



Sustainable
Agriculture
Network

Sustainable Agriculture Standard

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July 2010

Sustainable Agriculture Network (SAN):

Conservación y Desarrollo, Ecuador · Fundación Interamericana de Investigación Tropical, Guatemala ·
Fundación Natura, Colombia · ICADE, Honduras · IMAFLORA, Brazil · Nature Conservation Foundation, India ·
Pronatura Sur, Mexico · Rainforest Alliance · SalvaNatura, El Salvador

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Sustainable Agriculture Network Secretariat
P.O. Box 11029
1000 San José
Costa Rica

Please send your comments or suggestions concerning this Sustainable Agriculture Network Standards & Policy document to:

info@sanstandards.org

Or via regular mail to:

Sustainable Agriculture Network Secretariat
P.O. Box 11029
1000 San José
Costa Rica

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Introduction

The Sustainable Agriculture Network and Rainforest Alliance

The Sustainable Agriculture Network (SAN) is a coalition of independent non-profit conservation organizations that promote the social and environmental sustainability of agricultural activities by developing standards. Standard and policy development and review is coordinated by the SAN secretariat based in San José, Costa Rica. A Certification Body certifies farms or group administrators that comply with SAN's standards and policies. Certified farms or group administrators can apply for use of the *Rainforest Alliance Certified*[™] trademark for products grown on certified farms.



Since 1992, more than 600 certificates for more than 60,000 farms - including small family farms of cooperatives, as well as plantations - in over 25 countries have met the SAN standards on more than 500,000 ha for more than 20 crops including coffee, cocoa, banana, tea, pineapple, flowers and foliage, and citrus. Other crops include aloe vera, apple, avocado, cherry, grapes, heart of palm, kiwi, macadamia, mango, pear, rubber and vanilla.

The SAN has the following members: Conservación y Desarrollo (C&D), Ecuador; Fundación Interamericana de Investigación Tropical (FIIT), Guatemala; Fundación Natura, Colombia; ICADE, Honduras; IMAFLORA, Brazil; Nature Conservation Foundation, India; Pronatura Chiapas, Mexico; SalvaNatura, El Salvador; and Rainforest Alliance.

The Sustainable Agriculture Network's Mission

The Sustainable Agriculture Network (SAN) promotes efficient agriculture, biodiversity conservation and sustainable community development by creating social and environmental standards. SAN fosters best management practices across agricultural value chains by encouraging farmers to comply with SAN standards and by motivating traders and consumers to support sustainability.

SAN pursues its mission by:

- Integrating sustainable production of crops and livestock into local and regional strategies that favor biodiversity conservation and safeguard social and environmental well-being.
- Raising awareness among farmers, traders, consumers and business leaders about the interdependencies among healthy ecosystems, sustainable agriculture and social responsibility.
- Impressing upon business leaders and consumers the importance of choosing products grown on environmentally sustainable and socially responsible farms.
- Stimulating dialog among environmental, social and economic groups, North and South, about the benefits of sustainable agriculture.

History of the SAN Sustainable Agriculture Standard

The principles of sustainable agriculture and the supporting standard were developed for the first time by a process that involved key stakeholders in Latin America from 1991 to 1993. In 1994, the first banana plantations were certified based on this standard. Since then, the standard has been tested on different farms of different sizes and for many other crops and in various countries through a series of audits and other activities relating to certification. At the beginning of 2003, Rainforest Alliance, in its function of the Sustainable Agriculture Network Secretariat, developed a detailed revision of the 2002 version of the standard to produce a more updated standard in accordance with the Sustainable Agriculture Network mission. From November 2003 to November 2004, public consultations were carried out, during which organizations and individuals in different countries were asked to comment on the revised standard. This process culminated in a Sustainable Agriculture Network meeting in November 2004, during which final technical decisions were made.

In 2005, the Sustainable Agriculture Network approved the version of the standard that led to the current standard structure with ten principles. The ten principles are:

1. Social and Environmental Management System
2. Ecosystem Conservation
3. Wildlife Protection
4. Water Conservation
5. Fair Treatment and Good Working Conditions for Workers
6. Occupational Health and Safety
7. Community Relations
8. Integrated Crop Management
9. Soil Management and Conservation
10. Integrated Waste Management

In 2008, SAN's International Standards Committee and technical teams led another public consultation process – in accordance with the requirements of *ISEAL Alliance's Code of Good Practice for Setting Social and Environmental Standards*, which resulted in the publication of two documents:

- Sustainable Agriculture Standard, April 2009 version
- SAN Addendum - Additional SAN Criteria, April 2009 version

The Addendum was originally designed to enable the implementation of best practices on oil palm, sugarcane and soy plantations. It strengthens the SAN's definition of ecosystem and landscape conservation, energy use, greenhouse gas emissions and land use rights. These new criteria are now included in the Sustainable Agriculture Standard to cover all SAN authorized crops.

As per January 1, 2011, this is the binding version of the standard for all farms. This document therefore replaces the two documents mentioned above and includes all its contents.

Comparison of the April 2009 and July 2010 standard versions

In comparison to the April 2009–version of the Sustainable Agriculture Standard, the current July 2010–version contains the following changes:

- The following criteria from the Addendum were added: 1.11, 2.9, 7.6, 8.8 (**for sugarcane plantations only**), 8.9 and 10.6.
- Additionally, the criteria 2.2, 2.4, 5.13, 6.4 and 7.2 were modified in its contents. **Criterion 7.2 is a critical criterion now.**
- Update of the Applicability of Criteria – section.
- Revision of the Terms and Definition – section.
- New introduction sections.

Objective of the Standard

The objective of the standard is to encourage farms to analyze and consequently mitigate environmental and social risks caused by agriculture activities through a process that motivates continual improvement. The standard is based on the themes of environmental soundness, social equity and economic viability.

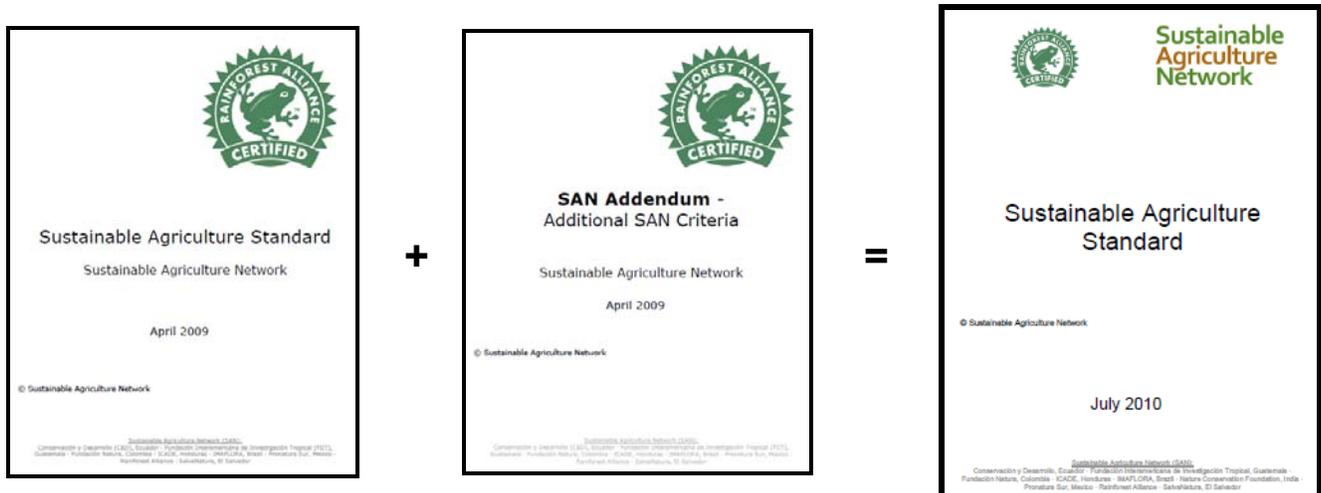
Certified farms operate an environmental and social management system according to the complexity of its operation and in compliance with applicable local legislation. In the case of group administrators' member farms many of the aspects of this system, additional to other programs and costly analyses are conducted by the group administrator. Farms register their energy use, try to reduce it and use renewable energy sources. Farms have not destroyed high value ecosystems after November 2005 and establish, regenerate or conserve natural vegetation close to terrestrial and aquatic ecosystems, as well as areas of human usage, such as housing areas or public roads. Farm personnel and its families are not engaged in wildlife hunting and do not promote captivity of wild animals or extraction of wild plants. Certified farms do not contribute significantly to the contamination of natural surface and underground waters and treat their wastewaters. The farms' personnel is treated with respect and in compliance with main ILO conventions; and most importantly are paid a legal minimum wage, have access to educational and health facilities and do not contract minors under 15 years of age or as established by the local legislation. Occupational health risks on farms are detected and secure measures implemented to avoid accidents and support the long term health of workers exposed to risky activities such as operating machinery or permitted pesticides. Farms include community members in their workforce, engage in community outreach activities and have a transparent complaint mechanism in place, which considers opinions from the community on farm's activities. Farm's land use is legitimate. Certified farms monitor pests of their crop periodically and use biological and mechanical pest control methods at first hand. If pests cause considerable economic damage, the farm can apply permitted pesticides, but must apply them with all security measures for workers, communities and the environment. GMO crops must not be cultivated or introduced on certified farms. The soils of certified farms are valued as the production capital: organic fertilizer is applied, cover crops are propagated and vegetative barriers are planted to reduce erosion and run-off of sediments into neighboring rivers, streams or lakes. Fire is not used to prepare new production plots. Certified farms are aware of the waste they are generating.

