INTEGRATED FARM ASSURANCE SMART

Plant Propagation Material

PRINCIPLES AND CRITERIA

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DISCLAIMER

- *GLOBALG.A.P. certification covers the good agricultural practices implemented during the production process of seeds and other plant propagation materials (budwood, cuttings, etc.).*
- *Seeds and other propagation material are sold by seed or nursery companies, which need to comply with legal requirements for seed and plant propagation material production and distribution.*
- *A GLOBALG.A.P. certificate cannot be used as a substitute for legal certification or control of seed and plant propagation materials.*
- *These seeds and other propagating materials must not be used for human consumption or for feed. Seed potatoes are also covered under this statement. They must also not be used for human consumption or for feed.*

- *PPM certification does not cover food safety.*

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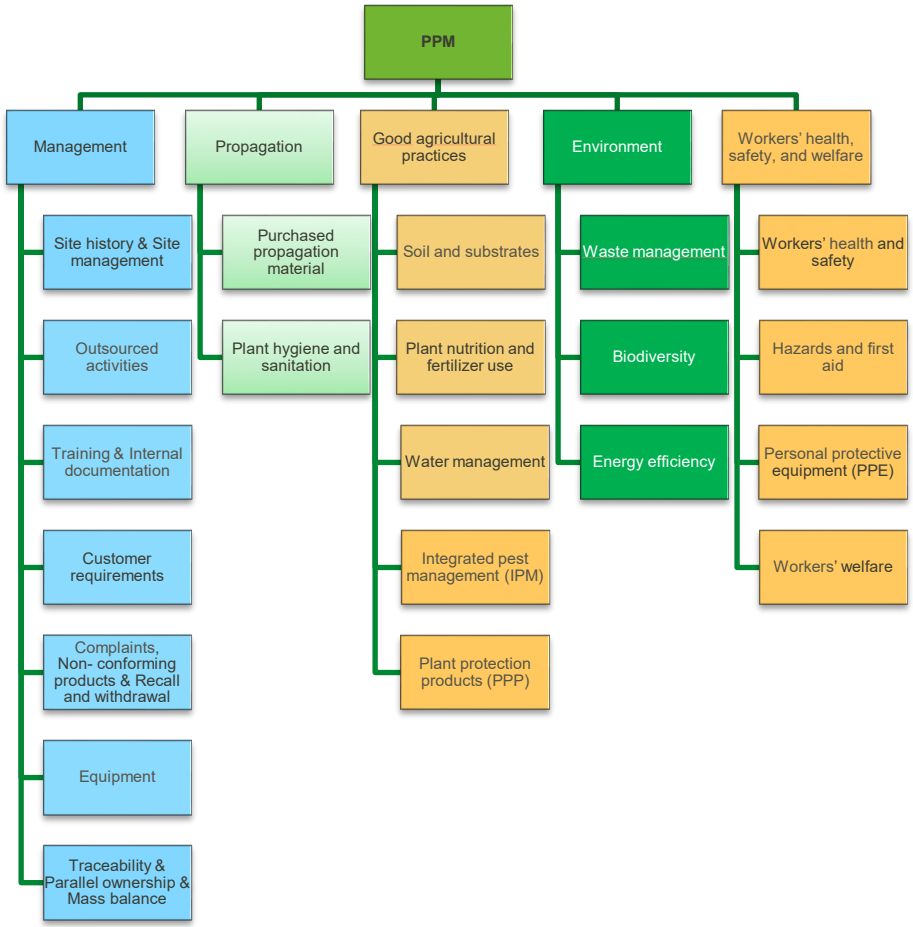
STRUCTURE OF THE STANDARD



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Section	Principle	Criteria	Level
PPM 01	**MANAGEMENT**		
PPM 01.01	**Site management**		
PPM 01.01.01	A risk assessment for the propagation activity has been completed.	The producer shall be aware of the risks and critical production steps for controlling the traceability, origin, and plant health of the propagation material, including: - Description of the product, processes, and product distribution - Identification of potential concerns (risks to traceability, risks to plant health) - Identification of the critical production steps (where risks impact traceability and plant health) - Preventive actions to address these critical production steps Traceability refers to the ability to control and know the identity and origin of the propagation material, e.g., its variety, or if a cutting is meant to grow a mother plant or meant to be planted on the field. The producer shall define whether food safety needs to be considered in which case, risks to food safety should be included in the risk assessment. If plant material is to be sold as food or feed, a food safety standard, like the Integrated Farm Assurance (IFA) standard for fruit and vegetables or for combinable crops, applies.	Minor Must
PPM 01.01.02	The facility has an official notification of recognition or registration issued by the competent plant health authority for operation.	Where required, approval by the competent plant health authority and/or registration shall be demonstrated. A registration number shall be recorded where one exists.	Major Must
PPM 01.01.03	A documented environmental risk assessment is completed for all registered sites.	The environmental risk assessment of the operation shall be: - Available for all production sites, including structures	Major Must

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		- Reviewed at least annually or when changes occur (new risks emerge or new sites or crops enter production) - Tailored to the scale of the nursery and the technical level of the business It shall consider: - Impact of proposed activities on the environment - Site history (minimum of one year, with five years recommended) - Nursery site plan - Biological, physical, and chemical hazards	
PPM 01.01.04	An environmental management plan that establishes strategies for minimizing the risks identified in the environmental risk assessment for operation suitability has been developed and implemented and is reviewed regularly.	An environmental management plan shall: - Be reviewed together with the risk assessment (annually or when changes occur) and address all risks identified in the risk assessment - Describe the control measures implemented for the risks identified - Be appropriate to operations - Support facility design, cleaning activities, pest control, and other activities - Ensure that the layout and flow of operations are suitable for the intended purpose and consider applicable structures - Be effective and visibly implemented	Major Must
PPM 01.02	**Site history**		
PPM 01.02.01	The producer has a system for identification of sites and facilities used for production.	The producer shall have a system to identify: - All fields, greenhouses, and other production areas	Major Must

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		- All water sources, storage and handling facilities, agrochemical storages, buildings, and any features that may pose a workers' health and safety, or environmental risk Identification may be on a map, through the use of signs at each site, or through a list of GPS coordinates.	
PPM 01.02.02	A recording system is established for each production unit to provide a record of the production activities undertaken.	Current records shall provide a history of GLOBALG.A.P. certified production in all production units. This shall be done either digitally or on paper. Production activities refer for example to the use of plant protection products, fertilizers, irrigation, among others necessary to obtain the crop.	Major Must
PPM 01.02.03	Records for auditing purposes are up-to-date. Records are kept for a minimum period of two years, unless a longer period is required.	All records generated or kept by the producer for auditing purposes shall: - Be stored securely, readily accessible and kept up to date - Be retained for a minimum of two years, or longer if required by customers or other relevant stakeholders - Be valid and backed-up, if used in electronic format - (Only for the initial audit) Cover at least three months prior to the date of the initial certification body (CB) audit, or begin on the day of registration, whichever is longer - Reference full details of each area and all activities covered by the registration Where an individual record is missing, the respective principle addressing those records is not compliant. For example, if the date of application is missing on a single spray record, a non-conformance or non-compliance shall be issued against that principle.	Major Must

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PPM 01.02.04	Records on propagation are kept.	Records on propagation shall be kept and shall include the following information: - The variety and batch number/source of the propagation material/seed on the sowing/planting schedule - The batch number of the substrate used - The seed lot number used, unless no seed used - The customer reference (“N/A” if propagation material is for own use) - The date of seeding/planting - The pricking out/transplanting schedule, where applicable	Minor Must
PPM 01.03	**Outsourced activities**		
PPM 01.03.01	The producer ensures that outsourced activities comply with the principles and criteria of the standard which are relevant to the services provided.	Outsourced processes and/or the use of subcontractors shall be identified and controlled. The producer shall oversee the activities undertaken by the subcontractors to ensure compliance with the relevant principles and criteria in the standard. This applies to each activity and season in which at least one subcontractor is used. Evidence of compliance with relevant principles and criteria shall be collected by means of an assessment and shall be available during the certification body (CB) audit. If such an assessment is undertaken by a producer, evidence of compliance with the relevant principles and criteria shall be available. The subcontractor shall agree to such assessment by a producer where relevant to the standard. A GLOBALG.A.P. approved CB may assess the subcontractor and may issue a letter of conformance with the following information:	Major Must

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		- Date of assessment - Name of the CB - CB auditor name - Details of the subcontractor - List of the assessed principles and criteria Certificates issued to subcontractors for standards that are not officially approved by the GLOBALG.A.P. Secretariat are not valid evidence of compliance with the standard.	
PPM 01.04	**Internal documentation**		
PPM 01.04.01	A procedure is in place to manage and control documents and records.	Documents and records affecting implementation of the requirements shall be managed and controlled. A system shall demonstrate: - How documents and records are created, reviewed, approved, and updated - How relevant documentation is made available to relevant staff Documentation shall be: - Identified with an issue number and/or date and appropriately paginated - Reviewed periodically to demonstrate ongoing compliance with the relevant requirements - Effectively rescinded when obsolete	Minor Must
PPM 01.04.02	The producer completes a minimum of one self-assessment/internal audit annually to the standard.	The self-assessment/internal audit shall evaluate compliance, review implementation, and support identification of improvement opportunities.	Major Must

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		A documented self-assessment for individual producers or an internal nursery and quality management system (QMS) audit for multisite producers with QMS and producer groups shall: - Occur at least once a year and before the certification body (CB) audit - Be completed by the producer, assigned worker, or consultant, and/or as part of a QMS - Include all applicable topics covered by the standard/scope, even those addressed using subcontractors (including harvest and postharvest handling) - Assess all applicable sites and products Self-assessments shall contain comments regarding the evidence observed for non-compliant Major Must and Minor Must principles and criteria. Self-assessments shall also contain justification for all nonapplicable principles and criteria. For internal nursery audits, comments shall follow the "GLOBALG.A.P. general regulations – Rules for producer groups and multisite producers with QMS."	
PPM 01.04.03	Effective corrective actions are taken to address non-conformances detected during the self-assessments/internal audits.	Corrective actions shall be documented. Any necessary changes shall be implemented.	Major Must
PPM 01.04.04	A continuous improvement plan is documented.	The producer shall evaluate the nursery operation and identify improvements to be undertaken. These improvements shall be included in a longer-term plan covering up to three years.	Major Must

