

INFOSHEET

for registered farmers

Process certification for monitoring the sustainable production of products on agricultural land for further use as biofuels, bioliquids and biomass fuels

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Certified quality management system according to ÖNORM EN ISO 9001 REG. Nr. 01537/0
Certified information security management system according to ÖNORM ISO/IEC 27001 REG Nr. 35/0
Certified environmental management system according to EMAS REG Nr. AT-000680
and ÖNORM EN ISO 14001 REG Nr. 02982/0

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1 GENERAL

The Austrian Agricultural Certification Scheme (AACS) covers process certification for monitoring the sustainable production of products on agricultural land that are intended for further use in biofuels, liquid biofuels and biomass fuels in accordance with Directive (EU) 2018/2001, as amended¹. The certification covers the entire process – from agricultural production through the supply chain to processing. It does not refer to the respective products themselves, but to the sustainability criteria and procedural steps within this process. Wherever raw materials, products, their sustainability, etc. are mentioned in the text, these are to be understood in the context of the certified process. The term ‘product’ refers to all raw or starting materials of plant origin that are grown and harvested on agricultural land and serve as starting materials, as well as intermediate products derived from them.

Furthermore, the system includes the transfer of source materials from other member states or third countries - which have been certified by other voluntary systems recognised by the European Commission for the respective area of application - into the mass balance.

The principles - set out in the Revised Directive (EU) 2018/2001 - include, inter alia, the reduction of greenhouse gas emissions in Europe, the increased use of biomass for sustainable energy production, in particular in the fuel and energy sector. The aim is to raise the share of EU energy consumption produced from renewable resources to 32%, and to reach at least a 14 % share of renewable resources in the transport sector in all Member States by 2030. Sustainable energy production refers to the use of raw materials which are sustainable, which are not grown on land protected for conservation purposes or with high biological diversity, which do not harm people and nature, and which contribute significantly to the reduction of greenhouse gases.

More detailed information on specific requirements can be found in the following pages and on www.ama.at / the AMA Information portal / the AMA website for expert information,

or by sending an email to nachhaltigkeit@ama.gv.at

or by calling: +43 50 3151 - 100

¹ This means that the AACS only certifies and covers the process from cultivation to the first processing stage and not the entire fuel supply chain. The system can nevertheless provide useful information for economic operators further up the supply chain.

2 LEGAL BASIS

- ⇒ **Directive (EU) 2023/2413 of the European Parliament and of the Council of 18 October 2023** amending Directive (EU) 2018/2001, Regulation (EU) 2018/1999 and Directive 98/70/EC as regards the promotion of energy from renewable sources, and repealing Council Directive (EU) 2015/652 = [**“Revised Directive (EU) 2018/2001”**]
- ⇒ **Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 as amended** on the promotion of the use of energy from renewable sources
- ⇒ **Commission Implementing Regulation (EU) 2025/196 of 3 February 2025** amending Implementing Regulation (EU) 2022/996 as regards the accreditation of certification bodies and correcting Annex VII to that Regulation.
- ⇒ **Commission Implementing Regulation (EU) 2022/996 of 14 June 2022** on rules for verification in relation to sustainability criteria and greenhouse gas savings criteria and low risk of indirect land use change criteria.
- ⇒ **Commission Implementing Decision (EU) 2022/1656 of 26 September 2022** on the recognition of the Austrian agricultural certification scheme (AACS) for demonstrating compliance with the requirements laid down in Directive (EU) 2018/2001 of the European Parliament and of the Council for biofuels, bioliquids, biomass fuels, liquid or gaseous renewable fuels of non-biogenic origin and recycled carbon fuels
- ⇒ **BGBI. II No. 124/2018**: 124th Ordinance of the Federal Minister for Sustainability and Tourism on Sustainable Agricultural Feedstocks for Biofuels and Liquid Biofuels (as amended)
- ⇒ **BGBI. II No. 403/2022**: 403rd Ordinance of the Federal Minister for Agriculture, Forestry, Regions and Water Management with Rules for the Application of the CAP Strategic Plan (CAP- Strategic Plan - Application Regulation - GSP-AV) as amended
- ⇒ **Order (EC) No 1059/2003** on the establishment of a common classification of territorial units for statistics (NUTS)
- ⇒ **Commission Regulation (EU) No 1307/2014 of 8 December 2014** on defining the criteria and geographic ranges of highly biodiverse grassland for the purposes of Article 7b (3) (c) of Directive 98/70/EC of the European Parliament and of the Council relating to the quality of petrol and diesel fuels and Article 17(3) (c) of Directive 2009/28/EC of the European Parliament and of the Council on the promotion of the use of energy from renewable sources
- ⇒ **Forestry Act 1975, BGBI No 440/1975**, as amended
- ⇒ Convention on wetland of international importance, especially as waterfowl habitat **BGBI No 225/1983**, as amended
- ⇒ **Environmental Management Law – UMG BGBI I No 96/2001**, as amended
- ⇒ **Regulation (EU) No 1308/2013 of the European Parliament and of the Council of 17 December 2013** establishing a common organisation of the markets in agricultural products and repealing Council Regulations (EEC) No 922/72, (EEC) No 234/79, (EC) No 1037/2001 and (EC) No 1234/2007
- ⇒ **Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009** on the conservation of wild birds

- ⇒ **Council Directive 92/43/EEC of the Council of 21 May 1992** on the conservation of natural habitats and of wild fauna and flora
- ⇒ **Council Directive 91/676/EEC of 12 December 1991** concerning the protection of waters against pollution caused by nitrates from agricultural sources
- ⇒ **Regulation (EC) No 1107/2009 of the European Parliament and of the Council of 21 October 2009** concerning the placing of plant protection products on the market and repealing Council Directives 79/117/EEC and 91/414/EEC

All regulations as amended.

The certification body (ZS) appointed by Agrarmarkt Austria (AMA) is responsible for the implementation of this measure.

3 DEFINITIONS

'Actual value' means the greenhouse gas emission saving for some or all of the steps of a specific biofuel, bioliquid or biomass fuel production process, calculated in accordance with the methodology laid down in Part C Annex V or Part B of Annex VI of the Revised Directive (EU) 2018/2001;

'Advanced biofuels' means biofuels that are produced from the feedstock listed in Part A of Annex IX of the Revised Directive (EU) 2018/2001;

'Agricultural, aquaculture, fisheries and forestry residues' means residues that are directly generated by agriculture, aquaculture, fisheries and forestry and that do not include residues from related industries or processing;

'Areas designated': by law or by the relevant competent authority for nature protection purposes; or for the protection of rare, threatened or endangered ecosystems or species recognised by international agreements or included in lists drawn up by intergovernmental organisations or the International Union for the Conservation of Nature, subject to their recognition in accordance with the first subparagraph of Article 30(4);

'NUTS II value' is a nationally defined value for the greenhouse gas emissions of a raw material cultivated in Austria, which is published in the AMA communiqué. It may be derived from the use of averages calculated for smaller geographical areas than those used in the calculation of the default values, as an alternative to using actual values – in Austria at a state level.

