



ProTerra Standard

Social Responsibility and Environmental Sustainability



Version 4.0 | December 26, 2018





ProTerra Foundation is a non-for-profit organisation that envisages a world where all businesses contribute to the protection of biodiversity by switching to sustainable production, conserve natural resources and ensure that workers and local communities are treated with dignity and respect. The ProTerra Foundation owns the ProTerra Certification Standard and related audit methodology.

More information www.proterrafoundation.org

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The ProTerra Foundation Vision and Mission Statement

The ProTerra Foundation's mission is to be a global network of businesses supporting more sustainable agricultural practices, in the food and feed supply chains, where relevant the conversion to non-GMOs and full respect of workers and communities' dignity.

We envisage a world where all businesses contribute to the protection of biodiversity by switching to sustainable production, conserve natural resources and ensure that local communities are treated with dignity and respect.

Businesses enterprises which support the ProTerra Foundation mission and vision may sign a membership declaration to commit to:

- Support the credibility of the ProTerra Certification Standards and their adaptability to the reality they operate in.
- Raising awareness about impact on biodiversity and climate change.
- Empowering farms and businesses throughout the food supply chain, to become vectors of environmentally and socially responsible business practices.

The ProTerra Standard

The ProTerra Standard is based on the Basel Criteria on Responsible Soy, published in 2004. It has four core aims:

- Foster good agricultural practices;
- Secure the supply of sustainably produced, fully traceable, non-GMO ingredients for feed and food;
- Protect the environment, and
- Promote that workers and communities be treated with dignity and respect.

This Version 4.0 of the ProTerra Standard has gone through a transparent and public stakeholder consultation process that took place from 19 February to 20 April 2018. During and after the consultation process, the ProTerra Foundation Certification and Standard Committee discussed all the comments received and decided on the aspects to be incorporated in this revision of the Standard.

The ProTerra Foundation acknowledges the feedback and suggestions received from all stakeholders that have supported the strengthening of the ProTerra Standard version 4 – 2019.

The summary of changes and stakeholders' comments are made available in the ProTerra Foundation website.

For any comment or question with regard to the ProTerra Standard, please contact standards@protterrafoundation.org

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The ProTerra Standard Principles

The ProTerra Certification Standard is organised in principles, criteria and indicators. These are the ProTerra Standard ten principles:

PRINCIPLE 1: Compliance with law, international conventions and the ProTerra Standard

PRINCIPLE 2: Human rights and responsible labour policies and practices

PRINCIPLE 3: Responsible relations with workers and community

PRINCIPLE 4: Biodiversity conservation, effective environmental management and environmental services

PRINCIPLE 5: No use of Genetically Modified Organisms (GMOs)

PRINCIPLE 6: Pollution and waste management

PRINCIPLE 7: Water Management

PRINCIPLE 8: Greenhouse gases and energy management

PRINCIPLE 9: Adoption of good agricultural practices

PRINCIPLE 10: Traceability and Chain of Custody

Organisations become ProTerra certified by demonstrating adherence to each principle, criteria and indicators of the Standard that are relevant to their business.

The Principle 10: Traceability and Chain of Custody applies to the three levels of operations considered part of the scope of the ProTerra Standard.

The organisations that act only as chain of custody economic operators are to be audited against:

- The indicators within the ProTerra Principles that make specific reference to Level II (see 1.1 Levels of Certification below);
- Principle 10: Traceability and Chain of Custody and, if applicable
- Principle 5: No use of Genetically Modified Organisms (GMO).

The ProTerra Labelling

The ProTerra product packaging label is a mean by which brands can communicate the non-GMO and sustainability commitment directly to consumers and stakeholders. Final consumers can be assured that all products featuring the ProTerra label were produced in a sustainable and traceable manner and meet our non-GMO requirements.

Section I: The Scope of Certification

1.1. Levels of Certification:

The ProTerra Certification is applicable to distinct levels of operation across the food and feed production chains:

- **Level I: Agricultural production**
- **Level II: Transport, Storage, Traders and Dealers**
- **Level III: Industrial Processing**

In the context of this Standard, food and feed production can be agricultural or industrial.

- **Agricultural production is** the growth of crops and seeds. The unit of certification includes the entire farm, both nongrowing activities and non-cultivated areas, including all activities ongoing on site at the time of certification.
- **Industrial production refers** to any operation that transforms the agricultural production output, such as a crushing plant or a food product manufacturer.

1.2. Raw materials, ingredients or multi-ingredient products:

The ProTerra Certification can apply to raw materials, ingredients or multi-ingredient products. This may be accomplished using two basic approaches:

- Each actor in the food and feed supply chain can be certified in its own right against the relevant ProTerra Standard set of indicators or
- Certified organisations that use inputs from actors that are not ProTerra certified in their own right shall implement systems to control and monitor its supply chain(s) to ensure that the relevant ProTerra Standard indicators are met. In this case the verification of this system will be considered as part of the user's own ProTerra certification responsibilities and verified by the Certification Body.

1.3. Principles, criteria and indicators:

The ProTerra Certification Standard is organised in Principles, criteria and indicators. Because of its broad scope and distinct levels of operations, not all of the indicators are applicable to all types of operations.

The standard indicates the applicability of each indicator regarding each of the three levels of operation within the food and feed production chain.

The ProTerra Standard distinguishes between core indicators and non-core indicators. To be ProTerra certified, organisations have meet 80% of all indicators, in which all core indicators are included.

For smallholder farmers all Level I indicators are applicable except if explicitly indicated otherwise in the guidance.

Both core and non-core indicators bear tags that facilitate analysis and generation of specific footprints. Below the classification of tags and their meaning.

| | | |
|-------------------------|----------|--|
| LAW | L | Indicators that refer to legal aspects or authorities |
| SOCIETY | S | Indicators that refer to social responsibility |
| BIODIVERSITY | B | indicators that refer to environment and good agricultural practices |
| ECONOMICS | E | indicators that refer to economic aspects |
| TRANSPARENCY | T | indicators that refer to traceability and transparency |
| FEED FOOD SAFETY | F | indicators linked to feed and food safety |

Section II: Principles, Criteria, Indicators And Guidance

PRINCIPLE 1: Compliance with the law and the ProTerra Standard

International, national and local laws are in place to protect human rights, ecosystems and promote sustainable business practices. This principle carries across all other principles in asking that organisations follow whichever offers the highest level of protection, the ProTerra Standard or local laws and regulations.

1.1 Comply with all applicable national and local laws, regulations, and applicable international conventions.

1.1.1

Levels I and III



CORE - Certified organisations shall implement procedures to assure consistent compliance.

Guidance: Requirement for legal compliance applies to all Principles and their respective Criteria and Indicators.

A list of relevant international treaties and conventions is found in APPENDIX B.

The most stringent rule shall always apply and if the ProTerra Standard exceeds national or local regulatory requirements, certified organisations shall adhere to the Standard. In the case of smallholders, this responsibility lays with farmer groups, cooperatives or first processors.

1.1.2

Levels I and III



CORE – Certified organisations shall document and retain records of compliance for at least 5 years or longer if required by local law.

Guidance: In the case of smallholders, this responsibility lays with farmer groups, cooperatives or first processors.

1.1.3

Levels I and III



CORE - Certified organisations and subcontractors shall keep copies of up-to-date national and local legislation on site or demonstrate on-line access to these.

Guidance: In the case of smallholders, this responsibility lays with farmer groups, cooperatives or first processors.

1.1.4

Levels I and III



CORE - Certified organisations shall demonstrate clear title to land in accordance with national practice and law.

Guidance: Examples of land title are ownership deed, lease, or other appropriate legal agreement.

1.1.5

Levels I and III



CORE - Certified organisations shall ensure that suppliers of core inputs and services are compliant with the ProTerra Standard.

1.1.6

Levels I and III



Certified organisations must obtain from supplier outside the certification scope a formal and signed commitment that they comply with legal requirements, including those regulations associated to human rights, labour laws and environmental regulations.

1.2 Continuous improvement

1.2.1

Levels I and III



Certified organisations shall demonstrate continuous improvement regarding compliance with the ProTerra Standard.

Guidance: Compliance is evidenced from the second year of certification. Examples of evidence can be implementation of corrective action plans, as well as actions associated to social, environmental, agricultural and technical aspects of the operation. Evidence must be proportional to the size and complexity of the operation – for example in a smallholder farm, continuous improvement can be evidenced by better practices and improvements in facilities and equipment.

1.3 Use of ProTerra logo, seal, trustmark and certificates

1.3.1

Levels I, II and III



ProTerra certified materials and products shall be identified using correct claims, the ProTerra logo, seal and certificates, according to the Guidelines and Requirements for the Use of the ProTerra Logo and Seal.

PRINCIPLE 2: Human Rights and responsible labour policies and practices

All workers should be treated with dignity and respect. Responsible business practices help ensure the rights and general well-being of workers. This principle references ILO conventions and other international standards to ensure that certified organisations provide safe working environments and do not engage in the likes of forced labour, irresponsible recruitment practices and discriminatory behaviour.

2.1 Absence of slave and forced labour, child labour, and coercive disciplinary or control methods.

2.1.1

Levels I and III



CORE – Certified organisations shall not use slave labour, forced labour, indentured servants, and their equivalents.

Guidance: This applies also to workers supplied by third parties and contracted labour, including migrant and seasonal workers.

2.1.2

Levels I and III



CORE – No worker will be required to lodge their identity papers with their employer or any third party and workers' pay, benefits or other property shall, likewise, not be retained.