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		The continuous improvement plan shall consist of relevant self-defined targets and describe how progress toward each target will be monitored. The plan may include: - Description of improvement objective - Current status, with date of initial target establishment - Planned activity - Target outcome with estimated date of achievement	
PPM 01.04.05	There is evidence that a continuous improvement plan is implemented.	The implementation of identified points in the continuous improvement plan shall be supported by evidence. Evidence may include new procedures or policies, data sharing (to quantify changes), training, etc. The evidence kept on file may include: - Actual outcome of efforts, with date of evaluation - Comments on why the effort was successful or not successful - If one or more of the goals are not reached, justification and description of further action - Sharing of relevant data with the GLOBALG.A.P. Secretariat	Minor Must
PPM 01.05	**Training and assigning responsibilities**		
PPM 01.05.01	Worker training includes the necessary skills and competencies and is supported by records.	Workers shall be able to demonstrate competence in their assigned tasks. Tasks that shall require specific training include handling and/or administering agricultural chemicals, disinfectants, plant protection products (PPPs), biocides, and/or other hazardous substances and operating equipment (e.g., driving forklifts). Evidence of training includes attendance records, certificates, or other relevant qualifications.	Major Must

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		Subcontractors shall either be trained by the producer or be able to demonstrate competence through previous training or certification.	
PPM 01.05.02	Records of all training activities are kept.	Training records shall include: - Topic(s) covered - Names of trainer(s) or training provider(s) - Names of trainee(s) (e.g., attendance list(s)) - Date of training - Evidence of attendance (e.g., trainee signature)	Minor Must
PPM 01.05.03	Individuals responsible for technical decision-making on inputs can demonstrate competence.	Individuals responsible for technical decisions such as: - Determining quantity and type of fertilizer (organic or inorganic) - Choosing plant protection products (PPPs) - Making decisions on PPP applications shall be able to demonstrate sufficient technical competence. If the individual responsible for technical decisions is the producer, a designated worker, or a technical expert, their experience shall be complemented by current technical knowledge (access to technical literature, specific training attendance, active PPP applicator license, etc.). If the individual responsible for technical decisions is an external qualified adviser, technical competence shall be demonstrated by official qualifications or specific training attendance certificates.	Major Must

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PPM 01.06	**Customer requirements and trading terms**		
PPM 01.06.01	The producer is aware of and complies with customer quality specifications, where these exist.	There shall be documented correspondence between the customer and the producer demonstrating mutual agreement on quality specifications at any one time. The producer shall prove that the agreed quality specifications are adhered to.	Minor Must
PPM 01.06.02	Trading terms and conditions have been communicated to customers.	The terms under which the business operates shall be communicated to all customers.	Major Must
PPM 01.06.03	Detailed invoices are created for each dispatched order.	Information is available on the batch number, variety denomination, and quantity, and these details are documented for each order. “N/A” for internal customers.	Major Must
PPM 01.06.04	Information is available on the plant protection products applied to the plants to be dispatched.	For each batch, the producer shall provide the buyer with information on the names of any plant protection products applied and the respective date(s) of application, if requested. “N/A” for internal customers.	Major Must
PPM 01.07	**Complaints**		
PPM 01.07.01	A complaint procedure relating to both internal and external issues covered by the standard is available and implemented.	A documented complaint procedure shall be available to facilitate the recording and follow-up of all received complaints relating to issues covered by the standard and to record actions taken with respect to such complaints. If the producer is informed by a competent and/or local authority that they are under investigation and/or has received a sanction within the scope of the certification, the complaint procedure shall require the producer to notify the GLOBALG.A.P.	Major Must

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		Secretariat via the certification body (CB) as soon as this information is available to the producer. In case of complaints related to the standard (workers' well-being, environmental protection, etc.) that can endanger the reputation and credibility of the GLOBALG.A.P. brand, the certificate holder shall inform the CB immediately. In the case of producer groups, the producer group members do not need a complete complaint procedure, but only the parts that are relevant to them. Workers shall be permitted to file complaints to their employer on topics covered under the standard, and such complaints shall be documented and addressed by the certificate holder.	
PPM 01.07.02	Workers are informed of their rights related to the standard, and there is a grievance mechanism available and implemented through which workers can file complaints confidentially and without fear of retaliation.	Workers shall be informed (in the predominant workforce language) of the general topics covered by the standard, of legal rights granted by prevailing regulations, and of their ability to file complaints to their employer. The producer shall have a mechanism to resolve the claims and complaints. The mechanism shall be suitable to the size of the nursery, type of workers, and working conditions. The mechanism shall be confidential and simple to use, and a description (i.e., where to file, how to file, time expected to solve the issue, etc.) shall be available to the workers all the time that they are present on the nursery. (The description can consist of pictograms or signs in the predominant workforce language describing the mechanism.) Records of the filed complaints shall be kept and checked.	Major Must

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PPM 01.08	**Non-conforming products**		
PPM 01.08.01	Procedures are in place to manage and handle non-conforming products.	The term “non-conforming product” refers to a product which does not meet requirements defined by the customer, by a regulation (phytosanitary, cross contamination issues, food safety issues when applicable, etc.), or by the producer themselves. In the context of the standard, the term refers to a product identified as non-conforming while still under the control of the producer. Non-conforming products shall be: - Clearly identified and quarantined as appropriate to prevent unintended use or delivery of non-conforming products - Handled or disposed of according to the nature of the problem and/or specific customer requirements	Minor Must
PPM 01.09	**Recall and withdrawal**		
PPM 01.09.01	Documented procedures are in place to manage the recall and withdrawal of products from the marketplace.	The producer shall have a documented procedure that identifies: - The types of events that may result in a recall and withdrawal - The persons responsible for making decisions on the possible recall and withdrawal - The mechanism for notifying the next step in the supply chain - The methods for reconciling stock An up-to-date list of telephone numbers and email addresses of contacts in the next step shall be available.	Minor Must

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PPM 01.10	**Equipment**		
PPM 01.10.01	Equipment, tools, and devices are fit for purpose and maintained.	Equipment, tools, and devices (scales, plant protection product (PPP) or fertilizer application equipment, thermometers, pH meters, etc.) shall be maintained and, where applicable, calibrated at least annually. Equipment maintenance, calibration (where applicable), and repairs shall be documented. Maintenance activities shall not present risks to the environment or workers. PPP sprayers: The calibration of PPP application machinery (automatic and nonautomatic) shall have been verified for correct operation within the last 12 months, and this verification shall be certified or documented either by participation in an official scheme (where it exists) or by having been carried out by a person who can demonstrate their competence. Irrigation/Fertigation equipment: At a minimum, annual maintenance records shall be kept for all methods of irrigation/fertigation machinery/techniques used.	Minor Must
PPM 01.10.02	The plant protection product (PPP) and fertilizer equipment is stored in such a way as to prevent risks to people's health or the environment.	The equipment used in the application of PPPs (spray tanks, backpack sprayers, etc.) shall be stored in a secure way that prevents risks to people's health, environmental pollution and/or contamination of the harvested products.	Minor Must

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PPM 02	**TRACEABILITY**		
PPM 02.01	**Traceability**		
PPM 02.01.01	All registered products are traceable back to and from the registered nursery where they were produced and handled (where applicable).	A documented identification and traceability system shall allow registered products to be traced back to the registered nursery(ies) or supplier, or to the registered farms or suppliers of the Option 2 producer group, and traced forward to the immediate customer (one step forward and one step back). Harvest information shall link a batch or lot to the production records or the farms of specific producers. Product handling shall also be covered, where applicable.	Major Must
PPM 02.01.02	Propagation material from different species, varieties, and sources is segregated to prevent batch contamination.	Propagation material from different species/varieties/sources shall be handled, stored and kept segregated to prevent mixing of batches. Regarding sources, the producer decides if segregation is relevant. N/A if no mixing of varieties takes place during the production of the propagation material.	Minor Must
PPM 02.02	**Parallel ownership**		
	This section applies to those who need to register for parallel ownership (where products originating from certified and noncertified production processes are produced and/or owned by one legal entity). It does not apply to producers who want to achieve certification for 100% of the production processes of all products in their GLOBALG.A.P. scope and buy none of those products from other producers (with certification or not).		
PPM 02.02.01	An effective system is in place to identify all products originating from GLOBALG.A.P. certified processes and segregate them from	It shall be possible to identify all products originating from GLOBALG.A.P. certified production processes and to keep	Major Must

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	products originating from noncertified processes.	them separate from products originating from noncertified production processes.	
PPM 02.02.02	The GLOBALG.A.P. Number (GGN) is indicated on all final products originating from certified production processes when registered for parallel ownership.	Where the producer is registered for parallel ownership, all products originating from certified production processes (either on the nursery or after product handling) shall be identified with a GGN. It can be the GGN of the Option 2 producer group, the GGN of the producer group member, both GGNs, or the GGN of the Option 1 individual producer. The GGN shall not be used to label products originating from noncertified production processes. This P&C can be nonapplicable (N/A) if: - The producer/the producer group only owns GLOBALG.A.P. products (no parallel ownership). or - There is a written agreement available between the producer/the producer group and the buyer not to use the GGN on producer's final product packaging. or - There is a market label specification that prevents the producer/producer group from using the GGN on the producer's final product packaging. In all cases where the GGN is not used on final product when there is parallel ownership, there shall be at minimum a system in place to identify the product originating from certified production. There shall be written information in place between the buyer and the producer/producer group which explains the system. All agreements and communication shall be documented and available during the CB audits.	Major Must

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PPM 02.02.03	A final verification step is in place to ensure correct dispatch of products originating from certified and noncertified production processes.	A procedure shall be in place to show that the products are correctly identified and correctly dispatched according to the certification status.	Major Must
PPM 02.02.04	Products that are purchased from different sources are identified.	Procedures (appropriate for the scale of the operation) shall be established, documented, and maintained for identifying quantities of products originating from certified and, where applicable, noncertified production processes purchased from different sources (i.e., other producers or traders) for all registered products. Records shall include: - Product description including variety denomination - GLOBALG.A.P. certification status - Quantities of product(s) purchased - Supplier details - Copy of the GLOBALG.A.P. certificates, where applicable - Traceability data/codes related to the purchased products - Purchase orders and/or invoices received - List of approved suppliers	Major Must
PPM 02.03	**Mass balance**		
PPM 02.03.01	Sales records are available for all quantities sold for all registered propagation material.	Records of the quantities and descriptions of propagation material originating from certified and, where applicable, noncertified production processes shall be kept for all registered products. The documents shall demonstrate the consistent balance between the input and the output of products originating from certified and noncertified production processes.	Major Must