Waste is separated into organic and non-organic. Organic waste is composted and re-used as fertilizer. Plastics, paper and other non-organic waste is handled over to recycling facilities, re-used safely or otherwise deposited in a safe way with sufficient distance to ecosystems and housing areas. The farm is conscious of its greenhouse gas producing on-farm activities and how to reduce its carbón footprint.

Compliance is evaluated by audits conducted by SAN authorized certification bodies and their subcontracted authorized auditors that measure minimum once per year the degree of the farm's conformity to the environmental and social practices indicated in the standard's criteria.

Structure of the Standard

This July 2010 version is product of having merged the contents of the April 2009 – versions of the *SAN Addendum* and *Sustainable Agriculture Standard*. No changes of the technical contents of the respective binding criteria of SAN Addendum and Sustainable Agriculture Standard (versions April 2009) have been undertaken for the July 2010 version of the Sustainable Agriculture Standard. The following graph illustrates the document structure's change:



SAN Addendum and Sustainable Agriculture Standard (versions April 2009) merge into Sustainable Agriculture Standard (version July 2010)

The *Sustainable Agriculture Standard* consists of ten principles, each of which is based on specific criteria that promote good environmental, labor and agronomic practices. The July 2010 version of the SAN *Sustainable Agriculture Standard* contains 99 criteria. All binding criteria are identified throughout the text by a two-level numbering system (**1.1, 1.2, etc.**) in **bold type**. The binding criteria proposed in this document follow the same numbering format.

Scope

As of January 1, 2011, all the farms that cultivate crops included in Annex 2 of the *Farm Certification Policy – Sustainable Agriculture Network* will be audited based on this July 2010 version of the Sustainable Agriculture Standard. All farms and group administrators' member

farms cultivating the crops included in SAN's *Farm Certification Policy* are subject to audits based on the contents of SAN's *Sustainable Agriculture Standard*.

The scope of the certification audits is the farm, which is defined as the production unit subject to an audit. It includes the whole farm, its infrastructure, processing and packaging areas, conservation and housing areas, as well as all the workers affected by the impact caused by its production activities. Not implementing the standard's criteria will result in the SAN authorized audit team assigning a sanction (*non-conformity*).

The processing operations outside the farm boundaries that process products coming from the certified farm are covered by the Rainforest Alliance's traceability system. All documents accompanying *Rainforest Alliance Certified™* products released or transferred from the operation - such as receipts and acknowledgments of shipment - must indicate that these products are *Rainforest Alliance Certified™*. A transaction certificate approved by the Rainforest Alliance for any *Rainforest Alliance Certified™* product must exist.

- For any questions about this Traceability system or the new, online system in development, please contact, traceability@ra.org.
- For any questions about how to register or use Marketplace, please contact marketplace@ra.org.

SAN Scoring System

The following scoring system applies for the compliance evaluation with this standard:

- **General Compliance:** In order to obtain and maintain certification, farms must comply with at least 50% of the applicable criteria of each principle and at least 80% of the total applicable criteria of the *Sustainable Agriculture Standard*.
 - **Critical Criteria:** *Sustainable Agriculture Standard* contains 15 critical criteria. Critical criterion 8.8 applies to sugarcane plantations only.
 - A farm must completely comply with a critical criterion in order for the farm to be certified or to maintain certification.
 - These are identified with the text "*Critical Criterion*" at the beginning of the criterion.
 - Any farm not complying with a critical criterion will not be certified, or certification will be cancelled, even if all other certification requirements have been met.
- Not implementing any or some of the practices as defined by the criteria outlined in the *Sustainable Agriculture Standard – Sustainable Agriculture Network*, will result in the assignment of a non-conformity determined on the basis of each individual criterion. There are two categories of non-conformities: 1) Major Non-Conformity, and 2) minor non-conformity. The level of compliance for these categories is as follows:
 1. **Major Non-Conformity (MNC):** indicates compliance with less than 50% of criterion requirements.
 2. **minor non-conformity (mnc):** indicates compliance with equal or more than 50% of criterion requirements, but less than 100%.

Applicability of Criteria

SAN authorized auditors evaluate the applicability of each criterion of this standard according to:

- The size and complexity of the operation (plantations or smallholder farms)
- The use or non-use of agrochemicals within the farm
- The hiring of contracted labor or use of non-contracted family labor
- The presence or absence of aquatic or terrestrial ecosystems within the farm
- The presence or absence of infrastructure within the farm

The following criteria must be evaluated at all times and must not be subject of the non-applicability rule. Auditors decide on the applicability of all other criteria:

- 1.1, 1.2, 1.3, 1.5, 1.7, 1.9, 1.10, 1.11
- 2.1, 2.2, 2.3, 2.4, 2.9 (2.8 for Agroforestry Crops only)
- 3.1, 3.3
- 4.1, 4.4, 4.8
- 5.6, 5.10, 5.15, 5.16, 5.17, 5.18
- 6.1, 6.2, 6.6, 6.7, 6.8, 6.18, 6.19
- 7.1, 7.2, 7.4, 7.5, 7.6
- 8.1, 8.6
- 9.1, 9.2, 9.4
- 10.1, 10.2, 10.3, 10.5, 10.6

Within every single criterion, auditors may evaluate if specific elements are applicable or not and may adjust scoring accordingly.