2.1.3

Levels I and III



Accompanying family members (children and spouses) shall not be required to work on the premises of the certified organisation.

Guidance: This is not applicable to smallholders.

2.1.4

Levels I and III



CORE – Child labour, except in contexts permitted within national law and the ILO, whatever is more stringent, shall not be used in certified organisations.

Guidance: Refer to ILO Convention 138 definition including light work and special protection for young workers. In family agriculture, the child can be allowed to work provided that it is not abusive or dangerous, and does not interfere with the health, education and school attendance of the child.

Where young workers and children are present on a farm, the producer shall be able to demonstrate knowledge on child work-related issues.

2.1.5

Levels I and III



CORE – Coercive disciplinary or control methods shall not be permitted. This includes corporal or mental coercion, confinement, threats of violence or other forms of physical, sexual, psychological, or verbal abuse/harassment.

2.2 Weekly working hours and overtime

2.2.1

Levels I and III



CORE – The workweek shall be set according to local and national laws, shall be consistent with local industry standards, and shall, at maximum, not routinely exceed 48 hours per week (not including overtime). Where agreement with trade unions exists related to weekly working hours and overtime, these will be respected.

2.2.2

Levels I and III



CORE – Overtime shall be limited as specified in local and national law and shall not routinely exceed 12 hours per week.


2.2.3

Levels I and III




CORE - Overtime in excess of 12 hours is only allowable if it happens in extraordinary, limited periods where there are time constraints or risk of economic loss and where conditions regarding overtime in excess of 12 hours have been agreed between workers and management. Where agreement with trade unions exists related to excess overtime, these will be respected.

Guidance: The work time limits are flexible in that it is recognised that there may exist certain unavoidable periods during the year, during which employees will be expected to work substantially longer hours for a restricted period of time. The extraordinary time pressure of harvest time is an example of such a situation. The indicator set down in 2.2.5 shall be respected during such periods.


2.2.4
Levels I and III


CORE - Overtime shall be compensated as required by law or according to collective agreement or agreement with the trade union or, in the lack of those, at a premium rate.

Guidance: Legal dispositions which allow exchange of overtime hours for extra days off shall be taken into consideration.


2.2.5
Levels I and III


CORE - All overtime work shall be voluntary.

2.2.6
Levels I and III


In all cases, workers are entitled to at least one day off following 6 consecutive days of work. Where agreement with trade unions exists related to day off/rest days, these will be respected.

2.3 Personnel Management Programme

2.3.1
Levels I and III


The certified organisation shall structure, implement and document a personnel management programme consistent with and proportional to the needs of the organisation.

Guidance: This indicator is not applicable to smallholders.

2.3.2

Levels I and III



The certified operation shall assign a staff member to implement and manage the personnel management programme.

Guidance: This indicator is not applicable to smallholders.

2.4 Equal opportunities and treatment for workers

2.4.1

Levels I and III



CORE -All workers and applicants shall have equal employment opportunities, equal opportunities, and equal treatment on the job. No discrimination shall be tolerated including: “any distinction, exclusion or preference made on the basis of race, colour, age, gender, sexual orientation, religion, political opinion, national extraction or social origin, which has the effect of nullifying or impairing equality of opportunity or treatment in employment or occupation. Any distinction, exclusion or preference in respect of a particular job based on the inherent requirements thereof shall not be deemed to be discrimination.” (Ref: ILO Convention 111, Articles 1 and 2).

Guidance: There shall be no differences in the working conditions of any workers due to employment status (e.g., permanent, temporary or subcontracted workers). However, “equal opportunities” and/or “equal treatment” shall not necessarily prevent certain workers from receiving rewards based on merit or performance, such as pay bonuses, paid vacation time, or other enhancements that are above and beyond the basic compensation due to all workers in the operation.

2.5 Workers' working and living conditions

2.5.1
Levels I and III



CORE - All workers, regardless of age, gender, or other personal characteristic, shall enjoy appropriate, legally compliant working conditions.

2.5.2
Levels I



CORE - All workers living on site shall have appropriate, fairly priced, and safe food, water and housing.

Guidance: “Appropriate” includes at least the following: shelter from the elements; exclusion of pests; ready access to facilities for maintaining hygiene; ready access to water, facilities for food preparation and eating; clean sleeping and sitting quarters (including some type of bed), and open space where workers would be able to move around freely during non-working hours.

2.6 Clear and comprehensive labour contracts and legal rights

2.6.1
Levels I and III



CORE - All workers shall have an employment contract or an equivalent document, understandable by the worker and signed by the employer and employee or the employees' labour representatives. Contracts typically include pay rate, working hours, deductions, overtime conditions, vacation time, conditions for sickness and maternity leave, grounds for dismissal, period of notice. Should the cultural context, in a relevant and unquestionable manner, not consider a written contract mandatory, this should be taken into consideration and is applicable only to smallholders.

2.6.2

Levels I and III



CORE - There shall be a signed work agreement between the certified organisation and subcontracted companies that includes clauses requiring compliance with labour and legal rights of employees.

2.6.3

Levels I and III



Certified organisations shall communicate legal rights, contracts and agreements to their personnel in simple language and style that workers can easily understand and comply with.

Guidance: The operation shall assign a person or persons to be responsible for maintaining and updating such information and shall identify that person to the Certification Body.

This indicator is not applicable to smallholders.

2.6.4

Levels I and III




The certified organisation shall maintain personnel records for each employee for at least 5 years or longer if required by local law.

Guidance: Personnel records will include for each employee their contract, their current status and history, job title, salary, training, hours worked, and vacation time accrued.

This indicator is not applicable to smallholders.


2.7 Qualification, working experience and training of workers

2.7.1
Levels I and III


CORE - Worker job descriptions, including necessary skills and legal status, and salary range shall be set in written form.

Guidance: All workers shall have the necessary qualifications, experience, meet legal requirements to fulfil their job. Written description of jobs, skills, legal status and salary range will serve as the basis for the operation's demonstration that this indicator is being met.

This indicator is not applicable to smallholders.

2.7.2
Levels I and III


An ongoing programme of job-related training, including regular refresher training, shall be provided to all workers to ensure that they are competent to conduct their work efficiently, effectively and safely.

Guidance: Certified organisation shall provide all employees with training regarding, for example:

Sustainability

GMOs where applicable

Their specific rights, tasks, roles and responsibilities.

This indicator is not applicable to smallholders.

2.7.3
Levels I and III


Certified organisations shall maintain records for all training for a minimum of 5 years, or longer if specified by local regulations.

Guidance: The following information shall be included in these records: date, time, attendees, trainer, and content material used during training. This indicator is not

applicable to smallholders. During the initial four years following the granting of the ProTerra Certification, the certified organisation should maintain records covering the period of time for which they have been certified.

2.8 Salaries, payments and benefits

2.8.1

Levels I and III



CORE - All workers, regardless of age or gender, shall be paid a fair, locally representative wage or salary, which shall meet or exceed the Legal Minimum Wage established for the region. If no Legal Minimum Wage exists, compensation shall at least meet the typical salaries usually paid in that region for the equivalent function or job.

Guidance: The operation must demonstrate to the Certification Body and its auditors how it arrived at its determination that it has met this indicator.

2.8.2

Levels I and III



CORE - Piece work shall be paid at a rate that assures workers will be capable of earning at least a legal minimum wage.

2.8.3

Levels I and III



CORE - Wages or salaries and hours worked shall be regularly and legally paid in the national currency, documented and recorded.

Guidance: Payment shall be at least monthly unless workers or their representatives expressly agree that it can be less frequent, the terms of which are specified in writing and signed by said parties.

2.8.4
Levels I and III



CORE - Employer shall not deduct from wages for disciplinary or similar purposes.

Guidance: Deductions for social security or other legally mandated programs are acceptable.

2.8.5
Levels I and III



A social security plan shall be established for the workers in regions where such a plan is not required by law or regulation.

Guidance: The plan shall include timelines for implementation, as well as age requirements for receiving benefits and other related conditions/situations where benefits would be available. The impact of such a social security plan on regular worker pay amounts shall be specified in the plan description.

This indicator is not applicable to smallholders.

2.9 Safety and health of workers protected

2.9.1
Levels I and III



CORE - The certified organisation shall conduct a risk assessment of their operation and use the results of that study to guide mitigation of risks and the development of a health and safety programme. Additionally, it should support the implementation of accident and emergency systems and procedures.

Guidance: This indicator is not applicable to farms with no employees. Scope and complexity of the programme shall be proportional to the scope and complexity of the certified organisation. In the case of smallholders, this responsibility lays with farmer groups, cooperatives or first processors, where applicable.

2.9.2

Levels I and III



CORE - First aid shall be readily and quickly available if and when accidents or other emergencies occur on the worksite.

2.9.3

Levels I and III



The certified organisation shall monitor and ensure compliance with its worker safety and health programme and keep records of health and safety performance, including accident statistics for the operation.

Guidance: Accident statistics: accidents per number of hours worked and accidents per employee. This indicator is not applicable to smallholders.


2.9.4

Levels I and III




CORE - Hazardous tasks, including the application or handling of pesticides such as insecticides, fungicides, and herbicides, for pests, diseases and non-crop plants, shall be conducted only by qualified and properly trained workers. The following types of workers shall not be permitted to conduct such tasks, including subcontracted workers: Persons under the age of 18 or above the age of 60 - Pregnant or nursing women - Persons with mental illness - Persons with chronic, hepatic, renal, or respiratory diseases - Persons with other health problems or limitations that would make them more vulnerable to hazardous conditions.