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PPM 02.03.02	Quantities (produced, stored, and/or purchased) are recorded and summarized for all products.	Quantities (including information on volumes or weight) of incoming (including purchased products), outgoing (including reject, waste, etc.), and stored products (both from certified and, where applicable, from noncertified production processes) shall be recorded and a summary maintained for all registered products, so as to facilitate the mass balance verification process. The frequency of the mass balance verification shall be defined and be appropriate to the scale of the operation, but it shall be done at least annually for each product. Documents to demonstrate mass balance shall be clearly identified. This principle and the respective criteria apply to all producers applying for or maintaining GLOBALG.A.P. certification.	Major Must
PPM 02.04	**GLOBALG.A.P. certification status**		
PPM 02.04.01	Transaction documentation includes reference to the GLOBALG.A.P. certification status and the GLOBALG.A.P. Number (GGN).	Delivery notes, sales invoices, and, where appropriate, other documentation related to sales of materials and products originating from certified production processes shall include the GGN of the certificate holder and a reference to the GLOBALG.A.P. certification status. This is not obligatory in internal documentation. Where the producer has a Global Location Number (GLN), this shall replace the GGN issued by the GLOBALG.A.P. Secretariat during the registration process. Positive identification of the certification status is sufficient on transaction documentation (e.g., “GLOBALG.A.P. certified [product name]”). Products originating from noncertified	Major Must

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		production processes do not need to be identified as "noncertified." Indication of the certification status is obligatory regardless of whether the product originating from a certified production process was sold as such or not. This cannot be checked during the initial (first ever) certification body (CB) audit because the producer does not yet have certification and the producer cannot reference the GLOBALG.A.P. certification status before the first positive certification decision. "N/A" only when there is a documented agreement available between the producer and the client not to identify the GLOBALG.A.P. status of the product and/or the GGN on the transaction documents.	
PPM 02.05	**Logo use**		
PPM 02.05.01	The GLOBALG.A.P. word, trademark, and QR code or logo, as well as the GLOBALG.A.P. Number (GGN) are used according to "GLOBALG.A.P. trademarks use: Policy and guidelines."	The producer shall use the GLOBALG.A.P. word, trademark, and QR code or logo, as well as the GGN, Global Location Number (GLN), or sub-GLN according to "GLOBALG.A.P. trademarks use: Policy and guidelines." The GLOBALG.A.P. word, trademark, or logo shall never appear on the final product, on the consumer packaging, or at the point of sale. However, the certificate holder can use any and/or all in business-to-business communications. The GLOBALG.A.P. word, trademark, or logo cannot be in use during the initial (first ever) certification body (CB) audit because the producer does not yet have certification, and the producer cannot refer to GLOBALG.A.P. certification status	Major Must

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Section	Principle	Criteria	Level
		before the first positive certification decision.	
PPM 03	**PLANT PROPAGATION MATERIAL**		
PPM 03.01	**Purchased propagation material**		
PPM 03.01.01	Propagation materials are obtained in compliance with variety registration laws, where applicable.	There shall be available documentation (empty seed package, packing list, invoice, etc.) that states, at minimum, the variety denomination, official batch number, propagation material vendor, and, where available, additional information on seed quality (germination, genetic purity, physical purity, seed health, genetic analysis, etc.). Material coming from other nurseries that have GLOBALG.A.P. certification for plant propagation material or fully equivalent certification is considered compliant.	Major Must
PPM 03.01.02	Propagation materials are obtained in compliance with intellectual property laws.	Where the producer uses protected varieties or rootstock, documents shall be available on request that prove that the propagation materials have been purchased or otherwise obtained in accordance with applicable intellectual property rights regulations. The documents may be the license contract (for starting materials that do not originate from seed, but from vegetative origin) or a document that states the variety denomination, official batch number, propagation material vendor, and packing list/delivery note or invoice to demonstrate the amount obtained and identity of all propagation materials used in the last 24 months. Note: The PLUTO database of UPOV (http://www.upov.int/pluto/en) and the Variety Finder on the	Major Must

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		website of CPVO (https://cpvoextranet.cpvo.europa.eu/) list all varieties in the world, providing their registration details and the intellectual property protection details for each variety and country.	
PPM 03.01.03	Information on chemical treatments is available for purchased propagation materials.	Records with the name(s) of chemical product(s) applied on propagation materials by the supplier shall be available on request. This can be in the form of: - Application records maintained by the supplier - Information on seed packages - List with names of plant protection products applied Producers sourcing from suppliers who have GLOBALG.A.P. certification for plant propagation material or for a fully equivalent scheme are considered compliant.	Major Must
PPM 03.01.04	Growing of genetically modified crops and/or trials is subject to the prevailing regulations in the country of production.	The producer shall have a copy of the legislation applicable in the country of production and comply accordingly. Records shall be kept of the specific modification and/or the unique identifier. Specific husbandry and management advice shall be obtained.	Major Must
PPM 03.01.05	The producer's direct clients have been informed of the genetically modified organism (GMO) status of the product.	Documented evidence of communication shall be kept and shall allow verification that all products supplied to direct clients meet the agreed requirements.	Major Must
PPM 03.01.06	A procedure for use and handling of genetically modified (GM) materials is available.	There shall be available a documented procedure that explains how GM materials (crops and trials) are handled and stored to minimize the risk of contamination with conventional materials (such as accidental mixing with adjacent non-GM crops) and to maintain product integrity.	Minor Must

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PPM 03.01.07	Adventitious mixing of genetically modified (GM) crops with conventional crops is avoided.	A visual assessment of the identification of GM crops and the integrity of the storage shall be made.	Major Must
PPM 03.02	**Plant hygiene and sanitation**		
PPM 03.02.01	A hygiene procedure has been implemented.	The nursery manager or other nominated person is responsible for the implementation of the hygiene procedures. The hygiene procedure is documented and there is evidence of its implementation. No “N/A.”	Minor Must
PPM 03.02.02	Reusable cultivation materials are cleaned to ensure that they are free of foreign materials.	Cultivation materials, including pots, crates, buckets, and other containers, as well as tools, including scissors, knives, pruning shears, shall be cleaned, and based on the risk of contamination there shall be a cleaning schedule in place to ensure that, at a minimum, they are free of foreign materials before reuse. Cultivation materials shall not be used to contain agricultural chemicals, lubricants, oil, cleaning chemicals, or plant or other debris. If multi-purpose trailers, carts, or other vehicles are used as containers, they must be disinfected prior to use according to the frequency defined in the risk analysis.	Minor Must
PPM 03.02.03	A schedule to clean out and disinfect stillages between batches exists and is implemented. Clean trays and stillages are segregated from those which may be contaminated.	Stillages shall be brushed out to remove any debris as necessary between batches of plants. There shall be a scheduled cleaning program where stillages are washed with a biocide. This cleaning shall be recorded. Facilities for the segregation of clean and dirty trays and stillages shall be in place to prevent the potential for contamination of plants to be dispatched from the nursery.	Minor Must

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PPM 03.02.04	Equipment in contact with propagation material is cleaned and disinfected to minimize the risk of contamination between varieties.	Seeders, planters, and other equipment in contact with seeds, seedlings, cuttings, scions, and other materials, shall be cleaned and managed in a way that contamination between varieties/species is avoided.	Minor Must
PPM 03.02.05	Rejected plants and waste material are managed so as to avoid spreading pests, diseases, or weeds.	Rejected plants and waste material shall be stored in designated areas that are routinely cleaned and disinfected to prevent contamination.	Major Must
PPM 03.02.06	Maintenance and cleaning of propagation facilities are scheduled and records kept.	Maintenance and cleaning of propagation facilities, when applicable, shall be scheduled and records of maintenance and cleaning kept. (“N/A” for field production of propagation material like bulbs) If subcontractors are used, copies of their invoices are acceptable as records of the maintenance performed.	Minor Must
PPM 04	**SOIL, PLANT NUTRITION, AND FERTILIZERS**		
PPM 04.01	**Soil conservation (not applicable to soil-free cultivation or production in pots)**		
PPM 04.01.01	A risk assessment has been undertaken to evaluate environmental issues for soil health management.	There shall be a documented risk assessment that indicates the risks of soil health degradation. Risks to consider include but are not limited to: - Soil erosion - Soil degradation - Soil compaction - Leaching of nutrients - Soil salinization, etc. The risk assessment shall cover topics such as:	Minor Must

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		- Topography - Soil attributes - Rainfall patterns - Natural waterflow and drainage patterns The risk assessment shall be suitable to the scale and context of the production sites.	
PPM 04.01.02	A documented soil health management plan suitable to the scale and context of the operation is available.	The soil health management plan shall address the main risks identified in the risk assessment and shall be suitable to the scale and context of the production sites. Milieu, financial resources, and access to specialist agronomic services and extension services shall be considered.	Minor Must
PPM 04.01.03	The producer uses techniques to reduce the possibility of soil erosion.	There shall be evidence of control practices and remedial measures (mulching, crossline techniques on slopes, drains, sowing grass or green fertilizers, trees and shrubs on the borders of sites, etc.) to minimize soil erosion (from water, wind, etc.).	Minor Must
PPM 04.02	**Soil fumigation**		
PPM 04.02.01	There is documented justification for the use of soil fumigants.	There shall be documented evidence and justification for the use of soil fumigants, including targeted problem, location, date, active ingredient, amount, doses, method of application, and operator. Methyl bromide shall never be used. Where applicable and feasible, steaming or nonchemical alternatives shall be used for sterilizing substrates that will be reused.	Major Must

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PPM 04.02.02	The preplanting interval is complied with.	In the case of soil fumigation, the preplanting interval shall be recorded.	Minor Must
PPM 04.03	**Substrates (not applicable when no substrates are used)**		
PPM 04.03.01	Substrates of natural origins do not come from designated conservation areas.	There shall be records that attest to the source of the substrate of natural origin being used. These records shall demonstrate that the substrate does not come from designated conservation areas.	Major Must
PPM 04.03.02	At least 10% by volume of substrates used in production are alternatives to peat, and there is a plan to continuously reduce the amount of peat used.	Evidence shall be available that at least 10% of the total volume of raw materials in the substrates used in production is not peat but a renewable alternative (renewable refers to less than 50 years). There shall be a documented justification in cases in which substitution is not feasible. Peat refers to dug-out peat (Sphagnum sp.), not to coco peat or any other peat. Responsible sources of peat refer to peat grown under certification. An example of such certification is Responsibly Produced Peat (RPP). In countries where such certification schemes are not available, the specific requirement to source only from responsible sources will be “N/A.”	Minor Must
PPM 04.03.03	Information on nutrient analysis/content of purchased substrates is available.	A nutrient analysis shall be available for the batches of substrates used, when applicable.	Minor Must
PPM 04.03.04	The producer purchases substrates which are reliable against disease-causing agents.	The producer should aim to be aware of the phytosanitary quality of their purchased substrates.	Recom.