'Biofuels' means liquid fuel for transport produced from biomass;

'Biogas' means gaseous fuels produced from biomass;

'Bioliquids' refers to liquid fuels for energy purposes other than for transport, including electricity and heating and cooling, produced from biomass;

'Biomass' refers to the biodegradable fraction of products, waste and residues with biological origins from agriculture;

'Biomass fuels' means gaseous and solid fuels produced from biomass;

'Certification body' refers to an independent accredited or recognised conformity assessment body that has been recognised by the European Commission under a voluntary or national scheme in accordance with Article 30(4) to (6) of Directive (EU) 2018/2001, to provide certification services for raw materials or fuels by conducting audits of economic operators and issuing certificates on behalf of the voluntary or national schemes using the certification system of the voluntary or national scheme.

'Conversion factor' is the factor which is required to convert the quantity of raw materials in kg into the unit of the energy of the fuel produced in megajoules (MJ). The conversion factor states the amount of raw material in kg which is required for 1 MJ of fuel. ²

'Default value' means a value derived from a typical value by the application of pre-determined factors and that may, in circumstances specified in the Revised Directive (EU) 2018/2001, be used in place of an actual value;

'Degraded' (Commission Regulation (EU) No 1307/2014), that is to say: it is characterised by long-term loss of biodiversity due to for instance overgrazing, mechanical damage to the vegetation, soil erosion or loss of soil quality.

'First purchasers' are companies which purchase sustainably produced agricultural raw materials directly from agricultural holdings. It is compulsory as a first purchaser of sustainable agricultural raw materials to submit a 'registration as an economic operator in accordance with the sustainable production of biofuels, bioliquids and biomass fuels' form to the AMA.

'Goods' see Products

'Grassland' means terrestrial ecosystems dominated by herbaceous or shrub vegetation for at least 5 years continuously. It includes meadows or pasture that is cropped for hay but excludes land cultivated for other crop production and cropland lying temporarily fallow. It further excludes continuously forested areas as defined in the Revised Directive (EU) 2018/2001 unless these are agroforestry systems which include land-use systems where trees are managed together with crops or animal production systems in agricultural settings. The dominance of herbaceous or shrub vegetation means that their combined ground cover is larger than the canopy cover of tree

• ² these definitions apply to both "highly biodiverse forest and other wooded land" and "highly biodiverse grassland".

'Heathland' i.e. areas that have a vegetation of different dwarf shrub heaths. In the narrower sense, these are societies of small-grown woody formations, which can reach growth heights of 5 cm to 150 cm. Dwarf shrub heaths can be found in the valleys and basins as well as in the mountains in different areas, which colonise nutrient-poor carbonate-containing and carbonate-free soils as a location;

'Ligno-cellulosic material' means material composed of lignin, cellulose and hemicellulose, such as biomass sourced from forests, woody energy crops and forest-based industries' residues and wastes;

'Natural highly biodiverse grassland' means grassland that: would remain grassland in the absence of human intervention; and maintains the natural species composition and ecological characteristics and processes;

'Non-food cellulosic material' means feedstock mainly composed of cellulose and hemicellulose, and having a lower lignin content than ligno-cellulosic material, including food and feed crop residues, such as straw, stover, husks and shells; grassy energy crops with a low starch content, such as ryegrass, switchgrass, miscanthus, giant cane; cover crops before and after main crops; ley crops; industrial residues, including from food and feed crops after vegetal oils, sugars, starches and protein have been extracted; and material from biowaste. Where ley and cover crops are understood to be temporary, short-term sown pastures comprising grass-legume mixture with a low starch content to obtain fodder for livestock and improve soil fertility for obtaining higher yields of arable main crops;

'Non-natural highly biodiverse grassland', means grassland that would cease to be grassland in the absence of human intervention and that is species-rich and not degraded and has been identified as being highly biodiverse by the relevant competent authority, unless evidence is provided that the harvesting of the raw material is necessary to preserve its status as highly biodiverse grassland;

'Old-growth forest' a forest stand or area consisting of native tree species that have developed, predominantly through natural processes, structures and dynamics normally associated with late-seral developmental phases in primary or undisturbed forests of the same type. Signs of former human activities may be visible, but they are gradually disappearing or too limited to significantly disturb natural processes

'Primary forest and other wooded land', namely forest and other wooded land of native species, where there is no clearly visible indication of human activity and the ecological processes are not significantly disturbed

'Products', are all plant-based raw materials grown and harvested on agricultural land that serve as starting materials, as well as intermediate products derived from them

'Raw materials', are all plant-based raw materials grown and harvested on agricultural land that serve as source material

'Reduction of greenhouse gases' is the saving of greenhouse gas emissions by using biofuels or bioliquids or biomass fuels compared to fossil fuels;

'Registered farmers' are the producers of agricultural raw materials in accordance with Revised Directive (EU) 2018/2001, who have submitted "confirmation of the registered farmer";

'Residue' means a substance that is not the end product(s) that a production process directly seeks to produce; it is not a primary aim of the production process and the process has not been deliberately modified to produce it;

'Residual materials from agriculture, aquaculture, fisheries and forestry' are residues that arise directly in agriculture, aquaculture, fisheries and forestry and do not include residues from related industries or processing;

"Species-rich" (Commission Regulation (EU) No 1307/2014), that is to say it is: (i) a habitat of significant importance to critically endangered, endangered or vulnerable species as classified by the International Union for the Conservation of Nature Red List of Threatened Species or other lists with a similar purpose for species or habitats laid down in national legislation or recognised by a competent national authority in the country of origin of the raw material; or (ii) a habitat of significant importance to endemic or restricted-range species; or (iii) a habitat of significant importance to intra-species genetic diversity; or (iv) a habitat of significant importance to globally significant concentrations of migratory species or congregatory species; or (v) a regionally or nationally significant or highly threatened or unique ecosystem. (1)

'Starting materials' see Raw materials;

'Typical value' means an estimate of the greenhouse gas emission and greenhouse gas emissions savings for a particular biofuel, bioliquid or biomass fuel production pathway, which is representative of the Union consumption;

'Waste' means waste as defined in point (1) of Article 3 of Directive 2008/98/EC, excluding substances that have been intentionally modified or contaminated in order to meet this definition;

4 REQUIREMENTS FOR REGISTERED FARMERS

Registered are agricultural holdings that have applied for a collective application (formerly MFA!) according to GAP Strategic Plan Application Ordinance - GSP-AV BGBl. II Nr. 403/2022 as amended: 403. Austrian Federal Ministry of Agriculture and Forestry, Climate and Environmental Protection, Regions and Water Management with Rules for the Application of the GAP Strategic Plan (GAP Strategic Plan Application Ordinance - GSP-AV) as amended.