Sources

Ideas for this document have been adapted from the following sources:

Convention on Biological Diversity. <http://www.cbd.int/>

European Commission. Health & Consumer Protection Directorate - General. Directive 79/117/EEC, Council Regulation 805/2004/EC, Directive 91/414/EEC and regulation (EC) of the European Parliament and of the Council No. 689/2008
http://ec.europa.eu/food/plant/protection/evaluation/exist_subs_rep_en.htm

European Commission Joint Research Centre. Institute for Health and Consumer Protection.
<http://edexim.jrc.it/>

International Labor Organization. Convention 138 and Recommendation 146; Convention 182; Conventions 100 and 111; Conventions 29 and 105; Conventions 87 and 98 and Convention 169 concerning Indigenous and Tribal Peoples in Independent Countries. Geneva, Switzerland. www.ilo.org

International Union for Conservation of Nature and Natural Resources. 2007 IUCN Red List of Threatened Species™. 2007. Geneva, Switzerland: www.iucnredlist.org

Pesticide Action Network. Dirty Dozen pesticides:

http://www.pesticideinfo.org/Docs/ref_toxicity7.html#DirtyDozen

Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade:

<http://www.pic.int/home.php?type=t&id=29&sid=30>

United Nations. Convention on the Rights of the Child:

www.unhcr.ch/html/menu3/b/k2crc.htm

United Nations. Universal Declaration of Human Rights: www.un.org/Overview/rights.html

United Nations Environment Program (UNEP). Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES): www.cites.org

United Nations Environment Program (UNEP). Stockholm Convention on Persistent Organic Pollutants (POPs). <http://www.pic.int/home.php?type=t&id=29&sid=30>

United States Environmental Protection Agency (EPA). Restricted and Canceled Uses of Pesticides. www.epa.gov/pesticides/regulating/restricted.htm#restricted

World Health Organization. The WHO recommended classification of pesticides by hazard and guidelines to classification: 2004

Terms and Definitions

- **Agrochemical:** A chemical substance used in agricultural production systems to maintain soil fertility (compost or fertilizer), control weeds (herbicide), combat pests (insecticides, fungicides, nematicides, rodenticides, etc.) or stimulate growth.
- **Agroforestry crops:** Crops that can be grown in agroforestry systems with the presence of shade tree canopies, which are intentionally used within agricultural systems. These cultivated plants have grown originally under tropical forests' tree canopy. Crops that cannot be grown economically viable with shade tree cover or other cover types, as well as crops whose origins are ecosystems with a distinct climate state than forests, such as savannas or bushlands (for example the *Cerrado* vegetation of Brazil) don't fall into this definition. *"Agroforestry is a collective name for land use systems and practices in which woody perennials are deliberately integrated with crops and/or animals on the same land management unit. The integration can be either in a spatial mixture or in a temporal sequence. There are normally both ecological and economic interactions between woody and non-woody components in agroforestry". World Agroforestry Centre (Source: ICRAF, 1993).*
- **Agroforestry System:** Integrated approach of using the interactive benefits from combining trees and shrubs with crops and/or livestock. It combines agricultural and forestry technologies to create more diverse, productive, profitable, healthy and sustainable land-use systems (Source: *USDA National Agroforestry Center (NAC)*).
- **Aquatic ecosystems:** Lakes, lagoons, rivers, streams, brooks, swamps, marshes, bogs and other bodies of liquid water that exist naturally.
- **Area of influence:** The whole farm, its infrastructure, processing and packaging areas within its borders as well as its area of influence and all the workers affected by its operations.
- **Audit:** A systematic, independent and documented process for obtaining evidence and evaluating it objectively to determine the extent to which specified requirements are fulfilled (Source: *ISEAL Alliance*).
- **Best Management Practices:** Activities or procedures that enable agricultural productivity using available science and technology to conserve ecosystems and natural resources, thereby securing long-term benefits for workers, farmers and communities.
- **Carbamates:** Carbamates, or urethanes, are a group of organic compounds sharing a common functional group with the general structure – NH (CO) O-. Carbamates are esters of carbamic acid, NH₂COOH, an unstable compound. Since carbamic acid contains nitrogen attached to a carboxyl group, it is also an amide.
- **Carbon dioxide sequestration:** The capture of atmospheric carbon dioxide (CO₂) in a solid material (such as growing trees, other vegetation, and soils) or a carbon sink through biological or physical processes, such as photosynthesis. CO₂ sequestration is one of the means to mitigate the accumulation of greenhouse gases in the atmosphere released by the burning of fossil fuels.
- **Certification Body:** Unit that decides about the authorization, suspension or cancellation of a *Rainforest Alliance Certified™* farm or group certification. The Certification Body subcontracts inspection bodies and controls the quality of their functions.
- **Certified Products:** Crops and the products derived from them, produced by a certified farm for commercial purposes. This includes processed or semi-processed products that have not been mixed with products from non-certified farms.

- **Channel:** The surface on which a river, stream or other natural water current flows. Also known as “riverbed.”
- **Cholinesterase:** An enzyme produced in the liver. One form, acetylcholinesterase, can be found at the neurosynaptic junctions while another, butyryl cholinesterase, is primarily located in the plasma and pancreas, although small quantities of it exist in all tissues including our blood. Organophosphate pesticides inhibit cholinesterase by forming covalent chemical bonds through a process called phosphorylation.
- **Clean technology:** Products, services, and processes that tie together renewable materials and energy sources, reduce the use of natural resources, and cut or eliminate emissions and waste. Clean technology includes renewable energy (wind power, solar power, biomass, hydropower, and biofuels), information technology, green transportation, electric motors, lighting, and other appliances that are more energy efficient.
- **Competent professional:** A person with demonstrated professional expertise, skills and experience in the specific area where the advice is given.
- **Connectivity:** Connectivity is the level to which a landscape enables or blocks movement among resource fragments. Landscape connectivity is composed of structural connectivity (spatial structure of a landscape that can be described from map elements) and functional connectivity (response of individuals to landscape features or biological component). Connectivity enables the movement of species between ecosystem patches and functioning of the ecological system within a landscape.
- **Conservation of ecosystems:** The conservation of ecosystems and natural habitats and the maintenance and recovery of viable populations of species in their natural surroundings and, in the case of domesticated or cultivated species, in the surroundings where they have developed their distinctive properties (*Source: Convention on Biological Diversity*).
- **Continual Improvement:** Recurring activity that has the effect of increasing the ability of a group to fulfill specified requirements. The process of establishing objectives and finding opportunities for improvement is a continual process, based on risk assessment, audit findings, management reviews and other means (*Source: ISEAL Alliance*).
- **Contract:** A binding agreement (*Source: ISEAL Alliance*).
- **Destruction of ecosystems:** The significant direct or indirect disturbance of an ecosystem caused by a human being. For the case of terrestrial natural ecosystems this includes tree logging, extraction of non-woody plants, burning, aspersion of herbicides or other pesticides, partial or complete conversion to agriculture land, urban use, development, or wasteland, as well as intentional introduction of invasive or exotic species. For the case of aquatic ecosystems, this comprises change of depth or direction of a watershed or drying of wetlands. Within this definition, also the disturbance by natural catastrophes, such as floods, tsunamis, earthquakes, hurricanes, storms, tornados and other strong winds, as well as landslides are covered.
- **Discrimination:** Any distinction, exclusion or preference based on race, color, gender, religion, political opinion, nationality or social origin (or any other motive determined by the afore-mentioned states) that causes equality of opportunity or treatment in employment or work to be lifted or reduced (*Source: International Labor Organization*).
- **Document:** Information and supporting media. The media may be paper, samples, photos, or on magnetic, optic or electronic disk.

