



JRC TECHNICAL REPORT

User manual: EU Ecolabel criteria for growing media and soil improvers

*Commission Decision (EU)
2022/1244*

Delre, A., Kowalska, M. A., Wolf, O.

2022



This publication is a Technical report by the Joint Research Centre (JRC), the European Commission's science and knowledge service. It aims to provide evidence-based scientific support to the European policymaking process. The contents of this publication do not necessarily reflect the position or opinion of the European Commission. Neither the European Commission nor any person acting on behalf of the Commission is responsible for the use that might be made of this publication. For information on the methodology and quality underlying the data used in this publication for which the source is neither Eurostat nor other Commission services, users should contact the referenced source. The designations employed and the presentation of material on the maps do not imply the expression of any opinion whatsoever on the part of the European Union concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

EU Science Hub

<https://joint-research-centre.ec.europa.eu>

JRC130949

EUR 31271 EN

PDF

ISBN 978-92-76-58597-8

ISSN 1831-9424

[doi:10.2760/949403](https://doi.org/10.2760/949403)

KJ-NA-31-271-EN-N

Luxembourg: Publications Office of the European Union, 2022

© European Union, 2022



The reuse policy of the European Commission documents is implemented by the Commission Decision 2011/833/EU of 12 December 2011 on the reuse of Commission documents (OJ L 330, 14.12.2011, p. 39). Unless otherwise noted, the reuse of this document is authorised under the Creative Commons Attribution 4.0 International (CC BY 4.0) licence (<https://creativecommons.org/licenses/by/4.0/>). This means that reuse is allowed provided appropriate credit is given and any changes are indicated.

For any use or reproduction of photos or other material that is not owned by the European Union, permission must be sought directly from the copyright holders. The European Union does not own the copyright in relation to the following elements:

- Cover page illustration, © pexels-1105019 / <https://www.pexels.com>

How to cite this report: Delre, A., Kowalska, M.A. and Wolf, O., *User manual: EU Ecolabel criteria for growing media and soil improvers*, Publications Office of the European Union, Luxembourg, 2022, doi:10.2760/949403, JRC130949.

Contents

Abstract	1
Foreword.....	2
Acknowledgements	3
Executive summary.....	4
1 Introduction.....	5
2 Before you start	6
3 Part A: General Information	7
4 Part B: Product Assessment and Verification.....	8
4.1 Scope.....	8
4.2 Definitions.....	9
4.3 Product group criteria.....	10
4.3.1 Assessment and verification requirements.....	11
4.3.2 Criterion 1 – Components	16
4.3.2.1 Criterion 1.1 – Organic components of the product.....	16
4.3.3 Criterion 2 – Mineral components.....	18
4.3.3.1 Criterion 2.1 – Energy consumption and CO ₂ emissions during the manufacture of mineral growing media.....	18
4.3.3.2 Criterion 2.2 – Sources of mineral extraction.....	20
4.3.3.3 Criterion 2.3 – Mineral growing media use and after use	21
4.3.4 Criterion 3 – Organic components and recycled/recovered materials in growing media	22
4.3.5 Criterion 4 – Restricted substances.....	23
4.3.5.1 Criterion 4.1 – Limits for heavy metals.....	23
4.3.5.2 Criterion 4.2 – Limits for polycyclic aromatic hydrocarbons (PAHs)	24
4.3.5.3 Criterion 4.3 – Restrictions on substances and mixtures classified as hazardous under Regulation (EC) No 1272/2008.....	24
4.3.5.4 Criterion 4.4 – Restrictions on substances of very high concern (SVHCs) as identified under Regulation (EC) No 1907/2006.....	25
4.3.5.5 Criterion 4.5 – Microbiological criteria.....	26
4.3.6 Criterion 5 – Fitness for use	27
4.3.6.1 Criterion 5.1 – Stability	27
4.3.6.2 Criterion 5.2 – Macroscopic impurities.....	28
4.3.6.3 Criterion 5.3 – Organic matter and dry matter in soil improvers.....	28
4.3.6.4 Criterion 5.4 – Viable weed seeds and plant propagules.....	29
4.3.6.5 Criterion 5.5 – Plant response.....	29
4.3.7 Criterion 6 – Growing media features.....	30
4.3.7.1 Criterion 6.1 – Electrical conductivity.....	30
4.3.7.2 Criterion 6.2 – Sodium content	30
4.3.7.3 Criterion 6.3 – Chloride content.....	30





4.3.8	Criterion 7 – Provision of information.....	31
4.3.8.1	Criterion 7.1 – Soil improvers	31
4.3.8.2	Criterion 7.2 – Growing media	32
4.3.9	Criterion 8 – Information appearing on the EU Ecolabel	33
	References.....	34
	List of abbreviations and definitions	35
	List of figures	36
	List of tables.....	37

Abstract

On 13 July 2022, the EU Ecolabel criteria for 'growing media and soil improvers' were established in Commission Decision 2022/1244, within the scheme of the EU Ecolabel Regulation (Regulation (EC) No 66/2010). This User Manual (UM) supports the interpretation of the EU Ecolabel criteria for 'growing media and soil improvers', and it explains all requirements. The UM aims to optimise the time and ease the procedures of all the actors involved in the application stage. The manual is composed of this document and separate files, which include the application form, data submission and declarations. There are three spreadsheets to be filled out, dedicated to the three product categories of this product group: mineral growing media, growing media other than mineral growing media, and soil improvers.

Foreword

This manual guides you through the process of applying for an EU Ecolabel licence, in accordance with the applicable criteria requirements. The following symbols are used throughout:

Symbol description	
	Boxes with definitions or additional explanations of technical terms that could complement the definitions already included in Commission Decision (EU) 2022/1244.
	Notable or important information.
	Documentation on how to fill in the application form and information about documents to be submitted with the application.
	Website links where further information can be found.

The manual is structured as follows:

- Part A: General Information – Provides information about the EU Ecolabel, details of the application process, and answers to frequently asked questions about applying.
- Part B: Product Assessment and Verification – Outlines the criteria for the specific product group set out in the Commission Decision.


The manual contains the following elements as separate files:

- Application Form, data submission and declarations: three spreadsheets to be filled in dedicated to the three product categories of this product group:
 - Mineral growing media, which has the following name: Application_Data_&_Declarations__GM_other_than_mineral_GM;
 - Growing media other than mineral growing media, which has the following name: Application_Data_&_Declarations__Mineral_GM;
 - Soil improvers, which has the following name: Application_Data_&_Declarations__SI.

All spreadsheet contains a first tab labelled “Read_me”, which contains the information needed for the application form, data submission and declarations. Additionally, there are dedicated tabs for each criterion. The last tab in all spreadsheets is named “Data_summary” and it gathers anonymous submitted information.

The applicant may gather all the declarations from their suppliers and provide them to the assessing competent body together with the application form. Alternatively, these declarations can also be provided directly by the supplier to the competent body.

 *Each spreadsheet is dedicated to the application of one single product.*

 *Please read this manual all the way through before completing and submitting the verification form or any other documentation. EU Ecolabel competent bodies can help applicants/licence holders understand the EU Ecolabel criteria and can provide guidance on how to assemble an application dossier.*

 All referenced legal acts are available at: <https://eur-lex.europa.eu/homepage.html>

Acknowledgements

This report was developed in the context of the Administrative Arrangement 'Scientific support to the EU Ecolabel and Green Public Procurement (SupELGPP 2018)' between the Directorate-General for Environment (DG ENV) and the Joint Research Centre (JRC).

The authors would like to thank the competent bodies of the EU Ecolabel for their fruitful feedback, and Ms. Anna Atkinson from the JRC for the proofreading.

Executive summary

On 13 July 2022, the EU Ecolabel criteria for 'growing media and soil improvers' were established in Commission Decision 2022/1244, within the scheme of the EU Ecolabel Regulation (Regulation (EC) No 66/2010). This User Manual (UM) supports the interpretation of the EU Ecolabel criteria for 'growing media and soil improvers', and it explains all requirements. The UM aims to optimise the time and ease the procedures of all the actors involved in the application stage.

This manual guides you through the process of applying for an EU Ecolabel licence, in accordance with the applicable criteria requirements. The following symbols are used throughout:

The manual is structured as follows:

- Part A: General Information – Provides information about the EU Ecolabel, details of the application process, and answers to frequently asked questions about applying.
- Part B: Product Assessment and Verification – Outlines the criteria for the specific product group set out in the Commission Decision.