Agricultural holdings which have not submitted a summary application have the opportunity to obtain registration by submitting an application. The AMA charges the applicant an appropriate fee for this registration.

A registered farmer of sustainable raw materials must fulfil these criteria (Art. 29 of Revised Directive (EU) 2018/2001):

- Biofuels, bioliquids and biomass fuels produced from waste and residues derived not from forestry but from agricultural land shall be taken into account only where operators or national authorities have monitoring or management plans in place in order to address the impacts on soil quality and soil carbon. Information about how those impacts are monitored and managed shall be reported pursuant to Article 30(3) of the Directive.
- Biofuels, bioliquids and biomass fuels produced from agricultural biomass taken into account for the purposes referred to in points (a), (b) and (c) of the first subparagraph of paragraph 1 shall not be made from raw material obtained from land with a high biodiversity value, namely land that had one of the following statuses in or after January 2008, whether or not the land continues to have that status:
 - (a) primary forest, other wooded land or old growth forest, namely forest and other wooded land of native species, where there is no clearly visible indication of human activity and the ecological processes are not significantly disturbed; and old-growth forest, i.e. forest consisting of native tree species that have developed through natural processes, structures and dynamics that correspond to later stages of development of primary forests of the same species. The impact of past human activity is too small to disturb natural processes;
 - (b) highly biodiverse forest and other wooded land which is species-rich and not degraded, or has been identified as being highly biodiverse by the relevant

competent authority, unless evidence is provided that the production of that raw material did not interfere with those nature protection purposes;

(c) areas designated:

- (i) by law or by the relevant competent authority for nature protection purposes, unless it is proven that the extraction of the raw material was not contrary to the aforementioned nature conservation purposes; or
- (ii) for the protection of rare, threatened or endangered ecosystems or species recognised by international agreements or included in lists drawn up by intergovernmental organisations or the International Union for the Conservation of Nature, subject to their recognition in accordance with the first subparagraph of Article 30(4), unless evidence is provided that the production of that raw material did not interfere with those nature protection purposes;

Examples of designated areas in Austria:

National parks, Natura 2000 sites, nature reserves, landscape protection areas, nature conservation areas, nature parks, protected landscape areas, Ramsar sites, UNESCO biosphere reserves, biogenetic reserves of the Council of Europe

National nature reserves in Austria:

Danube-Auen National Park, Lake Neusiedl, Hohe Tauern, Nationalpark Kalkalpen, Gesäuse National Park, National Park Thayatal; the wetlands of Lake Neusiedl including the so-called 'Lacken' in the Seewinkel, Danube-March-Auen, Lower Lobau, Unterer Inn reservoirs, Rhine delta in Lake Constance;

(d) highly biodiverse grassland spanning more than one hectare in or after January 2008 that is:

- (i) natural, namely grassland that would remain grassland in the absence of human intervention and that maintains the natural species composition and ecological characteristics and processes; or
- (ii) non-natural, namely grassland that would cease to be grassland in the absence of human intervention and that is species-rich and not degraded and has been identified as being highly biodiverse by the relevant competent authority, unless evidence is provided that the harvesting of the raw material is necessary to preserve its status as highly biodiverse grassland.

(e) heathland:

Heathland, i.e. areas that have a vegetation of different dwarf shrub heaths. In the narrower sense, these are societies of small-grown woody formations, which can reach growth heights of 5 cm to 150 cm.

Dwarf shrub heaths can be found in the valleys and basins as well as in the mountains in various sizes, which colonise nutrient-poor carbonate-containing and carbonate-free soils as habitats.

- Biofuels, bioliquids and biomass fuels produced from agricultural biomass may not be produced from raw materials obtained from land with a high carbon stock, i.e. land that had one of the following statuses in January 2008 but no longer has this status:

(a) wetlands, namely land that is covered with or saturated by water permanently or for a significant part of the year; Retaining the wetland status means that this state may not be actively changed or adversely affected. Evidence of verification should reflect seasonal changes within a year.

(b) continuously forested areas, namely land spanning **more than one hectare** with trees higher than five metres and a canopy cover of more than 30 %, or trees able to reach those thresholds on the respective site; continuously forested areas do not include land that is predominantly under agricultural or urban land use. In this context, agricultural land use refers to tree stands in agricultural production systems, such as fruit tree plantations, oil palm plantations and agroforestry systems when crops are grown under tree cover.

(c) land spanning **more than one hectare** with trees over five metres in height and a canopy cover of 10 to 30 % or with trees capable of reaching these thresholds on the site concerned, unless it is demonstrated that the carbon stock of the area before and after conversion is such that the conditions set out in paragraph 10 would be met using the method described in Part C and/or Part B of Annex V to Annex VI.

These provisions shall not apply if, at the time the raw material was obtained, the land had the same status as it had in January 2008.

- Biofuels, bioliquids and biomass fuels produced from agricultural biomass shall not be made from raw material obtained from land that was peatland in January 2008.

An exception is possible if evidence is provided that the cultivation and harvesting of that raw material does not involve drainage of previously undrained soil. This means that for peatland that was partially drained in January 2008, a subsequent deeper drainage, affecting soil that was not fully drained, would constitute a breach of the criterion.

Revised Directive (EU) 2018/2001 EC Article 29

Which areas can be used for growing sustainable biomass?

- ▶ On areas which were used for agricultural purposes prior to 01.01.2008.
- ▶ On areas which have not the status highly biodiverse grassland in the meaning of the Regulation (EU) No 1307/2014 unless evidence may be provided that the harvesting of the raw material is necessary to preserve the corresponding grassland status.
- ▶ Biomass may be cultivated on land that was peatland in January 2008 if proof is provided that undrained land was used for cultivation and did not have to be drained for the harvesting of this raw material
- ▶ The areas must be in compliance with all notable provisions of the Austrian federal states nature conservation regimes and EU law (e.g. "Natura 2000" areas)

Which areas cannot be used for growing sustainable biomass?