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		Evidence can be provided by the supplier, be based on own testing, or based on own experience through the prolonged use of the purchased substrates or by existing quality certifications.	
PPM 04.03.05	Substrates of different sources and specifications are segregated.	The storage area for all substrates shall be organized to allow for the segregation of different sources and specifications to prevent the possibility of batch mixing.	Minor Must
PPM 04.03.06	Weather-sensitive substrates are stored in a protected way.	All substrates which are sensitive to weather shall be stored under cover or be covered to prevent environmental contamination.	Minor Must
PPM 04.03.07	The producer participates in substrate recycling.	The producer should keep records documenting dates and quantities of waste substrate that is destined for disposal. Invoices/Loading dockets are acceptable. If there is no participation in an available recycling program, this should be justified. Participation in an off-nursery recycling program is acceptable.	Recom.
PPM 04.03.08	Records are kept of any chemicals used to sterilize substrates for reuse.	If substrates are sterilized off-nursery, the name and location of the company that sterilizes the substrate shall be recorded, plus the name and active ingredient of the chemicals used. If substrates are sterilized on the nursery, the name or reference of the field or greenhouse shall be recorded. The following are all correctly recorded: - Dates of sterilization (day/month/year) - Name and active ingredient used - Machinery used (e.g., 1000l tank) - Method used (drenching, fogging)	Minor Must

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		- Operator's name (person who actually applied the chemicals and performed the sterilization) - Preplanting interval Where applicable and feasible, steaming or nonchemical alternatives shall be used for sterilizing substrates that will be reused.	
PPM 04.04	**Nutritional needs**		
PPM 04.04.01	The application of fertilizers considers crop needs and the nutrient contribution of fertilizers, aiming to minimize nutrient loss.	The producer shall make a fertilizer application program (time, frequency, and quantity), to minimize nutrient loss. The program shall take into consideration: - The nutritional needs of the crop - The nutrient contribution of fertilizer applications including organic amendments and water used in irrigation - Maintaining soil fertility when grown in soil Records of analyses and/or crop-specific literature shall be available as evidence.	Minor Must
PPM 04.05	**Nutrient content**		
PPM 04.05.01	The content of major nutrients (nitrogen, phosphorus, potassium) in applied fertilizers is known.	Documented evidence/labels detailing major nutrient content (or recognized standard values) shall be available for all fertilizers (organic and inorganic) used on registered crops within the last 24 months.	Minor Must

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PPM 04.05.02	Purchased inorganic fertilizers are accompanied by documented evidence of chemical content, including heavy metals.	Documented evidence detailing chemical content, including heavy metals, should be available for all inorganic fertilizers used on registered crops within the last 12 months.	Recom.
PPM 04.05.03	A risk assessment for organic fertilizer is conducted as per intended use.	A risk assessment for organic fertilizer shall be conducted, covering the crop, the workers' health, and the environment. It shall consider the following: - Type of organic fertilizer - Method of treatment to obtain (stabilize) the organic fertilizer - Microbial contamination (plant and human pathogens) - Weed/Seed content - Heavy metal content This also applies to substrates from biogas plants. For commercially available organic fertilizers, accompanying documentation and certifications of quality and content may be substituted for a risk assessment.	Minor Must
PPM 04.05.04	The use of human sewage sludge is prohibited at nursery.	Human sewage sludge shall never be used in the production of registered crops. The use of human sewage sludge that has been composted or incorporated into a commercially available product is not permitted, regardless of lawful use according to prevailing regulations.	Major Must
PPM 04.06	**Application records**		
PPM 04.06.01	Up-to-date records of all fertilizer and biostimulant applications are kept.	Records shall be kept of each fertilizer (organic and inorganic) and biostimulant application, including in hydroponic and fertigation systems. The records shall include: - Name or reference of the field or greenhouse	Minor Must

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		- Name of the crop - Application date (day, month, and year) - Name and concentration of fertilizer applied - Applied quantities - Name of the applicator(s) - Method of application	
PPM 04.06.02	Management of fertilizers is supported with metrics.	Acceptable metrics allow calculating the following: - Kg of nitrogen (in organic and inorganic fertilizers) used/ha/month - Kg of phosphorus (in organic and inorganic fertilizers) used/ha/month Metrics should refer to inorganic and organic fertilizers, units of time (e.g., growing cycle), and amounts of fertilizer per ha of production. In Option 2 producer groups, evidence at quality management system (QMS) level is acceptable. Results (data) on metrics at producer group and nursery level should be available to indicate compliance.	Recom.
PPM 04.07	**Fertilizer and biostimulant storage**		
PPM 04.07.01	Fertilizers and biostimulants are stored in an appropriate manner to avoid cross contamination.	Fertilizers and biostimulants shall be stored in a designated area separate from plant protection products (PPPs) and harvested or packed products. Cross contamination between fertilizers (organic and inorganic), biostimulants, and PPPs shall be prevented. Use of a physical barrier (wall, sheeting, etc.) may be based upon defined risk.	Minor Must

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		Fertilizers and biostimulants that are applied together with PPPs (micronutrients, foliar fertilizers, etc.) can be stored with PPPs if both are kept in closed containers.	
PPM 04.07.02	Fertilizers and biostimulants are stored in a covered, clean, and dry area.	The storage area for inorganic fertilizers shall be: - Well ventilated and free from rainwater or heavy condensation - Free from waste, not constituting a breeding place for rodents, and allowing easy clearing of spillage and leakage - Protected from atmospheric influences (sunlight, frost and rain, high temperatures, etc.) Based on a risk assessment (fertilizer type, weather conditions, storage duration and location), plastic coverage may be acceptable. It is permitted to store lime and gypsum in the field. As long as the storage requirements on the safety data sheet (SDS) are complied with, bulk liquid fertilizers can be stored outside in containers.	Minor Must
PPM 04.07.03	Fertilizers and biostimulants are stored in an appropriate manner that reduces the risk of environmental contamination.	Fertilizers (organic and inorganic) and biostimulants shall be stored in a manner that poses minimum risk of contamination to water sources. In the absence of other applicable legislation, liquid fertilizer stores/tanks shall be surrounded by an impermeable barrier able to contain a capacity of 110% of the volume of the largest container.	Major Must
PPM 04.07.04	The purchase and use of fertilizers and/or biostimulants are tracked at appropriate intervals.	The producer shall track fertilizer and/or biostimulant purchases and use by means of invoices, beginning and end of season or growing cycle reconciling, or other systematic methods. The	Minor Must

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		stock does not need to be inventoried monthly. Whatever tracking and reconciliation process is used shall allow for identification of loss of fertilizer and/or biostimulant through theft or overapplication.	
PPM 04.07.05	Concentrated acids are stored safely.	Concentrated acids shall be stored separately from any other materials and in a manner that poses minimum risk of contamination to water sources.	Minor Must
PPM 05	**WATER MANAGEMENT**		
PPM 05.01	**Water sources**		
PPM 05.01.01	A risk assessment has been undertaken to evaluate environmental issues for water management on the nursery.	There shall be a documented risk assessment for water used for indoor and outdoor production. At minimum, the assessment shall identify environmental impacts on and of: - Activities on water sources and off-nursery environments, including the risk of depleting water sources or affecting water quality - Distribution and irrigation systems The producer shall be aware of water sources considered critical as per public knowledge (media, civil organizations, the authorities, academia, others), where information is known to be available. The risk assessment shall be reviewed annually or whenever changes to risks occur.	Major Must

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PPM 05.01.02	A water management plan identifies water sources, measures to address environmental issues and increase water use efficiency.	There shall be a documented and implemented action plan, approved by the management within the previous 12 months, which covers one or more of the following: - Maps, photographs, drawings (hand drawings are acceptable), or other means for identifying the location of water source(s), permanent fixtures, and the flow of the water system (including holding systems, reservoirs, or any water captured for reuse) - Permanent fixtures, including wells, gates, valves, returns, and other above-ground features that make up a complete irrigation system, all documented in such a manner as to enable location in the field - Measures to avoid depletion and contamination of water sources - Measures to ensure efficient use and application - Maintenance of irrigation equipment The following shall be included in the action plan: - Provision of training and/or retraining of workers responsible for oversight or performance duties - Short and long-term plans for improvement, with timescales where deficiencies exist	Major Must
PPM 05.01.03	Actions are taken to complement nursery water management with off-nursery activities (while recognizing that the legal scope of the producer is on the nursery).	Available evidence should indicate awareness of the producer on (or participation in) projects, joint action, or collaboration on water management with stakeholders in the neighboring catchment area, watershed, landscape, or beyond, for example with other producers, sector- or crop-specific initiatives, nongovernmental organizations, etc.	Recom.

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PPM 05.02	**Predicting irrigation requirements**		
PPM 05.02.01	Tools are routinely used to calculate and optimize crop irrigation.	The producer shall be able to demonstrate that crop irrigation requirements are calculated based on data (local agricultural institute data, rain gauges, drainage trays for substrate growing, evaporation meters, water tension meters for the percentage of soil moisture content, etc.). Tools shall be maintained to ensure that they are effective and in a good state of repair. “N/A” only for rain-fed crops.	Minor Must
PPM 05.02.02	There are valid permits/licenses where legally required for water extraction.	Valid permits/licenses issued by the competent authority shall be available for all of the following: - Water extraction - Water storage infrastructure - Water usage including but not limited to irrigation - Water discharge into river courses or other environmentally sensitive areas, where legally required Collection from watercourses within the nursery perimeters may require legal permits from the authorities. These permits/licenses shall be available for the certification body (CB) audit and have valid dates. If these are not available where required, there shall be evidence that the producer has actively applied for the permit(s), the approval is in process, and there is no clear evidence of an official prohibition for using the relevant water source(s).	Major Must

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PPM 05.02.03	Restrictions indicated in water permits/licenses are complied with.	It is not unusual for specific conditions to be set in the permits/licenses, such as hourly, daily, weekly, monthly, or yearly extraction volumes or usage rates. Equipment used for monitoring extraction volumes shall be in the correct location to provide accurate readings. Records shall be maintained and available to demonstrate that these conditions are being met.	Major Must
PPM 05.02.04	Where feasible, measures have been implemented to collect water and, where appropriate, to recycle.	Water collection and/or recycling shall be implemented where economically and practically feasible (from building roofs, greenhouses, etc.). Water collection or recycling does not refer only to rainwater. There shall be evidence that the producer has estimated the potential amounts of rainwater that can be collected, as well as the investments required to collect it. If measures are not implemented, a justification shall be available.	Minor Must
PPM 05.02.05	Water storage facilities are present and well maintained to take advantage of periods of maximum water availability.	Where the nursery is located in areas of seasonal water availability, there shall be water storage facilities for water use during periods when water availability is low. These shall be in a good state of repair and appropriately fenced/secured to prevent accidents. “N/A” if it is not feasible to collect rainwater or recycle water.	Minor Must
PPM 05.03	**Record keeping**		
PPM 05.03.01	Records of volumes of water abstracted from water sources are kept.	Records shall include the date, actual or estimated flow rate, and the volume (from water meter or based on estimations)	Minor Must