The manual contains the following elements as separate files:

- Application Form, data submission and declarations: three spreadsheets to be filled in dedicated to the three product categories of this product group:
 - Mineral growing media, which has the following name: Application_Data_&_Declarations__GM_other_than_mineral_GM;
 - Growing media other than mineral growing media, which has the following name: Application_Data_&_Declarations__Mineral_GM;
 - Soil improvers, which has the following name: Application_Data_&_Declarations__SI.

All spreadsheet contains a first tab labelled "Read_me", which contains the information needed for the application form, data submission and declarations. Additionally, there are dedicated tabs for each criterion. The last tab in all spreadsheets is named "Data_summary" and it gathers anonymous submitted information.

The applicant may gather all the declarations from their suppliers and provide them to the assessing competent body together with the application form. Alternatively, these declarations can also be provided directly by the supplier to the competent body.

1 Introduction


This User Manual (UM) is for guidance only and is designed to support the application phase for the EU Ecolabel for growing media and soil improvers. It includes an outline of all data, tests and documentation that are required to demonstrate compliance with the criteria.

The basis for the manual is Commission Decision (EU) 2022/1244 establishing the EU Ecolabel criteria for growing media and soil improvers.

A copy of the criteria can be found at:

 <http://ec.europa.eu/environment/ecolabel/products-groups-and-criteria.html>


This document does not aim to duplicate the content of the criteria but is intended to support their interpretation, and is only focused on helpful explanations and clarifications. Each criterion name appears as a heading under Part B with a short summary of what documents are needed for the verification of the criterion. The exact criterion text does not appear in this User Manual. Only additional information, clarifications and explanations are included.

 *Please read Commission Decision (EU) 2022/1244 establishing the EU Ecolabel criteria for growing media and soil improvers, and this manual all the way through before completing and submitting the verification form or any other documentation.*

For general questions about the EU Ecolabel and the application process please look at the following pages:

 <http://ec.europa.eu/environment/ecolabel/faq.html>

 <http://ec.europa.eu/environment/ecolabel/how-to-apply-for-eu-ecolabel.html>

 *This UM is for guidance only; it does not have any legal standing and does not, in any way, replace Commission Decision (EU) 2022/1244 or any relevant legislation. In case of doubt on specific points in the UM, the applicant should contact the national competent body directly.*

2 Before you start

We recommend that before you start you take the following steps:

- ⚠ *Read Commission Decision (EU) 2022/1244 and its Annex carefully ⁽¹⁾.*
- ⚠ *Contact the competent body of your choice ⁽²⁾.*
- ⚠ *If the candidate product is an EU fertilising product, make sure that it fulfils the legal requirements of Regulation 2019/1009, also known as the Fertilising Products Regulation.*
- ⚠ *If the candidate product is not an EU fertilising product, make sure that it fulfils all applicable legal requirements of the country or countries in which the product is intended to be placed on the market.*

⁽¹⁾ EU Ecolabel for growing media and soil improvers. Commission Decision (EU) 2022/1244. Available at [this link](#).

⁽²⁾ More information of your competent body is available at <https://ec.europa.eu/environment/ecolabel/competent-bodies.html>


3 Part A: General Information

Part A 'General information' is a horizontal document for all EU Ecolabel products, explaining the different steps of the application process in detail. It has been translated into each Member State language and can be found at:

 https://environment.ec.europa.eu/publications/eu-ecolabel-translated-user-manuals-part_en


4 Part B: Product Assessment and Verification

4.1 Scope

 *The scope of the product group is reported in Article 1 of Commission Decision (EU) 2022/1244. It chiefly corresponds to product function category (PFC) 3(A) (organic soil improvers) and PFC 4 (growing media) listed under Regulation 2019/1009, also known as the Fertilising Products Regulation (FPR) ⁽³⁾.*


According to Article 1 of the Commission Decision, the product group 'growing media and soil improvers' shall comprise growing media and soil improvers. Their definitions are reported in Article 2 of the same Commission Decision:

- 'growing medium' means a product other than soil in situ, the function of which is for plants, including algae, or mushrooms to grow in;
- 'soil improver' means a product, including mulch, the function of which is to maintain, improve or protect the physical or chemical properties, the structure or the biological activity of the soil to which it is added;
- 'mulch' means a type of soil improver used as protective covering placed around plants on the topsoil whose specific functions are to prevent the loss of moisture, control weed growth, help moderate soil temperature and reduce soil erosion.

 *In the scope, explicit reference to organic soil improvers was not made because this expression is not used in the criteria. However, criteria contain a specific requirement for organic matter and organic carbon in soil improvers (criterion 5.3). These requirements narrow the scope to organic soil improvers, rather than any soil improvers.*

Soil improvers are often confused with fertilisers, but they are two different products. Soil improvers affect plant growth indirectly by improving the physical and biological properties of the soil, such as water retention, aeration and microbial activity and diversity; whereas fertilisers are a source of readily available nutrients and have a direct, short-term effect on plant growth. The FPR assigns two distinct product function categories: soil improvers belong to PFC 3, fertilisers belong to PFC 1.

 *Fertilisers are NOT included in the scope of these EU Ecolabel criteria.*

 *Note: Mineral growing media are eligible only for professional use.*

⁽³⁾ Rules on the making available on the market of EU fertilising products. Regulation 2019/1009. Available at [this link](#).

4.2 Definitions

The following definitions shall apply to references throughout this user manual, and in reference to the criteria document.

1. 'annual input' means the annual quantity of materials treated in a waste or animal by-product treatment plant;
2. 'annual output' means the annual quantity of products composed of the same components;
3. 'batch' means a quantity of goods manufactured by the same process under the same conditions and labelled in the same manner and is assumed to have the same characteristics;
4. 'bio-waste' means biodegradable garden and park waste, food and kitchen waste from households, offices, restaurants, wholesale, canteens, caterers and retail premises and comparable waste from food processing plants, including similar waste from households collected together with bio-waste;
5. 'component' means the material that is used as an ingredient of the product;
6. 'mineral growing medium' means a growing medium totally composed of mineral components, which is only offered for use for professional horticultural applications, as green walls and/or green roofs;
7. 'organic component' means components composed primarily of carbon and molecules derived from living organisms, other than fossil fuels and materials derived from fossil fuels;
8. 'recovered material' means any material that underwent any recovery operation, including preparing for re-use, recycling and backfilling, but excluding energy recovery and the reprocessing into materials that are to be used as fuels or other means to generate energy;
9. 'recovery' means any operation the principal result of which is waste serving a useful purpose by replacing other materials that would otherwise have been used to fulfil a particular function, or waste being prepared to fulfil that function, in the plant or in the wider economy;
10. 'recycling' means any recovery operation by which waste materials are reprocessed into products, materials or substances whether for the original or other purposes, including the reprocessing of organic material but excluding energy recovery and the reprocessing into materials that are to be used as fuels or for backfilling operations;
11. 'total organic carbon (TOC)' means quantity of carbon that is converted into carbon dioxide by combustion and which is not liberated as carbon dioxide by acid treatment.

4.3 Product group criteria

Criteria for awarding the EU Ecolabel to 'growing media and soil improvers' are listed in Table 1, with the applicability of the different criteria to products.

Table 1. Overview of the EU Ecolabel criteria for growing media and soil improvers as reported in Commission Decision 2022/1244

Criterion	Growing media	Soil improvers
1 – Components	x	x
1.1 – Organic components of the product	x	x
2 – Mineral components	x	x
2.1 – Energy consumption and CO ₂ emissions during the manufacture of mineral growing media	x	
2.2 – Sources of mineral extraction	x	x
2.3 – Mineral growing media use and after use	x	
3 – Organic components and recycled/recovered materials in growing media	x	
4 – Restricted substances	x	x
4.1 – Limits for heavy metals	x	x
4.2 – Limits for polycyclic aromatic hydrocarbons (PAHs)	x	x
4.3 – Restrictions on substances and mixtures classified as hazardous under Regulation (EC) No 1272/2008 of the European Parliament and of the Council ⁽⁴⁾	x	x
4.4 – Restrictions on substances of very high concern (SVHCs) as identified under Regulation (EC) No 1907/2006 of the European Parliament and of the Council ⁽⁵⁾	x	x
4.5 – Microbiological criteria	x	x
5 – Fitness for use	x	x
5.1 – Stability	x	x
5.2 – Macroscopic impurities	x	x
5.3 – Organic matter and dry matter in soil improvers		x
5.4 – Viable weed seeds and plant propagules	x	x
5.5 – Plant response	x	x

⁽⁴⁾ CLP Regulation. Classification, labelling and packaging of substances and mixtures. Regulation (EC) No 1272/2008. Available at [this link](#).