| Status of land | Characteristics | Exceptions, if following applies | Occurrence in Austria | Regulated by |
|---|---|--|--|--|
| Areas with high biological diversity | <p>Primary forests</p> <ul style="list-style-type: none"> – natural areas – areas with native species – no clearly visible indication of human activity – ecological processes are not significantly disturbed <p>Old-growth Forest Forests with MCPFE status 1.2</p> <ul style="list-style-type: none"> – minus primary forests | no exceptions | <ul style="list-style-type: none"> – Rothwald (Lower Austria) – Lammertaler Urwald (Salzburg) <p align="center">all over Austria</p> | <ul style="list-style-type: none"> – Forestry Act 1975 – NLAV BGBl II. 24/2018 as amended <p align="right">https://www.umweltbundesamt.at/fileadmin/site/publikationen/m165.pdf</p> |
| | <p>Designated areas</p> <ul style="list-style-type: none"> – by law or by the authorities for nature protection purposes – for the protection of rare, threatened or endangered ecosystems or species | Growing or harvesting sustainable biomass must not be contrary to the stated nature protection purposes | <ul style="list-style-type: none"> – Natura 2000 sites – Nature conservation sites – National parks – Areas of protected landscape | <ul style="list-style-type: none"> – State Countryside Protection Acts |
| | <p>Natural grassland</p> <ul style="list-style-type: none"> – maintenance without human intervention – natural species composition – ecological characteristics are intact | no exceptions | | <ul style="list-style-type: none"> – Regulation 1307/2014; – DIR 92/43/EC; – DIR 2009/147/EC – IR (EU 2022/996) |
| | <p>Non-natural grassland</p> <ul style="list-style-type: none"> – No more grassland without human intervention – species-rich – and not degraded – has been identified as being highly biodiverse by the relevant competent authority – | harvesting biomass serves to preserve grassland status management practices do not present a risk of causing biodiversity decline of the grassland | all over Austria | <ul style="list-style-type: none"> – Regulation 1307/2014; – DIR 92/43/EEC; – DIR 2009/147/EC – IR (EU) 2022/996 |

| | | | | |
|--|---|---------------|--|--|
| | <p>Heathland</p> <ul style="list-style-type: none"> – vegetation of different dwarf shrub heaths – growth heights of 5 cm to 150 cm – in valleys and basins as well as in the mountains in different areas – nutrient-poor – carbonate-containing and – carbonate-free soils | no exceptions | | <ul style="list-style-type: none"> – DIR (EU) 2018/2001 as amended – NLAV BGBL II. 124/2018 as amended |
|--|---|---------------|--|--|

| Status of land | Characteristics | Exceptions, if following applies | Occurrence in Austria | Regulated by |
|--------------------------------------|---|--|------------------------------|---|
| Areas with high carbon stocks | <p>Wetlands</p> <ul style="list-style-type: none"> – Areas which are covered with or saturated by water permanently or for a significant part of the year | no exceptions | all over Austria | <ul style="list-style-type: none"> – State Countryside Protection Acts |
| | <p>Continuously forested areas</p> <ul style="list-style-type: none"> – Areas which cover more than 1 ha with trees over 5 m and a canopy cover <ul style="list-style-type: none"> • of more than 30% • or to reach those thresholds in situ | Cultivation must not alter the status of the land | all over Austria | <ul style="list-style-type: none"> – Forestry Act 1975 |
| Peatlands | <ul style="list-style-type: none"> – Significant carbon reservoirs with high nature value | Cultivation or harvesting must not affect drainage | all over Austria | <ul style="list-style-type: none"> – State Countryside Protection Acts |

5 CONFIRMATION OF THE REGISTERED FARMER

In order to sell agricultural raw materials with origin Austria as sustainable, a 'Confirmation of the registered farmer' form must be given in Original to the first purchaser. This Confirmation has to be hand over with the beginning of the deliveries.

With this form the agricultural holding verifies that he fulfils the above-mentioned requirements of a registered farmer. The "Confirmation of the registered farmer" must be given for every harvest year.

The form is available on the AMA website as well as from the certification body appointed by the AMA.

Caution:

- If foreign land is farmed, the raw materials harvested on such land must adhere to a corresponding other voluntary scheme of sustainability used by the Member State or any third country concerned.
- In any case, when dealing with cross-border farmland or land which is located in another Member State or a third country, the benefits from those areas not located on Austrian state territory may **NOT** be confirmed using a confirmation of the farmer form which was issued in Austria.

Hint:

If land use changes have been made since 1 January 2008, the corresponding areas must be explicitly excluded. Default values or NUTS II values cannot be used in this case.

6 CALCULATION OF GREENHOUSE GASES REDUCTION

The following options for indicating greenhouse gas emissions are available to every registered farmer:

1. Using disaggregated default values
2. Using NUTS2 values
3. Using actual calculated values

Regarding 1: The use of disaggregated default values:

Disaggregated default values are available for cultivation, processing and transport and distribution. The disaggregated default values for cultivation are set down in Annex V, part D or E and Annex VI part C of Revised Directive (EU) 2018/2001. Disaggregated default values can only be applied where the e_l value for those biofuels or bioliquids calculated in accordance with point 7 of Part C of Annex V and for those biomass fuels calculated in accordance with point 7 of Part B of Annex VI is equal to or less than zero, by using that default value.

Regarding 2: The use of NUTS II values where available and appropriate:

As an alternative to disaggregated default cultivation values, it is possible to use the respective NUTS II values if the respective types of biomass correspond with official data submitted in the reports from Member States in accordance with their fulfilment of provisions in Article 31 paragraph 2 of Revised Directive (EU) 2018/2001. NUTS2 values (or equivalent in third countries) can only be applied if these have been published in the unit g CO₂eq/dry-ton of feedstock on the Commission website ([Biofuels \(europa.eu\)](http://Biofuels.europa.eu)).

In case of using the NUTS II values take the federal state as origin country (NUTS II-region) (EC) No 1059/2003).

For processed goods (e.g. vegetable oil, molasses) enter the cultivation country of the respective primary product.

Regarding 3: The use of actual calculated values:

It is assumed in Austria that, the disaggregated default values or NUTS II values from cultivation are used.

If farmers in Austria wishes to use another approach to prove that the emissions resulting from their methods of production are lower than the corresponding default values/NUTS II values, they must do so using an actual calculation of greenhouse gas emissions.

Greenhouse gas emissions must be calculated according to the methodology laid down in part C of Annex V for biofuels and bioliquids and in part B of Annex VI for biomass fuels) of the Revised Directive (EU) 2018/2001.

If the agricultural raw materials originate from land on which a land-use change has taken place since 01.01.2008 or the factor for emissions savings from soil carbon accumulation via improved agricultural management referred to Annex VI of Revised Directive (EU) 2018/2001 was used, actual calculated values must be applied. The registered farmer must bear the costs for determining and auditing such individually calculated actual values.

The auditing of actual values does not fall within the scope of the AACS system. If actual GHG emission calculations are used, economic operators must comply with the provisions of Commission Implementing Regulation (EU) 2022/996 on 'Rules for the verification of sustainability and greenhouse gas emission saving criteria and low indirect land-use change risk criteria' (in particular Articles 11 and 14).