Guidance: This indicator applies to organisations with workers or subcontracted workers. The operation shall maintain documentation identifying workers excluded from these activities and require subcontractors to do the same.

2.9.5
Levels I and III



CORE - Certified organisations shall provide all required personal protective equipment (PPE) and clothing.

Guidance: Training on the importance and usage of PPE is to be considered as part of this indicator.

2.9.6
Levels I and III


Wearing of appropriate personal protective equipment (PPE) and clothing is mandatory during handling and application of toxic substances or conduct of other hazardous tasks.

2.10 Training in health and safety

2.10.1
Levels I and III


CORE - Workers shall be trained in health and safety on the job, and particularly those workers handling pesticides and other toxic substances or hazardous equipment shall be trained to store, apply, and dispose of pesticides and other toxic substances and to operate hazardous equipment safely, as specified in the manufacturer's instructions and legal requirements.

Guidance: In addition to conducting all aspects of their work safely, workers shall handle all pesticide use and disposal in a manner that protects the worker and others in the vicinity as well as the environment. An example of additional measures is

the marking of areas where pesticides are stored, handled, or used. In the case of smallholders, training in health and safety should be ensured by groups, cooperatives or first processors.

2.10.2

Levels I and III



CORE - Certified organisations shall maintain records for all health and safety training for a minimum of 5 years, or longer if specified by local regulations.

Guidance: The following information shall be included in these records: date, time, attendees, trainer, and content material used during training.

2.10.3

Levels I and III



Certified organisations shall employ qualified personnel to instruct workers in safety and health on the job, and especially in the safe handling, storage, and application of pesticides and other toxic materials and the safe conduct of other hazardous tasks.

Guidance: Certified organisations shall ensure that instructors have necessary technical knowledge and legal qualifications. In the case of smallholders, the instruction should be ensured by groups, cooperatives or first processors.

2.11 Parental leave

2.11.1

Levels I and III




Certified organisations shall comply at least with national and state regulations regarding maternity and paternity leave.

2.11.2

Levels I and III




Workers taking maternity/paternity leave have the right to resume their work under the same conditions existing before taking leave, without discrimination, deduction of wages or loss of seniority.

2.11.3
Levels I and III


CORE - In locations where specific regulations do not cover maternity leave, certified organisations shall establish a reasonable leave period.

Guidance: This indicator is not applicable to smallholders.


2.12 Freedom for workers to organise, join and form associations

2.12.1
Levels I and III



CORE - All workers, contracted and share-croppers shall be allowed to form and join trade unions or other collective bargaining organisations of their choice.

Guidance: Certified organisations must provide evidence demonstrating that the certified organisation respects the rights of all personnel to form and join trade unions or other collective bargaining organisations in accordance with the law.

This indicator is not applicable to smallholders.

2.12.2
Levels I and III


CORE - Certified organisations shall not impede functions of collective bargaining organisations and representatives of collective bargaining organisations shall have access to their members at the workplace.

2.12.3
Levels I and III


CORE -There shall be no discrimination by management or workers between unrepresented workers and members of labour or trade unions.

PRINCIPLE 3: Responsible relations with workers and community

Respecting workers and local communities means listening to what they have to say. Workers can often feel that speaking on an issue might cost them their job or jeopardise their well-being. Certified organisations provide a means of communicating grievances that protects the grievant and ensures their complaints are fairly assessed. This principle also aims at extending such a mechanism to the local community.

3.1 Systems of communication and grievance mechanism

3.1.1

Levels I and III



CORE - Certified organisations shall establish and document an effective and timely system of communication with all workers and with the local communities, and an effective and timely system to receive, investigate and respond to all complaints from these parties.

Guidance: This system shall function at the worksites and in the communities linked to certified organisations. This indicator is not applicable to smallholders.

3.1.2

Levels I and III



CORE - Complaints, responsive actions, and outcomes shall be documented, and records maintained for 5 years or more if required by local law.

Guidance: Auditor will look into the number of complaint resolution processes and verify the number of effective resolutions achieved. This indicator is not applicable to smallholders.

3.1.3

Levels I and III



The system of communication shall include a mechanism that allows workers and community members to lodge complaints in a manner anonymous to the management of the certified organisation (if they desire anonymity), yet also allows verification of the validity of the complaints. The certified organisation should also recognise the competence of local labour tribunals, if these are the mechanism chosen by workers for raising grievances.

Guidance: One example of such a system would be to appoint an independent ombudsman who receives complaints, assesses validity and sets in motion appropriate processes for correction/redress. The procedures for electing/appointing the ombudsman must be transparent and must equitably include workers, community members or their representatives in the appointment process. This indicator is not applicable to smallholders.

3.2 Land use does not impair the rights of traditional other users

3.2.1

Levels I and III



CORE - Land use in all cases shall not interfere with the agricultural production systems of neighbours, to allow coexistence of different production systems.

3.2.2

Levels I and III



Land rights disputes shall be resolved before certified status can be awarded. The UN Principle of free, prior and informed consent (FPIC) shall apply to this indicator.

3.3 Economic development and support to local economy

3.3.1

Levels I and III



Certified organisations shall demonstrate support for local community development projects.

Guidance: This indicator is not applicable to smallholders.

3.3.2

Levels I and III



Certified organisations shall contribute to the local economy by preferentially offering local businesses the opportunity to supply goods and services that meet the organisation's specifications.

Guidance: This indicator is not applicable to smallholders.

3.3.3

Levels I and III



Job opportunities shall be made available first to qualified members of the local community.

Guidance: This indicator is not applicable to smallholders.

3.3.4

Levels I and III



Certified organisations shall have a financial planning of its business to ensure its long-term viability over time.

Guidance: Smallholder are expected to at least be able to verbally explain the way the farms finances are organised and issues that are relevant for economic viability of the family business and actions eventually taken to ensure sustainability over time.

PRINCIPLE 4: Biodiversity conservation, effective environmental management and environmental services

Deforestation is one of the primary causes of climate change. This principle seeks to eradicate the clearing of native vegetation for agriculture. Certified organisations perform comprehensive environmental and social impact assessments to identify risks relating to any large expansion of their activities. Through implementing this principle, businesses will protect natural eco-systems and adhere to governmental and international regulations.

4.1 Land use conversion and forest conservation

4.1.1

Levels I and III



CORE - For certification under this Standard, areas of native vegetation cannot have been cleared or converted into agricultural areas, or used for industrial or other commercial purposes, after 2008, in particular the following:

- Primary Forests (for instance, rainforests);
- Riparian Vegetation;
- Wetlands;
- Swamps;
- Floodplains;
- Steep slopes;
- High above-ground carbon stocks, and
- Other as defined by the High Conservation Values Resource Network (HCV 1 to 6).

4.1.2

Levels I and III



CORE - Certified organisations shall adhere to governmental regulations and international conventions that pose additional limits on conversion of native vegetation to agricultural or other commercial purposes.

Guidance: In the case of smallholders, this responsibility lays with farmer groups, cooperatives or first processors.

4.2 Maintenance and enrichment of biodiversity

4.2.1

Levels I and III



CORE - Certified organisations shall identify and maintain valuable biodiversity within their areas and shall, with the involvement of an external expert, restore areas of natural vegetation around bodies of water and on steep slopes and hills, and other sensitive parts of the ecosystem.

Guidance: The width or area of vegetation shall be sufficient to maintain and foster the continued survival of the natural biodiversity of the area and to avoid erosion. To the extent possible, large agricultural developments (industrial level), shall support and stimulate the identification and maintenance of valuable biodiversity outside its farmed areas.

4.2.2

Level I



Certified organisations shall gather wild species or products from their natural habitat only when permitted by law and shall do so only in a manner that assures those species will continue to flourish in their natural habitat along with other species that normally depend on the gathered species.

4.2.3

Level I



CORE - The introduction of invasive species and new pests shall be avoided, and past introductions must be controlled and monitored, and any invasive expansion of these shall be reported to the authorities.

4.3 Social and environmental impact assessment and management plan

4.3.1

Levels I and III



CORE - Certified organisations shall perform a comprehensive Environmental and Social Impact Assessment (ESIA) for any large or high-risk greenfield expansion or new infrastructure projects to identify potentially harmful or damaging impacts and to define a Management Plan to address these where necessary. External experts are to be involved.

Guidance: The ESIA must be commensurate to the scale of the operation and infrastructure. It must take into account the sustainability of the environment, wildlife and endangered species, and the social impact on the local population including, where relevant, indigenous people and traditional land users. Guidance from government, academia or other recognised experts should be obtained, as applicable, to complete the ESIA. Where existing, national regulations related to such assessment must be complied with. A definition of ESIA is provided under Terms and Definitions.

This indicator is not applicable to agricultural operations of smallholders.

4.3.2

Levels I and III



Certified organisations that fall within the requirements of 4.3.1 shall carry out the Management Plan specified in that indicator and review it prior to the ProTerra audit, assessing progress, revising and setting new objectives, as appropriate. This Management Plan shall also include actions to maintain and foster biodiversity within and surrounding the operation, which will be monitored regularly and updated as necessary.

PRINCIPLE 5: No use of Genetically Modified Organisms (GMO)

There is still a scientific debate about whether genetic engineering is harmless for animal and human health, as proponents of GMOs claim. However, the use of GMO has led to changes in farming practices that have caused less crop diversity. This has led to an increase in herbicide-resistant weeds and therefore a higher use of pesticides, with all their related side effects (pollution of aquifers, detrimental effect on workers' health, loss of micro-biodiversity). It has also increased costs for producers. Many consumers and producers are concerned about GMO ingredients and want to make informed decisions about where their food comes from. This includes understanding the social and environmental footprint of their choices.

