



PROTERRA STANDARD V 4.0 - APPENDIX D
CROP TREE SPECIFIC GUIDANCE

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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.

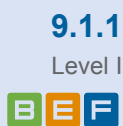
Wash water is to be prevented from draining to water sources, the orchard floor or any area where harvested crops are handled or stored.

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.

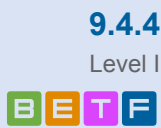
Suitable methods should be used to keep dust to a minimum. Minimising dust helps reduce the spread of contamination, and is one additional benefit of meeting or exceeding air quality objectives.

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.

Document Revision History			
Title	Date	Pages	Type of Document
CERT ID ProTerra Standard Version 1.0	April 17, 2006	1- 28	"Normative document and code of practice for certification of responsible production of food and feed in agriculture, transport, storage and industrial processing - Initial release for public. CONTROLLED COPY."
CERT ID ProTerra Standard Version 2.0 (DRAFT)	January 11, 2008	1-53	Full revision of the standard based on input from stakeholders since April 2006.
CERT ID ProTerra Standard Version 2.0	April 24, 2008	1-54	Revision of Version 2.0 (DRAFT) based on stakeholder feedback.
ProTerra Standard Version 2.2	September 1, 2010	1-56	Revision of Version 2.0 in response to comments from the Certification Body, from inspectors, from industry members, from standards experts, and from non-profit organisations.
ProTerra Standard Version 2.9	July 22, 2011	1-61	Revision of Version 2.2 in response to comments from economic operators, Certification Body auditors, industry members, environmental consultants and non-profit organizations.
ProTerra Standard Version 2.9.5	December 27, 2011	1-61	Revision of Version 2.9 to correct minor errors in the text.
ProTerra Standard Version 3.0 (DRAFT)	July 15, 2014	1-54	"Changes in the structure of Version 2.9.5 to make auditable only indicators and not criteria. Reduction of the number of principles from 18 to 10 by grouping of similar issues, integration of some indicators as well as exclusions of others such as: Principle 17 - Continuous improvement and Principle 18 - Correct labelling and logo use. These principles were converted into indicators of Principle 1. Exclusion of Appendix A - ProTerra Certification Procedures."
ProTerra Standard Version 3.0	December 28, 2014	1-45	"Revision of Version 3.0 based on stakeholder feedback after 2 rounds of public consultation. Definition of exemptions for smallholder and family run farms; including the actual lists of hazardous pesticides."
ProTerra Standard Version 4.0	December 26, 2018	1-76	"Full revision of the standard based on input from stakeholders received from 19 February to 20 April, 2018. Increase of number of core indicators."