7 PENALTIES

If the requirements under point 4 on the production of raw materials are not met by the respective agricultural holding, the certification body appointed by the AMA can classify the quantities delivered as unsustainably produced and thus deny. This can happen on Basis of the available administrative/on site inspection results or the information from the summary application.

In such case, the registered farmer and the buyer will be informed written by the certification body appointed by the AMA.

Deliveries from such areas cannot be declared as sustainable in the future. These areas must be excluded in the "confirmation of the registered farmer".

METHODOLOGY FOR DETERMINING THE EMISSIONS FROM THE EXTRACTION OR CULTIVATION OF RAW MATERIALS

To calculate the emissions from the extraction or cultivation of raw materials Part C, point 5 of Annex V and Part B, point 5 of Annex VI to Directive (EU) 2018/2001 as amended state that the calculation shall include the sum of all emissions from the extraction or cultivation process itself; from the collection, drying and storage of raw materials; from waste and leakages; and from the production of chemicals or products used in extraction or cultivation.

The capture of CO₂ in the cultivation of raw materials shall be excluded. Estimates of emissions from agriculture biomass cultivation may be derived from the use of regional average values for cultivation emissions included in the reports referred to in Article 31(4) of Directive (EU) 2018/2001 as amended or the information on the disaggregated default values for cultivation emissions included in this Annex, as an alternative to using actual values. In the absence of relevant information in those reports, average values can be calculated based on local farming practices, for instance on data of a group of farms, as an alternative to using actual values.

EMISSIONS FROM THE EXTRACTION OR CULTIVATION PROCESS ITSELF

The emissions from the extraction or cultivation process itself shall include all emissions from (i) the provision of the fuels for farm machinery used; (ii) the production of seeding material for crop cultivation; (iii) the production of fertilisers and pesticides; (iv) fertiliser acidification and liming application; and (v) soil emissions from crop cultivation.

1.1. Fuel use (diesel oil, gasoline, heavy fuel oil, biofuels or other fuels) for farm machinery

The GHG emissions from crop cultivation (field preparation, seeding, fertiliser and pesticide application, harvesting, collection) shall include all emissions from the use of fuels (such as diesel oil, gasoline, heavy fuel oil, biofuels or other fuels) in farm machinery. The amount of fuel use in farm machinery shall be duly documented. Appropriate emission

³ As certification covers the entire process from cultivation to initial processing, the aspects specified in Annex VII to Implementing Regulation (EU) 2022/996 and in Annexes V and VI to Directive (EU) 2018/2001 as amended may be particularly relevant for economic operators wishing to calculate actual values. Although the verification of these values does not fall within the scope of the AACS system, AACS accepts actual values if they have been verified by a recognised voluntary system for this scope.

Therefore, for the sake of completeness and to avoid any doubt, the relevant provisions of **Implementing Regulation (EU) 2022/996** and **Directive (EU) 2018/2001 as amended** are hereby cited and summarised.

factors of the fuels must be used in accordance with Annex IX. Where biofuels are used, the default GHG emissions set out in Directive (EU) 2018/2001 as amended must be used.

1.2. Chemical fertilisers and pesticides

The emissions from the use of chemical fertilisers and pesticides ⁽¹⁾ for the cultivation of raw materials shall include all related emissions from the manufacture of chemical fertilisers and pesticides. The amount of the chemical fertilisers and pesticides, depending on the crop, local conditions and farming practices, shall be duly documented. Appropriate emission factors, including upstream emissions, must be used to account for the emissions from the production of chemical fertilisers and pesticides pursuant to Annex IX. If the economic operator knows the factory producing the fertiliser and it falls under the EU Emissions Trading System (ETS), then the economic operator can use the production emissions declared under ETS, adding the upstream emissions for natural gas etc. Transport of the fertilisers shall also be included, using the emissions from transport modes listed in Annex IX. If the economic operator does not know the factory supplying the fertiliser, it should use the default values provided for in Annex IX.

1.3. Seeding material

The calculation of cultivation emissions from the production of seeding material for crop cultivation shall be based on actual data on the seeding material used. Emission factors for the production and supply of seeding material can be used to account for emissions associated with the production of seeds. The default values for emission factors set out in Annex IX must be used. For other seeds, literature values from the following hierarchy must be used.

- (a) version 5 of JEC-WTW report;
- (b) ECOINVENT database;
- (c) 'official' sources, such as Intergovernmental Panel on Climate Change (IPCC), International Energy Agency (IEA) or governments;
- (d) other reviewed sources of data, such as E3 database, GEMIS database;
- (e) peer-reviewed publications;
- (f) duly documented own estimates.

1.4. Emissions from fertiliser acidification and liming application

The emissions from the neutralisation of fertiliser acidification and application of aglime shall account for the CO₂ emissions from neutralisation of acidity from nitrogen fertilisers or from aglime reactions in the soil.

1.4.1. Emissions from neutralisation of fertiliser acidification

The emissions resulting from acidification caused by nitrogen fertiliser use in the field shall be accounted for in the emission calculation, based on the amount of nitrogen fertilisers used. For nitrate fertilisers, the emissions from the neutralisation of nitrogen fertilisers in the soil shall be 0,783 kg CO₂/kg N; for urea fertilisers, the neutralisation emissions shall be 0,806 kg CO₂/kg N.

1.4.2. Soil emissions from liming (aglime)

The real amount of aglime used shall be duly documented. Emissions shall be calculated as follows:

1. On acid soils, where pH is less than 6,4, aglime is dissolved by soil acids to form predominantly CO₂ rather than bicarbonate, releasing almost all of the CO₂ into the aglime (0,44 kg CO₂/kg CaCO₃ equivalent aglime).
2. If soil pH is greater or equal to 6,4, an emission factor of $0,98/12,44 = 0,079$ kg CO₂/(kg CaCO₃-equivalent) aglime applied shall be taken into account in the calculation, in addition to the emissions due to the neutralisation of acidification caused by the fertiliser.
3. The liming emissions calculated from actual lime use, calculated in points 1 and 2 above, may be greater than the fertilizer neutralization emissions calculated in 1.4.1 if the fertilizer acidification was neutralized by the applied lime. In such a case, the fertilizer neutralization emissions (in 1.4.1) may be subtracted from the calculated liming emissions to avoid that its emissions are counted twice.

The emissions from fertilizer acidification may exceed those attributed to liming. In such a case, the subtraction would result in apparently negative net liming emissions because not all of the fertilizer-acidity is neutralized by aglime but also partly by naturally-occurring carbonates. In this case, the net liming emissions shall be counted zero, but the fertilizer-acidification emissions that occur anyway shall be maintained in line with section 1.4.1.

