



# Farmer's guide to sourcing and using digestate and compost

# Inspiring change for Scotland's resource economy

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If you are thinking of using digestate or compost – or are approached by a supplier of these materials, there are a number of key questions that you should ask to ensure that the materials meet your requirements and expectations.

A list of useful websites mentioned in this guidance can be found at the back of the publication.

## What are compost and digestate?

**Digestate** is an effective biofertiliser supplying readily available nitrogen that allows you to reduce inputs of conventional fertiliser (such as ammonium nitrate). It is one of the products of anaerobic digestion (AD), which is the controlled biological decomposition (without oxygen) of materials that typically include domestic/retail/commercial food wastes, whisky industry by-products, manures and crops. Digestate is most commonly available in its whole form with a dry matter (DM) content of around 3–10%, but this can be separated by the producer into liquor (typically 1–6% DM) and fibre fractions (typically 20–40% DM).

**Compost** is an excellent soil conditioner, a slow-release biofertiliser and good source of readily available potash, made from the controlled biological decomposition (with oxygen) of either solely green waste (e.g. lawn clippings, prunings, woody material) or from a mix of green waste and food waste. It can improve the workability and water retention properties of soil over time.

Evidence shows that compost and digestate can be safely applied to arable, grass and forage land. There are regulatory controls in place for composts and digestates derived from kitchen wastes and other animal by-products (ABP) to ensure their safety.



## **Do digestate and compost meet specific quality criteria?**

Composts certified to the PAS100 specification under the Compost Certification Scheme (CCS), and digestates certified to the PAS110 specification under the Biofertiliser Certification Scheme (BCS) will all meet pre-defined quality criteria (suppliers of certified materials are listed on the scheme websites). Both specifications include minimum quality baselines, but also an obligation for the producer to check with their customers whether there are any additional or more stringent requirements. Therefore, you can add to or improve on these baselines as necessary, e.g. by requiring reduced physical contaminant levels.

Non-certified materials do not need to meet pre-defined quality criteria and may require appropriate Scottish Environment Protection Agency (SEPA) authorisations to be in place before you use them. Quality and safety are taken into account in this authorisation process.

Whether you choose to use certified or non-certified materials, you should always ask your supplier for a certificate of analysis that is representative of the consignment that will be delivered to you. If you have any doubts about what quality to ask for, then consult an agronomist with professional knowledge of compost and digestate.

**PAS 100:2011**

Specification for composted materials



**PAS 110:2014**

Specification for whole digestate, separated liquor and separated fibre derived from the anaerobic digestion of source-segregated biodegradable materials



## **How should I apply compost and digestate to the field?**

Digestate can come in three forms: whole, separated liquor and separated fibre.

Compost and fibre digestate can be spread with most conventional muck spreaders, while whole and liquor digestates are best applied with precision application equipment such as a bandspreader (trailing hose/trailing shoe) or shallow injector, to minimise ammonia emissions and conserve readily available nitrogen, ensuring as much gets to the crop as possible.

Compost and digestate should be accounted for in your manure and/or nutrient management plan to ensure that you do not apply more nutrients than are required by your grass/crops and must be used in line with diffuse pollution regulations (e.g. the General Binding Rules) and Nitrate Vulnerable Zone regulations (where appropriate). Scotland's Rural College (SRUC) Technical Note TN650 and the Farming & Water Scotland website provide more information. Useful web addresses can be found at the back of this information guide.





## **Are there any special considerations when using composts and digestates made from food waste?**

Yes. If you use composts and digestates derived from inputs that include food waste (or other allowed animal by-products), then you must always comply with a range of additional statutory requirements that include:

- Preventing stock access to composts and digestates that are stored on farm before application to land.
- Adhering to the specified minimum grazing/harvest intervals following application of composts and digestates.

- Keeping records to demonstrate that the grazing/harvest intervals have been observed.

Further information can be found on the Scottish Government website.

In addition to these statutory requirements, some buyers or assurance schemes may not allow the use of this material, or have specific restrictions in place, so you should check this before entering into discussions with suppliers.