⁽⁵⁾ REACH Regulation. Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency. Regulation (EC) No 1907/2006. Available at [this link](#).

6 – Growing media features	x	
6.1 – Electrical conductivity	x	
6.2 – Sodium content	x	
6.3 – Chloride content	x	
7 – Provision of information	x	x
7.1 – Soil improvers		x
7.2 – Growing media	x	
8 – Information appearing on the EU Ecolabel	x	x

4.3.1 Assessment and verification requirements

For the EU Ecolabel to be awarded to a specific product, applicants must comply with each requirement.


Specific assessment and verification requirements are indicated under each criterion.

Where the applicant is required to provide declarations, documentation, analyses, test reports, or other evidence to show compliance with the criteria, these may originate from the applicant and/or their supplier(s) as appropriate.

Competent bodies shall preferentially recognise attestations that are issued by bodies accredited in accordance with the relevant harmonised standard for testing and calibration laboratories, and verifications by bodies that are accredited in accordance with the relevant harmonised standard for bodies certifying products, processes and services.

Where appropriate, test and sampling methods other than those indicated for each criterion may be used if the competent body assessing the application accepts their equivalence.


Where appropriate, competent bodies may require supporting documentation and may carry out independent verifications.

 *Changes in suppliers and production sites pertaining to products to which the EU Ecolabel has been granted shall be notified to competent bodies, together with supporting information to enable verification of continued compliance with the criteria.*

As a prerequisite, the product must meet the relevant requirements in Regulation (EU) 2019/1009 or the legal requirements of the Member State in which the product is intended to be placed on the market. In the latter case, the applicant shall declare the product's compliance with this requirement.

The sampling shall be carried out in accordance with EN 12579 (Soil improvers and growing media – Sampling). Samples are to be prepared in accordance with EN 13040 (Soil improvers and growing media – Sample preparation for chemical and physical tests, determination of dry matter content, moisture content and laboratory compacted bulk density).

Once available, test and sampling methods shall be conducted in accordance with the corresponding harmonised standards, the references of which have been published in the Official Journal of the European Union in accordance with Article 13 of Regulation (EU) 2019/1009 ⁽⁶⁾.

 *The reference to the harmonised standards underlines the need to refer to them as soon as they will be available. The 'CEN/TC 223 Soil improvers and growing media' is developing new standards which are supposed to be available in the close future. The applicant must refer to these standards as soon as they are available.*

For the application year, the sampling and test frequency shall fulfil the requirements set down in Appendix 1 of the Commission Decision (EU) 2022/1244. For the following years, the sampling and test frequency of

⁽⁶⁾ Rules on the making available on the market of EU fertilising products. Regulation 2019/1009. Available at [this link](#).

products shall fulfil the requirements set down in Appendix 2 of the Commission Decision (EU) 2022/1244. Different sampling and testing frequencies are set for the following types of plants:

Type 1: Treatment plants for waste or for animal by-products;

Type 2: Product manufacture plants using materials from Type 1 plants; and

Type 3: Product manufacture plants not using materials from Type 1 plants.

For Type 2 plants, the sampling and test frequencies for the application year and the following years will be the same as the frequencies set for Type 3, if the supplied materials derived from waste/animal by-products comply with the EU Ecolabel criteria for growing media and soil improvers. The applicant shall provide the competent body with the test reports from the suppliers, together with the documentation, to ensure the compliance of the supplied material with the EU Ecolabel criteria. The competent body may recognise the sampling and testing frequencies under national legislation and standards as valid to ensure compliance with the EU Ecolabel criteria of the supplied materials derived from waste or animal by-products.

Figure 1 and Figure 2 show the determination of the test frequency scheme for the application year in the case of Type 1 plants and NON-type 1 plants, respectively.


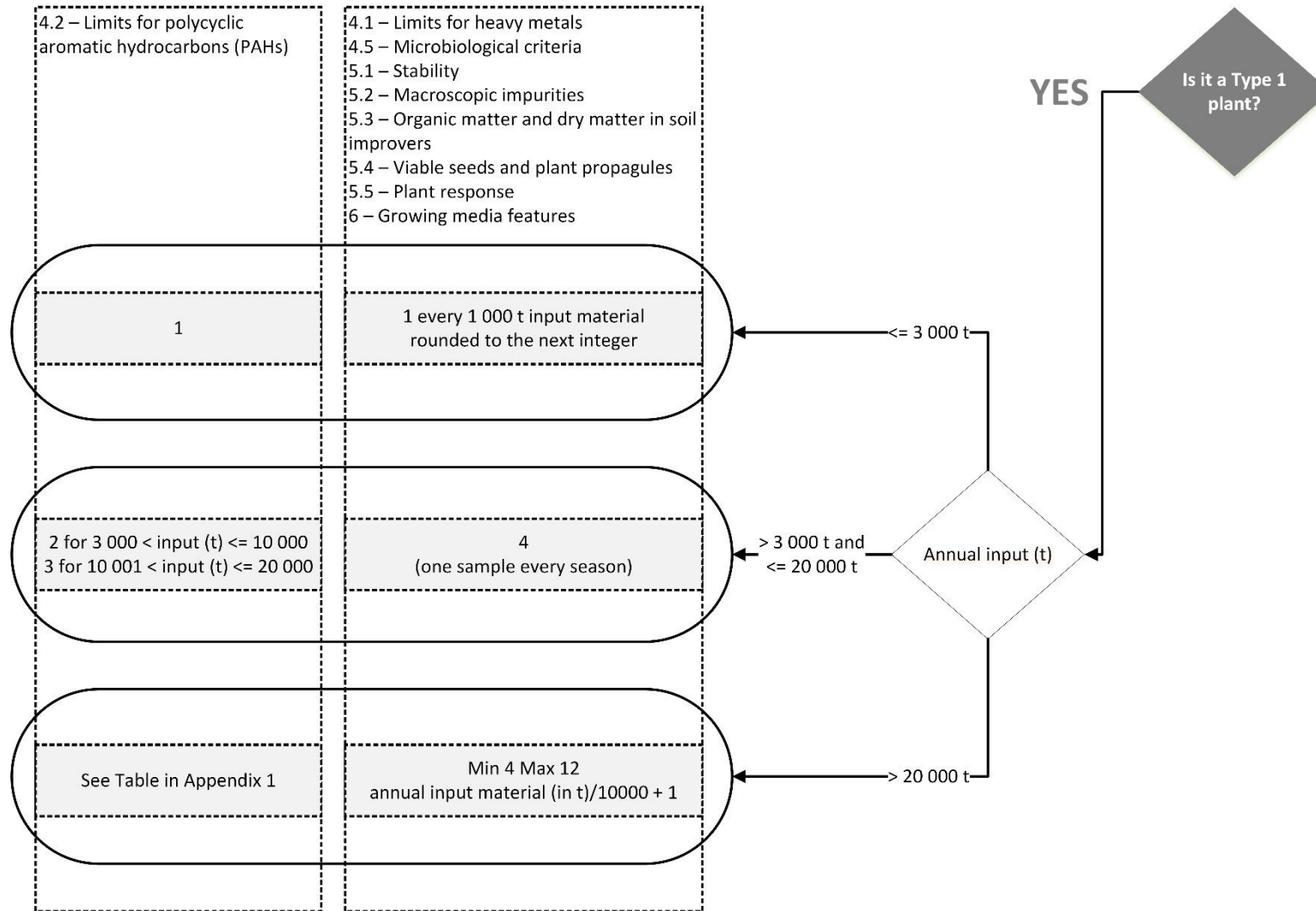
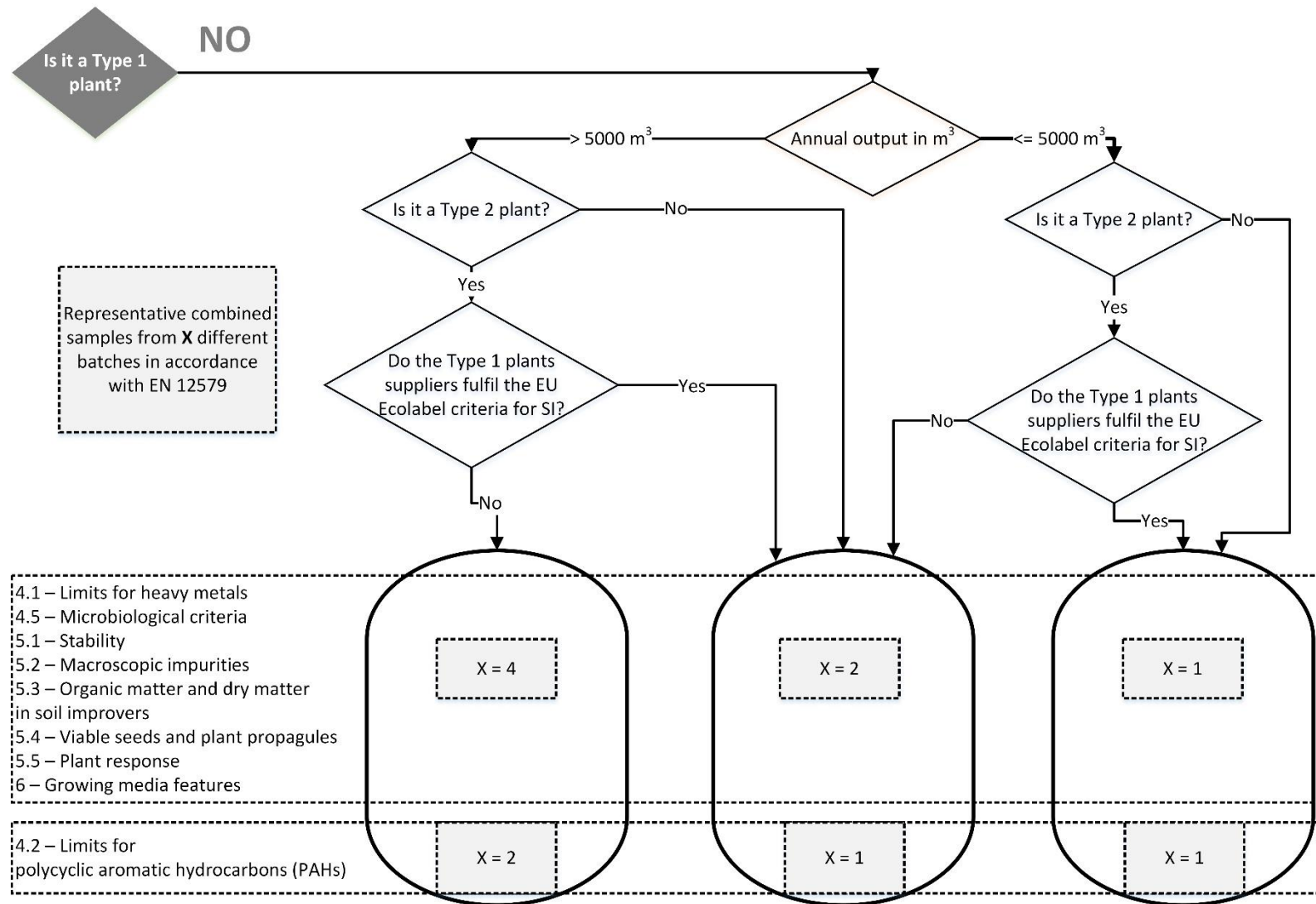
 *If the material processed in the plant is used for products both with and without the EU Ecolabel, the sampling frequency must be determined considering only the amount of input/output of the material used for the ecolabelled product in the plant. In this case, competent bodies should verify that, during the process, the material used for producing the EU Ecolabel product is not contaminated with material used for products that do not hold the EU Ecolabel.*