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		updated on a monthly basis. This can also be the hours of systems operating on a timed flow basis. The recommended metric is the monthly amount of water abstracted from water sources. Amounts of abstracted water may be compared with amounts used (in irrigation or total volumes used on the nursery) to improve the efficient use of water sources. Such a comparison enables identification of whether an unnecessary excess of water is being abstracted or part of water used in irrigation is, for example, recycled or collected from rainwater.	
PPM 05.03.02	Records are kept of volumes of water used in irrigation/fertigation including total application volumes of previous cycle(s).	Records shall include the date, cycle duration, actual or estimated flow rate, and the volume (from water meter or per irrigation unit) and be updated monthly. This can also be the hours of systems operating on a timed flow basis. The recommended metric is the monthly amount of water used in irrigation on the nursery.	Minor Must
PPM 05.03.03	Records of volumes of water used in all types of activities on the nursery are kept (total volume used).	Total water usage should be recorded according to activity type, including but not limited to irrigation, domestic use, and others. This can be estimated, not necessarily measured.	Recom.
PPM 05.04	**Water quality**		
PPM 05.04.01	A risk assessment on physical and chemical quality of water used is completed.	There shall be a documented risk assessment that takes into consideration, at a minimum, the following: - Identification of the water sources and their historical testing results (where applicable) - Method(s) of application	Minor Must

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		- Purity of the water used for plant protection product (PPP) applications For guidance, and when available, the producer shall obtain the required water standards from the PPP label, the literature provided by the chemical manufacturers, or seek advice from a qualified agronomist. The risk assessment shall be updated any time there is a change made to the system or a situation occurs that could introduce an opportunity to contaminate the system.	
PPM 05.04.02	Corrective actions are taken based on results from the risk assessment.	Where required, corrective actions and documentation should be available as part of the management plan as identified in the water risk assessment and current sector-specific standards.	Recom.
PPM 06	**INTEGRATED PEST MANAGEMENT**		
PPM 06.01	Implementation of integrated pest management (IPM) is assisted through training or advice.	Where the technically responsible person is the producer, experience shall be complemented by technical knowledge (access to IPM technical literature, specific training attendance, etc.) or the use of tools (software, detection methods, etc.). Where an external adviser has provided assistance, training and technical competence shall be demonstrated via official qualifications, specific training, etc., unless this person has been employed for that purpose by a competent organization. In Option 2 producer groups, evidence at quality management system (QMS) level is acceptable.	Major Must
PPM 06.02	The producer is informed about the relevant pests, diseases, and weeds that affect their registered crops.	There shall be evidence that the producer has information and knowledge of the pests, diseases, and weeds that may affect the registered crops (individually or per group of crops).	Minor Must

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		Evidence can be through verbal demonstration by the producer or through observation in the field of measures taken. In the case of pest outbreaks, the producer shall be able to show or explain which pest is affecting the crop and correlate with the integrated pest management (IPM) plan which measures can be improved to avoid a similar situation next time. In Option 2 producer groups, evidence at quality management system (QMS) level is acceptable.	
PPM 06.03	There is an integrated pest management (IPM) plan describing the measures used at nursery level to manage the relevant pests, diseases, and weeds that affect the registered crop(s).	The IPM plan shall describe the measures the producer uses or would consider using to manage the pests, diseases, and weeds relevant to the registered crop(s) (individually or per group of crops). It shall include: - A stepwise approach based on the preventive, nonchemical, and chemical methods which shall be applied depending on the crop and the specific situation as per judgement of the producer or expert adviser - Monitoring of pests, diseases, and weeds to determine whether interventions are needed, with action thresholds defined by the producer In Option 2 producer groups, evidence at quality management system (QMS) level is acceptable.	Minor Must
PPM 06.04	The producer is aware of the crop varieties' degree of susceptibility to pests and diseases.	There should be evidence that the producer understands the registered variety's (varieties') degree of susceptibility to pests and diseases. Evidence does not need to be written and can include producer experience.	Recom.

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PPM 06.05	The producer implements prevention measures.	The producer shall show evidence of implementing at least two activities for the registered crops (individually or per group of crops) that promote plant health, thus aiming to reduce the incidence and intensity of pest attacks, and thereby reducing the need for intervention.	Major Must
PPM 06.06	The producer practices monitoring of their registered crops to plan pest and disease management.	The producer shall show evidence of implementing at least two activities for the registered crops (individually or per group of crops) that will determine when and to what extent pests and their natural enemies are present, and using this information to plan what pest management techniques are required.	Major Must
PPM 06.07	The producer makes interventions to manage pests.	The producer shall show evidence for situations in which specific interventions were made against pests adversely affecting the economic value of a crop. Where plant protection products (PPPs) are used as an intervention, the producer shall demonstrate a risk-based approach for the selection of the PPPs considering hazards (e.g., toxicity). The producer may elect to take no action against the pest and incur economic loss. Where possible, nonchemical approaches shall be considered. “N/A” if the producer did not intervene.	Major Must
PPM 06.08	Anti-resistance recommendations have been followed to maintain the effectiveness of available plant protection products (PPPs).	If the level of a pest, disease, or weed requires repeated controls in the crops, there shall be evidence that anti-resistance recommendations either on the label or from other sources (where available) are followed. If only one chemical mode-of-action or class of PPP exists or is permitted for use in the country of production or country of export, rotation of product types may not be possible due to lack of availability of suitable alternatives.	Minor Must

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		Repeated use of the same PPP or PPPs with the same mode of action may lead to selection of pests that are resistant to these PPPs. The resistance management strategy shall be documented and consider the following points: - Always follow the recommendations on the product label. - Avoid lower dose rates to ensure optimal application quality. - Use rotation programs and mixtures of PPPs with different modes of action that are effective against the target, where available. - As far as possible, limit the number of applications of the same mode of action in a growing season as a proportion of the total number of applications.	
PPM 06.09	The producer uses the results of integrated pest management (IPM) to learn and to improve the IPM plan.	There shall be evidence that the producer evaluates the IPM plan on a yearly basis and introduces improvements if these were identified as necessary.	Minor Must
PPM 07	**PLANT PROTECTION PRODUCTS**		
PPM 07.01	**Choice of plant protection products**		
PPM 07.01.01	Only treatments with plant protection products (PPPs) authorized for the country of production are used.	A system shall be in place to ensure that PPPs are used as authorized for the country where the crop is grown. Evidence may take the form of reference lists (online acceptable), product labels, or descriptions of prevailing regulations properly referenced to the source regulation(s). Where no official registration scheme exists in the country of production, the producer shall refer to “International Code of	Major Must

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		Conduct on the Distribution and Use of Pesticides" of the Food and Agriculture Organization (FAO). Extrapolated PPP use is allowed as per local registration scheme (see guideline). An up-to-date documented list that takes into account any changes in local and national legislation for PPPs shall be available for all commercial brand products (including any active ingredient compositions) used. It shall be possible to identify in the list whether a PPP has an active ingredient that is listed by the World Health Organization (WHO) as "Extremely Hazardous (Class Ia)" (see "The WHO recommended classification of pesticides by hazard and guidelines to classification," 2019).	
PPM 07.01.02	Plant protection products (PPPs) applied are appropriate for the crop/use site and target – either specifically or generally – as recommended on the product label or through other approvals.	A system shall be in place to ensure that PPPs are used as authorized for the crop – either specifically or generally – or authorized for the use site and intended purpose (i.e., for the pest or target of the intervention), as per label recommendations or official registration body publication. If the producer uses an off-label PPP, there shall be evidence of official approval for use of that PPP on that crop in that country. All PPPs shall be correctly and properly labeled.	Major Must
PPM 07.01.03	Invoices and/or procurement documentation of plant protection products (PPPs) are kept.	Efforts shall be made to avoid illegal and counterfeit PPPs. Invoices, procurement documentation, or packing slips of all PPPs used and/or stored shall be retained.	Major Must

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PPM 07.02	**Application records**		
PPM 07.02.01	Records of plant protection product (PPP) applications are kept.	Records shall be kept for all applications of PPPs and biocontrol agents and shall specify the following: - Crop and/or variety treated (or batch of trays indicating minimum time interval between the application and the filling of a tray with media) - Application location (geographical area, the name or reference of the nursery, and the field, orchard, greenhouse, or facility where the crop is located) - Exact dates (day/month/year) from start to end. (The producer need not record end times, but shall always record end dates. By doing so, it shall be considered that reentry intervals are calculated using the start of the next calendar day.) - Registered trade name and active ingredient or beneficial organism with scientific name - Amount of product applied (weight or volume) and concentration or rate - Type of machinery or application equipment used (backpack sprayer, aerial application, chemigation, etc.) - Reason for application (target pest, disease, weed, condition, etc.) - Full name of the applicator (person applying) - Full name of the person technically responsible for decision-making and authorization of treatment applications (if single individual authorizes all applications, person's details need be recorded only once)	Major Must

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PPM 07.02.02	Weather conditions at time of application are recorded.	Local weather conditions (wind, sunny/overcast, humidity, etc.) affecting effectiveness of treatment or drift to neighboring crops shall be recorded for all plant protection product (PPP) applications. This may be in the form of pictograms with tick boxes, text information, or another viable system on the record. "N/A" for covered crops.	Minor Must
PPM 07.02.03	The producer takes active measures to prevent plant protection product (PPP) drift to neighboring plots.	The producer shall take active measures to avoid the risk of PPP drift from own plots to neighboring production areas. This may include, but is not limited to, knowledge of what neighbors are growing, planting living fences, maintenance of spray equipment, etc.	Major Must
PPM 07.02.04	The producer takes active measures to prevent plant protection product (PPP) drift from neighboring plots.	The producer should take active measures to avoid the risk of PPP drift from adjacent plots e.g., by making agreements and organizing communication with producers from neighboring plots in order to eliminate the risk of undesired PPP drift and by planting vegetative buffers at the edges of cropped fields. "N/A" if not identified as a risk.	Recom.
PPM 07.02.05	Management of plant protection products (PPPs) is supported with metrics.	Recommended metrics are: kg of active ingredient of PPP used/crop/ha/month. Acceptable metrics allow calculating the following: - List of active ingredients used - The total amount of active ingredients applied (in kg/crop, kg/month, and kg/ha/month) Metrics should refer to the nursery's various production sites, units of time (e.g., growing cycles), and the active ingredient amounts per kg of product and ha of production.	Recom.