This principle aims to ensure that GMO is not present at the certified organisations.

The applicability of this principle is determined by assessing risk of GMO presence, contamination or use. Auditor should refer to Appendix A for risk assessment. If risk is non-existent this principle is non-applicable.

5.1 GMOs and Genetically Engineered Organisms are excluded

5.1.1

Levels I, II and III



CORE - Genetically modified organisms (GMOs) and their by-products must not be used in the production of ProTerra certified products. This includes technology that can be used to edit genes within organisms such as CRISPR/Cas9.

Guidance: This indicator applies to seed and other agricultural inputs, as well as ingredients, processing aids, additives, and other inputs used in processing agricultural products and used in manufacturing food, feed, fibre, derived products, and fuel products. Not applicable if there are no genetically modified varieties existing or approved in the country where this Standard is being applied. Where there is GMO

risk the ProTerra Standard determines that certified organisation meets one of the following criteria:

- The organisation is certified to Non-GM production by a standard such as the FoodChain ID Non-GMO Global Standard or equivalent to the same, like for example:
 - The American Non-GMO Project Standard (US)
 - The German VLOG “ohne Gentechnik” Standard
 - The Guidelines on the definition of GMO-free production of Food and its labelling according to the Austrian Codex Alimentarius, respecting their scope of applicability, or
- The organisation operates an effective control system that deliver equivalent results.

5.1.2

Levels I, II and III



CORE - All certified organisations shall avoid the intentional or unintentional contamination of certified products by GMO's from external sources and shall demonstrate that the Non-GMO control system is set to assure compliance with non-GMO requirements of their target market(s). This includes defining:

- The Targeted Threshold Tolerance Level — i.e., the level of acceptable GM contamination found in a specified product for a specified region (country), and
- The approved/ non-approved GMOs.

Guidance: Where the Targeted Threshold is not defined, it will be considered, 0.1% with an adventitious GM presence level of up to 0.9%, of approved GMOs. For claims on products, certified organisations shall refer to the document entitled Guidelines and Requirements for the Use of the ProTerra Logos and Seals.

5.1.3

Levels I, II and III



CORE - Certified organisations may use certain substances, which are produced by GMOs or which are from unknown genetic origin, if:

- The substances are not available on a continuous basis in Non-GMO quality as defined in this standard (based on origin, production process, quantity and analysis);
- The substances cannot be replaced with alternative products or methods;
- The substances are necessary for animal health and protection reasons;
- The substances are necessary for the production of food products, and
- The substances' use in food or animal feed is required by law or by regulation in the country or region where they are produced and/ or consumed.

Guidance: Such exemptions shall be limited to a minimum and a time limit shall be imposed, if necessary. Substances that are exempted according to this guideline include food additives, processing aids, flavours, amino acids, other micronutrients, vitamins, animal feed additives. Exemptions are only possible, according to the Recommendations of the Expert Group to the Austrian “platform gmo-free” or to the recommendations of the EU Commission, based on the labelling of organic food.

5.2 System of Identity Preservation and segregation

5.2.1

Levels I, II and III



Certified organisations shall have in place an adequate system of segregation for GMO materials, achieved by one of the following methods:

- Use of dedicated sites, facilities, equipment, conveyances, handling equipment and/or related infrastructure;
- By inspecting, cleaning and/or flushing facilities, equipment and conveyances between use in contact with genetically modified material and Non-GMO material;
- A combination of the above methods.

5.2.2

Levels I, II and III



Certified organisations shall have procedures and records in place to ensure segregation is maintained and documented. At least the following procedures and records to provide evidences that segregation is maintained:

- Sampling plan for immunologically based screening using strip tests;
- Sampling plan for PCR analyses;
- Strip test procedure;
- Strip test records;
- PCR analysis reports;
- Records of flushing or cleaning for product change in non-dedicated sites, and
- Inspection checklist of trucks and other conveyances.

Guidance: Applicability of the above evidences should be proportionate to the type and size of the operation, particularly in the case of smallholders. For example, at farm level in general, one may need only a sampling plan, strip test procedures and records. At country elevators and industrial plants, in addition one will need PCR sampling and testing protocol and results linked to production periods and lots. Auditor will decide what the level of compliance is.

PRINCIPLE 6: Pollution and waste management

Minimising the pollution of the environment should be a focal point of sustainable farming practices. This principle aims to support certified organisations in using methods to store, handle and dispose of waste that do not harm the natural environment or local communities.

6.1 Appropriate management of hazardous wastes and pollutant materials

6.1.1

Levels I and III



CORE - Certified organisations shall segregate, handle, store and dispose of hazardous wastes properly. Management of hazardous wastes shall at least comply with national laws relevant to the location of the certified operation, as stated in Principle 1 of this Standard.

Guidance: Hazardous wastes include but are not limited to batteries, fluorescent lamps, tires, used lubricant oil. For pesticides residues refer to indicators 9.7.8.

6.1.2

Levels I and III



CORE - Certified organisations shall handle, store and dispose of pollutant materials properly, having appropriate facilities to prevent spills. Management of pollutant materials shall at least comply with national laws relevant to the location of the certified operation, as stated in Principle 1 of this Standard.

Guidance: Pollutant materials include but are not limited to oil derivatives and fuels. Appropriate facilities include drum spill containment basins with oil water separation system, machinery filling stations, and machinery washing stations built in accordance with legal requirements.

6.1.3

Levels I and III



CORE - Certified organisations shall discharge sewage/effluents in a manner that does not cause pollution to water and does not contaminate the soil or crops with chemicals, heavy metals, by-products, excess nutrients or pathogens. Raw sewage shall not be used to irrigate crops.

Guidance: If sewage is to be used or otherwise incorporated back into any production system, it must be treated to liquid that water that is released back into the environment is safe.

For certified organisations of Level III, all effluents must be treated and verified by testing to comply with legal requirements.

6.2 Management and appropriate disposal of non-hazardous wastes

6.2.1

Levels I and III



CORE - Non-hazardous wastes shall be segregated and, where appropriate, recycled or reused. If recycling or reuse is not possible, a legal means of treatment and final disposal shall be employed.

6.2.2

Levels I and III



CORE - Certified organisations shall manage biological wastes such as manure, straw, crop residues, food scraps, processing by-products, among others, appropriately in order to avoid pollution and/or to prevent these from becoming a source of pathogenic contamination or pest harbourage. Management of these wastes shall at least comply with national laws relevant to the location of the certified operation, as stated in Principle 1 of this standard.

6.2.3

Levels I and III



In cases where residues are returned to the agricultural fields as either mulch or compost to build soil organic matter, or as fertilizer, these materials must be treated, where applicable, to assure the absence of chemical or biological contaminants.

Guidance: When using raw manure as fertilizer, composting is recommended before application to fields.

6.2.4

Levels I and III



CORE - Wastes shall not be incinerated or burned, except when required for phytosanitary purposes, or in cases when it is burned for energy or heating, or used for biogas/oil production.

Guidance: Burning for generation of biofuels, for energy production must comply with local and/or national regulations.

6.3 Control of atmospheric pollution

6.3.1

Level III



CORE - Certified organisations shall implement systems and procedures to ensure that concentrations of contaminants emitted through smoke pipes, chimneys, boilers, ovens, incinerators, and electricity generators do not exceed established limits set by local, national or regional law, or by individual authorisations delivered by competent national, regional or local authorities.

Guidance: Certified organisations shall document the performance of these control systems.

PRINCIPLE 7: Water management

Water is a scarce resource in many parts of the world. It is also a resource constantly under threat of contamination and misuse. This principle aims to ensure responsible use of water by preserving the quality and quantity of local water reserves and protecting them from contamination.

7.1 Conservation of natural water resources

7.1.1
Levels I, II and III



CORE - Certified organisations shall conserve quantity and quality of existing natural water resources, such as lakes, rivers, artificial lakes, dams, water tables and aquifers around their facilities.

7.1.2
Levels I and III



CORE - Certified organisations shall not undertake new initiatives that reduce the availability of water for neighbouring communities and farms for drinking and irrigation, or for traditional uses.

Guidance: Traditional uses of water by certified organisations must likewise be shown to still be viable and sustainable. Practices that once were considered sustainable may no longer be due to increased population pressure or other recent ecosystem or climatic changes.

7.1.3
Levels I and III



In cases where activities carried out prior to the certification application have damaged water resources, certified organisations shall undertake mitigation actions based on a plan agreed with the local environmental authority.

Guidance: This indicator is not applicable to smallholders.

7.2 Best practices for water management

7.2.1

Level I



CORE- Certified organisations shall implement best practices for water conservation and avoidance of contamination of surface and groundwater. If irrigating, salinisation and desertification shall be prevented.

7.2.2

Levels I and III



CORE - Any evidence of contamination of ground or surface water shall be reported to the local environmental authority and mitigated based on a plan agreed with such authority if necessary.

PRINCIPLE 8: Greenhouse gases and energy management

Global warming poses a major threat to the environment and to people's lives, but it also threatens the way the world conducts business. The management of greenhouse gas emissions and its reduction are key to reducing global warming. This principle encourages organisations to incrementally minimise non-renewable energy usage in favour of renewable sources.

8.1 Management of greenhouse gas emissions

8.1.1

Levels I and III



Certified organisations should develop an inventory of its greenhouse gas emissions and develop a programme to reduce or compensate emissions.