Figure 1. Determination of test frequency scheme for the application year in the case of Type 1 plants



Source: Joint Research Centre

Figure 2. Determination of test frequency scheme for the application year in the case of NON-Type 1 plants



Source: Joint Research Centre

A written confirmation from the applicant that all the criteria are fulfilled shall also be required for the assessment.

An EU fertilising product is a fertilising product that is CE marked when made available on the market.

If the product is an EU fertilising product, the following documentation shall be delivered to the competent body: the EU declaration of conformity; the technical documentation; and, where applicable, the documents issued by a notified body involved in the conformity assessment procedure of the product.

☰ Required documentation

☰ Declaration about fulfilment of all criteria.

☰ In the case the candidate product is NOT an EU fertilising product:

☰ Declaration of compliance with the legal requirements of the Member State in which the product is intended to be placed on the market.

☰ In the case the candidate product is an EU fertilising product:

☰ EU declaration of conformity;

☰ The technical documentation;

☰ The documents issued by a notified body involved in the conformity assessment procedure of the product. Only if applicable.

⚠ *These last three documents are those obtained when the product gets the CE mark.*

4.3.2 Criterion 1 – Components

This criterion applies to growing media and soil improvers.

The components admitted shall be organic and/or mineral components.

⚠ *The product shall not contain intentionally added peat.*

4.3.2.1 Criterion 1.1 – Organic components of the product

The product may contain one or more of the following organic components:

(a) plants, plant parts or plant extracts, derived from agricultural or forestry activities, having undergone no other processing than cutting, grinding, milling, sieving, sifting, centrifugation, pressing, drying, frost treatment, freeze-drying, extraction with water, supercritical CO₂ extraction, or fiberisation at a temperature not higher than 100°C and without any additives except water. For the purpose of this point, plants include mushrooms and algae and exclude blue-green algae (cyanobacteria);

'Fiberisation' is a mechanical-thermal extrusion or steam treatment of wood chips the purpose of which is to generate high pressure and high temperatures up to 150 °C (or higher), breaking the wood chips into wood fibres.

(b) food industry factory lime, i.e. a material from the food processing industry obtained by carbonation of organic matter, using exclusively burnt lime from natural sources;

(c) molasses, i.e. a viscous by-product of the refining of sugar cane or sugar beets into sugar;

(d) vinasse, i.e. a viscous by-product of the fermentation process of molasses into ethanol, ascorbic acid or other products;

(e) distillers grains, i.e. by-products resulting from the production of alcoholic beverages;

(f) lime from drinking water production, i.e. residue that is released by production of drinking water from groundwater or surface water and consists, mainly, of calcium carbonate;

(g) digestate obtained through anaerobic digestion or compost obtained through aerobic composting of one or more of the materials listed below from 1 to 5.

⚠ *The only organic components admitted in the manufactured product are those reported from point (a) to point (g).*

⚠ *Organic components (g) can be obtained by processing one or more of the following input materials (from 1 to 5):*

1. bio-waste from separate collection at source, as defined in Directive 2008/98/EC;

2. living or dead organisms or parts thereof that are unprocessed or processed only by manual, mechanical or gravitational means, by dissolution in water, by flotation, by extraction with water, by steam distillation or by heating solely to remove water, or which are extracted from air by any means, except:

(a) materials originating from mixed municipal waste;

(b) sewage sludge, industrial sludge or dredging sludge;

(c) animal by-products or derived products falling within the scope of Regulation (EC) No 1069/2009 of the European Parliament and of the Council for which no end point in the manufacturing chain has been determined in accordance with Article 5(2), third subparagraph, of that Regulation;

3. category 2 or category 3 materials or derived products thereof, in accordance with the conditions set out in Article 32(1) and (2) and in the measures referred to in Article 32(3) of Regulation (EC) No 1069/2009, provided that the end point in the manufacturing chain has been determined, in accordance with Article 5(2), third subparagraph, of that Regulation, and reached before placing the product on the market;

4. sludges that comply with both of the following two conditions:

I. they are identified as one of the following types of waste:

02 03 05: sludges from on-site effluent treatment in the preparation and processing of fruit, vegetables, cereals, edible oils, cocoa, coffee, tea and tobacco,

conserve production, yeast and yeast extract production, molasses preparation and fermentation;

02 04 03: sludges from on-site effluent treatment in sugar processing;

02 05 02: sludges from on-site effluent treatment in the dairy products industry;

02 06 03: sludges from on-site effluent treatment in the baking and confectionery industry;

02 07 05: sludges from on-site effluent treatment in the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa);

II. they are single-source separated, meaning that there has been no mixing with effluents or sludges outside a specific production process.

5. digestate obtained through anaerobic digestion or compost obtained through aerobic composting of any of the materials indicated in points 1, 2, 3 and 4 of this list.

Required documentation:

- ☰ The list of all components of the product and information of their origin.
- ☰ Declaration of compliance with the requirements of this criterion 1.

4.3.3 Criterion 2 – Mineral components

4.3.3.1 Criterion 2.1 – Energy consumption and CO₂ emissions during the manufacture of mineral growing media

This criterion applies to mineral growing media only.

