

The Management of Solid and Liquid Wastes Generated From Mushroom Production

Solid Waste - Spent Mushroom Compost (European Waste Catalogue (EWC) Code 02 03 01) - Management Options

Duty of Care

To satisfy Duty of Care, spent mushroom compost must only be transferred to a site that is authorised to accept it. This means that the site must hold a relevant PPC permit, waste management licence or an exemption. With regard to the agricultural exemptions below, you should contact NIEA (Tel: 02890 569392) to confirm that, the site you propose to send your spent mushroom compost to, holds the appropriate authorisation. Waste transfer notes must accompany spent mushroom compost removed from your farm and you must retain these for a minimum of two years. All spent mushroom compost must be appropriately described on a waste transfer note and the code for spent mushroom compost is EWC 02 03 01 or EWC 02 03 99.

Please note the movement of spent mushroom compost to the Republic of Ireland, is a notifiable activity under Transfrontier Shipment (TFS) of Waste Legislation. If you require further information on TFS, please contact NIEA on Tel: 02890 569319.

Registering Agricultural Exemptions

For a number of years, the two agricultural exemptions below could be registered on single farm payment (SFP) forms. Any registered during the last opportunity in 2015 remain in place. Anyone now wishing to register these agricultural exemptions can access the guidance and application form at the link below. Paper copies can be obtained by contacting NIEA on Tel: 02890 569392. These exemptions remain free of charge.

<https://www.daera-ni.gov.uk/sites/default/files/publications/doe/Agricultural%20Waste%20Guidance-august2016.pdf>

Agricultural Exemptions

Exemption 47F - Treating agricultural land with spent mushroom compost for agricultural benefit or ecological improvement

Key Conditions:

- Waste must consist of spent mushroom compost only.
- Treatment must be for agricultural benefit or ecological improvement.
- Treatment must be in accordance with the Nitrates Action Programme Regulations (NI) 2006.
- Maximum of 200 tonnes of spent mushroom compost can be stored in secure storage.

Key Limits:

- Maximum of 50 tonnes/hectare of spent mushroom compost can be incorporated into the soil in a 12-month period.

Exemption 13 - Composting biodegradable waste from only agricultural premises EWC Code 02 03 01 is included

Key conditions:

- Composting biodegradable agricultural waste and the associated activities such as chipping/shredding waste and storing waste to be composted.

Key limits:

- The total quantity of waste treated or stored at the place of production at any one time shall not exceed 200 tonnes.
- Where waste which is to be composted at a place other than the place of production, the total quantity of waste treated or stored at any one time shall not exceed 10 tonnes and the waste must be stored for a period not exceeding 48 hours.

Standard Exemption

Exemption 13 - Composting biodegradable wastes Wastes identified by EWC Codes in Column 1 of Table 6 (EWC Code 02 03 01 is included in the table)

Key conditions:

- Composting biodegradable waste and the associated activities such as chipping/shredding waste and storing waste to be composted.

Key limits:

- The total quantity of waste treated or stored at the place of production at any one time shall not exceed 200 tonnes.
- Where waste which is to be composted at a place other than the place of production, the total quantity of waste treated or stored at any one time shall not exceed 10 tonnes and the waste must be stored for a period not exceeding 48 hours.

Anyone wishing to register this exemption can obtain the form from NIEA or download it from the website and submit it. There is a charge associated with registering this exemption.

<https://www.daera-ni.gov.uk/publications/waste-management-guidance-paragraph-13-composting-and-storage-biodegradable-waste>

Waste Management Licences and PPC Permits

Spent mushroom compost could be sent to a larger compost or an anaerobic digestion facility which holds an appropriate waste management authorisation. The EWC Code for spent mushroom compost (EWC 02 03 01) must either be included within the authorisation itself or in the working plan associated with it.