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		In Option 2 producer groups, evidence at quality management system (QMS) level is acceptable. Results (data) on metrics at group and nursery level should be available to indicate compliance.	
PPM 07.03	**Disposal of surplus application mix**		
PPM 07.03.01	Surplus application mixes or tank washings are disposed of responsibly.	Applying surplus spray and tank washings to the crop shall be the first method of disposal, providing that the overall label dose rate is not exceeded. Disposal shall compromise neither workers' safety nor the environment. No agrochemical wastewater shall be released into the open environment.	Minor Must
PPM 07.04	**Plant protection product storage**		
PPM 07.04.01	Plant protection products (PPPs) and biocontrol agents are stored in accordance with basic rules to ensure safe storage and use.	The PPP storage shall: - Comply with all the appropriate current national, regional, and local legislation and regulations - Be kept secure and locked when not in use - Be accessible only to people with formal training in handling PPPs - Be properly ventilated - Have measuring equipment to support the accuracy of mixtures, including containers with graduation demarcations and calibrated scales - Be equipped with utensils (buckets, water supply point, etc.), which shall be kept clean for the safe and efficient handling of all PPPs that can be applied (This last also applies to the filling/mixing area, if this is different.)	Major Must

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		- Prevent cross contamination between PPPs and harvested products and other materials by the use of a physical barrier (wall, sheeting, etc.) - Ensure all PPPs used on registered crops are stored separately from those used on nonregistered crops (e.g., garden chemicals) - Contain the PPPs in their original containers and packages (In the case of breakage only, the new package shall contain all the information of the original label.)	
PPM 07.04.02	The plant protection product (PPP) storage is structurally sound and robust.	Storage capacity shall be sufficient to contain all PPPs during the peak application season. The storage space shall be sturdy. The PPP storage shall mitigate health and safety risks to workers and the risk of cross contamination between the PPPs and other products. Liquids shall never be stored above powders or granular formulations.	Minor Must
PPM 07.04.03	Plant protection product (PPP) storage is illuminated.	The storage shall be sufficiently illuminated by natural or artificial lighting to ensure that all product labels can be easily read.	Minor Must
PPM 07.04.04	Plant protection products (PPPs) are stored at appropriate temperatures.	Storage temperatures shall be in accordance with label requirements.	Minor Must
PPM 07.04.05	The plant protection product (PPP) storage is able to retain and manage spillage.	Shelving shall not be absorbent in case of spillage (metal, rigid plastic, or covered with impermeable liner, etc.). The PPP storage shall have retaining tanks or shall be bunded to 110% of the volume of the largest container of stored liquid to ensure that there cannot be any leakage, seepage, or	Minor Must

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		contamination to the exterior of the storage. Materials and tools such as sand, floor brush and dustpan, and plastic bags shall be available and in a fixed location to be used exclusively in case of spillage of PPPs.	
PPM 07.04.06	Cleaning equipment, agents, lubricants, etc. are stored and used to prevent chemical contamination of plants and materials used to handle plants.	To avoid chemical contamination of products, cleaning equipment, agents, lubricants, etc. shall be kept in a designated secure area, away from plants and materials used to handle plants.	Minor Must
PPM 07.04.07	The purchase and use of plant protection products (PPPs) are tracked at appropriate intervals.	The stock inventory (type and amount of PPPs stored; number of units, e.g., bottles, is allowed) shall be updated within an appropriate interval (season, every two months, etc.) after there is movement of the stock (in and out). The stock update can be calculated by registration of supply (invoices or other records of incoming PPPs) and use (treatments/applications), but there shall be regular checks of the actual content to avoid deviations with calculations.	Minor Must
PPM 07.04.08	An accident procedure is available near the plant protection product (PPP)/chemical storage.	An accident procedure containing all appropriate information and emergency contact telephone numbers shall be present and display the basic steps of primary accident care. The procedure shall be accessible by all persons working near the PPP/chemical storage(s) and designated mixing area(s).	Minor Must
PPM 07.04.09	Facilities are available to deal with operator contamination.	All plant protection product (PPP)/chemical storage and filling/mixing areas present on the nursery shall have eyewash amenities, a source of clean water near the work area, and a first aid kit containing the relevant first aid material.	Minor Must

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PPM 07.05	**Plant protection product handling**		
PPM 07.05.01	Access to health checks is available to workers with exposure to applicable plant protection products (PPPs) according to the risk assessment or exposure and toxicity of products.	The producer shall provide workers who come into contact with PPPs the option of receiving health checks annually or according to the workers' health and safety risk assessment. The health checks shall honor the privacy of personal information. The risk assessment shall identify the specific chemical exposure that would warrant the health check. Where health checks exist through government worker programs or other systems, these may be used as justification in the risk assessment that health care for high-exposure workers is readily available. Workers shall be informed of how to access these health services.	Major Must
PPM 07.05.02	The nursery has documented procedures addressing re-entry times after plant protection product (PPP) application.	Based on the PPP label instructions, there shall be clear, documented procedures that regulate re-entry intervals for PPPs applied to crops (standard operating procedure: when intervals start and end, time of interval or signs to enter, how to enter, exceptions to entering during interval, and equipment and time in the field required, etc.). Special attention shall be paid to workers at greater risk, e.g., underage or pregnant/lactating workers. Where no re-entry period is stated, re-entry shall not be allowed until the chemical has dried on the crop.	Major Must
PPM 07.05.03	Plant protection products (PPPs) are transported between production sites in a safe and secure manner.	The producer shall ensure that the PPPs are transported in a way that mitigates risk to the environment or the health of the worker(s) and shall follow best industry practices.	Minor Must

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PPM 07.05.04	Plant protection products (PPPs) are mixed and handled according to label requirements.	Appropriate measuring equipment shall be adequate for mixing PPPs, and the correct handling and filling procedures shall be followed.	Major Must
PPM 07.06	**Empty plant protection product containers**		
PPM 07.06.01	Empty plant protection product (PPP) containers are triple rinsed with water before storage and disposal, and the rinsate is disposed of in such a way as to mitigate the risk to the environment.	Pressure-rinsing equipment for PPP containers shall be installed on the PPP application machinery, or there shall be documented instructions to rinse each container at least three times prior to its disposal. Either via the use of a container-handling device or according to a documented procedure for the application equipment operators, the rinsate from the empty PPP containers shall always be put back into the application equipment tank when mixing or disposed of in a manner that compromises neither workers' safety nor the environment.	Major Must
PPM 07.06.02	The reuse of empty plant protection product (PPP) containers for purposes other than containing and transporting identical products is avoided.	There shall be evidence that empty PPP containers have not been and currently are not being reused for anything other than containing and transporting identical products as stated on the original label. In regions where there is a risk that the container could be used to carry drinking water, containers shall be punctured prior to disposal.	Minor Must
PPM 07.06.03	Empty containers are kept secure until disposal is possible.	There shall be a designated secure storage point for all empty plant protection product (PPP) containers prior to disposal that is isolated from the crop and packaging materials (e.g., permanently marked via signage) with physically restricted access for persons and fauna.	Minor Must

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PPM 07.06.04	Empty plant protection product (PPP) containers are disposed of in such a way as to mitigate the risk to humans and the environment.	The producer shall dispose of empty PPP containers using a safe handling system prior to the disposal, and a disposal method that avoids exposing people to the contents and avoids contamination of the environment (watercourses, flora, and fauna).	Minor Must
PPM 07.06.05	Official collection and disposal systems are used, when available, and the empty containers are then adequately stored, labeled, and handled according to the rules of that collection system.	Where official collection and disposal systems exist, there shall be records of participation by the producer. All empty plant protection product (PPP) containers, once emptied, shall be adequately stored, labeled, handled, and disposed of according to the requirements of the official collection and disposal schemes, where applicable.	Minor Must
PPM 07.06.06	All local regulations regarding disposal or destruction of plant protection product (PPP) containers are complied with.	All the relevant national, regional, and local regulations and legislation, if such exist, shall have been complied with regarding the disposal of empty PPP containers.	Major Must
PPM 07.07	**Obsolete plant protection products**		
PPM 07.07.01	Obsolete plant protection products (PPPs) are securely maintained, identified, and disposed of via authorized or approved channels.	There shall be records indicating that obsolete PPPs have been disposed of via officially authorized channels. If this is not possible, obsolete PPPs shall be securely maintained and identifiable.	Minor Must
PPM 07.08	**Application of other substances**		
PPM 07.08.01	Up-to-date application records are kept of all other substances not covered under any of the sections.	If preparations such as plant strengtheners, soil conditioners, or any other such substances, whether homemade or purchased, are used on registered crops, records shall be available. Records shall contain the name of the substance (e.g., plant from which it derives), the crop, the field, and the date. In the	Minor Must

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		case of purchased products, the trade or commercial name, where applicable, and the active substance or ingredient, or the main source (plant, algae, mineral, etc.) shall be recorded. The producer shall ensure that the use does not compromise workers' health or the environment.	
PPM 08	**WASTE MANAGEMENT**		
PPM 08.01	Waste products and sources of pollution are identified in all areas of the nursery.	Possible waste products (paper, cardboard, plastic, oil, etc.) and sources of pollution (fertilizer excess, exhaust smoke, oil, fuel, noise, effluent, chemicals, etc.) associated with nursery practices shall be identified. Plastics used shall be identified and the method of disposal documented, where applicable.	Major Must
PPM 08.02	A waste management system is implemented.	A system shall be in place that manages waste (reduction and recycling) and potential sources of pollution. The system shall be based on an assessment of the company's activities and their potential impact on the environment. There shall be evidence of waste separation, including plastic waste, and appropriate methods of disposal, including recycling. Staff shall be trained in waste disposal, including ensuring minimum release of plastics into the environment. Air, soil, noise, light and water pollution shall be considered where relevant along with potential sources of pollution. Methods used to minimize any contamination risks shall be documented. There shall be evidence that methods are used to prevent fuel and oil spillages and guidelines and tools in place to clear up any spillages should they occur.	Major Must