⚠ *Mineral growing media can only be offered for use for professional horticultural applications, as green walls and/or green roofs.*

The manufacture of expanded minerals and mineral wool shall fulfil the following energy consumption and CO₂ emissions thresholds:

- energy consumption / product ≤ 11 GJ/t product, in primary energy; and
- CO₂ emissions / product ≤ 0.7 t CO₂/t product.

'Product' refers to the mineral wool in any of the forms placed on the market (e.g. slabs, cubes, plugs).

The ratio energy consumption/product shall be calculated as an annual average as follows:

$$\text{ratio} \frac{\text{Energy}}{\text{Product}} = \frac{1}{\sum_{i=1}^n \text{Production}_i} \cdot \sum_{i=1}^n \left(F + 2.1 \cdot \text{El}_{\text{grid}} + \left(\frac{\text{H}_{\text{cog}}}{\text{Ref H}\eta} + \frac{\text{El}_{\text{cog}}}{\text{Ref E}\eta} \right) \cdot (1 - \text{PES}_{\text{cog}}) \right)_i$$

Where:

- n is the number of years of the period used to calculate the average;
- i is each year of the period used to calculate the average;
- Production is the production of the mineral wool or expanded minerals in tonnes in the year i;
- F is the annual consumption of fuels in the production process in the year i;
- El_{grid} is the annual electricity consumption from the grid in the year i;
- H_{cog} is the annual consumption of useful heat from cogeneration in the year i;
- El_{cog} is the annual consumption of electricity from cogeneration in the year i;
- **Ref H η** and **Ref E η** are the reference efficiencies for the separate production of heat and electricity as defined in Directive 2012/27/EU ⁽⁷⁾ and calculated in accordance with Commission Delegated Regulation (EU) 2015/2402 ⁽⁸⁾; and
- PES_{cog} is the primary energy saving of the cogeneration plant as defined in the Directive 2012/27/EU, in the year i.

The ratio CO₂ emissions/production shall be calculated as an annual average as follows:

$$\text{ratio} \frac{\text{CO}_2 \text{ emissions}}{\text{Product}} = \frac{1}{\sum_{i=1}^n \text{Production}_i} \cdot \sum_{i=1}^n (\text{Direct CO}_2 + \text{Indirect CO}_2)_i$$

Where:

- n is the number of years of the period used to calculate the average;
- i is each year of the period used to calculate the average;
- Production is the mineral wool production in tonnes in the year i;
- Direct CO₂ is the CO₂ emissions in accordance with Commission Implementing Regulation (EU) 2018/2066 ⁽⁹⁾, in the year i; and

⁽⁷⁾ Energy efficiency. Directive 2012/27/EU. Available at [this link](#).

⁽⁸⁾ Harmonised efficiency reference values for separate production of electricity and heat. Commission Delegated Regulation (EU) 2015/2402. Available at [this link](#).

⁽⁹⁾ Monitoring and reporting of greenhouse gas emissions. Commission Implementing Regulation (EU) 2018/2066. Available at [this link](#).

- Indirect CO₂ is the indirect CO₂ emissions due to final energy consumption in the year i, and shall be calculated in accordance with Commission Delegated Regulation (EU) 2019/331 ⁽¹⁰⁾.

⚠ *The direct CO₂ emissions shall be monitored in accordance with Implementing Regulation (EU) 2018/2066.*

⚠ *The indirect CO₂ emissions shall be monitored in accordance with Article 6 of Delegated Regulation (EU) 2019/331 on free allocation rules.*

The period to calculate the ratios energy consumption/product and CO₂ emissions/product shall be the last five years before the submission of the application. If the operation period of the plant is less than five years at the date of the submission of the application, the ratio shall be calculated as an annual average of that operation period, which shall be at least one year.

Required documentation:

- 📄 Declaration included in the spreadsheet for criterion 2.1;
- 📄 Annual emissions report in accordance with Implementing Regulation (EU) 2018/2066, for each year of the period to calculate the average;
- 📄 Verification report finding the annual emissions report satisfactory in accordance with Commission Implementing Regulation (EU) 2018/2067 ⁽¹¹⁾, for each year of the period to calculate the average;
- 📄 Records of electricity consumption from the grid provided by the supplier, for each year of the period to calculate the average; and
- 📄 Records of the useful heat and electricity consumption from cogeneration, both on-site and purchased, for each year of the period to calculate the average.

⚠ *This criterion shall be fulfilled by each factory where the product is manufactured.*

⚠ *Two levels for applicants and license holders are set to comply with this criterion:*

- Factories that have been operating at least 5 years prior the application/renewal: the applicant/license holder should calculate the averages of the data within that 5 years period
- Factories that have been operating less than 5 years prior the application/renewal: the applicant/license holder should calculate the averages of the data within the operation period, and update the calculation once the factory is operating for 5 years.

⚠ *If the factory/ies is/are not located in the country where the product is placed on the market, the applicant shall provide to the Competent Body with the documentation requested to fulfil this criterion together with its translation to the official language of the country where the product is sold.*

⁽¹⁰⁾ Transitional Union-wide rules for harmonised free allocation of emission allowances. Commission Delegated Regulation (EU) 2019/331. Available at [this link](#).

⁽¹¹⁾ Verification of data and on the accreditation of verifiers pursuant to Directive 2003/87/EC. Commission Implementing Regulation (EU) 2018/2067. Available at [this link](#).

4.3.3.2 Criterion 2.2 – Sources of mineral extraction

This criterion applies to growing media and soil improvers.

The extraction of minerals to be used as a component of an EU Ecolabel growing medium and soil improver shall only take place on sites that are covered by the following documentation:

- an environmental impact assessment and, where relevant, a report in accordance with Directive 2014/52/EU ⁽¹²⁾;
- a valid authorisation for the extraction activity issued by the relevant regional or national authority;
- a rehabilitation management plan associated with the authorisation for the extraction activity;
- a map indicating the location of the quarry;
- a declaration of conformity with Regulation (EU) No 1143/2014 ⁽¹³⁾;
- a declaration of conformity with Council Directive 92/43/EEC ⁽¹⁴⁾ (habitats) and Directive 2009/147/EC ⁽¹⁵⁾ (birds).

Regarding the last point above, in cases where extraction sites are located in Natura 2000 network areas, composed of special areas of conservation referred to in Article 3 of Directive 92/43/EEC and special protection areas as defined in Article 4 of Directive 2009/147/EC, extraction activities shall have been assessed and authorised in accordance with the provisions laid down in Article 6 of Directive 92/43/EEC and have taken into account the relevant European Commission guidance document ⁽¹⁶⁾.

The extraction activities shall have been assessed and authorised in accordance with provisions that provide assurances equivalent to Directives 92/43/EEC and 2009/147/EC also in the case where extraction sites are located outside the EU and materials are extracted from areas officially nominated as candidates for or adopted as:

- areas of special conservation interest; part of the Emerald network pursuant to Recommendation No 16 (1989) and Resolution No 3 (1996) of the Convention on the Conservation of European Wildlife and Natural Habitats ⁽¹⁷⁾;
- or protected areas designated as such under the national legislation of the sourcing/exporting countries.

Required documentation for each extraction site:

- ☐ The environmental impact assessment, or the environmental screening study in the cases specified by the technical report of this set of criteria (Kowalska et al. 2022);
- ☐ Authorization for the extraction activity issued by the relevant regional or national authority;
- ☐ Rehabilitation management plan;
- ☐ A map describing the location of the quarry;
- ☐ A declaration of the quarry owner/operator of compliance with the requirements of Regulation (EU) No 1143/2014 on the prevention and management of the introduction and spread of invasive alien species.
- ☐ A declaration of the quarry owner/operator of compliance with the requirements of Directive 92/43/EEC (Habitats Directive) and Directive 2009/147/EC (Birds Directive).

⁽¹²⁾ Assessment of the effects of certain public and private projects on the environment. Directive 2014/52/EU. Available at [this link](#). This Directive amends Directive 2011/92/EU, whose consolidated text is available at [this link](#).

⁽¹³⁾ Prevention and management of the introduction and spread of invasive alien species. Regulation (EU) No 1143/2014. Available at [this link](#).

⁽¹⁴⁾ Conservation of natural habitats and of wild fauna and flora. Directive 92/43/EEC. Available at [this link](#).

⁽¹⁵⁾ Conservation of wild birds. Directive 2009/147/EC. Available at [this link](#).

⁽¹⁶⁾ Guidance document on non-energy mineral extraction and Natura 2000: a summary. European Commission, Directorate-General for Environment. Available at <https://data.europa.eu/doi/10.2779/985239>

⁽¹⁷⁾ Convention on the conservation of European wildlife and natural habitats (OJ L 38, 10.2.1982, p. 3). Available at [this link](#).