- **Drift:** The deviation of particles from their intended direction during agrochemical application due to air currents.
- **Economic Threshold (Integrated Pest Management):** The level of infestation or pest attack at which the benefits received (for example, in terms of yield or crops saved) cover the cost of the treatment or application.
- **Erosion:** The removal or displacement of soil caused by the movement of water or wind. Severe erosion implies the removal of the entire plow layer or "A" horizon (topsoil) of the soil.
- **Exotic Species:** Those species not native to the place where they are found. Species introduced from other regions or areas.
- **Farm:** The unit subject to certification or the audit.
- **Farmer:** For the purpose of this standard, the person or entity that manages a farm or group of farms. It may be a company, an individual farmer, a cooperative or other organization or individual responsible for managing a farm.
- **Greenhouse gas:** A greenhouse gas is a gas that contributes to the natural greenhouse effect. The Kyoto Protocol covers a basket of six greenhouse gases (GHGs) produced by human activities: carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride (*Source: European Environment Agency. Environmental Terminology and Discovery Service (ETDS)*).
- **High value ecosystems:** Natural ecosystems of special importance to environmental conservation, such as habitat that enables the reproduction of endemic and endangered species or hosts viable wild animal or plant populations; provision of ecosystem services such as watershed protection in serious circumstances; or rare ecosystems. Examples are primary and secondary forests, bush and grass lands, paramo, streams, rivers, pools, lakes, lagoons, swamps, marshes and bogs. Each SAN representative provides further local interpretation to this definition - considering local biophysical conditions.
- **Human Activity Area:** An area of the farm frequented by humans for work or education-related reasons, or an area in which humans live or through which they travel. Examples include: packaging plants, coffee mills, storage facilities, workshops, offices, schools, clinics, houses, recreation areas and public and private roads.
- **Impact:** Disturbance, consequence, repercussion or similar permanent effect of a human or natural cause. Impacts may be positive or negative. They may affect a natural system, the environment, an animal or plant population or individuals (environmental impacts), or human individuals or populations (social impacts).
- **Inspection body:** Unit that conducts *Rainforest Alliance Certified™* certification audits for farms and groups. An Inspection Body must comply with the sub-contract conditions defined by the Certification Body.
- **Integrated Pest Management (IPM):** A long-term prevention strategy to combat pests, involving a combination of techniques, such as biological control (use of beneficial insects or microbes), use of crop-resistant varieties and the use of alternative agricultural practices (spraying, fertilizing or pruning). The objective of IPM is to make conditions less favorable for pest development. Pesticides are used only when the damage caused by pests is greater than the level that the farmer can economically sustain (see **economic threshold**).
- **Landscape:** The visible features of an area of land, including physical elements such as landforms, living elements of flora and fauna, abstract elements such as lighting and

weather conditions, and human elements, for instance human activity or the constructed environment.

- **Land tenure:** Land tenure is the name given, particularly in common law systems, to the legal regime in which land is owned by an individual, who is said to "hold" the land.
- **Live fences:** The usage of live woody species for fences. This can consist of individual trees connected with wire or other fencing material or densely-planted hedges without interconnecting wire.
- **Medical disorder:** Functional abnormality, disturbance or any abnormal condition that impairs normal functioning of the human body. Medical disorders can be categorized into mental disorders, physical disorders, genetic disorders, behavioral disorders and functional disorders.
- **Mitigation plan:** A series of actions to compensate the destruction of natural ecosystems including the definition of responsible persons and specific timelines for each action. Actions include the planting of native plant and tree species, set aside of areas for natural regeneration, as well as ex-situ measures of conservation authorized by government authorities.
- **Mitigation:** Projects or programs intended to offset known impacts to an existing natural resource, human being or community.
- **Monitoring:** The systemic observation of changes or **impacts** to the environment or humans due to human activities, in this case, agricultural activities.
- **Native Species:** Those species that occur naturally in the place where they are found. For the purpose of this standard, naturalized species – exotic species that have adapted and grow and multiply as if they are native – are also considered as native if it is proven that they do not cause negative economic or environmental impacts.
- **Natural ecosystems:** A dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit (*Source: Convention on Biological Diversity*). Examples are aquatic ecosystems, such as streams, rivers, pools, ponds, lakes, lagoons, and other bodies of liquid water that exist naturally; wetlands such as swamps, marshes, mangroves or bogs; terrestrial ecosystems, such as primary and secondary forests, bush lands, grass lands or other advanced natural succession stages without significant human disturbance for minimum 10 years. Each SAN representative provides further local interpretation considering local biophysical conditions.
- **Natural resources:** A feature or component of the natural environment that is of value in serving human needs, e.g. soil, water, plant life, wildlife, etc. Some natural resources have an economic value (e.g. timber) while others have a "noneconomic" value (e.g. scenic beauty). (Source: UNUN <http://www.eionet.europa.eu>).
- **Organophosphates:** General name for esters of phosphoric acid. Many biochemicals are organophosphates, including DNA and RNA as well as many cofactors that are essential for life. Organophosphates are the basis of many insecticides, herbicides, and nerve gases. Organophosphates are used as solvents, plasticizers, and EP additives.
- **Policy:** Global intentions and the farm or business' orientation with respect to the standard and its requirements.
- **Potable Water:** Water that is of sufficiently high quality so that it can be consumed or utilized without risk of immediate or long term harm.

- **Primary forest:** A forest which originally covered a region before changes in the environment brought about by people (Source: PHC <http://www.eionet.europa.eu>).
- **Procedure:** Procedure: Specified way to carry out an activity or a process (Source: *ISEAL Alliance*).
- **Program:** A planned course of action with a detailed and explicit set of directions for accomplishing a purpose.
- **Protected Area:** Land or property under legal protection in order to conserve or protect biodiversity or environmental services. Examples include: national parks, wildlife refuges, forestry reserves and private reserves. Some protected areas may contain private land where certain economic activities are allowed to be carried out according to established regulations.
- **Protection Zone:** Areas of less intensive or controlled land use with the purpose of reducing the impact of human activities on ecosystems. With respect to this standard, protection zones are also areas of vegetation next to streams, lakes or ponds, or bordering natural water bodies that impede the flow of run-off or drift of agrochemicals coming from production areas.
- **Receiving Body:** A **natural water body** that receives wastewaters (treated or untreated), coming from industrial, agricultural or domestic activities.
- **Record:** Record: Document stating results achieved or providing evidence of activities performed (Source: *ISEAL Alliance*).
- **Re-entry period:** Minimum amount of time that must pass between the moments a pesticide was applied to an area or crop and the moment that people can enter that area without protective clothing and equipment.
- **Rehydration:** The process of restoring lost water to the body tissues and fluids. Prompt rehydration is imperative whenever dehydration occurs, from diarrhea, exposure, lack of drinking water, or medication use. Rehydration can be by the oral route or by the intravenous administration of fluids.
- **Renewable energy:** Energy sources that do not rely on fuels of which there are only finite stocks. The most widely used renewable source is hydroelectric power; other renewable sources are biomass energy, solar energy, tidal energy, wave energy, and wind energy (Source: EEA multilingual environmental glossary <http://glossary.eea.europa.eu>).
- **Resistance:** Fundamental ability of an organism to avert the attack of a potential pathogen up to a certain degree or to resist the effect of a harmful agent.
- **Secondary forest:** Natural forest growth after some major disturbance; e.g. logging, serious fire, or insect attack (Source: European Community Biodiversity Clearing-House Mechanism. <http://glossary.eea.europa.eu>).
- **Spray booms:** "Spray booms" are structures mobilized by tractors to apply agrochemicals. They consist of two arms, which are suspended over the crop and which apply chemicals products through their nozzles in atomized or dusty form.
- **Standard:** Document that provides, for common and repeated use, rules, guidelines or characteristics for products or related processes and production methods, with which compliance is not mandatory. It may also include or deal exclusively with terminology, symbols, and packaging, marking or labeling requirements as they apply to a product, process or production method (Source: *Annex 1, WTO TBT Agreement*).