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PPM 08.03	The site is kept in a tidy and orderly condition.	Visual assessment shall show that there is no waste or litter in the immediate vicinity of the production site(s) or storage buildings. Incidental and insignificant litter and waste in the designated areas are acceptable, as is the waste from the current day's work. All other waste shall be cleaned up.	Minor Must
PPM 08.04	Holding areas for diesel and other fuel oil tanks are environmentally safe.	Holding areas shall be maintained in a manner that mitigates risks to the environment. Their location shall take into consideration the risk of polluting water sources. The minimum requirement is a bunded, impervious area able to contain at least 110% of the volume of the largest tank stored within it. In an environmentally sensitive area (where defined in national legislation), the capacity shall be 165% of the volume of the largest tank.	Minor Must
PPM 08.05	Organic waste is managed in an appropriate manner to reduce the risk of contamination of the environment.	Organic waste material shall be either composted and used for soil conditioning and the composting method shall mitigate the risk of pest, disease, or weed carryover; or it is recycled (or disposed of) in another location where risks of pollution to the environment are managed.	Minor Must
PPM 08.06	The producer implements measures to properly manage wastewater in order to avoid negative impacts on the environment and human health.	Wastewater from production activities shall be disposed of so as to minimize impact on the environment and human health. Consideration shall be given to, for example, wastewater resulting from washing of contaminated machinery (spray equipment, personal protective equipment (PPE), recirculated water systems such as hydrocoolers, etc.). Wastewater from the buildings used for accommodation of workers shall pass through a wastewater treatment system, e.g., municipal or national sewage system.	Minor Must

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PPM 08.07	Fragments and small pieces of packaging material and other nonproduct waste are removed from the field.	Fragments and small pieces of packaging material and nonproduct waste shall be removed from the production site after the specific in-field process is completed.	Minor Must
PPM 08.08	Plastics are managed in a responsible way.	There shall be visual evidence that for durable plastic products and for single-use plastic products (seasonal plastics) used in agricultural production: - Operators have been trained in appropriate operating procedures and practices that minimize release of plastics into the environment. - Manufacturer specifications are observed to maintain the integrity of plastics throughout their use and retrieval. This refers, for example, to plastics inspection, maintenance, and replacement. - Retrieved used plastic is stored securely and disposed of in an environmentally sound manner. - After use, recycling or reusing of plastics is implemented wherever possible. - Where possible, adoption of alternatives that are more environmentally sustainable than plastics are considered.	Minor Must
PPM 09	**BIODIVERSITY**		
PPM 09.01	The producer recognizes the nursery as an agricultural ecosystem that interacts with neighboring landscapes (while the legal scope of the producer is on the nursery).	Available evidence should indicate, for example, that: - In water management, the producer knows where the water for the nursery comes from and where the water that leaves the nursery goes to. - In biodiversity management, the producer knows how the nursery can contribute to protecting and enhancing biodiversity	Recom.

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		via biotope corridors (e.g., trees) that connect habitats on the nursery with the landscapes beyond the nursery. - The producer shows awareness of or participation in projects, joint action, or collaboration with other producers or stakeholders in sector- or crop-specific initiatives, etc.	
PPM 09.02	Unproductive sites are used as ecological focus area to protect and enhance biodiversity.	Available evidence should indicate that there are tangible actions to convert unproductive sites and identified areas that give priority to ecology into conservation areas, where viable. The term “unproductive sites” refers to areas where production is impossible or areas not related to production, such as low-lying wet areas, woodlands, headland strips, or areas of impoverished soil. Areas between greenhouses are not necessarily considered unproductive sites, since these areas may be required to be kept with minimum vegetation for pest management or for maintenance. “N/A” on nurseries where there are no unproductive sites.	Recom.
PPM 09.03	Biodiversity is protected.	Available evidence shall indicate that actions to protect and enhance biodiversity are implemented, for example via one or more of the following practices: - Integrated pest management (IPM) - Implementing measures to mitigate potential negative impact of artificial illumination on biodiversity, especially during the night (e.g., screens or painted glass that helps mitigate potential impacts on migratory birds or other nocturnal biodiversity)	Minor Must

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		- Implementing measures which help to mitigate the visual impact of glass/plastic greenhouses as non-natural elements of the landscape (e.g., living fences/hedges) - Creating shelters for beneficial predators - Leaving areas for habitat near fields or greenhouses - Creating buffer zones along aquatic ecosystems and between production areas or implementing other water management practices - Enabling soil health and soil biodiversity via crop rotation, erosion control, and/or other soil management practices as applicable - Optimizing and, if possible, reducing the use of agrochemicals and fertilizers - Implementing measures to protect species With regard to protection of biodiversity, the guideline provides reference.	
PPM 09.04	Biodiversity is enhanced.	Available evidence, such as maps, aerial photos, visual evidence, or documents issued by local or national authorities or authorized service providers, should indicate that biodiversity is enhanced, e.g., via one or more of the following practices: 1) Restoring, improving, or enlarging fragments of any size of: - Forests, wetlands, mangroves, grasslands, peatlands, etc. - Areas with legal protection or areas effectively protected by other means (e.g., protected areas with relevant categories of the International Union for Conservation of Nature (IUCN))	Recom.

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		- Areas recognized as “High Conservation Value” (HCV) areas 2) Other actions by the producer and partners With regard to protection of biodiversity, the guideline provides reference.	
PPM 09.05	On the nursery (within its boundaries), no areas with legally recognized conservation value (or effectively protected by other means) have been converted into agricultural areas or into other uses since 1 January 2014.	Available evidence, such as maps, aerial photos, or documents issued by local or national authorities or authorized service providers, shall indicate that since 1 January 2014, no conversion into agricultural area or into other uses has occurred in parts of the nursery (within its boundaries) that fulfills the following characteristic: - Areas where legal protection prevents such conversions (protected areas recognized by national or local legislation, areas with relevant categories of the International Union for Conservation of Nature (IUCN), areas that are protected via other effective means, etc.)	Minor Must
PPM 09.06	On the nursery (within its boundaries), areas with legally recognized conservation value (or effectively protected by other means) which had been converted into agricultural areas or into other uses between 1 January 2008 and 1 January 2014 are already restored, under restoration, or will enter binding restoration.	Available evidence, such as maps, aerial photos, or documents issued by local or national authorities or authorized service providers, shall indicate that restoration has been completed, or is in implementation or under planning for binding implementation, to recover the entire extent of the parts of the nursery (within its boundaries) that fulfills the characteristic below, where those parts of the nursery had been converted into agricultural area or into other uses between 1 January 2008 and 1 January 2014: - Areas where legal protection prevents such conversions (protected areas recognized by national or local legislation,	Minor Must

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		areas with relevant categories of the International Union for Conservation of Nature (IUCN), areas that are protected via other effective means, etc.)	
PPM 09.07	Management of biodiversity is supported with metrics.	Acceptable metrics allow calculating, at minimum, the following: - The total area (in ha or m2) of natural or seminatural ecosystems and habitats, legally recognized protected areas, or areas effectively protected by other means (on 1 January of the certification body (CB) audit year) - The total area (in ha or m2) converted into agricultural use or into other uses between 1 January 2008 and 1 January 2014 (on 1 January of the CB audit year) - The total area (in ha or m2) that has already been restored (on 1 January of the CB audit year) - The total area (in ha or m2) that is under restoration (on 1 January of the CB audit year) - The total area (in ha or m2) that is planned for binding restoration (on 1 January of the CB audit year) Additional biodiversity aspects/metrics can also be calculated, where applicable.	Recom.
PPM 09.08	The producer is aware of the country of production's and intended destination market's regulations, if existing, on invasive alien species.	The producer or the producer's customer should have available information on the regulations on invasive alien species for all countries in which products are intended to be produced or traded (domestic and/or international). A list of invasive alien species should exist for the country of production and for each intended country of destination.	Recom.

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		Not applicable if there is no list specifying the invasive alien species for the country of production or destination. Not applicable if the producer does not know to the country of destination of the product.	
PPM 09.09	The producer takes action to avoid introducing or releasing invasive alien plant species in the production system and neighboring ecosystem.	The producer should be aware of a list of invasive alien species considered as such by the country of production, if such a list exists. The producer should demonstrate that actions have been taken to avoid production, marketing, introduction, or release of these species in the nursery and/or the neighboring ecosystem.	Recom.
PPM 10	**ENERGY EFFICIENCY**		
PPM 10.01	Nursery energy use is monitored.	There shall be records of energy use (e.g., invoices detailing energy consumption). The producer (or, where applicable, the quality management system (QMS) manager) shall be aware of: - Where and how energy is consumed (process, machinery, other) - Amounts of energy used per source (electricity, fuels, other) - Proportion of renewable vs. nonrenewable energy used, where such information is available In the absence of energy meters (e.g., for small producers), estimations are acceptable. In Option 2 producer groups, evidence at QMS level is acceptable.	Major Must

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PPM 10.02	Based on the results of the monitoring, there is a plan to improve energy efficiency on the nursery.	There shall be evidence that energy records are analyzed at least annually to: - Identify opportunities to improve energy efficiency - Establish self-defined targets Acceptable metrics can include, for example: the total amount of energy used on the nursery per month. Production equipment shall be selected and maintained for optimum energy consumption.	Minor Must
PPM 10.03	The plan to improve energy efficiency considers minimizing the use of nonrenewable energy.	The producer shall consider reducing the use of nonrenewable energy to the lowest possible and using renewable energy instead. One example of a metric which can be used to follow on the use of nonrenewable energy is: proportion of renewable/nonrenewable sources as percentage (%) of the total	Minor Must
PPM 10.04	There is an emergency power supply in the event of a power failure.	An emergency power supply shall be available that is of suitable capacity. “N/A” if power failure would not impact the crop.	Minor Must
PPM 10.05	The nursery contributes to reducing GHG* emissions and removing them from the atmosphere. *Greenhouse gas (GHG) emissions refer to carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated gases. Due to their varying potential to contribute to global	Available evidence should indicate that the producer: - Has awareness and knowledge of how nursery practices can contribute to reducing GHG emissions and removing them from the atmosphere, for example in connection with energy, soil health, fertilizers, and organic waste - Is preparing to implement or already implementing agricultural practices that enable the formation of organic carbon in soils and in biomass, for example: - Crop residue management (burying residues, seeding on residues)	Recom.