If data on actual aglime use is not available, the aglime use recommended by the Agricultural Lime Association shall be assumed. This shall be a function of the type of crop, measured soil pH, soil type and type of liming material. The accompanying CO₂ emissions shall be calculated using points 1 and 2 of the procedure above.

However, the subtraction specified in point 3 shall not be applied in this case, since the recommended use of aglime does not include aglime used to neutralize fertilizer applied

in the same year, so there is no possible double counting of fertilizer neutralization emissions.

1.5. Soil (nitrous oxide/N₂O) emissions from crop cultivation

The calculation of N₂O emissions from managed soils shall follow the IPCC methodology. The use of disaggregated crop-specific emission factors for different environmental conditions (corresponding to Tier 2 of the IPCC methodology) shall be used to calculate the N₂O emissions resulting from crop cultivation. Specific emission factors for different environmental conditions, soil conditions and different crops should be taken into account. Economic operators could use validated models to calculate those emission factors provided that the models take these aspects into account. In line with the IPCC guidelines (2), both direct and indirect N₂O emissions shall be taken into account. The GNOC tool shall be used, which is based on the formulas below, following the naming conventions in the IPCC (2006) guidelines:

$$N_{total} - N = N_{2O_{direct}} - N_{2O} + N_{2O_{indirect}} - N$$

Where:

$$\text{For mineral soils: } N_{Direct} - N = [(F_{SN} + F_{1ij}) \cdot ON] \cdot EF + [F_{CR} \cdot E_{F1}]$$

$$\text{For organic soils: } N_{2O_{Direct}} - N = [(F + F_1) \cdot ON] \cdot EF + [F_{F1}] \cdot CR \cdot E + [(F_{2CG, Temp} \cdot OS, CG, Temp) \cdot EF + [F_{CROS, CG, Trop} \cdot E_{2CG, Trop}]$$

$$\text{For both mineral and organic soils: } N_{2O_{Direct}} - N = [(F_{GASF}) \cdot SN \cdot Frac + (F_{GASM}) \cdot EF_4] \cdot ON \cdot Erac + [(F + F + F_{CR}) \cdot Frac_{Leach-(H)} \cdot EF_5]$$

1.5.1. Crop residue N input

It must be calculated for:

(a) sugar beet, sugar cane according to IPCC (2006) Vol. 4 Chapter 11 Eq. 11.6, not considering below-ground residues and with the addition of N input from vignasse and filter cake in the case of sugar cane;

$$F_{Burnt} \cdot C_f) \cdot [R_{AG} \cdot N_{AG} \cdot (1 - Frac_{Remove})] \cdot CR = Yield \cdot DRY \cdot (1 - Frac + F_{VF}$$

(b) coconut and oil palm plantations applying a fixed N input based on literature as IPCC (2006) provides no default calculation method for standard emission factors, pursuant to Annex IX;

(c) for all other crops according to IPCC (2006) Vol. 4 Chapter 11 Eq. 11.7a 11.11, 11.12, as

$$F_{Burnt} \cdot C_f) \cdot AG_{DM} \cdot N_{AG} \cdot (1 - Frac_{Remove}) \cdot CR = (1 - Frac + (AG + Yield \cdot DRY) \cdot R_{BG-BIO} \cdot N_{BG}$$

Where:

N₂O_{total} - N = direct and indirect annual N₂O-N emissions produced from managed soils;
kg N₂O-N ha⁻¹ a⁻¹

$N_2O_{\text{direct N}}$ = annual direct N_2O-N emissions produced from managed soils; $kg N_2O-N ha^{-1} a^{-1}$

$N_2O_{\text{indirect N}}$ = annual indirect N_2O-N emissions (that is to say, the annual amount of N_2O-N produced from atmospheric deposition of N volatilised from managed soils and annual amount of N_2O-N produced from leaching and run-off of N additions to managed soils in regions where leaching/run-off occurs); $kg N_2O-N ha^{-1} a^{-1}$

F_{SN} = annual synthetic nitrogen fertiliser input; $kg N ha^{-1} a^{-1}$

F_{ON} = annual animal manure N applied as fertiliser; $kg N ha^{-1} a^{-1}$

F_{CR} = annual amount of N in crop residues (above ground and below ground); $kg N ha^{-1} a^{-1}$

$F_{OS,CG,Temp}$ = annual area of managed/drained organic soils under cropland in temperate climate; $ha^{-1} a^{-1}$

$F_{OS,CG,Trop}$ = annual area of managed/drained organic soils under cropland in tropical climate; ha^{-1}

$Frac_{GASF}$ = $0,10 (kg N NH_3-N + NO_x-N) (kg N \text{ applied})^{-1}$. Volatilisation from synthetic fertiliser

$Frac_{GASM}$ = $0,20 (kg N NH_3-N + NO_x-N) (kg N \text{ applied})^{-1}$. Volatilisation from all organic nitrogen fertilisers applied

$Frac_{Leach-(H)}$ = $0,30 kg N (kg N \text{ additions})^{-1}$. N losses by leaching/run-off for regions where leaching/run-off occurs

EF_{1ij} = Crop and site-specific emission factors for N_2O emissions from synthetic fertiliser and organic N application to mineral soils ($kg N_2O-N (kg N \text{ input})^{-1}$);

EF_1 = $0,01 [kg N_2O-N (kg N \text{ input})^{-1}]$

$EF_{2CG,Temp}$ = $8 kg N ha^{-1} a^{-1}$ for temperate organic crop and grassland soils

$EF_{2CG,Trop}$ = $16 kg N ha^{-1} a^{-1}$ for tropical organic crop and grassland soils

EF_4 = $0,01 [kg N_2O-N (kg N NH_3-N + NO_x-N \text{ volatilised})^{-1}]$

EF_5 = $0,0075 [kg N_2O-N (kg N \text{ leaching/run-off})^{-1}]$

Yield = annual fresh yield of the crop ($kg ha^{-1}$)

DRY = dry matter fraction of harvested product [$kg d.m. (kg \text{ fresh weight})^{-1}$] (see Table 1)

$Frac_{Burnt}$ = Fraction of crop area burnt annually [$ha (ha)^{-1}$]

C_f = Combustion factor [dimensionless] (see Table 1)

R_{AG} = Ratio of above-ground residues, dry matter to harvested dry matter yield, for the crop [$kg d.m. (kg d.m.)^{-1}$] (see Table 3)

N_{AG} = N content of above-ground residues [$kg N (kg d.m.)^{-1}$] (see Table 1)

$Frac_{Remove}$ = Fraction of above-ground residues removed from field [$kg d.m. (kg AGDM)^{-1}$]

- F_{VF} =Annual amount of N in sugar cane vignasse and filter cake returned to the field [kg N ha⁻¹], calculated as Yield * 0,000508.
- AG =Above-ground residue dry matter [kg d.m. ha⁻¹]