- **System:** Set of elements that interacts and relates amongst them. A management system is a system to establish policy and objectives and to obtain those objectives.
- **Threatened or Endangered Species:** Species of flora and fauna indicated as threatened or endangered in applicable laws as well as by the International Union for Conservation of Nature and Natural Resources' IUCN Red List of Threatened Species™.
- **Transgenic Organism:** A genetically modified organism (GMO) or genetically engineered organism (GEO), whose genetic material has been altered using genetic engineering techniques. These techniques are generally known as recombinant DNA technology. With this technology, DNA molecules from different sources are combined into one molecule to create a new set of genes. This DNA is then transferred into an organism, giving it modified or novel traits.
- **Waste:** Waste is an unwanted or undesired material or substance. It is also referred to as rubbish, trash, garbage, or junk depending upon the type of material and the regional terminology. Most waste is comprised of paper, plastic, metals, glass, food waste, organic material, feces and wood.
- **Wastewater:** Any water that has been adversely affected in quality by anthropogenic influence. It comprises liquid waste discharged by domestic residences, commercial properties, industry, and/or agriculture and can encompass a wide range of potential contaminants and concentrations.

SUSTAINABLE AGRICULTURE STANDARD

1. SOCIAL AND ENVIRONMENTAL MANAGEMENT SYSTEM

Summary of the principle (not binding for audit purposes): The social and environmental management system is a set of policies and procedures managed by the farm management or group administrator for planning and executing operations in a manner that fosters the implementation of the best management practices indicated in this standard. The social and environmental management system is dynamic and adapts to changes that occur. It also incorporates the results of internal and external evaluations to encourage and support continued improvement on the farm. The scale and complexity of the social and environmental management system depends on the level of risk and the size and complexity of the operation, the type of crop, as well as the farm's external and internal environmental and social factors.

- 1.1 The farm must have a social and environmental management system according to its size and complexity of its operations that contains the necessary policies, programs and procedures that prove compliance with this standard and respective national legislation binding for social, labor and environmental aspects on farms – whichever is stricter.**
- 1.2 The farm must implement permanent or long-term activities to comply with the standard through various programs. Social and environmental management system programs must consist of the following elements:**
 - a. Short-, medium- and long-term objectives and goals.**
 - b. A list of activities to be conducted in each program, and a timeline or plan indicating when they will be implemented.**
 - c. Identification of the persons responsible for carrying out the activities.**
 - d. Policies and procedures established to guarantee efficient execution of the activities and compliance with the standard.**
 - e. Maps identifying the projects, infrastructure and special areas (for conservation and protection) related to the indicated activities or to the requirements of this standard.**
 - f. Records to demonstrate the program is functioning adequately.**
- 1.3 The farm's upper management must demonstrate a commitment to certification and to complying with the requirements stipulated in the standard and by law. The management must also be familiar with and endorse the system and its programs and support its execution by providing the necessary resources.**
- 1.4 The objectives and a summary of the social and environmental management system and its programs must be available and made known to workers.**
- 1.5 The farm must keep in its offices or facilities all documentation and records created for the social and environmental management system, as well as documents proving compliance with the standard, for at least three years or for the alternative time indicated in this standard. These documents must be readily available to the persons responsible for carrying out the social and environmental management plan's various programs and activities.**

- 1.6 **The potential social and environmental impacts of new works or activities must be evaluated. These include the expansion of production areas, the construction or installation of new infrastructure, or major changes in production or processing systems. The evaluation must be carried out before the initiation of any changes or new work in accordance with applicable laws or, in their absence, based on technically accepted and recognized methods. Any evaluation must include procedures for monitoring and evaluating the significant impacts identified and not foreseen during the development of new works or activities.**
- 1.7 **The farm must have the necessary processes for follow up, measurement and analysis, including that of claims by workers or other persons or groups, to evaluate the functioning of the social and environmental management system and farm compliance with applicable laws and the standard. The results of these processes must be recorded and incorporated into the social and environmental management system through a continual improvement plan and program. The continual improvement program must include the necessary corrective actions to rectify non-compliance situations, as well as the mechanisms needed to determine if the actions are implemented and if they result in improvements or need to be adjusted to produce the desired results.**
- 1.8 **The farm's service providers must commit to complying with the environmental, social and labor requirements of this standard, not only while operating on the farm but also for any outside activities related to the services provided. The farm must have mechanisms for evaluating its service providers and checking that they are complying with this standard. The farm must not use the services of suppliers or contractors that do not comply with the social, labor and environmental requirements of this standard.**
- 1.9 **The farm must implement a training and education program in order to guarantee the effective execution of the social and environmental management system and its programs. The training topics must be identified according to the standard, the position, and type of work carried out. Records must be kept that include the participants' signatures, topics covered and the instructor's name for each training or educational event. The required training must be paid as part of the normal workday.**
- 1.10 ***Critical Criterion.* The farm must have a system for avoiding the mixing of certified products with non-certified products in its facilities, including harvesting, handling, processing and packaging of products, as well as transportation. All transactions involving certified products must be recorded. Products leaving the farm must be duly identified and accompanied with the relevant documentation indicating a certified farm as origin.**
- 1.11 **The farm must annually describe its energy sources and the amount of energy used from each source for production processes, transport and domestic use within the farm limits. The farm must have an energy efficiency plan with goals and implementation activities for increased efficiency, for reducing dependency on non-renewable sources and for increasing the use of renewable energy. Where appropriate, the use of on-farm energy sources must be preferred.**

2. ECOSYSTEM CONSERVATION

Summary of the principle (not binding for audit purposes): Natural ecosystems are integral components of the agricultural and rural countryside. Carbon capture, crops pollination, pest control, biodiversity and soil and water conservation are just some of the services provided by natural ecosystems on farms. Certified farms protect these natural ecosystems and conduct activities to restore degraded ecosystems. Emphasis is placed on restoring natural ecosystems in areas unsuitable for agriculture, for example by reestablishing the riparian forests that are critical to the protection of water channels. The Sustainable Agriculture Network recognizes that forests and farms are potential sources of timber and non-timber forest products that help to diversify farm income when they are managed in a sustainable manner.

- 2.1 ***Critical Criterion.*** All existing natural ecosystems, both aquatic and terrestrial, must be identified, protected and restored through a conservation program. The program must include the restoration of natural ecosystems or the reforestation of areas within the farm that are unsuitable for agriculture.
- 2.2 ***Critical Criterion.*** From the date of application for certification onwards, the farm must not destroy any natural ecosystem. Additionally, from November 1, 2005 onwards no high value ecosystems must have been destroyed by or due to purposeful farm management activities. If any natural ecosystems have been destroyed by or due to purposeful farm management activities between November 1, 1999 and November 1, 2005, the farm must implement the following analysis and mitigations:
 - a. Conduct an analysis of the ecosystem destruction to document the scope and ecological impact of the destruction.
 - b. Develop a mitigation plan with advice from a competent professional that is consistent with applicable legislation and that compensates for the negative impact.
 - c. Implement the activities of this mitigation plan, including for example the set aside of a significant percentage of the farm area for conservation purposes.
- 2.3 Production areas must not be located in places that could provoke negative effects on national parks, wildlife refuges, biological corridors, forestry reserves, buffer zones or other public or private biological conservation areas.
- 2.4 The harvesting or other taking of threatened or endangered plant species is not permitted. Cutting, extracting or harvesting trees, plants and other non-timber forest products is only allowed in instances when the farm implements a sustainable management plan that has been approved by the relevant authorities, and has all the permits required by law. If no applicable laws exist, the plan must have been developed by a competent professional.
- 2.5 There must be a minimum separation of production areas from natural terrestrial ecosystems where chemical products are not used. A vegetated protection zone must be established by planting or by natural regeneration between different permanent or semi-permanent crop production areas or systems. The

separation between production areas and ecosystems as defined in Annex 1 must be respected.