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	warming, they are sometimes calculated as CO_2 equivalents (CO_2e).	- Use of cover crops in crop rotation, diversification of crop rotation, minimum or no tillage - Reduction of nutrient release in fertilizer management - Restoration of ecosystems	
PPM 10.06	The nursery enables the formation of organic carbon in soils and in biomass.	Available evidence should indicate that the producer is preparing to implement, or already implementing, agricultural practices that enable the formation of organic carbon in soils and in biomass, for example: - Crop residue management (burying residues, seeding on residues) - Use of cover crops in crop rotation, diversification of crop rotation, minimum or no tillage - Reduction of nutrient release in fertilizer management - Restoration of ecosystems - Carbon farming and practices to capture carbon in soil and biomass	Recom.
PPM 11	**WORKERS' HEALTH AND SAFETY**		
PPM 11.01	**Risk assessment and training**		
PPM 11.01.01	A member of management is responsible for workers' health, safety and welfare.	Documentation shall be available that demonstrates that a clearly identified, named member of management has the responsibility for ensuring compliance with existing, current, and relevant national and local regulations and the implementation of the policy on workers' health, safety, and welfare.	Major Must
PPM 11.01.02	There is a documented risk assessment for workers' health and safety.	The documented risk assessment shall reflect conditions on the nursery, including worker facilities and any on-nursery worker	Major Must

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		housing. The risk assessment shall be reviewed and updated annually and when changes occur that impact workers' health and safety (changes in local authority sanitary rules on infectious diseases, new machinery, new buildings, new plant protection products (PPPs), modified cultivation practices, new health risks, etc.). Incidents and accidents shall be recorded. Examples of hazards may include moving machine parts, electricity, vehicle traffic, flammable substances, fertilizer, chemical exposure, excessive noise, dust, vibrations, extreme temperatures, ladders, fuel storage, slurry tanks, working at heights, etc.	
PPM 11.01.03	The nursery has health and safety procedures.	The health and safety procedures shall address the points identified in the risk assessment and be appropriate to the operations. The procedures shall include hygiene instructions. The hygiene instructions shall include: - Requirements to wash hands - Limitations on smoking, eating, and drinking to designated areas The health and safety procedures, including hygiene instructions, shall be reviewed annually and updated when the risk assessment changes. The nursery infrastructure, facilities, worker housing, and equipment shall be constructed and maintained to minimize health and safety hazards for workers. Compliance with prevailing regulations shall be required.	Major Must

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		Consideration shall be given to workers at greater risk, including workers under 18 years of age, and pregnant or lactating women.	
PPM 11.01.04	All staff have received health and safety training according to the risk assessment.	Basic training on workers' health and safety shall: - Be provided annually to staff including owners and managers - Be provided to new staff and to established staff whenever they are reassigned to tasks requiring additional knowledge - Cover all necessary instructions - Be given in a format, either written or verbal, that ensures understanding (may only be in verbal and pictorial form without written explanatory content, where appropriate) - Include training on safety procedures for equipment, products, or new activities - Include training on topics related to accident response, natural disasters, and workers' health, including illnesses, exposure to chemicals, emergency response procedures, fire safety, and rights and responsibilities associated with workers' health protection - Include specialized training for workers in accordance with assigned tasks (control atmosphere storages, limited ventilation areas, fertilizer and chemical handling, machine operation, etc.)	Major Must
PPM 11.01.05	Workers handling hazardous substances and operating dangerous or complex equipment have evidence of competence.	Records shall identify all workers: - Handling and/or administering chemicals, disinfectants, plant protection products (PPPs), biocides, and/or other hazardous substances - Operating dangerous or complex equipment as defined in the risk assessment	Major Must

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Section	Principle	Criteria	Level
		- Working at heights For each such worker, there shall be evidence of competence (e.g., certificate of training and/or records of training with evidence of attendance). Workers under 18 years of age and pregnant or lactating workers shall not handle PPPs. Compliance with this principle and the respective criteria shall include compliance with applicable legislation.	
PPM 11.01.06	Accident and emergency procedures are displayed and communicated.	Instructions based on the accident and emergency procedures shall be clearly displayed in accessible and visible location(s) for workers, visitors, and subcontractors. These instructions shall be available in the predominant language(s) of the workforce and/or in pictograms. Accident and emergency procedures shall address work areas, work facilities, and worker housing and include contingency plans, i.e., the ability of workers to remove themselves from unsafe situations. Where required by the risk assessment, emergency equipment shall be accessible and maintained. The procedures shall be visibly displayed for workers (including subcontractors) and visitors by way of clear signs (pictures) and/or in the predominant language(s) of the workforce. The procedures shall cover/identify the following: - The nursery address, map, or other location information (e.g., GPS coordinates) - Contact person(s) - An up-to-date list of relevant telephone numbers (i.e., police, ambulance, hospital, fire brigade, access to emergency	Major Must

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		healthcare on site or by means of transport, and suppliers of electricity, water, and gas) - Emergency evacuation procedures, where applicable Whenever accidents or incidents occur, these shall be recorded, the cause shall be reviewed, and appropriate preventive actions shall be included in revised health and safety procedures.	
PPM 11.01.07	Warning signs identify all potential hazards, emergency exits, and escape routes.	Permanent and legible signs shall indicate potential hazards. Emergency exits and escape route signs shall indicate these must be kept open, accessible, and clear of obstacles. This includes, where applicable, waste pits, flammable structures (fuel tanks, propane/natural gas tanks, etc.), plant protection product (PPP) storage, bodies of water, and any other identified physical hazards. Warning signs shall be present and in the predominant language(s) of the workforce and/or in pictograms. Examples of other information that can be included: - The location of the nearest means of communication (telephone, radio) - How and where to contact local medical services, hospitals, and other emergency services - The location of fire extinguisher(s) and availability of water nearby - The location of large chemical, fuel, and fertilizer storages - The locations of emergency exits and operation of fire escapes - Emergency cutoffs for electricity, gas, and water lines	Major Must

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Section	Principle	Criteria	Level
		- How to report accidents and dangerous incidents (location, description of incident, number of injured people, type of injuries) - The hygiene instructions - How to deal with accidents involving chemicals following safety data sheets (SDSs)	
PPM 11.02	**Hazards and first aid**		
PPM 11.02.01	Safety advice for substances hazardous to workers' health and safety is immediately available and accessible.	Information related to safe handling of each hazardous substance shall be accessible (websites, telephone numbers, safety data sheets (SDSs), etc.). Information (e.g., website, telephone number, data sheet, etc.) shall be accessible, where required, to ensure appropriate action. Permanent and legible signs shall indicate potential hazards, e.g., waste pits, fuel tanks, workshops, access doors of chemical storage facilities. Warning signs shall be present.	Minor Must
PPM 11.02.02	First aid kits are accessible at all permanent sites and fields near the work.	Complete and maintained first aid kits (i.e., complete and maintained according to prevailing regulations and appropriate to the activities being carried out) shall be available and accessible at all permanent sites and present in selected vehicles (tractor, car, etc.) where required by the risk assessment.	Minor Must
PPM 11.02.03	There is always at least one person trained in first aid present on the nursery whenever activities are being carried out.	There shall always be at least one person trained in first aid (within the last five years) present at the location whenever production and handling activities are being carried out, including those mentioned in the relevant principles and criteria	Minor Must

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		of the standard. As a guideline: one trained person per 50 workers.	
PPM 11.03	**Personal protective equipment**		
PPM 11.03.01	Workers, visitors, and subcontractors are equipped with suitable personal protective equipment (PPE) and utilize them.	PPE shall be in accordance with legal requirements, label instructions, and/or as authorized by a competent authority. The PPE shall be available, properly used, and in good repair. Complying with label requirements and/or requirements in the risk assessment for nursery operations may include use of the following: appropriate footwear, waterproof clothing, protective overalls, rubber gloves, face masks, respiratory equipment (including replacement filters), ear and eye protection, etc.	Major Must
PPM 11.03.02	Personal protective equipment (PPE) is maintained in clean conditions and stored appropriately so as not to pose any contamination risk to personal items.	PPE shall be kept clean according to the type of use and degree of potential contamination and stored in a ventilated place. Protective clothing shall be laundered separately from personal clothing. Reusable gloves shall be washed before removal. Dirty and damaged PPE shall be disposed of appropriately. PPE shall be stored in a manner that prevents cross contamination with chemicals.	Major Must
PPM 11.03.03	Suitable changing facilities are available where necessary.	At all times, adequate changing and washing facilities (in line with local conditions) shall be provided to workers who handle or use fuel, fertilizers, plant protection products (PPPs), and other hazardous substances. These facilities shall respect privacy, religion, and culture and be separated by the gender according to which workers identify.	Minor Must

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PPM 11.03.04	The nursery has employer's liability insurance when required by local legislation.	The current certificate shall be displayed with the health and safety policies and in accordance with local legislation. Employers' liability insurance covers businesses against claims by employees who have suffered a job-related injury or illness, or who file lawsuits.	Major Must
PPM 12	**WORKERS' WELFARE**		
PPM 12.01	There is communication between management and workers on issues related to their health, safety, and welfare.	Records shall show that communication between management and workers about health, safety, and welfare issues can take place openly (i.e., without fear of intimidation or retaliation) and at least once a year. The certification body (CB) auditor is not required to make judgments about the content, accuracy, or outcome of such communications. There shall be evidence that workers' concerns about health, safety, and welfare are being addressed. - It shall be emphasized to workers that, with reasonable justification, they shall remove themselves from unsafe work. The use of this right in good faith shall eliminate any retaliation or consequence to the workers. - If accidents, near misses, or other incidents occur, they shall be reported and the cause determined and discussed with the workers. - Management shall define corrective actions to prevent recurrence of similar incidents and clearly explain the corrective actions to the workers. - Workers shall explain to management situations where they feel exposed to risk.	Minor Must

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Section	Principle	Criteria	Level
		- Management shall explain procedures for eliminating or reducing risk detected by workers.	
PPM 12.02	Workers have access to clean drinking water, food storage, and areas to eat and rest.	A clean place to store food and a clean place to eat shall be provided to the workers if they eat on the nursery. Drinking water shall always be provided at no cost to the workers. Worker access to drinking water shall not be restricted. There shall be designated areas for resting and breaks.	Major Must
PPM 12.03	On-site living quarters are habitable, compliant with applicable local regulations, and equipped with basic services and facilities.	The on-site living quarters for the workers shall be habitable and have a sound roof, windows and doors, hygienic and safe food preparation areas, and the basic services of drinking water, toilets, and drains. At a minimum, the quarters shall comply with the local health and safety regulations. Living quarters shall be away from any chemical hazards (including fire hazards, inflammable substances or hazards, etc.), biological hazards (mold, sewage, etc.), and physical hazards (noise, radiation, poor ventilation, extreme temperatures, etc.) identified in the risk assessment. If there are no drains, septic pits may be acceptable if compliant with prevailing regulations.	Major Must
PPM 12.04	Transportation provided to workers is safe.	Transportation shall be safe for workers and take into account applicable safety requirements and regulations.	Minor Must
PPM 12.05	The producer provides workers access to clean toilets and handwashing facilities in the vicinity of their work.	Field sanitation units shall be designed, constructed, and located so as to allow direct accessibility for servicing. Fixed or mobile toilets (including pit latrines) shall be constructed of materials that are easy to clean and be in a hygienic state. Toilets shall be located in reasonable proximity (i.e., no more	Minor Must

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Section	Principle	Criteria	Level
		than 500m or 7 minutes) to the place of work. If there are no or insufficient toilets in reasonable proximity to the place of work, the producer has failed this principle and the respective criteria. Toilets shall be appropriately maintained and stocked.	

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