Guidance: For Level I, this indicator is only applicable to industrial large-scale agriculture. Certified organisations are stimulated to voluntarily make their GHG information public.

8.2 Management of energy use

8.2.1

Levels I and III



CORE - Over time, certified organisations shall adopt practices to minimise the use of energy from non-renewable sources and to derive an increasing proportion of their energy from renewable sources such as solar and wind, or from local, recycled materials.

Guidance: Examples of applicable materials are reforestation wood, bio-fuels, wood chips, and crop residues or food processing waste, such as sugarcane fibre. Plans should identify timelines, methods, and proposed budgeting of time and company resources needed. Progress shall be documented or otherwise demonstrable. In the case of smallholders, the responsibility lays with farmer groups, cooperatives or first processors.

PRINCIPLE 9: Adoption of good agricultural practices

Good agricultural practices are fundamental to minimise the impact of agricultural activity on the health of the environment, workers and neighbouring communities. This principle aims to support organisations to reduce the use of toxic and polluting materials, especially pesticides, and manage the potential impact of their agricultural activity.

9.1 Systems of good practices

9.1.1
Level I
B E F

CORE - Certified organisations shall adopt agricultural good practices and, where possible, adopt conservation systems such as Integrated Pest Management (IPM) and organic agricultural practices.

Guidance: Good practices include methods that build soil, protect water, reduce chemical usage, and foster biodiversity.

9.2 Control of burning

9.2.1
Level I
L B T

CORE - Certified organisations shall not clear areas for cultivation by burning vegetation, or burn for harvesting purposes, e.g sugarcane, unless this practice is allowed by local and national law.

Guidance: If allowed by local and national law, burning must be adequately documented. In these cases, workers shall be trained for this activity. Training records shall be available.

9.2.2
Level I
B

Should burning vegetation be practised by an organisation in accordance with aspects of indicator 9.2.1, certified organisations shall develop alternative methods for future use.

9.3 Soil and crop management

9.3.1
Level I
B E F

CORE - Certified organisations shall define a soil and crop management regime that monitors soil quality, builds soil, enhances fertility and manages pests and diseases.

Guidance: Examples of useful practices include use of cover crops, management of vegetation, management of crop succession and rotation.

9.3.2

Level I



CORE - Certified organisations shall evaluate suitability of the soil for production of specific crops and to define a soil management regime.

9.3.3

Level I



Best practices are followed in fertiliser use, based on expert opinion or at least the manufacture's recommendations. Whenever possible producers should reduce the use of chemical fertilizer.

9.3.4

Level I



CORE - Certified organisations shall minimise soil erosion and damage to soil structure caused by wind, water, human activity and presence of farm animals.

Guidance: Production practices should maintain vegetative cover for as long as possible throughout the year. Techniques such as deep-rooting green crops; mulching; using low pressure tires, for example, should be considered.

9.4 Documentation of agricultural production

9.4.1

Level I



CORE - All records referred to in the following indicators should be kept for 5 years or longer if required by local regulations.

Guidance: If this indicator is first being met during the initial year that ProTerra certification is achieved, and local regulations do not prescribe, the Certification Body will waive the retroactive aspect of it for the initial years of certification. This indicator is not applicable to smallholders.

9.4.2

Level I



Certified organisations shall maintain all seed records.

Guidance:

Records include:

- Invoices of purchase of seeds, which should at least include: supplier's name, date of purchase, variety and/or brand name, quantity and lot number. If the seed invoice does not include the above-mentioned information, then information shall be recorded independent of the invoice;
- Seed certificates and seed bag labels
- Records of seeds produced by the farm;
- Each season's records identifying the seeds and their source used for planting each crop.

9.4.3

Level I



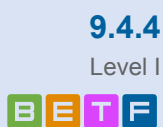
Certified organisations shall maintain records of all agricultural production.

Guidance:

Records typically are harvest records, including:

- Crop succession and rotation for each field;

- Crop weight;
- Yield;
- Identification of the field from which the crop was harvested;
- Seed lots and variety used ;
- Harvest date;
- pest and diseases;
- other soil and crops information and management practices.



CORE - Certified organisations shall maintain records of all fertilizer, pesticides, other agrochemicals and other inputs purchased, used, and disposed of, including biocontrol agents. Records of pests, diseases, weather conditions during spraying, and weeds shall also be recorded.

Guidance:

Records typically include:

- Fertilizer and pesticide applications;
- Purchase Invoices of all inputs used in agricultural production;
- Application procedures;
- Dilution dosages and amounts used;
- Crops and field locations to which they were applied;
- Dates of application;
- Relevant quarantine times before the crop was harvested;
- Weather conditions during application.

This is not applicable to smallholders.

9.5 Management of propagation material

9.5.1

Level I



Seeds, seedlings, and propagation materials shall be selected for quality and performance for the region.

Guidance: Evidence for this indicator may consist of seed germination and vigour test reports. Such evidence may come from suppliers or technical assistance organisations and extension services. The Certification Body may waive this indicator in cases where producers save their own seed or propagate from their own existing stocks, especially in the case of smallholders. Smallholders may report verbally on their own propagation materials.

9.5.2

Level I



When seeds are saved and/or obtained by breeding locally, the certified organisation must conduct practices to assure seed quality and performance.

Guidance: Evidence of this indicator may be yield records from the past crop from those seeds and/or germination/vigour test records.

9.5.3

Level I



Certified organisations shall retain archive seed samples for a minimum of 1 year.

Guidance: The certified organisation must begin archiving seed during the first year of certification. In cases, where seeds deteriorate due to conservation conditions, this indicator shall be non-applicable.

9.6 Reduction of toxic and polluting materials

9.6.1

Level I



CORE - Certified organisations shall avoid or reduce the use of toxic or polluting materials whenever possible, and shall select agrochemical inputs having the least possible toxicity and environmental impact for the required application.

Guidance: Operations that use agrochemicals for pests, diseases, and non-crop plants shall employ Integrated Pest Management (IPM) and other strategies, like use of ecologically sound biological controls for the target pests or disease where applicable, to minimize agrochemical use.

9.6.2

Levels I, II and III



CORE - Pesticides listed in the WHO classes Ia, Ib lists, Rotterdam Convention and Stockholm Convention, as well as pesticides forbidden by local, national, and regional law, may not be used. Hazardous substances listed in the Rotterdam Convention also are not to be used in agricultural or industrial operations, the provisions of indicator 9.6.3. being observed.

Guidance: Lists of all chemicals referenced in this indicator may be found on the websites listed in Appendix C of this Standard.

9.6.3

Levels I, II and III



CORE - In cases where producers use a pesticide that is legally authorised in their country but is restricted in the buyer market, the producers shall implement a progressive reduction programme. Level II and III operators shall test products before export to ensure that residue levels of such pesticide are negligible or are, at least, compliant with residue limits set in the country of import.

Guidance: The certified organisation must show awareness on the pesticide which are not permitted on the market(s) they intend to sell to. Furthermore, a mitigation plan must have been developed to show the measures taken to ensure, elimination, reduction and or substitution of these pesticide.

An example of a pesticide falling under this indicator is Paraquat.

9.6.4

Level I



Certified organisations shall use non-chemical weed control methods whenever possible, such as mechanical methods and management of crop rotations, crop succession and intercropping.

Guidance: Operations that use agrochemicals should make stepwise changes in their systems to significantly minimise or eliminate the need for herbicides. There should be a monitoring of substances and quantities applied and the number of application per field.

In the case of smallholders, this responsibility lays with farmer groups, cooperatives or first processor.

9.6.5

Level I



CORE - Certified organisations shall only use pesticides on crops and for target species for which they are legally allowed, at the prescribed dosage, during the required timeframe and/ or crop conditions, as defined in local laws and regulations and by manufacturers' recommendations or by documented best practices.

Guidance: This will include a programme of pesticide rotation designed to minimize development of pest resistance.

9.7 Management of agrochemicals and chemical residues

9.7.1

Level I



CORE – Agrochemicals, including pesticide, shall be applied using methods that minimise harm to human health, wildlife, plant biodiversity, and water and air quality.

9.7.2

Level I



CORE - Certified organisations shall not engage in pesticide spraying over bodies of water, or over preserved, protected or residential areas, in compliance with regional, national, and local regulations.

Guidance: Pesticides shall be sprayed as per local regulation requirements in terms of distance from populated areas and bodies of water.

In the absence of such regulation, pesticides shall not be sprayed within 100 meters of human populated areas, and within 50 meters of bodies of water.

9.7.3

Level I



CORE - In crop areas adjacent to roads or residential areas where access by people is possible, recently sprayed areas shall be marked appropriately to warn people not to enter into such areas.

9.7.4

Level I




CORE - Aerial spraying shall be conducted only under weather conditions that minimise drift to adjacent areas, and must be in compliance with local, national and regional laws.

9.7.5


Level I




CORE - Residents within 1 km shall be informed at least one day in advance before aerial spraying is done.

9.7.6
Level I


CORE - Aerial spraying shall not be carried out with pesticides listed in the WHO Classes Ia, Ib and II lists and Rotterdam Convention.

9.7.7
Level I


CORE - Certified organisations shall adhere to quarantine periods, avoiding harvest until applied pesticide hazard for consumers is reduced to acceptable levels.

9.7.8
Levels I, II and III


CORE - Pesticides shall be handled, stored, transported, and disposed of according to manufacturers' instructions, legal requirements, or according to procedures documented to be superior.