- 2.6 Aquatic ecosystems must be protected from erosion and agrochemical drift and runoff by establishing protected zones on the banks of rivers, permanent or temporary streams, creeks, springs, lakes, wetlands and around the edges of other natural water bodies. Distances between crop plants and aquatic ecosystems as indicated in Annex 1 must be respected. Farms must not alter natural water channels to create new drainage or irrigation canals. Previously converted water channels must maintain their natural vegetative cover or, in its absence, this cover must be restored. The farm must use and expand vegetative ground covers on the banks and bottoms of drainage canals.**
- 2.7 The farm must establish and maintain vegetation barriers between the crop and areas of human activity, as well as between production areas and on the edges of public or frequently traveled roads passing through or around the farm. These barriers must consist of permanent native vegetation with trees, bushes or other types of plants, in order to promote biodiversity, minimize any negative visual impacts and reduce the drift of agrochemicals, dust and other substances coming from agricultural or processing activities. The distance between the crop plants and areas of human activity as defined in Annex 1 must be respected.**
- 2.8 Farms with agroforestry crops located in areas where the original natural vegetative cover is forest must establish and maintain a permanent agroforestry system distributed homogenously throughout the plantations. The agroforestry system's structure must meet the following requirements:**
- a. The tree community on the cultivated land consists of minimum 12 native species per hectare on average.**
 - b. The tree canopy comprises at least two strata or stories.**
 - c. The overall canopy density on the cultivated land is at least 40%.**
- Farms in areas where the original natural vegetation is not forest – such as grasslands, savannas, scrublands or shrublands - must dedicate at least 30% of the farm area for conservation or recovery of the area's typical ecosystems. These farms must implement a plan to establish or recover natural vegetation within ten years.**
- 2.9 The farm must implement a plan to maintain or restore the connectivity of natural ecosystems, within its boundaries, considering the connectivity of habitats at the landscape level; e.g. through elements such as native vegetation on roadsides and along water courses or river banks, shade trees, live fences and live barriers.**

3. WILDLIFE PROTECTION

Summary of the principle (not binding for audit purposes): The farms certified under this standard are refuges for resident and migratory wildlife, especially species that are threatened or endangered. Certified farms protect natural areas that contain food for wild animals or habitats for reproduction and raising offspring. These farms also carry out special programs and activities for regenerating and restoring ecosystems important to wildlife. At the same time, the farms, their owners and employees take measures to reduce and eventually eliminate the number of animals in captivity, despite traditional practices of keeping wildlife as pets in many regions of the world.

- 3.1 An inventory of wildlife and wildlife habitats found on the farm must be created and maintained.**
- 3.2 Ecosystems that provide habitats for wildlife living on the farm, or that pass through the farm during migration, must be protected and restored. The farm takes special measures to protect threatened or endangered species.**
- 3.3 *Critical Criterion.* Hunting, capturing, extracting and trafficking wild animals must be prohibited on the farm. Cultural or ethnic groups are allowed to hunt or collect fauna in a controlled manner and in areas designated for those purposes under the following conditions:**
 - a. The activities do not involve species in danger of or threatened with extinction.**
 - b. There are established laws that recognize the rights of these groups to hunt or collect wildlife.**
 - c. Hunting and collection activities do not have negative impacts on the ecological processes or functions important for agricultural and local ecosystem sustainability.**
 - d. The long-term viability of the species' populations is not affected.**
 - e. These activities are not for commercial purposes.**
- 3.4 The farmer must keep an inventory of the wild animals held in captivity on the farm, and implement policies and procedures to regulate and reduce their tenancy. Endangered or threatened species must not be held in captivity.**
- 3.5 The farm is allowed to breed wild animals in captivity when the farm has the required conditions and the permits stipulated by law. These activities must be supervised by a competent professional.**
- 3.6 Farms that reintroduce wildlife into natural habitats must have the appropriate permit from the relevant authorities and comply with the conditions established by law, or reintroduce the animals via duly authorized and established programs. A competent professional must advise the farm on release practices. Exotic wildlife must not be introduced into the farm.**

4. WATER CONSERVATION

Summary of the principle (not binding for audit purposes): Water is vital for agriculture and human existence. Certified farms conduct activities to conserve water and avoid wasting this resource. Farms prevent contamination of surface and underground water by treating and monitoring wastewater. The Sustainable Agriculture Standard includes measures for preventing surface water contamination caused by the run-off of chemicals or sediments. Farms that do not have such measures guarantee that they are not degrading water resources through the implementation of a surface water monitoring and analysis program, until they have complied with the stipulated preventative actions.

- 4.1 The farm must have a water conservation program that ensures the rational use of water resources. The program activities must make use of the best available technology and resources. It must consider water re-circulation and reuse, maintenance of the water distribution network and the minimizing of water use. The farm must keep an inventory and indicate on a map the surface and underground water sources found on the property. The farm must record the annual water volume provided by these sources and the amount of water consumed by the farm.**
- 4.2 All surface or underground water exploited by the farm for agricultural, domestic or processing purposes must have the respective concessions and permits from the corresponding legal or environmental authorities.**
- 4.3 Farms that use irrigation must employ mechanisms to precisely determine and demonstrate that the volume of water applied and the duration of the application are not excessive or wasteful. The farm must demonstrate that the water quantity and the duration of the application are based on climatic information, available soil moisture, and soil properties and characteristics. The irrigation system must be well designed and maintained so that leakage is avoided.**
- 4.4 The farm must have appropriate treatment systems for all wastewaters it generates. The treatment systems must comply with applicable national and local laws and have the respective operating permits. There must be operating procedures for industrial wastewater treatment systems. All packing plants must have waste traps that prevent the discharge of solids from washing and packing into canals and water bodies.**
- 4.5 *Critical Criterion.* The farm must not discharge or deposit industrial or domestic wastewater into natural water bodies without demonstrating that the discharged water complies with the respective legal requirements, and that the wastewater's physical and biochemical characteristics do not degrade the receiving water body. If legal requirements do not exist, the discharged wastewater must comply with the following minimum parameters:**

Water Quality Parameter	Value
Biochemical Oxygen Demand (DBO _{5, 20})	Less than 50 mg/L
Total suspended solids	
pH	Between 6.0 – 9.0
Grease and oils	Less than 30 mg/L
Fecal coliforms	Absent

The mixing of wastewater with uncontaminated water for discharge into the environment is prohibited.

- 4.6 Farms that discharge wastewater continuously or periodically into the environment must establish a water-quality monitoring and analysis program that takes into account potential contaminants and applicable laws. The program must indicate the wastewater sampling points and frequency and the analyses to be carried out. A legally accredited laboratory must conduct all analyses. Laboratory results must be kept on the farm for at least three years. The program must comply with the following minimum requirements for analysis and sampling:**

Water Quality Parameter	Wastewater discharge rate (cubic meters/day)		
	Less than 50	50 to 100	More than 100
	Sampling Frequency		
Biochemical Oxygen Demand (DBO _{5, 20})	Annual	Half-yearly	Every three months
Total suspended solids	Monthly	Weekly	Daily
pH			
Grease and oils	Annual	Half-yearly	Every three months
Fecal Coliforms			

- 4.7 Critical Criterion.** The farm must not deposit into natural water bodies any organic or inorganic solids, such as domestic or industrial waste, rejected products, construction debris or rubble, soil and stones from excavations, rubbish from cleaning land, or other materials.
- 4.8** The farm must restrict the use of septic tanks to the treatment of domestic wastewater (grey water and sewage) and non-industrial wastewater to prevent negative impacts on underground or surface water. The tanks and their drainage systems must be located in soils suitable for this purpose. Their design must coincide with the volume of wastewater received and treatment capacity, and must permit periodic inspections. Wastewater from the washing of machinery used for agrochemical applications must be collected and must not be mixed with domestic wastewater or discharged to the environment without previous treatment.
- 4.9** If total or partial compliance with the requirements of this standard that relate directly or indirectly to the contamination of natural water bodies cannot be proven, the farm must conduct a surface-water quality monitoring and analysis program. The program must indicate the sampling points and frequency, and must be continued until it can be proven that farm activities are not contributing to the degradation of the quality of the receiving water bodies. This does not exclude monitoring and water-analysis obligations stipulated by law or as indicated by local authorities. At a minimum, the following analyses must be conducted:

Parameter	Sampling Time
Suspended solids	During the rainiest month of the year.
Total nitrogen	
Phosphorus compounds	
Specified pesticides	Immediately following the end of the pesticide application re-entry period.

