviews in each)
- Fieldwork was conducted between 14<sup>th</sup> and 25<sup>th</sup> January 2008
- Where results do not sum to 100, this may be due to multiple responses, computer rounding or the exclusion of don't knows/not stated
- Results are based on all respondents unless otherwise stated
- An asterisk (\*) represents a value of less than one half or one percent, but not zero

<b>DEMOGRAPHICS</b>
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#### D1. Which of the following best describes your role on the farm?

	%
Owner/Partner	86
Tenant	9
Manager	4
Other	1

#### D2. What is the main area of your farming business?

	%
Cattle/sheep	42
Dairy	30
Arable /General cropping	16
Cattle/pigs/sheep and crops	6
Poultry	2
Pig	1
Horticulture	*
Other	2

#### D3. Does all or part of your farm have certified organic status?

	%
Yes, all	5

Yes, part	2
No	93
Don't know	1

**D4. Roughly speaking, can I ask how large is the total area of your farm in hectares?**

	%
Less than 10 ha	3
10 – 50 ha	22
51 – 100 ha	28
101- 200 ha	23
201 – 300 ha	8
301 – 400 ha	3
401 – 500 ha	2
501 – 600 ha	1
601 – 700 ha	*
700+ ha	5
Don't know	5
Refused	0

**D5. Please tell me which, if any, of the following is the highest educational or professional qualification you have obtained.**

	%
<b>GCSE/O-Level/CSE</b>	16
<b>Vocational qualifications (=NVQ1+2)</b>	10
<b>A-Level or equivalent (=NVQ3)</b>	13
<b>Bachelor Degree or equivalent</b>	12
<b>Masters/PhD or equivalent</b>	2
Other	5
DO NOT READ OUT No formal qualifications	41
Don't know	1
Refused	*

**A. KNOWLEDGE & EXPERIENCE**

*We are interested in a range of organic waste and waste-derived materials that could be applied to farming land – these will be referred to in the questions as organic waste products. These can be both untreated or processed organic wastes; and those produced on the farm or from other sources. It includes compost from plant waste, compost from other sources such as food waste, sewage sludge, manures and slurries, other farm wastes, and anaerobic digestates.*

**Q1. Do you currently apply any organic waste products to land on your farm?**

	%
Yes	72
No	28

**Q2. Do you apply the material yourself or do you use a contractor?**

<i>Base: All who use organic waste (362)</i>	%
Apply yourself	56
Use a contractor	23
Both – apply yourself AND use a contractor	21

**Q3 Which of the following types of organic waste products do you apply to land on your farm?**

**First of all...**

	Yes	No	DK
<i>Base: All who use organic waste (362)</i>	%	%	%
Manures and/or slurries	96	4	-
Compost from plant waste	7	92	*
Sewage sludge or biosolids	5	95	-
Other wastes including Industrial or Commercial waste (e.g. paper sludge, coffee grounds) and ditch dredgings	3	97	-
Anaerobic digestates (from biogas plants)	2	98	-
Compost from food waste	1	99	-

**Q4. Do you import any of the manures or slurries that you apply to land on your farm?**

<i>Base: All who apply manures/slurries (348)</i>	%
Yes	11
No	88
Don't know	1

**Q5. And for what reasons do you apply organic waste products to land on your farm?**

<i>Base: All who use organic waste (362)</i>	<i>%</i>
Good for the soil (e.g. adds nutrients)	77
Prevent waste	44
Better than standard fertilisers	10
Save money	7
Good farming practice	3
Good for the environment	2
Good for the image of the farm	*
Other (specify)	2
Don't know	1

**Q6. Are you likely to apply organic waste products to your land on your farm in the future?**

<i>Base: All who do not currently apply organic waste (138)</i>	<i>%</i>
Very likely	4
Fairly likely	12
Not very likely	28
Not at all likely	49
Don't know	9

**Q6b. Are you likely to increase or decrease the amount of organic waste products you apply to land on your farm in the future, or do you expect it to remain about the same?**

<i>Base: All who currently apply organic waste (362)</i>	<i>%</i>
Very likely to increase	5
Fairly likely to increase	7
No change/about the same	79
Fairly likely to decrease	6
Very likely to decrease	2
Don't know	1

**Q7. What types of organic waste products would you consider applying [or continuing to apply] to land on your farm in the future?**

<i>Base: All who apply organic waste products or would plan to do so in the future (383)</i>	<i>%</i>
Manures	75
Slurries	39
Compost from plant waste	12
Sewage sludge or Biosolids	5
Compost from food waste	4
Anaerobic digestates (from biogas plants)	3
Compost-like material (i.e. from mechanical biological treatment from mixed household waste)	2
Farm plant waste e.g. straw, sugar beet waste	2
Other (specify)	2
None	7
Don't know/Not sure	5

**Q8. And for what reasons would you consider applying this/these organic waste products?**

<i>Base: All who apply organic waste products or would plan to do so in the future (383)</i>	<i>%</i>
Good for the soil (e.g. adds nutrients)	69
Prevent waste	34
Save money	15
Better than standard fertilisers	10
Good farming practice	4
Good for the environment	3
Good for the image of the farm	1
Other (specify)	3
Don't know	3

**Q9. Do you currently carry out any composting or anaerobic digestion on your farm?**

	%
Yes – composting	7
Yes – anaerobic digestion	1
Yes – both	*
Neither	92

**Q10. What types of organic waste products are you currently composting or anaerobically digesting on your farm?**

<i>Base: All who currently carry out composting and/or anaerobic digestion (42)</i>	%
Manures from your farm	64
Plant/crop waste from your farm	19
Slurries from your farm	12
Green waste from households/local authority	10
Food waste	10
General/other farm wastes	7
Sewage sludge or Biosolids	2
Manures from other farms	2
Slurries from other farms	2
Don't know/Not sure	2