- ⚠️ *A description of these documents is available in the Technical Report of this set of criteria (Kowalska et al. 2022). Applicants are strongly recommended to read the reasoning of criterion 2.2 before producing the above mentioned documents.*
- ⚠️ *For clarity, rehabilitation management plans shall be requested for relevant quarries regardless of whether or not they are linked to the authorisation of the extraction activity.*
- ⚠️ *In cases of raw materials that are extracted from sites located outside the EU, direct compliance with the Habitats Directive, the Birds Directive or the Invasive Species Regulation is not possible since a different legal framework will apply. In these cases, and specifically when the extraction sites lie within protected areas, the burden of providing equivalent evidence that is deemed satisfactory by the Competent Body lies with the quarry owner/operator.*

4.3.3.3 Criterion 2.3 – Mineral growing media use and after use

This criterion is applicable to mineral growing media only.

The applicant shall offer customers a structured collection and recycling service, which may use third-party service providers. The collection and recycling service shall cover a minimum of 70% of the applicant sales, expressed in volume, across the Union.

Required documentation:

- 📄 Declaration that the mineral growing media are only offered for use in professional horticultural applications;
- 📄 Contract documentation between the manufacturer and the service providers;
- 📄 A document with the description of collection, processing and destinations.
- 📄 This document should contain the list of countries and/or areas where a collection and recycling service is offered.
- 📄 A document containing the annual overview of the total sales volume of growing media in the European Union Member States and an annual overview of the sales volumes in areas of those Member States where collection and processing are on offer.

- ⚠️ *In the case of new entrants, the following estimation should be provided:*
 - *an estimation of the annual overview of the total sales volume of growing media in the EU Member States,*
 - *an estimation of the annual overview of the sales volumes in areas of those Member States where collection and processing are on offer.*
- ⚠️ *Estimates should be supported by a reasoning reported in the document. Real data shall be provided one year after the EU Ecolabel licence is awarded.*

4.3.4 Criterion 3 – Organic components and recycled/recovered materials in growing media

This criterion applies to growing media only.

Growing media shall meet at least one of the following requirements:

- (a) it shall consist of at least 30% of organic components (expressed as volume of organic components per total volume of the product);
- (b) it shall consist of mineral components manufactured from a process using at least 30% of recycled/recovered materials (expressed as the dry weight of recycled/recovered materials per total dry weight of the input materials).

Required documentation:

- ☐ For case (a): volume of organic components declared in Criterion 1 per total volume of the product;
- ☐ for case (b): dry weight of recycled/recovered materials per total dry weight of the input materials.

Additionally:

- identification of raw material inputs, reporting amounts as dry weight and origins;
- identification of recycled/recovered material inputs, reporting amount and origin, which is to be supported by invoice or verification documents provided by the supplier of the material.

4.3.5 Criterion 4 – Restricted substances


4.3.5.1 Criterion 4.1 – Limits for heavy metals

The content of the following elements in the product shall be lower than the values shown in Table 2, measured in terms of dry matter (DM) of the product.

Table 2. Heavy metal limits and methods of extraction and measurement for growing media and soil improvers

Heavy metal	Maximum content in the product (mg/kg DM)			Method of	
	Mineral growing media	Growing media other than mineral growing media	Soil improvers	Extraction	Measurement
Cadmium (Cd)	1.3	1.3	1	EN 13650	EN 13650
Chromium total (Cr total)	310	100	100	EN 13650	EN 13650
Chromium VI (Cr VI)	2	Not applicable	Not applicable	EN 13650	EN 13650
Copper (Cu)	200	200	200	EN 13650	EN 13650
Mercury (Hg)	0.45	0.45	0.45	EN 13650	EN 16175
Nickel (Ni)	40 (*)	40 (**)	40 (**)	(*) EN 13651 (**) EN 13650	EN 13650
Lead (Pb)	100	100	100	EN 13650	EN 13650
Zinc (Zn)	300	300	300	EN 13650	EN 13650
Inorganic arsenic (As)	10	10	10	EN 13650	EN 16317

Within the framework of the FPR, CEN/TC 223 ⁽¹⁸⁾ is developing harmonised standards for testing methods. *If the standards are not available by 16 July 2022, the date of publication of the FPR's consolidated version, CEN will adopt technical specifications in the form of European standardisation deliverables, which could help manufacturers to prove the conformity of their products until harmonised standards are publically available. A possible deadline for adoption of the harmonised standards is set as 1 December 2024 ⁽¹⁹⁾. Due to the dynamic nature of the work, Table 2 will be updated as soon as new methods are provided by the CEN/TC 223.*

 *The applicant shall check if technical specifications, in the form of European standardisation deliverables, are available. In this case, disregarding Table 2, the applicant must use the technical*

⁽¹⁸⁾ 'CEN/TC 223 Soil improvers and growing media' is the European Committee for standardization (CEN) Technical Committee (TC) number 223 with the title "Soil improvers and growing media". All standards produced by this technical committee are available at this webpage: https://standards.cencenelec.eu/dyn/www/f?p=205:32:0:::FSP_ORG_ID:FSP_LANG_ID:6204,25&cs=19D33A9F25FAA51B9E975AF844947A1E9

⁽¹⁹⁾ Draft amendment to Commission Implementing Decision C(2020) 612 final of 10.2.2020 on a standardisation request to the European Committee for Standardisation as regards the EU fertilising products in support of Regulation (EU) 2019/1009. Last update: 18 May 2021. Available at <https://ec.europa.eu/docsroom/documents/45687>

specifications to prove the conformity of their products until harmonised standards are publically available.

Required documentation:

☰ The applicant shall fill in the declaration available on the attached declaration form.

4.3.5.2 Criterion 4.2 – Limits for polycyclic aromatic hydrocarbons (PAHs)

This criterion applies to growing media and soil improvers.

The content in the product of the following 16 polycyclic aromatic hydrocarbons (PAHs) shall be lower than 6 mg/kg DM (dry matter) of the product.

The PAH16 to be investigated are: sum of naphthalene, acenaphthylene, acenaphthene, fluorene, phenanthrene, anthracene, fluoranthene, pyrene, benzo[a]anthracene, chrysene, benzo[b]fluoranthene, benzo[k]fluoranthene, benzo[a]pyrene, indeno[1,2,3-cd]pyrene, dibenzo[a,h]anthracene and benzo[ghi]perylene.

Required documentation:

☰ The applicant shall provide the competent body with reports of tests conducted in accordance with the testing procedure indicated in EN 16181.

4.3.5.3 Criterion 4.3 – Restrictions on substances and mixtures classified as hazardous under Regulation (EC) No 1272/2008

The criterion applies to soil improvers and growing media.

The product shall not be classified in accordance with any of the hazard classes, categories and associated hazard statements codes, in accordance with Regulation (EC) No 1272/2008, that are listed in the following paragraph.

The product shall not contain intentionally added substances or mixtures in concentration greater than 0.010% w/w (in terms of wet weight) that are assigned any of the following hazard classes, categories and associated hazard statement codes, in accordance with Regulation (EC) No 1272/2008:

- Group 1 hazards: Category 1A or 1B carcinogenic, mutagenic and/or toxic for reproduction (CMR): H340, H350, H350i, H360, H360F, H360D, H360FD, H360Fd, H360Df;
- Group 2 hazards: Category 2 CMR: H341, H351, H361, H361f, H361d, H361fd, H362; Category 1 aquatic toxicity: H400, H410; Category 1 and 2 acute toxicity: H300, H310, H330; Category 1 aspiration toxicity: H304; Category 1 specific target organ toxicity (STOT): H370, H372; and
- Group 3 hazards: Category 2, 3 and 4 aquatic toxicity: H411, H412, H413; Category 3 acute toxicity: H301, H311, H331; Category 2 STOT: H371, H373.


The hazard statement codes generally refer to substances. However, if information on substances cannot be obtained, the classification rules for mixtures shall apply.

The use of substances or mixtures that are chemically modified during the production process, so that any relevant hazard for which the substance or mixture has been classified under Regulation (EC) No 1272/2008 no longer applies, shall be exempted from the above requirement.

This criterion does not apply to those components composed of:


- substances not included in the scope of Regulation (EC) No 1907/2006 ⁽²⁰⁾ as defined in Article 2(2) of that Regulation;
- substances covered by Article 2(7)(b) of Regulation (EC) No 1907/2006, which sets out the criteria for exempting substances included in Annex V to that Regulation from the registration, downstream user and evaluation requirements.