Guidance: Pesticides shall be stored and transported in original containers or in other appropriate containers clearly labelled to identify contents.

Certified organisations shall follow manufacturer's recommendations and legal requirements for disposing of agrochemical wastes and empty pesticide containers, and for cleaning all application equipment. Certified organisations shall triple rinse empty pesticide containers with water, then perforate to prevent reuse, and when possible return containers to the supplier, or to facilities designed to handle such wastes.

9.7.9
Level I, II and III


Certified organisations shall test products bound for commercialisation for tolerance thresholds of chemical residues (e.g., pesticides) as regulated by the target market and for harmful contaminants (e.g., mycotoxins) maintaining testing records.

Guidance: Tests should be designed so that they are as relevant as possible to the specific risks involved. Frequency of tests shall be determined on the basis of a risk analysis conducted by the operation and evaluated by the Certification Body.

PRINCIPLE 10: Traceability and Chain of Custody

Traceability enables the market to have a full view over a product's journey, making it possible to identify if and where GMOs were used. Chain of custody refers to a paper trail that records the sequence of custody, control and transfer of materials. It is evidence of ownership of the materials and permits tracing back their physical movement. This principle aims at ensuring certified organisations maintain a paper trail of the product journey.

Chain of custody requirements apply to the different levels of operation considered under ProTerra Standard, that is Levels I, II and III. This is because organisations pass their products on to another certified operator or receive materials for its processing. Traceability indicators are part of the chain of custody.

Fulfilment of the indicators outlined in this principle qualify an economic operator to make a sustainability claim on final products offered to consumers and on any intermediate product as well.

10.1 Chain of Custody System

10.1.1
Level I, II and III



All records related to the Chain of Custody System shall be kept for 5 years or longer if required by local regulations.

Guidance: The Certification Body will waive the retroactive aspect of this indicator for the first years of certification, in case local regulations do not provide for this.

10.1.2
Level I, II and III



The certified organisation shall have sufficient documentation and records to demonstrate traceability.

Guidance:

Examples of records for agricultural production:

- Seed and propagation material;
- Information of planted area and plots;
- Crop type and volume records;
- Analysis reports.

Examples of records for warehouse operations:

- **Reception records:** crop type, weight, date, driver name, number of vehicle license plates, farm name, as well as analytical results.
- **Storage records:** volume, number of silo or warehouse.
- **Shipment records.**

Examples of production records for processing plants:

- **Reception records:** crop type, weight, date, driver name, number of vehicle license plates, farm or warehouse of origin, as well as analytical results.
- **Processing records:** date of process, production line or facilities used, volume and identification of raw material, volume of product made, product lot number, as well as analytical results.

Shipment records. For chain of custody operators (trader, dealer, distributor, co-packer and handler of certified sustainable material): ProTerra Traceability Certificate of Compliance (TCC).

10.1.3
Level I, II and III



The certified organisation shall assign lot numbers to each received or shipped raw material or product consignments, as well as processing lots and final product lots, where applicable, linked to the traceability information pertaining to the same.

10.1.4
Level I, II and III



Certified organisations shall maintain chain of custody traceability during transfer of ownership of a consignment of ProTerra certified product by means of a Traceability Certificate of Compliance (TCC), specific for that transaction.

The information contained in the TCC shall include the following:

- volume of the consignment changing ownership
- lot numbers and volumes of each lot of material contained in the consignment, identification of seller and buyer
- date of the transaction and, where applicable,
- information verifying that the specific lot of material referenced in the TCC complies with the relevant threshold for GMO.
- The TCC shall be retained by both economic operators.

10.1.5
Level I, II and III



For sealed products that are packaged and labelled for the end user, for example, retail packages, use of TCCs is not required. However, the certified organisation shall maintain records that allow them to trace back from the lot number on the package to the lots of ProTerra certified ingredients contained in the product.

10.2 Mass balance

10.2.1
Level I, II and III



A running total mass balance shall be maintained for inputs and outputs correlating the amounts of certified inputs with amounts of certified outputs, taking into consideration conversion factors.

10.2.2
Level I, II and III



In cases where a ProTerra certified material can be mixed with other non-GMO material, or with material that does not have commercial GMO varieties, a mass balance shall be maintained to demonstrate that volumes of ProTerra certified material received are equivalent to ProTerra certified material dispatched.

10.3 Segregated chain of custody

10.3.1
Level I, II and III



The economic operator shall have, and shall consistently employ, standard operating procedures for maintaining full segregation for each lot of ProTerra certified product from GMO materials from the point of receipt to the point of transfer to the next economic operator in the supply chain. Procedures and records may include, depending on the operation level:

- Sampling plan for immunologically based screening using strip tests;
- Sampling plan for PCR analyses;
- Strip test procedure;
- Strip test records;
- PCR analysis reports;
- Procedures of flushing or cleaning for product change in non-dedicated sites.

10.3.2
Level I, II and III



Precautions, including physical labelling of facilities and conveyances, must be in place to prevent co-mingling of ProTerra certified material and other material during transport and during loading and unloading of conveyances.

10.3.3
Level I, II and III



Conveyances used to transport ProTerra certified material shall be inspected before loading to verify freedom from residues of materials that are not ProTerra compliant, and if residues are observed, the conveyance shall be cleaned before loading ProTerra certified materials. Inspection and cleaning of conveyances shall be documented.

10.3.4
Level I, II and III



When ProTerra certified material is transported as a part-load together with other material, GMO or non-specified material as to genetic engineering modification, systems and procedures must be in place to prevent mixing during loading, transport and unloading. Correct ProTerra certified product must be clearly identified and delivered to the customer.

10.3.5
Level I, II and III



Certified organisation shall comply with Principle 5 to demonstrate that genetically modified organisms are not used.

10.3.6
Level I, II and III



A ProTerra chain of custody certified organisation will be able to merge or split received consignments of ProTerra certified products. To each new merged or split consignment, a unique identification number must be assigned.

Guidance: It should be noted that consignments of products certified under ProTerra Standard received by chain of custody certified organisations may consist of one production lot, or parts of one or more production lot.

10.3.7
Level I, II and III



Customer service, inventory management, and order fulfilment procedures must be in operation, verifying that the correct ProTerra certified product consignments have been shipped to customers ordering ProTerra certified products.

Section III: Terms and Definitions

Abuse

Mistreat: treat badly; maltreatment: cruel or inhumane treatment either verbal or physical in nature.

Agrochemical

All synthetic or non-agricultural inputs used directly or indirectly in agricultural production, and for the maintenance of equipment and storage, including:

- Detergents;
- Pesticide control agents (including fungicides, herbicides, insecticides);
- Fertilizers;
- Mineral oil-based products;
- Production aids such as cleaning agents.

Association of growers and Cooperatives

A group of growers collectively seeking a common objective through combined effort. They may get informally organised or within a legal entity (e.g. Civil Association or a cooperative.)

Certification Body

An external and independent body, identified by the Standard owner, to conduct audits against its own Standard. In the case of the ProTerra Standard, FoodChain ID is the exclusive certification body.

The chain of economic operators through whose facilities a given lot of product has passed

The paper trail that records the sequence of custody, control, transfer, analysis, and disposition of physical or electronic evidence

Those organisations that act only as chain of custody economic operators, e.g. Level II, pass product as is, i.e. without transformation or further industrial processing.

A documented chain of custody, such as that required in the ProTerra Certification must document, at minimum, the identities of all economic operators in the chain, the unique identifiers for each lot of product passing from one economic operator to the next, and the

volume of that product, as well as other important information regarding that lot of product, such as its GMO status.

Traceability Certificate of Compliances (TCC) are the primary means of record keeping within the ProTerra documented chain of custody system.

Consignment

Volume of a shipment of product changing custody or ownership in the supply chain, composed of one or more production lots, or split from a given lot. A consignment can be comprised of merged consignments and can be split into various consignments. Each consignment is assigned a unique identification number for traceability purposes and inventory control.

Core Indicator

Core indicators are those that are considered by the ProTerra Foundation as essential to mitigate sustainability negative impacts. All core indicators must be met by applicants to be granted the ProTerra certification. Furthermore, they shall be maintained throughout the entire certification period.

Core Service provider

Core service provider is a provider of essential services to the production system, such as outsourcing of harvesting labour.

Core Supplier

A supplier of a core input that is added as part of the formulation of the final product to be ProTerra certified. For instance, the supplier of soybeans is a core supplier to a soy crushing plant.

Dedicated

Facilities, equipment or vehicles used only for the storage, handling, transport, distribution, production or processing of certified non-GMO product.

Economic Operator

Organisation or individual with legal ownership or physical control of agricultural commodities, derived products, and products made with them. Economic operators may be in any node of the supply chain. In the context of this Standard, a certified organisation means the same as a certified economic operator.

Environmental and Social Impact Assessment (ESIA)

A structured and technically based process for predicting and assessing the potential environmental and social impacts of a proposed project, and the designating of appropriate compensation, mitigation, management and monitoring measures to deal with negative impacts.

GM (Genetically Modified or Genetic Modification)

Products or processes employing gene splicing, gene modification, DNA editing, recombinant DNA technology, or transgenic technology. Also refers to products produced using one or more GM inputs or process elements. Cloned animals and their progeny are also considered GMOs under this Standard.

GMO (Genetically Modified Organism)

A plant, animal, or other organism whose genetic makeup has been modified using recombinant DNA (gene splicing) or DNA editing methods or food/feed products derived from such an organism. Refers to products derived from a species of which GM varieties have been commercialized somewhere in the global production system.