Duty of Care

To satisfy Duty of Care with regard to standard exemptions, PPC permits and waste management licenses, you should obtain a copy of the site's authorisation from the operator and where necessary their working plan, to examine the EWC Codes specified. This will allow you to confirm that, the site holds the appropriate authorisation and that it can accept spent mushroom compost (EWC 02 03 01). You can also check whether a site holds one of these authorisations by accessing the public registers at the links below.

<http://apps.d.aera-ni.gov.uk/wasteexemptions/>

<https://www.daera-ni.gov.uk/topics/waste/public-registers>

<http://apps.d.aera-ni.gov.uk/ipri/>

Liquid Wastes

Liquid wastes relate to all liquids resulting from watering, sterilising and washing associated with mushroom production. The appropriate disposal of these types of effluents, is dependent on the method used to sterilise the growth medium/substrate or production facilities.

Pesticides

Where pesticides have been used in the production or cleaning process, NIEA Water Regulation Team does not consent to the discharge of any associated effluent. When using pesticides, reference should be made to the Department of Agriculture, Environment and Rural Affairs (DAERA) publication *"Code of Practice for Using Plant Protection Products"*.

<https://www.daera-ni.gov.uk/articles/code-practice-using-plant-protection-products>

Under this code pesticides are defined as "....any substance, preparation or organism that is prepared for or used to control any pest. A pest is any unwanted plant, harmful creature, or organism that is harmful to plants, wood or other plant products." It is the responsibility of the mushroom grower to ensure that they consult this document and fulfil their obligations as outlined.

Non-Pesticide Production

Regulating the disposal of the liquid effluent and/or wash water, where this is to be done separately from the growth medium/substrate, is the responsibility of the Water Regulation Team in the NIEA Regulation Unit. This effluent has the potential to pollute waterways, as it is likely to contain high levels of particulate and organic matter. If chemicals (e.g. chlorine), other than pesticides, have been used in the production or cleaning process, any residue also has the potential to be polluting.

Effluent disposal options available depending on the disinfection method

Disinfection Method	Liquid Effluent Disposal Options
Steam with no disinfecting agent used	Discharge to a soak-away if a percolation test proves that this is feasible. Water Order Consent required from NIEA (Water Regulation Team).
	Discharge to a waterway with BOD and Suspended Solids restrictions. Water Order Consent required from NIEA (Water Regulation Team). https://www.daera-ni.gov.uk/publications/application-new-consent-or-variation-existing-consent-discharge https://www.daera-ni.gov.uk/sites/default/files/publications/doe/water-guidance-notes-for-completion-of-application-for-new-consent-or-variation-to-existing-consent-to-discharge-2010.pdf
Chlorine	Discharge to a soak-away if a percolation test proves that this is feasible. Water Order Consent required from NIEA (Water Regulation Team).
	Discharge to waterway with restrictions on the chlorine concentration. Water Order Consent required from NIEA (Water Regulation Team). https://www.daera-ni.gov.uk/publications/application-new-consent-or-variation-existing-consent-discharge https://www.daera-ni.gov.uk/sites/default/files/publications/doe/water-guidance-notes-for-completion-of-application-for-new-consent-or-variation-to-existing-consent-to-discharge-2010.pdf
Pesticides	Capture effluent and discharge to a foul sewer leading to a Northern Ireland Water Waste Water Treatment Works. Trade Effluent Licence required from Northern Ireland Water. https://www.niwater.com/sitefiles/resources/pdf/watercharges/201617/tradeeffluentapplicationpack15072016.pdf
	Capture effluent for collection and removal by a current registered waste carrier. The effluent must only be transferred to a waste management facility that is authorised to accept it. The details of authorised carriers and sites are available from the public registers available at the link below. https://www.daera-ni.gov.uk/topics/waste/public-registers
	Capture effluent and spread to suitable land. Groundwater Regulation License required from NIEA (Water Management Unit). https://www.daera-ni.gov.uk/articles/groundwater-authorisations https://www.daera-ni.gov.uk/publications/groundwater-authorisation-application-form