## **What if I am unhappy with the quality of the material supplied?**




For certified and non-certified materials you should request written confirmation from your supplier that the consignment of material that will be delivered meets your quality requirements. If you believe that the material supplied does not meet your quality requirements, then you can and should reject the material before it is applied to your land.

Compost can be visually checked for physical quality, while a sample of digestate can be decanted into a bucket and 'scooped' with a kitchen-type sieve to inspect for plastic or other physical contamination.

Details on how to submit a formal complaint can be found on the BCS, CCS and SEPA websites.

## Checklist for sourcing and using digestate and compost

<b>1</b>	<b>Do you know what the material is (compost or digestate) and what facility it will come from?</b> The supplier will be able to tell you what facility the compost or digestate has come from including contact details.	✓
<b>2</b>	<b>Do your buyers or farm assurance schemes have a position on the use of compost or digestate?</b> Some buyers and assurance schemes may not allow their use or have specific restrictions in place, so you should check this before entering into discussions with suppliers.	✓
<b>3</b>	<b>Is the compost/digestate certified under the Biofertiliser Certification Scheme or Compost Certification Scheme?</b> The supplier should be able to provide you with a copy of the certification document(s). Be sure that they are in date.	✓
<b>4</b>	<b>Is there SEPA authorisation to use non-certified material on your land?</b> SEPA authorisation may be needed before you apply non-certified material to your land, but this will depend on what it was made from. Speak to your supplier or their spreading contractor to ensure that any necessary exemption certificate is in place for this material to be spread on your land and keep a copy for your records.	✓

5	<p><b>Is the material made from inputs that include Animal By-Products (ABP)?</b></p> <p>If so, you can safely use them – but you must follow the statutory requirements on allowing stock access to the material before and after it is spread on the field. The supplier should provide you with guidance on these requirements as well as a list of typical input materials used to produce their compost or digestate, should you wish to see it.</p>	
6	<p><b>Could the material contain undesirable contaminants (such as plastic)?</b></p> <p>You can still use it providing that it has been accredited under the biofertiliser or compost schemes and/or meets requirements of any SEPA authorisation and any additional requirements from your buyers or farm assurance bodies. You can insist that it meets higher standards than those specified by the certification schemes or SEPA, and that the supplier provides analytical evidence to demonstrate that it meets your additional requirements.</p>	
7	<p><b>Are you happy with the compost/digestate that has been delivered?</b></p> <p>It is important that you are happy with the material that has been supplied. You should be satisfied that you know enough about the material and that any questions you may have about it have been answered satisfactorily. If you do not believe that it is of the quality specified, you should refuse to accept it.</p>	

# Key points to consider when sourcing digestate and compost

## Finding a supplier

Get to know your supplier and their product – visit their site to see the process for yourself. If you don't already know someone who has used the products, ask the supplier to put you in touch with other customers to find out about their experience.

## Ordering

Before ordering compost or digestate, check the position of your buyers and/or farm assurance schemes on the use of these materials.

Ensure you obtain the relevant documentation and understand the product you're getting, including its pros and cons.

## Delivery

Be sure that you are in the field when the first loads arrive and that you are happy with what's being delivered. Ideally the supplier should be there with you too. If you do not believe that the material is of the quality specified, then you should refuse to take it.

## Compliance

Always ensure you comply with the Diffuse Pollution General Binding Rules, Prevention of Environmental Pollution From Agricultural Activity (PEPFAA) code and Nitrate Vulnerable Zone rules.

## Useful websites

Below you will find a list of useful websites referred to in the guidance.

[qualitycompost.org.uk](http://qualitycompost.org.uk)

[biofertiliser.org.uk](http://biofertiliser.org.uk)

[sruc.ac.uk](http://sruc.ac.uk)

[farmingandwaterscotland.org](http://farmingandwaterscotland.org)

[sepa.org.uk](http://sepa.org.uk)

[scotland.gov.scot.uk/Topics/farmingrural](http://scotland.gov.scot.uk/Topics/farmingrural)



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We help to reduce waste, increase energy efficiency and promote responsible water use – all as part of a journey towards a circular economy.

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