⁽²⁰⁾ Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency. Regulation (EC) No 1907/2006. Available at [this link](#).

 *Due to Article 2(7)(b) of the REACH Regulation, criterion 4.3 does not apply to compost and digestate.*


In order to determine if this exclusion applies, the applicant shall screen any intentionally added substances or mixtures present at a concentration above 0.010% w/w (in terms of wet weight) in the product.

Required documentation:


 The applicant shall provide a list of all relevant components and chemicals intentionally added in the production process, together with the relevant safety data sheets or chemical supplier declarations that demonstrate the compliance with the requirement. Any components or chemicals containing substances or mixtures classified under Regulation (EC) No 1272/2008 shall be highlighted.


 *The approximate dosing rate of the component or chemical, together with the concentration of the restricted substance or mixture in that component or chemical (as provided in the safety data sheet or supplier declaration) and an assumed retention factor of 100%, shall be used to estimate the quantity of the restricted substance or mixture remaining in the product. Justifications for any deviation from a retention factor of 100% or for chemical modification of a restricted hazardous substance or mixture must be provided in writing.*


When the SDS reveals the presence of a restricted hazardous substance, its concentration in the product must be calculated by dividing the total quantity of the substance used (expressed in weight) by the total weight of the manufactured product. This calculation assumes that all portions of the added substance remain in the manufactured product, and that none react to form different substances. This concentration value can then be multiplied by factors accounting for any degrees of chemical reactions and/or any losses due to washing out of substances and so on.

 For components or substances exempted from meeting the requirement of Criterion 4.3 (see Annexes IV and V to Regulation (EC) No 1907/2006), a declaration to this effect by the applicant shall suffice to comply.

 In the case of mineral wool, the applicant shall also provide the following:

 copy of a certificate awarded for the right to use the European Certification Board for Mineral Wool Products trademark as proof of compliance with Note Q of Annex VI to Regulation (EC) No 1272/2008;

 *Whenever the mineral wool meets the requirements either by Note Q or Note R in Part 1 of Annex VI to the CLP Regulation, the classification of mineral wool as category 2 carcinogen does not apply.*

 copy of a test report under the terms of ISO 14184-1 Textiles - Determination of formaldehyde - Part 1: Free and hydrolysed formaldehyde.


 *The above evidence can also be provided directly to competent bodies by any supplier in the applicant's supply chain.*

4.3.5.4 *Criterion 4.4 – Restrictions on substances of very high concern (SVHCs) as identified under Regulation (EC) No 1907/2006*

The criterion applies to soil improvers and growing media.

The product shall not contain any intentionally added substance meeting the criteria referred to in Article 57 of Regulation (EC) No 1907/2006 that has been identified in accordance with the procedure described in Article 59 of that Regulation and included in the candidate list of substances of very high concern (SVHCs) for authorisation.

Required documentation:

 The applicant shall provide a declaration that they have not intentionally added any SVHCs during their production process. This applicant declaration shall be supported by declarations and safety data sheets of all supplied chemicals and materials used to produce the EU Ecolabel product(s) – to confirm that no SVHC has been intentionally added to those supplied chemicals or materials.

4.3.5.5 Criterion 4.5 – Microbiological criteria

This criterion applies to growing media and soil improvers, with the exception of mineral growing media. The content of primary pathogens in the product shall not exceed the maximum levels set in Table 3.

Table 3. Limit value for pathogens

Micro-organisms to be tested	Sampling plans			Limit
	n	c	m	M
Salmonella spp.	5	0	0	Absence in 25 g or 25 ml
Escherichia coli or Enterococcaceae	5	5	0	1 000 CFU in 1 g or 1 ml

CFU: colony-forming units

Where:

- n is the number of samples to be tested;
- c is the number of samples where the number of bacteria expressed in CFU is between m and M;
- m is the threshold value for the number of bacteria expressed in CFU that is considered satisfactory; and
- M is the maximum value of the number of bacteria expressed in CFU.

Required documentation:


 The applicant shall provide the competent body with reports of tests conducted in accordance with the testing procedure indicated in Table 4.

Table 4. Standard test method for the detection of specific pathogens

Parameter	Test method
E. coli	CEN/TR 16193 or ISO 16649-2 or EN ISO 9308-3
Salmonella spp.	EN ISO 6579 or CEN/TR 15215
Enterococcacea	EN 15788 or EN ISO 7899-1 or BEA method

4.3.6 Criterion 5 – Fitness for use

4.3.6.1 Criterion 5.1 – Stability

This criterion applies to growing media and soil improvers, with the exception of mulches totally composed by lignocellulosic components and mineral growing media.

Soil improvers for non-professional applications and growing media for all applications shall meet one of the requirements presented in Table 5.

Table 5. Stability requirements of soil improvers intended for non-professional applications and growing media intended for all applications

Stability parameter	Requirement
Maximum Respirometric index	15 mmol O ₂ /kg organic matter/h
Minimum Rottegrad, where applicable	IV (self-heating test temperature rise of maximum 20°C above ambient temperature)

Soil improvers for professional applications shall meet one of the requirements presented in Table 6.

Table 6. Stability requirements of soil improvers intended for professional applications

Stability parameter	Requirement
Maximum Respirometric index	25 mmol O ₂ /kg organic matter/h
Minimum Rottegrad, where applicable	III (self-heating test temperature rise of maximum 30°C above ambient temperature)

Required documentation:

☰ The applicant shall provide the competent body with reports of tests conducted in accordance with the testing procedure indicated in Table 7.


Table 7. Standard test method for the determination of stability parameters

Parameter	Test method
Respirometric index	EN 16087-1
Rottegrad	EN 16087-2


4.3.6.2 Criterion 5.2 – Macroscopic impurities

This criterion applies to growing media and soil improvers, with the exception of mineral growing media:

- (c) no more than 3 g/kg dry matter of macroscopic impurities above 2 mm in any form of glass and metal, each;
- (d) no more than 2.5 g/kg dry matter of macroscopic impurities above 2 mm in form of plastic; and
- (e) no more than 5 g/kg dry matter of the sum of the macroscopic impurities referred to in point (a) and point (b).

 *The expression “in any form of” specifies the kind of forms that the material can have; in this case there could be flakes, chips, splinters, dust, etc. The expression aims to include any kind of forms of that material.*

Required documentation:

 The applicant shall provide the competent body with reports of tests conducted in accordance with the testing procedure indicated in the Technical Specification CEN/TS 16202, or another equivalent testing procedure authorised by the competent body.


4.3.6.3 Criterion 5.3 – Organic matter and dry matter in soil improvers

This criterion applies to soil improvers.

The organic matter as loss on ignition of the product shall not be lower than 15% dry mass or 8.5% of organic carbon (Corg) content by mass.

The dry matter content of the product shall not be lower than 25% fresh weight (% FW).

Required documentation:

 The applicant shall provide the competent body with reports of tests conducted in accordance with the testing procedure presented in Table 8.


 *Where compliance is assessed based on organic matter, the following conversion factor applies: organic carbon (Corg) = organic matter × 0.56.*

Table 8. Standard test methods for the determination of dry matter, organic matter and total organic carbon contents (TOC).

Parameter	Test method
Dry matter (% FW)	EN 13040
Organic matter as loss on ignition (% dry mass)	EN 13039
Total organic carbon (TOC) (% dry mass)	EN 15936

4.3.6.4 *Criterion 5.4 – Viable weed seeds and plant propagules*

This criterion applies to growing media and soil improvers, with the exception of mineral growing media.

In the product, the content of viable weed seeds and plant propagules shall not exceed two units per litre.

Required documentation:

☰ The applicant shall provide the competent body with a report of a test in accordance with the testing procedure indicated in the Technical Specification CEN/TS 16201, or another equivalent testing procedure authorised by the competent body.

4.3.6.5 *Criterion 5.5 – Plant response*

This criterion applies to growing media and soil improvers.

Products shall not adversely affect plant emergence or subsequent growth.

Required documentation:

☰ The applicant shall provide the competent body with a valid test conducted in accordance with the testing procedure indicated in EN 16086-1.

4.3.7 Criterion 6 – Growing media features

This criterion only applies to growing media.

4.3.7.1 Criterion 6.1 – Electrical conductivity

The electrical conductivity of the product shall be below 100 mS/m.

Required documentation:

☰ The applicant shall provide the competent body with the report of the test conducted in accordance with the testing procedure indicated in EN 13038.

4.3.7.2 Criterion 6.2 – Sodium content

The sodium content in water extract of the product shall not exceed 150 mg/l fresh product.