1.5.2. Crop and site-specific emission factors for N₂O emissions from synthetic fertiliser and organic N application

N₂O emissions from soils under agricultural use, in different agricultural fields under different environmental conditions and agricultural land use classes can be determined following the Stehfest and Bouwman (2006) statistical model (hereinafter referred to as 'the S&B model'):

$$E = \exp\left(-1,516 + \sum ev\right)$$

Where:

E = N₂O emission (in kg N₂O-N ha⁻¹ a⁻¹)

ev = effect value for different drivers (see Table 2)

The EF_{1ij} for the biofuel crop i at location j is calculated (S&B model) as:

$$EF_{1ij} = (E_{fert,ij} - E_{unfert,ij})/N_{appl,ij}$$

The IPCC (2006) factor (EF_1) for direct N₂O emissions from fertiliser input based on a global mean shall be replaced by the crop- and site-specific EF_{1ij} for direct emissions from mineral fertiliser and manure N input, based on the crop- and site-specific EF_{1ij} , applying the S&B model.

Where:

$E_{fert,ij}$ =N₂O emission (in kg N₂O-N ha⁻¹ a⁻¹) based on S&B, where the fertiliser input is the actual N application rate (mineral fertiliser and manure) to the crop i at location j

$E_{unfert,ij}$ =N₂O emission of the crop i at location j (in kg N₂O-N ha⁻¹ a⁻¹) based on S&B. The N application rate is set to 0, all the other parameters are kept the same.

$N_{appl,ij}$ =N input from mineral fertiliser and manure (in kg N ha⁻¹ a⁻¹) to the crop i at location j

Table 1

Crop-specific parameters to calculate N input from crop residues ⁽³⁾

| Crop | Calculation method | DRY | LHV | N _{AG} | slope | intercept | R _{AG,fit} | N _{AG} | Cf | R _{AG} | Fixed amount of N in crop residues (kg N ha ⁻¹) | Data sources* |
|-----------------|-------------------------------------|-------|--------|-----------------|-------|-----------|---------------------|-----------------|-----|-----------------|---|---------------|
| Barley | IPCC (2006) Vol. 4 Ch. 11 Eq. 11.7a | 0.865 | 17 | 0.007 | 0.98 | 0.59 | 0.22 | 0.014 | 0.8 | | | 1, 2 |
| Cassava | IPCC (2006) Vol. 4 Ch. 11 Eq. 11.7a | 0.302 | 16.15 | 0.019 | 0.1 | 1.06 | 0.2 | 0.014 | 0.8 | | | 1, 2 |
| Coconuts | Fixed N from crop residues | 0.94 | 32.07 | | | | | | | | 44 | 1, 3 |
| Cotton | No inform. on crop residues | 0.91 | 22.64 | | | | | | | | | |
| Maize | IPCC (2006) Vol. 4 Ch. 11 Eq. 11.7a | 0.86 | 17.3 | 0.006 | 1.03 | 0.61 | 0.22 | 0.007 | 0.8 | | | 1, 2 |
| Oil palm fruit | Fixed N from crop residues | 0.66 | 24 | | | | | | | | 159 | 1, 4 |
| Rapeseed | IPCC (2006) Vol. 4 Ch. 11 Eq. 11.7a | 0.91 | 26.976 | 0.011 | 1.5 | 0 | 0.19 | 0.017 | 0.8 | | | 1, 5 |
| Rye | IPCC (2006) Vol. 4 Ch. 11 Eq. 11.7a | 0.86 | 17.1 | 0.005 | 1.09 | 0.88 | 0.22 | 0.011 | 0.8 | | | 1, 6 |
| Safflower seed | No inform. on crop residues | 0.91 | 25.9 | | | | | | | | | |
| Sorghum (grain) | IPCC (2006) Vol. 4 Ch. 11 Eq. 11.7a | 0.89 | 17.3 | 0.007 | 0.88 | 1.33 | 0.22 | 0.006 | 0.8 | | | 1, 7 |
| Soybeans | IPCC (2006) Vol. 4 Ch. 11 Eq. 11.7a | 0.87 | 23 | 0.008 | 0.93 | 1.35 | 0.19 | 0.087 | 0.8 | | | 1, 8 |
| Sugar beets | IPCC (2006) Vol. 4 Ch. 11 Eq. 11.6 | 0.25 | 16.3 | 0.004 | | | | | 0.8 | 0.5 | | 1, 9 |
| Sugar cane | IPCC (2006) Vol. 4 Ch. 11 Eq. 11.6 | 0.275 | 19.6 | 0.004 | | | | | 0.8 | 0.43 | | 1, 10 |
| Sunflower seed | IPCC (2006) Vol. 4 Ch. 11 Eq. 11.7a | 0.9 | 26.4 | 0.007 | 2.1 | 0 | 0.22 | 0.007 | 0.8 | | | 1, 11 |
| Triticale | IPCC (2006) Vol. 4 Ch. 11 Eq. 11.7a | 0.86 | 16.9 | 0.006 | 1.09 | 0.88 | 0.22 | 0.009 | 0.8 | | | 1, 2 |
| Wheat | IPCC (2006) Vol. 4 Ch. 11 Eq. 11.7a | 0.84 | 17 | 0.006 | 1.51 | 0.52 | 0.24 | 0.009 | 0.9 | | | 1, 2 |

Table 2

Constant and effect values for calculating N₂O emissions from agricultural fields based on the S&B model

| Constant value | -1.516 | |
|------------------------|-------------------------------|--|
| Parameter | Parameter class or unit | Effect value (ev) |
| Fertilizer input | | 0.0038 * N application rate in kg N ha ⁻¹ a ⁻¹ |
| Soil organic C content | <1 % | 0 |
| | 1-3 % | 0.0526 |
| | >3 % | 0.6334 |
| pH | <5.5 | 0 |
| | 5.5-7.3 | -0.0693 |
| | >7.3 | -0.4836 |
| Soil texture | Coarse | 0 |
| | Medium | -0.1528 |
| | Fine | 0.4312 |
| Climate | Subtropical climate | 0.6117 |
| | Temperate continental climate | 0 |
| | Temperate oceanic climate | 0.0226 |
| | Tropical climate | -0.3022 |
| Vegetation | Cereals | 0 |
| | Grass | -0.3502 |
| | Legume | 0.3783 |
| | None | 0.5870 |
| | Other | 0.4420 |
| | Wetland rice | -0.8850 |
| Length of experiment | 1 yr | 1.9910 |

EMISSIONS FROM THE COLLECTION, DRYING AND STORAGE OF RAW MATERIALS

Emissions from the collection, drying and storage of raw materials include all emissions related to fuel use in the collection, drying and storage of raw materials.