GMO-Risk Product

Refers to any product derived from a food species of which GM varieties have been commercialized anywhere in the global food production system. Appendix A to this Standard is a list of crops and products that have high GMO risk.

Greenfield expansion

A new project as well as expansion to an area where the crop has not been planted before, even if the operation is not a new industrial plant.

Greenhouse Gases or Emissions

Gases, such as carbon dioxide, nitrous oxide, and methane, which are transparent to solar radiation but opaque to longwave radiation.

Grower

A person or organisation that develops activities required for the cultivation of crop plants and/or management of livestock.

Guidance

Each indicator is accompanied by guidance that expands on the specific topic and offers practical information about how to meet the indicator's requirements.

High Conservation Value (HCV)

An area that has a biological, ecological, social or cultural value of outstanding significance or critical importance as follows, such as:

- Areas with species diversity, concentrations of biological diversity including endemic species, and rare, threatened or endangered species, that are significant at global, regional or national levels
- Areas with landscape-level ecosystems and mosaics large landscape-level ecosystems and ecosystem mosaics that are significant at global, regional or national levels, and that contain viable populations of the great majority of the naturally occurring species in natural patterns of distribution and abundance;
- Areas with ecosystems and habitats that are rare, threatened, or endangered, habitats or refugia
- Areas that have ecosystem services or basic ecosystem services in critical situations, including protection of water catchments and control of erosion of vulnerable soils and slopes; areas with ecosystem services or basic ecosystem services in critical situations, including protection of water catchments and control of erosion of vulnerable soils
- Areas with cultural values, sites, resources, habitats and landscapes of global or national cultural, archaeological or historical significance, and/or of critical cultural, ecological, economic or religious/sacred importance for the traditional cultures of local communities or indigenous peoples, identified through engagement with these local communities or indigenous peoples.

(Source: HCV COMMON GUIDANCE FOR IDENTIFICATION, HCV Resource Network, Oct 2013)

Identity Preservation/Identity Preserved (IP)

Use of segregation and traceability procedures to maintain the identity of specific lots of agricultural or processed products throughout all stages of production, maintenance, transportation, storage and processing. IP is primarily used to preserve the authenticity of defined traits or characteristics of products, one of which is the Non-GMO status of the product.

Indentured Servant

A labourer under contract to work for an employer for a specific amount of time to pay off a debt. Typically, the employers provide little if any monetary remuneration; however, they are responsible for accommodation, food, other essentials, and training.

Inputs

Any material or substance that becomes a part of the final product, or a component of which becomes a part of the product.

These include the following:

- Agricultural inputs, such as seeds, fertilizers, and pesticides
- Unprocessed agricultural products, such as vegetables, grains, fruit, greens, herbs, and other fresh foods etc.
- Feed components, such as grains, forage plants, vitamins, enzymes, minerals
- Manufacturing and processing inputs, including ingredients, flavourings, seasonings, colourings, additives, and all other substances present in final, manufactured products, such as residues of processing aids.

Integrated Pest Management (IPM)

IPM programs use current, comprehensive information on the life cycles of pests and their interaction with the environment. This information, in combination with available pest control methods, is used to manage pest damage by the most economical means, and with the least possible hazard to people, property, and the environment.

International Treaties and Conventions

An agreement under international law entered into by states and international organisations. A treaty may also be known as: (international) agreement, protocol, covenant, convention, exchange of letters, exchange of notes, memorandum of understanding, etc. Regardless of the terminology, all of these international agreements under international law are equally treaties and the rules are the same.

Trade Unions

An organisation of individuals associated through type of employment, or labour. These organisations may be comprised of individual workers, professionals, past workers, or the

unemployed. The most common, but by no means only, purpose of these organisations is “maintaining or improving the conditions of their employment.”

Legal Minimum Wage

The lowest wage, determined by law or collective agreement that an employer has to pay to a worker for a specified job. This excludes overtime premium.

Lot

Volume of product originated in agriculture or industrial processing assigned a unique identification number linking that production volume to a given period.

Mass Balance

A system for control of the input quantities and equivalent output of certified material/ products in each stage of the supply chain, taking into account conversion rates, in case of processing.

For agricultural crops without GMO varieties or risk of GMO contamination, the mass balance allows physical mixing of certified and non-certified materials. For crops with risk of GMO contamination, physical segregation shall be maintained.

Non-GMO or Non-GM

A plant, animal, or other organism or derivative of such an organism whose genetic structure has not been altered by gene splicing, gene modification, recombinant DNA technology, transgenic technology, DNA editing, or by a process or product whose production utilises GM processes or inputs.

PCR analyses

Biochemistry and molecular biology techniques for isolating and exponentially amplifying a fragment or sequence of interest of DNA, via polymerase replication, without using a living organism.

Pesticide

A collective term that refers to all insecticides, fungicides, and herbicides.

Product

Materials or goods that are assessed as part of the ProTerra Standard certification process,

which the certified organisation offers to the market, at whatever stage of the production chain (i.e. as a final consumer product, an ingredient for further manufacturing, a raw agricultural crop or commodity, etc.).

Segregation

The system of facilities, equipment, and procedures through which an Economic Operator keeps material bound to ProTerra certification physically separated from GMO material; and ProTerra certified product physically separated from non-ProTerra certified material from the point of receipt to the point of transfer to the next Economic Operator in the chain of custody.

Smallholder

A farm where the majority of labour is provided by family members. This includes family farm or family agriculture.

Stakeholder

A party with an interest or concern in a given program, event, supply chain or system.

Strip test

Immunologically-based screen-testing strip devices, which analyse the protein expressed by the DNA, and used as a rapid and on-site method for identification of GM seed or crops.

Supplier

Any party from whom an input or service is obtained.

Traceability

The system of documentation that enables any economic operator in the supply chain to trace the product or raw material or a derivative thereof back through the supply chain.

Worker

This term refers to direct employees of an organisation, subcontractors working at or for the organisation at the organisation's premises. It also includes all permanent and temporary members of the organisation's labour force.

APPENDIX A:

LIST OF COMMERCIALISED GM CROPS AND THEIR DERIVATIVES

The list below shows crops, animal derivatives and processed inputs and ingredients which carry a direct or indirect risk of being genetically engineered.

| Crops | |
|---|---|
| The following crops carry risk of being genetically engineered, because engineered varieties of these crops are grown large scale in at least one country of the world. | |
| They are listed here roughly in order of decreasing prevalence in the marketplace. | |
| Soy | |
| Corn | |
| Cotton | The seed is also used to make vegetable oil and animal fee. |
| Canola | |
| Rice | |
| Papaya | |
| Potato | |
| Alfalfa | Also includes alfalfa produced with GMO Rhizobium inoculants. |
| Zucchini | |
| Yellow Crook-neck Squash (summer squash) | |
| Tomato | |
| Sugar Beets | Planted after 2007 crop. |

Animal Derivatives

Animal derivatives refer to products derived from cattle, sheep, pigs, chickens, and other common livestock, fowl, and fish.

Most animal-derived products have GMO-risk because soy, corn, cottonseed, alfalfa, and canola are commonly used in feed, and because injections of recombinant bovine growth hormone are used to increase milk production.

GMO veterinary inputs such as vaccines, sperm, and drugs are also commonly used in livestock production systems.

| | |
|------------------------------|--|
| Milk | |
| Meat | Hides and skins would also be included in this category. |
| Eggs | |
| Honey and other bee products | |

Processed Inputs and Ingredients, and Related Derivatives

The following is a non-exhaustive list of derivatives with high GMO risk, which are commonly used in food production. It is meant to provide examples of materials that will be considered high risk.

| | |
|--------------------|--------------------------------|
| Ascorbic Acid | |
| Amino Acids | |
| Aspartame | |
| Bacterial Starters | |
| Caramel | Derived from glucose syrup. |
| Cellulose | Can be derived from GM cotton. |
| Chymosin | |
| Citric Acid | Derived from corn. |
| Cloned Sperm | |

| | |
|---|--|
| Corn Flour | |
| Corn Gluten | |
| Corn Grits | |
| Corn Oil | |
| Corn Starch | Includes both native and modified corn starch. |
| Corn Syrup | |
| Corn Syrup Solids | |
| Dextrose | Derived from corn. |
| Enzymes | |
| Ethanol | Derived from corn or GMO sugar beets. |
| Flavorings, “natural” and “artificial” | The carrier may also be GM. |
| Fructose | Derived from corn. |
| Glucose | Derived from corn. |
| Glucose Syrup | Derived from corn. |
| Glycerides | Derived from corn. |
| Hydrolyzed Vegetable Protein | |
| Maltodextrins | Derived from corn. |
| Molasses | Derived from sugar beets, beginning 2008 crop. |
| Monosodium Glutamate | Derived from corn. |
| rBGH, rBST, recombinant bovine growth hormone | |
| Sodium Ascorbate | Derived from corn. |
| Sodium Citrate | Derived from corn. |

| | |
|-------------------------------------|--|
| Soy Fiber | |
| Soy Flour | |
| Soy Grits | |
| Soy Lecithin | |
| Soy Milk | |
| Soy Oil | |
| Soy Protein Isolate/ Concentrate | |
| Soy Sauce, Black SoyBean Sauce | |
| Sucrose | Derived from sugar beets, beginning 2008 crop. |
| Textured Vegetable Protein | Including soy protein. |
| Tofu, Bean Curds, Soy Curds | |
| Xanthan Gum | |
| Vaccines | |
| Veterinary Medicines | |
| Vitamin A | |
| Vitamin B6 (pyridoxine) | |
| Vitamin B12 (cyanocobalamin) | |
| Vitamin C | |
| Vitamin E | Includes other/mixed tocopherols. |
| Yeast and Yeast Products | |