Required documentation:

☰ The applicant shall provide the competent body with the report of the test conducted in accordance with the testing procedure indicated in EN 13652.

4.3.7.3 Criterion 6.3 – Chloride content

The chloride content in water extract of the product shall not exceed 500 mg/l fresh weight of the product.

Required documentation:

☰ The applicant shall provide the competent body with the report of the test conducted in accordance with the testing procedure indicated in EN 16195.


4.3.8 Criterion 7 – Provision of information

This criterion applies to growing media and soil improvers.

The information indicated under Criterion 7.1 or 7.2, as applicable, shall be provided.

The information shall be provided with the product, either on the packaging or in accompanying documents.

Products with or without packaging can be awarded the EU Ecolabel as far as they comply with all the criteria.

 *There is no distinction about the support used. Information can be provided as hard copy or on a digital support.*

An EU fertilising product falling within the product function category 3(A) (organic soil improvers) or the product function category 4 (growing media) under the terms of Regulation (EU) 2019/1009 shall be deemed to comply with the requirement.

For mineral growing media, the provision of information shall include a statement about the professional horticultural application.


4.3.8.1 Criterion 7.1 – Soil improvers

- a) the name and address of the body responsible for marketing;
- b) a descriptor identifying the product by type, including the wording 'SOIL IMPROVER';
- c) a batch identification code;
- d) the quantity (indicated by mass or volume);
- e) range of moisture content or the dry matter content expressed as % by mass;
- f) a list of all components above 5% by product weight or volume in descending order of magnitude by dry weight; where the component is a substance or a mixture, it shall be identified as specified in Article 18 of Regulation (EC) No 1272/2008;
- g) the recommended conditions of storage and the recommended 'use by' date;
- h) guidelines for safe handling and use, including any relevant information on measures recommended to manage risks to human, animal or plant health, to safety or to the environment;
- i) instructions for intended use, including application rates, timing and frequency, and target plants or mushrooms;
- j) pH;
- k) electrical conductivity given as mS/m, except for mineral wool;
- l) organic matter content or organic carbon (Corg) content, expressed as % by mass;
- m) minimum amount of organic nitrogen (Norg), expressed as % by mass, followed by a description of the origin of the organic matter used;
- n) the ratio of organic carbon to total nitrogen (Corg/N).
- o) the following nutrients shall be declared, expressed as % by mass, if exceeding 0.5% by mass: nitrogen (N), phosphorus pentoxide (P₂O₅) and potassium oxide (K₂O).

4.3.8.2 Criterion 7.2 – Growing media

- a) the name and address of the body responsible for marketing;
- b) a descriptor identifying the product by type, including the wording 'GROWING MEDIUM';
- c) a batch identification code;
- d) the quantity:
 - for plugs of mineral wool, expressed as number of pieces and the two dimensions diameter and height;
 - for mineral wool having forms other than plugs, expressed as number of pieces and the three dimensions length, height and width;
 - for other pre-shaped growing media, expressed as size in at least two dimensions;
 - for other growing media, expressed as total volume;
 - except for pre-shaped growing media, quantity expressed as volume of materials with a particle size greater than 60 mm, when present;
- e) range of moisture content or the dry matter content expressed as % by mass;
- f) a list of all components above 5% by product weight or volume in descending order of magnitude by dry weight; where the component is a substance or a mixture, it shall be identified as specified in Article 18 of Regulation (EC) No 1272/2008;
- g) the recommended conditions of storage and the recommended 'use by' date and production date;
- h) guidelines for safe handling and use, including any relevant information on measures recommended to manage risks to human, animal or plant health, to safety or to the environment;
- i) instructions for intended use, including application rates, timing and frequency, and target plants or mushrooms;
- j) pH;
- k) electrical conductivity given as mS/m, except for mineral wool;
- l) a statement about the stability of organic matter (stable or very stable);
- m) nitrogen (N) extractable by CaCl₂/DTPA (calcium chloride/ diethylenetriaminepentaacetic acid; 'CAT-soluble'), if above 150 mg/l;
- n) phosphorus pentoxide (P₂O₅) extractable by CaCl₂/DTPA (calcium chloride/ diethylenetriaminepentaacetic acid; 'CAT-soluble'), if above 20 mg/l;
- o) potassium oxide (K₂O) extractable by CaCl₂/DTPA (calcium chloride/ diethylenetriaminepentaacetic acid; 'CAT-soluble'), if above 150 mg/l;
- p) chromium total (Cr total), quantified as set in criterion 4.1(b), if above 200 mg/kg DM;
- q) a statement about the professional horticultural application, in the case of mineral growing media.

Required documentation:

 The applicant shall declare that the product complies with this criterion and provide the competent body with the text of the user information written on the packaging or on accompanying fact sheets.


4.3.9 Criterion 8 – Information appearing on the EU Ecolabel

If the optional label with text box is used, it shall contain the following three statements:


- promotes the recycling of materials;
- promotes the use of materials produced in a more sustainable manner, thus reducing environmental degradation.

For soil improvers, the additional information shall be included:

- contributes to reducing soil and water pollution.

 *The applicant shall follow the instructions on how to properly use the EU Ecolabel logo provided in the EU Ecolabel Logo Guidelines: <https://ec.europa.eu/environment/ecolabel/>*

Required documentation:

 The applicant shall provide a declaration of compliance with this criterion, supported by a high resolution image of the product packaging that clearly shows the label, the registration/licence number and, where relevant, the statements that can be displayed together with the label.

References

Kowalska, M.A., Delre, A. and Wolf, O., EU Ecolabel criteria for growing media and soil improvers, EUR 31125 EN, Publications Office of the European Union, Luxembourg, 2022, ISBN 978-92-76-53529-4, doi:10.2760/748007, JRC129683. Available at:
<https://publications.jrc.ec.europa.eu/repository/handle/JRC129683>

List of abbreviations and definitions

CLP	Classification, labelling and packaging
FPR	Fertilising Products Regulation
PFC	Product Function Category
SVHC	Substance of Very High Concern
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals

List of figures

Figure 1. Determination of test frequency scheme for the application year in the case of Type 1 plants	13
Figure 2. Determination of test frequency scheme for the application year in the case of NON-Type 1 plants	14

List of tables

Table 1. Overview of the EU Ecolabel criteria for growing media and soil improvers as reported in Commission Decision 2022/1244 10

Table 2. Heavy metal limits and methods of extraction and measurement for growing media and soil improvers..... 23

Table 3. Limit value for pathogens..... 26

Table 4. Standard test method for the detection of specific pathogens..... 26

Table 5. Stability requirements of soil improvers intended for non-professional applications and growing media intended for all applications..... 27

Table 6. Stability requirements of soil improvers intended for professional applications 27

Table 7. Standard test method for the determination of stability parameters..... 27

Table 8. Standard test methods for the determination of dry matter, organic matter and total organic carbon contents (TOC)..... 28

GETTING IN TOUCH WITH THE EU

In person

All over the European Union there are hundreds of Europe Direct centres. You can find the address of the centre nearest you online (european-union.europa.eu/contact-eu/meet-us_en).

On the phone or in writing

Europe Direct is a service that answers your questions about the European Union. You can contact this service:

- by freephone: 00 800 6 7 8 9 10 11 (certain operators may charge for these calls),
- at the following standard number: +32 22999696,
- via the following form: european-union.europa.eu/contact-eu/write-us_en.

FINDING INFORMATION ABOUT THE EU

Online

Information about the European Union in all the official languages of the EU is available on the Europa website (european-union.europa.eu).

EU publications

You can view or order EU publications at op.europa.eu/en/publications. Multiple copies of free publications can be obtained by contacting Europe Direct or your local documentation centre (european-union.europa.eu/contact-eu/meet-us_en).

EU law and related documents

For access to legal information from the EU, including all EU law since 1951 in all the official language versions, go to EUR-Lex (eur-lex.europa.eu).

Open data from the EU

The portal data.europa.eu provides access to open datasets from the EU institutions, bodies and agencies. These can be downloaded and reused for free, for both commercial and non-commercial purposes. The portal also provides access to a wealth of datasets from European countries.

The European Commission's science and knowledge service

Joint Research Centre

JRC Mission

As the science and knowledge service of the European Commission, the Joint Research Centre's mission is to support EU policies with independent evidence throughout the whole policy cycle.



EU Science Hub
joint-research-centre.ec.europa.eu



@EU_ScienceHub



EU Science Hub - Joint Research Centre



EU Science, Research and Innovation



EU Science Hub



EU Science



Publications Office
of the European Union