Additional analyses may be required as a result of the types of contamination identified during the audit.

5. FAIR TREATMENT AND GOOD WORKING CONDITIONS FOR WORKERS

Summary of the principle (not binding for audit purposes): All employees working on certified farms, and the families that live on these farms, benefit from the rights and conditions established in the United Nations' Universal Declaration of Human Rights and Children's Rights Convention, and in the International Labor Organization's (ILO) conventions and recommendations. Farms pay salaries and benefits equal or more than the legal minimum, and the workweek and working hours must not exceed the legal maximums or those established by the ILO. Workers may organize and associate freely, especially for negotiating working conditions. Certified farms do not discriminate and do not use forced or child labor; to the contrary, these farms work to offer employment opportunities and education to people in neighboring communities. Housing provided by certified farms is in good condition, and has potable water, sanitary facilities and domestic waste collection. Families living on certified farms have access to medical services and the children have access to education.

- 5.1 The farm must have a social policy that declares its commitment to complying with labor laws and international agreements indicated in this standard. The policy must summarize the rights and responsibilities of the administration and workers, with emphasis on labor aspects, living conditions, basic services, occupational health and safety, training opportunities and community relations. The social policy must be approved by the farm's upper management and be divulged and made completely known and available to the farm's workforce.**
- 5.2 *Critical Criterion.* The farm must not discriminate in its labor and hiring policies and procedures along the lines of race, color, gender, age, religion, social class, political tendencies, nationality, union membership, sexual orientation, civil status or any other motive as indicated by applicable laws, ILO Conventions 100 and 111, and this standard. The farm must offer equal pay, training and promotion opportunities and benefits to all workers for the same type of work. The farm must not influence the political, religious, social or cultural convictions of workers.**
- 5.3 The farm must directly hire its workforce, except when a contractor is able to provide specialized or temporary services under the same environmental, social and labor conditions required by this standard. The farm must not establish relations or contracts with third parties, form or directly participate in employee-owned companies, or use other mechanisms to avoid the direct hiring of workers and the obligations normally associated with labor contracts. Employment of foreign workers must be subject to a work permit issued by the competent government agency. The farm must not ask for money from workers in return for employment.**
- 5.4 The farm must have payment policies and procedures that guarantee the complete payment of workers on the dates agreed upon in the labor contract. Payment must take place at the workplace, or by another arrangement agreed upon by the worker. The farm must provide the worker with a detailed and comprehensive explanation of the salary paid and of any deductions made, allowing the worker to appeal in the case of perceived discrepancies. Farms**

with ten or more full or part-time permanent employees must maintain an up-to-date written payroll and job description for each employee with the following information, which employees must have access to:

- a. Worker's name, national identity card number, and position.
- b. Job description and assigned salary.
- c. Minimum salary established by the government according to the type of activity.
- d. Weekly working hours established by applicable laws for the type of activity, and a comparison with the number of hours assigned each worker.
- e. Job requirements, for example, training or special skills.
- f. Payment dates.
- g. Gross pay for normal hours.
- h. Gross pay for overtime.
- i. Total pay: normal and overtime.
- j. Legal deductions and other deductions agreed upon by the worker.
- k. Net pay.

5.5 *Critical Criterion.* Workers must receive pay in legal remuneration greater than or equal to the regional average or the legally established minimum wage, whichever is greater, according to their specific job. In cases where the salary is negotiated through collective bargaining or other pact, the worker must have access to a copy of this document during the hiring process. For production, quota or piecework, the established pay rate must allow workers to earn a minimum wage based on an eight-hour workday under average working conditions, or in cases where these conditions cannot be met.

5.6 Working hours, rest periods during the workday, the number of annual paid vacation days, holidays, and rest days must comply with current labor laws and with the following minimum conditions:

- a. The maximum number of hours worked per week must not exceed 48.
- b. Workers must have a minimum of 24 consecutive hours rest (one day off) for every six consecutive days worked.
- c. All workers must have the right to annual paid vacation equivalent to a minimum of one day for each month worked (12 days or 2 work weeks per year) or the equivalent for part-time workers.

These rights and benefits must be made known to the workers and included in any labor contract or collective agreement.

5.7 All overtime must be voluntary. The farm must have policies and procedures relating to the requirements and assignation of overtime that conform to current labor laws. These policies and procedures must be made known to workers when they are hired. Overtime must not exceed 12 hours per week. Overtime hours must be paid at a higher rate than normal working hours. When current labor laws permit, this standard allows for an exception period during which the maximum 60 hours (48 normal hours plus 12 overtime hours) per week can be exceeded during seasonal activities or due to unforeseen circumstances, under the following conditions:

- a. **Workers must get at least one day off (24 consecutive hours) for every six consecutive days worked.**
- b. **The farm must document the number of hours worked (regular and overtime) per day and the activities carried out for each worker.**
- c. **The farm must demonstrate through a comparative analysis that overtime hours during the exception period do not result in a higher accident rate than during normal working periods.**
- d. **The exception period must not exceed two consecutive work weeks or six work weeks within a two-month period. The average hours worked per week must not exceed 60 hours as calculated during an eight-week period starting from the first day of the exception period.**
- e. **No more than two exception periods are allowed each year.**
- f. **Workers are not allowed to work more than 12 hours per day.**
- g. **In the case of an unforeseen event that causes employees to work more hours than permitted by this standard or applicable labor laws, the farm must document the circumstances and the actions to be taken to avoid repetition in the future.**
- h. **In the case of a cyclical event that happens at approximately the same time each year, such as harvesting or production peaks, the farm must present an analysis that indicates that the cost of directly contracting more workers during this period would have a negative impact on the farm's economic sustainability.**

5.8 *Critical Criterion.* It is prohibited to directly or indirectly employ full- or part-time workers under the age of 15. In countries where the ILO Conventions have been ratified, the farm must adhere to Convention 138, Recommendation 146 (minimum age). Farms contracting minors between the ages of 15 and 17 must keep a record of the following information for each minor:

- a. **First and last name.**
- b. **Date of birth (day, month and year).**
- c. **First and last name of parents or legal guardian.**
- d. **Place of origin and permanent residence.**
- e. **Type of work carried out on the farm.**
- f. **Number of hours assigned and worked.**
- g. **Salary received.**
- h. **Written authorization for employment signed by parents or legal guardian.**

Workers between 15 and 17 years old must not work more than eight hours per day or more than 42 hours per week. Their work schedule must not interfere with educational opportunities. These workers must not be assigned activities that could put their health at risk, such as the handling and application of agrochemicals or activities that require strong physical exertion.