**Q11. And which of the following best describes what you do with the compost or digestate you produce on your farm?**

<i>Base: All who currently carry out composting and/or anaerobic digestion (42)</i>	%
Use all of it on the farm	88
Use most of it on the farm	7
Use about half, sell about half	2
Sell most of it	-
Sell all of it	-
Don't know	2

**Q12 And which one or two things would most prevent you from applying [more] organic waste products to land on your farm?**

	%
Lack of supply / seasonal supply	19
Cost	12
Regulatory barriers (including too much red tape, too difficult to comply)	11
Legal restrictions (such as from assurance schemes, rent contracts)	9
Safety concerns (from potential contaminants like pathogens, heavy metals)	9
Logistics/storage on farm	5
Not enough products/suppliers	4
Weather issues	4
Lack of personal experience/knowledge	2
Soil / land issues	2
Unfavourable public reaction	1
Visible contaminants (such as bits of plastic)	1
Unfavourable reaction from buyers of farm produce	*
Lack of industry experience/knowledge	*
Other	10
None / nothing / no need / have enough	8
Don't know	20

<b>B. INFORMATION</b>
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**Q13. Which sources of information, if any, would you value and seek out for information and advice on organic waste products?**

	%
DEFRA, Devolved Authorities or other government agencies	29
Farming press	13
Research institutes	9
Agricultural Advisors	8
Internet – farming or related websites	5
Other Farming groups	5
National Farmers Union	4
Agronomist	2
Newspapers	2
Local contacts/Word of mouth	2
Other farmers	2
Friends and family	1
Contractors	1
Other	8
Don't know	16
None	14

**Q14 Please can you tell me how much you know about the use of each of the following organic waste products on land?**

	Know a lot about it	Know a fair amount about it	Know a little bit about it	Have heard of it but know almost nothing about it	Have never heard of it	Don't know
	%	%	%	%	%	%
Compost from plant waste	5	13	34	39	8	1
Compost from food waste	1	5	27	51	14	1
Sewage sludge or biosolids	4	13	34	42	6	1
Manures and slurries	39	43	13	4	*	1
'Compost-like' material - meaning material from mechanical biological treatment from mixed household waste	1	5	21	46	27	1
Anaerobic digestates (from biogas plants)	1	5	21	43	29	*



**Q15. Which organic waste products, if any, would you be interested in finding out more information about?**

	%
Compost from plant waste	18
Anaerobic digestates (from biogas plants)	13
Sewage sludge or Biosolids	12
Compost from food waste	10
Manures	10
Slurries	8
Compost-like material (i.e. from mechanical biological treatment from mixed household waste)	7
Other	1
None	56
Don't know/Not sure	4

### C. ATTITUDES TOWARDS ORGANIC WASTE PRODUCTS

**Q16. I want to ask you whether you think that some organic waste products are more or less suitable for certain agricultural land uses – for example for food crops, livestock, forestry, horticulture and fallow land. For each of the organic waste-products we're talking about, can you tell me which land use you consider them to be suitable for?**

**Do you think this is acceptable for food crops? Grazing land? Forestry? Fallow land? Horticulture?**

	Food crops %	Grazing land %	Forestry %	Fallow land %	Horti- culture %	None %	Don't know %
Compost from plant waste	68	61	58	60	64	3	15
Compost from food waste	45	39	49	48	43	6	22
Sewage sludge or biosolids	27	32	41	42	27	13	19
Manures	84	85	60	67	72	1	4
Slurries	65	80	47	59	54	3	6
'Compost-like' material - meaning material from mechanical biological treatment from mixed household waste	29	25	42	37	28	13	25
Anaerobic digestates (from biogas plants)	36	33	34	34	30	5	46

**Q17. And in general do you think that using more compost on farming land will have a positive or negative impact on each of the following?**

	Very positive	Positive on balance	Neither positive nor negative	Negative on balance	Very negative	Don't know
	%	%	%	%	%	%
Soil quality	39	45	5	4	1	5
The local environment/ecology	15	42	17	13	3	10
The costs of inputs on the farm	18	46	10	10	3	12
Public confidence in farming	11	36	20	17	5	11
The confidence of buyers such as retailers and food manufacturers	9	31	20	18	6	16
Hygiene & health on the farm	9	30	28	20	4	10
Practices on the farm	14	46	20	9	2	9
Outbreaks of foot and mouth and other diseases	4	9	31	27	12	17

**Q18. To what extent do you agree or disagree with the following statements:  
I am concerned about using organic waste products because of potential contamination from.....**

	Strongly agree	Tend to agree	Neither agree nor disagree	Tend to disagree	Strongly disagree	Don't know
	%	%	%	%	%	%
Visible contaminants such as plastics	34	37	6	14	5	3
Pathogens	24	33	9	17	5	11
Other contaminants or pollutants such as heavy metals	44	29	4	12	6	5

**Q19 How important, if at all, do you think the following things are in improving and increasing the amount of organic waste products applied to land?**

	Very important %	Fairly important %	Not very important %	Not at all important %	Don't know %
Quality standards for the <u>waste material</u> (for instance PAS100 for compost)	60	29	3	2	6
Assurance schemes for <u>agricultural products</u> (for instance supermarket schemes like Assured Food Standards or Red Tractor)	50	31	8	8	3
More available information about organic waste products	57	35	4	2	3
More information about quality of <u>specific</u> products / ability to check the quality of <u>specific</u> products	63	30	3	2	3
Having more products on the market	23	42	21	7	7
Support and backing from the industry	60	29	4	2	4
Government reassurances on safety	54	23	9	10	4
Better quality materials	55	37	2	1	4
Lower costs	61	29	4	2	4