APPENDIX B:

LIST OF RELEVANT INTERNATIONAL TREATIES AND CONVENTIONS

| PRINCIPLE | CONVENTION OR TREATY |
|---|--|
| Minimum age for admission to employment | ILO Convention No 138 (1973) |
| Prohibition and immediate action for the elimination of the worst forms of child labour | ILO Convention No 182 (1999) |
| No forced or compulsory labour | ILO Convention No 29 (1930) |
| Abolition of forced labour | ILO Convention No 105 (1957) |
| Freedom of association and protection of the right to organise | ILO Convention No 87 (1948) |
| Right to organise and to bargain collectively | ILO Convention No 98 (1949) |
| No discrimination in respect of employment and occupation | ILO Convention No 111 (1958) |
| Equal remuneration | ILO Convention No 100 (1951) |
| No discrimination of employment for migrants | ILO Convention No 97 (1949) |
| Social policy | ILO Convention No 117 (1962) |
| Indigenous and tribal people | ILO Convention No 169 (1969) |
| Rights of the indigenous people | UN Declaration on Rights of the Indigenous People (2007) |
| No racial discrimination | Convention on the Elimination of All Forms of Racial Discrimination (1969) |
| Economic, social, and cultural rights | International Covenant on Economic, Social and Cultural Rights (1976) |

| | |
|---|--|
| Cultural and natural heritage protection | World Heritage Convention Concerning the Protection of the World Cultural and National Heritage |
| Safety and health in agriculture | Stockholm Convention on Persistent Organic Pollutants (2001) |
| Control of dangerous chemicals and pesticides | Stockholm Convention on Persistent Organic Pollutants (2001) |
| Hazardous chemicals and pesticides | Rotterdam Convention on Prior and Informed Consent Procedures for Certain Hazardous Chemicals and Pesticides in International Trade (1998) |
| Proper handle, store and use of pesticides | FAO International Code of Conduct on the Distribution and Use of Pesticides (1985 revised 2002) |
| Preserve wetlands | Ramsar Convention on Wetlands of International Importance (1971) |
| Biological biodiversity | UN Convention on Biological Diversity (1992) |
| Conservation of biological diversity | The Cartagena Protocol on Biosafety (2003) |
| Wild fauna and flora | The Convention on International Trade in Endangered Species of Wild Fauna and Flora (1973) |
| Sustainable soy production | Basel Criteria on Sustainable Soy Production (2004) |

APPENDIX C:

PESTICIDES LISTED IN WHO CLASSES 1 A & B, ROTTERDAM CONVENTION AND STOCKHOLM CONVENTION

Please refer to the websites listed below regarding pesticides and other hazardous chemicals that may not be used in the production of ProTerra certified materials.

Observe that the names of all the materials listed in these websites are just generic chemical names. Brand names or commercial products are not provided in these websites.

It is necessary that all certified operations compare all products labels with these lists.

The Certification Body and their auditors shall verify if all labels properly list the names of all the components of commercial formulations of the agrochemical products.

WHO classes 1a and 1b

http://www.who.int/ipcs/publications/pesticides_hazard/en/index.html

Rotterdam Convention

<http://www.pic.int/TheConvention/Chemicals/AnnexIIIChemicals/tabid/1132/language/en-US/Default.aspx>

Stockholm Convention

<http://chm.pops.int/Convention/ThePOPs/The12InitialPOPs/tabid/296/Default.aspx>

<http://chm.pops.int/Convention/ThePOPs/TheNewPOPs/tabid/2511/Default.aspx>

<http://chm.pops.int/Convention/ThePOPs/ListingofPOPs/tabid/2509/Default.aspx>

APPENDIX D:

CROP TREE SPECIFIC GUIDANCE

PRINCIPLE 6: Pollution and waste management

Minimising the pollution of the environment should be a focal point of sustainable farming practices. This principle aims to support Certified organisations in using methods to store, handle and dispose of waste that do not harm the natural environment or local communities.

6.1 Appropriate management of hazardous wastes and pollutant materials

6.1.3

Levels I and III



CORE - Certified organisations shall discharge sewage/effluents in a manner that does not cause pollution to water and does not contaminate the soil or crops with chemicals, heavy metals, by-products, excess nutrients or pathogens. Raw sewage shall not be used to irrigate crops.

Guidance for crop trees:

One should not use recycled or reclaimed water, as a source of irrigation water, unless documented as having received tertiary treatment which includes a terminal pathogen disinfection step.

6.2 Management and appropriate disposal of non-hazardous wastes

6.2.2

Levels I and III



CORE - Certified organisations shall manage biological wastes such as manure, straw, crop residues, food scraps, processing by-products, among others, appropriately in order to avoid pollution and/or to prevent these from becoming a source of pathogenic contamination or pest harbourage. Management of these wastes shall at least comply with national laws relevant to the location of the certified operation, as stated in Principle 1 of this standard.

Guidance for crop trees:

Manure must be stored away from areas where tree crops are grown and handled;

Manure slurry is to be stored for at least 60 days in the summer and 90 days in the winter before applying to fields.

Physical barriers and/or diversion buffer must be deployed to prevent runoff from stacked piles into water sources, equipment storage areas, orchard traffic areas or into the orchard.

Non-composted raw manure must be aged for at least six months prior application.

Non-composted, untreated manure should never be applied fewer than 120 days prior to harvest.

Manure is to be applied at the end of the season, preferably when soils are warm, not saturated and/or cover cropped.

When planting new trees, manure is to be spread two weeks before planting.

Manure is to be incorporated into the soil immediately after application to minimize wind drift and water runoff.

Tractors, frontend loaders, and other tools and equipment used in handling manure are to be thoroughly cleaned after each use.

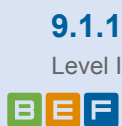
Wash water is to be prevented from draining to water sources, the orchard floor or any area where harvested crops are handled or stored.

All food and beverage containers or other metallic and glass materials must be kept out of the orchard, as potential sources of foreign-material contamination.

PRINCIPLE 9: Adoption of good agricultural practices

Good agricultural practices are fundamental to minimise the impact of agricultural activity on the health of the environment, workers and neighbouring communities. This principle aims to support organisations to reduce the use of toxic and polluting materials, especially pesticides, and manage the potential impact of their agricultural activity.

9.1 Systems of good practices



CORE - Certified organisations shall adopt agricultural good practices and, where possible, adopt conservation systems such as Integrated Pest Management (IPM) and organic agricultural practices.

Guidance for crop trees:

A regular programme for inspection of all buildings, structures and fields must be developed, to check for evidence of pest populations or deposits of animal droppings. The programme should include regular and frequent monitoring of affected and treated areas to accurately assess the program's effectiveness. Inspections should be documented on a simple site identified checklist.

The accumulation of pest and vector attractants, including water, cull piles and any food source must be prevented. Garbage, trash and related debris is to be collected and removed frequently. All waste receptacles should have tight-fitting covers.

Insect pest build-up must be prevented. Rodent and small mammal population build-up must be prevented, unless the presence of predators and raptors are welcome for pest management.

Pests must be removed from traps and property to ensure clean and sanitary facilities and to avoid attracting additional pests.

All equipment contact surfaces with crops must be regularly inspected for evidence of animal droppings or deposits and soiled surfaces must be sanitized with approved disinfectants.

All government regulations and pesticide label instructions must be thoroughly followed.

The pest control programme must be documented.

9.3 Soil and crop management

9.3.4

Level I



CORE - Certified organisations shall minimise soil erosion and damage to soil structure caused by wind, water, human activity and presence of farm animals.

Guidance for crop trees:

Domestic animals are prevented from free access to the orchard. Wild animal and bird traffic through the orchard is minimised by eliminating all sources of habitat, nesting and hiding places for rodents and other vermin in and around the orchard and farm operational areas.

This will include keep equipment “boneyards” and debris piles away from orchards, and inspect unused buildings for possible issues with pest nesting.

All food and beverage containers or other metallic and glass materials must be kept out of the orchard, as potential sources of foreign-material contamination.

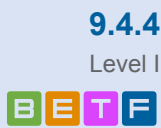
Suitable methods should be used to keep dust to a minimum. Minimising dust helps reduce the spread of contamination, and is one additional benefit of meeting or exceeding air quality objectives.

The orchard floor is to be kept as level, smooth and dry as practical during the season.

Development of uneven areas within inter-row spaces should be prevented that could result in pooling of rainfall.

If needed, temporary shallow diversion channels may be formed to prevent rainfall accumulation, draining from the tree-line soil surface to the drying windrows.

9.4 Documentation of agricultural production



CORE - Certified organisations shall maintain records of all fertilizer, pesticides, other agrochemicals and other inputs purchased, used, and disposed of, including biocontrol agents. Records of pests, diseases, weather conditions during spraying, and weeds shall also be recorded.

Guidance for crop trees:

Fertilizer application records must typically include: type of manure or compost used, the rates, and locations of the applications.

9.7 Management of agrochemicals and chemical residues



CORE – Agrochemicals, including pesticide, shall be applied using methods that minimise harm to human health, wildlife, plant biodiversity, and water and air quality.

Guidance for crop trees:

Where applicable pesticides, must be managed in a way such that it will not affect pollinating bees, and only pesticides that will not interfere with the population of bees will be used.