Emissions from collection

Emissions from the collection of raw materials include all the emissions resulting from the collection of raw materials and their transport to storage. The emissions are calculated using appropriate emission factors for the type of fuel used (diesel oil, gasoline, heavy fuel oil, biofuels or other fuels).

Biomass drying

The cultivation emissions shall include emissions from drying before storage as well as from storage and handling of biomass feedstock. Data on energy use for drying before storage shall include actual data on the drying process used to comply with the requirements of storage, depending on the biomass type, particle size, moisture content, weather conditions, etc. Appropriate emission factors, including upstream emissions, shall be used to account for the emissions from the use of fuels to produce heat or electricity used for drying. Emissions for drying include only emissions for the drying process needed to ensure adequate storage of raw materials and does not include drying of materials during processing.

ACCOUNTING FOR EMISSIONS FOR ELECTRICITY USED IN FARMING OPERATIONS

When accounting for the consumption of electricity not produced within the fuel production plant, the GHG emissions intensity of the produced and distributed electricity shall be assumed to be equal to the average emission intensity of the produced and distributed electricity in a defined region, which can be at a NUTS2 ⁽⁴⁾ region or a national level. In case national electric emission coefficients are used, the values from Annex IX shall be used. By way of derogation from this rule, producers may use an average value for an individual electricity production plant for electricity produced by that plant if it is not connected to the electricity grid and sufficient information are available to derive an emission factor”.

⁽¹⁾ ‘Pesticides’ means all plant protection products, including herbicides, insecticides, fungicides, etc.

⁽²⁾ IPCC (2006), Vol. 4, Chapter 11: N₂O emissions from managed soils, and CO₂ emissions from lime and urea application.

⁽³⁾ Data source: JRC report ‘Definition of input data to assess GHG default emissions from biofuels in EU legislation’ JRC 2019 (EUR 28349 EN).

<https://op.europa.eu/en/publication-detail/-/publication/7d6dd4ba-720a-11e9-9f05-01aa75ed71a1>

⁽⁴⁾ Nomenclature of territorial units for statistics.

RULES FOR THE CALCULATION ACCORDING TO ANNEX V (7) AND VI (7) OF DIRECTIVE (EU) 2018/2001

“Annualised emissions from carbon stock changes caused by land-use change, e_1 , shall be calculated by dividing total emissions equally over 20 years. For the calculation of those emissions, the following rule shall be applied:

$$e_1 = (CS_R - CS_A) \times 3,664 \times 1/20 \times 1/P - e_B$$

| | | |
|--------------------------|---|---|
| e_1 | = | annualised greenhouse gas emissions from carbon stock change due to land-use change (measured as mass (grams) of CO ₂ -equivalent per unit of biofuel or bioliquid energy (megajoules)). ‘Cropland’ ⁽³⁾ and ‘perennial cropland’ ⁽⁴⁾ shall be regarded as one land use; |
| CS_R | = | the carbon stock per unit area associated with the reference land-use (measured as mass (tonnes) of carbon per unit area, including both soil and vegetation). The reference land-use shall be the land-use in January 2008 or 20 years before the raw material was obtained, whichever was the later; |
| CS_A | = | the carbon stock per unit area associated with the actual land-use (measured as mass (tonnes) of carbon per unit area, including both soil and vegetation). In cases where the carbon stock accumulates over more than one year, the value attributed to CS_A shall be the estimated stock per unit area after 20 years or when the crop reaches maturity, whichever the earlier; |
| P | = | the productivity of the crop (measured as biofuel or bioliquid energy per unit area per year) and |
| e_B | = | bonus of 29 g CO ₂ eq/MJ biofuel or bioliquid if biomass is obtained from restored degraded land under the conditions laid down in point 8. |

The actual calculation of greenhouse gas emissions 'cultivation' is comprised of the following data:

- ▶ **Seeds** – Production costs for the provision of seeds
- ▶ **Fertiliser and plant protection products** – (calcium, potassium, phosphorus, nitrogen, biocide, etc.) – this also includes all steps necessary, including the necessary energy demand and supply routes.
- ▶ **Machinery used in the field** – including the fuel used by agricultural machinery to process the field (including applying fertiliser and plant protection products). In addition, the production of the machinery is taken into account (including the production of the necessary materials, etc)
- ▶ **Crop yield** – If additional emissions arise, they must also be recorded and included in the calculation of greenhouse gas emissions.

Steps in the working process which must be included in the calculation:

Planting: Ploughing, grubbing, harrowing
Sowing

Maintaining: Fertiliser
Plant protection products

Harvesting: Harvest
Stubble breaking/cultivation

The respective greenhouse gas emissions produced from transport to the storage site must also be taken into account”.

| Calculation of | Values in |
|---|----------------------------------|
| Amount of energy used | litres or kWh / ha |
| Yields per hectare by plant species | dt (decitonne) / ha (dry weight) |
| Application of fertiliser and plant protection products | kg or litres / ha |
| Quantity of seed | kg/ha |

9 ACCESS AND INSPECTION RIGHTS

The observance of the mentioned criterias concerning the registered farmer or supplier, is controlled randomly and annually by the certification body appointed by the AMA as a part of the audits.

In such cases, the registered farmer must permit the agents and delegates of the certification body appointed by the AMA; the Austrian Federal Ministry of Agriculture and Forestry, Climate and Environmental Protection, Regions and Water Management; and the European Union (referred to below as monitoring bodies) to access the operating and storage areas as well as the agricultural land during business and operating times or by appointment.

The monitoring bodies are authorised to inspect books, records, contracts, receipts and any other business documents which they deem necessary for the inspection.

The registered farmer is obliged to arrange for a suitable and informed respondent to be present during the inspection. The respondent must submit the respective documents for perusal at the request of the monitoring bodies; they must also provide information and any assistance requested by the monitoring bodies during the inspection.

The monitoring bodies may demand the temporary surrendering of records and documents – in which case they must confirm this transfer in writing.

In the case of electronic records, the registered farmer must provide printouts of the information at the request of the monitoring bodies at his expense.

10 RECORD KEEPING OBLIGATIONS

The registered farmer must keep proper records which are in accordance with the applicable legal documents provided for registration for seven years from the end of the calendar year, they agree to keep these securely, in full and in an orderly manner, provided longer retention periods are not required by other regulations. If these documents are stored electronically, it must be ensured that a copy which is true to the original can be produced at any point during the entire safekeeping period, for example by using a printer.

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This information sheet is available on the Internet at <https://www.ama.at/>.

EU regulations and directives can be found at <https://eur-lex.europa.eu/de/index.htm>

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To improve readability, the masculine form of the word has been chosen in this Infosheet. In line with the principle of equality, these formulations naturally refer to persons of all genders. The term marriage also applies equally to registered partnerships.

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