5.9 When applicable laws permit, minors between 12 and 14 years old may work part-time on family farms, only if they are family members or neighbors in a community where minors have traditionally helped with agricultural work. The schedule for these minors including school, transportation and work must not exceed ten hours on school days or eight hours on non-school days, and must

not interfere with educational opportunities. The following conditions must be fulfilled:

- a. **These workers must have the right to one rest day for every six days worked and rest breaks during the workday the same as or more frequently than contracted workers.**
- b. **They must not form part of the farm's contracted workforce.**
- c. **They must not work at night.**
- d. **They must not handle or apply agrochemicals or be in areas where they are being applied.**
- e. **They must not carry heavy loads nor do work that requires physical exertion unsuitable for their age.**
- f. **They must not work on steep slopes (more than 50% incline) or in high places (ladders, trees, roofs, towers or similar places).**
- g. **They must not operate or be near heavy machinery.**
- h. **They must not do any type of work that may affect their health or safety.**
- i. **They must get periodical training for the work they do.**
- j. **They must be under the supervision of a responsible adult in order to guarantee that they understand how to do their work safely.**
- k. **Transportation must be provided to and from home if workers have to travel in the dark or in conditions that put their personal safety at risk.**

5.10 *Critical Criterion.* Any type of forced labor is prohibited, including working under the regimen of imprisonment, in agreement with International Labor Organization (ILO) Conventions 29 and 105 and national labor laws. The farm does not withhold any part or all of workers' salaries, benefits or any rights acquired or stipulated by law, or any of the workers' documents, in order to force them to work or stay on the farm, or as a disciplinary action. The farm does not use extortion, debt, threats or sexual abuse or harassment, or any other physical or psychological measure to force workers to work or stay on the farm, or as a disciplinary measure.

5.11 The farm and supervisors must not threaten, sexually abuse or harass, or verbally, physically or psychologically mistreat workers for any reason. The farm must encourage the respectful treatment of workers and have a formal mechanism to act upon workers' claims of mistreatment.

5.12 Workers must have the right to freely organize and voluntarily negotiate their working conditions in a collective manner as established in ILO Conventions 87 and 98. The farm must have and divulge a policy guaranteeing this right and must not impede workers from forming or joining unions, collective bargaining or organizing for ideological, religious, political, economical, social, cultural or any other reasons. The farm must periodically provide opportunities for workers to make decisions regarding their rights and alternatives to form any type of organization for negotiating their working conditions.

5.13 The farm must inform permanent and regular seasonal workers - and the workers organizations that represent them - of any plans for changes in farm management activities or organizational structure with potentially significant social, environmental and economic effects.

- a. **Workers who will be replaced by the use of machines or for any other reason due to significant changes in farm management activities or organizational structure must be given priority consideration for opportunities to be contracted in other labors on the farm and must be trained for those new tasks.**
 - b. **In confirmed cases of job loss and lack of employment opportunities, the farm must provide economic compensation for workers according to national labor legislation. In the absence of national legislation, the labor contract for permanent or seasonal workers must include a severance provision.**
- 5.14 Housing provided by the farm for permanent or temporary workers living there must be well-designed, built and maintained to foster good hygienic, health and safety conditions. Living quarters must be separated from production areas. The farm must seek alternatives for relocating housing or camps that are currently within production areas. Workers and their families living on the farm must have access to recreation areas according to the composition of inhabitants. The design, size and construction of dormitories, barracks and other housing, type and quantity of furniture, and number and location of sanitary facilities, showers, and washing and cooking areas must comply with applicable laws. In absence of applicable laws the following elements and characteristics apply:**
- a. **The dormitories must be constructed with wooden floors above the ground or floors made from asphalt or concrete, roofs in good condition without leaks, and with appropriate ventilation and lighting.**
 - b. **The ceiling must not be lower than 2.5 meters at any point.**
 - c. **Five square meters of space per person in sleeping areas.**
 - d. **Heating for cold climates.**
 - e. **Bed, hammock or other dignified infrastructure for sleeping according to the workers' cultural needs, at least 20 centimeters above the ground. The space in between bunk beds is greater than or equal to 120 centimeters and 90 centimeters between each bed.**
 - f. **Basic furniture for storing personal belongings.**
 - g. **The sanitary facilities must comply with the following characteristics: one toilet for every 15 persons; one urinal for every 25 men; sufficient supply of toilet paper; a minimum distance of 30 meters from dormitories, eating areas and kitchens; one washbasin for every six persons, or per family.**
 - h. **One shower per ten persons, separated by gender.**
 - i. **One large laundry sink for every 30 persons.**
 - j. **In the absence of a kitchen service (kitchen and dining hall provided by the farm), there must be installations outside the living areas for preparing and eating food and for washing kitchen utensils. There must be one cooking installation per 10 persons or for every two families.**
- 5.15 All workers of the farm and persons living on the farm must have access to potable water. Sufficient supply of potable water must be provided to all workers and must be available at the work site. The farm must be able to demonstrate that the water provided complies with the physical and chemical parameters and other characteristics established in applicable laws or in their absence, with the following critical parameters defined by the World Health Organization (WHO):**

Parameter	Value
Fecal Coliforms	Zero
Chlorine residue or residue from other treatment disinfectants	0.2 to 0.5 mg/L
Nitrates	10 mg/L as nitrates
pH	6.5 to 8.5
Sodium	20 mg/L
Sulphates	250 mg/L
Turbidity	Less than or equal to 5 NTU

Non-family farms that obtain water from their own sources - water not supplied by aqueducts managed by other entities - must have a periodic drinking water monitoring and analysis program that includes:

- a. Identification of water sources on a map and on the farm.
- b. Policies and procedures for guaranteeing the protection of water sources.
- c. Sampling procedures and sampling locations and frequency.
- d. Analyses conducted by a legally recognized laboratory (certified or authorized).
- e. A record of the results for the last three years or since the certification process was initiated.

Additional analysis may be requested in order to ensure quality when evidence of direct or indirect contamination (such as erosion) of surface or underground water exists.

- 5.16 All workers and their families must have access to medical services during working hours and in case of emergency. When legislation requires, farms must contract the services of a doctor or nurse with the necessary equipment to provide these services.
- 5.17 The farm must have mechanisms to guarantee access to education for the school-age children that live on the farm. Schools established and administered by certified farms must have the necessary resources, personnel and infrastructure to be able to provide an educational experience that complies with national legal requirements.
- 5.18 The farm must implement an educational program directed towards administrative and operative personnel (farm workers) and their families that encompasses three topics: the general objectives and requirements of *Rainforest Alliance Certified*TM certification; environmental and conservation topics related to this standard; and fundamental health and hygiene concepts. The program must be designed for the culture, language and educational level of those involved.
- 5.19 In those regions or countries where families traditionally harvest specific crops and where national laws do permit it, minors can participate in harvesting under the following conditions:
 - a. The farm must have identified and monitor those harvest working conditions that have impacts on the health and physical and mental well-being of minors, and must take special measures to eliminate or mitigate those impacts.

- b. Harvest activities must not interfere with the minors' education obligations.**
- c. Minors must not carry large or heavy (no more than 20% of a minor's body weight) loads.**
- d. Minors must not work on pronounced slopes (no more than 50%), near steep cliffs or drop-offs, or on high surfaces.**
- e. Minors must always be accompanied by one of their parents, a legal guardian, or an adult authorized by a parent or guardian. In the latter case, the farm must have written authorization from the minor's parents or legal guardian. Minors must not walk alone through the plantation.**
- f. Minors must be remunerated in cash for their labors.**
- g. The farm must take measures to reduce the participation of minors in agricultural activities. These measures must include the installation and maintenance of schools, nurseries or day care, or paying parents or other audits to care for children instead of harvesting.**
- h. The farmer must ensure that everyone who participates in the harvest knows the conditions set forth in this criterion and must take the necessary measures to guarantee compliance.**

6. OCCUPATIONAL HEALTH AND SAFETY

Summary of the principle (not binding for audit purposes): All certified farms have an occupational health and safety program to reduce or prevent the risk of accidents in the workplace. All workers receive training on how to do their work safely, especially regarding the application of agrochemicals. Certified farms provide the necessary equipment to protect workers and guarantee that the tools, infrastructure, machinery and all equipment used on the farms is in good condition and does not pose a danger to human health or the environment. Measures are taken on these farms to avoid the effects of agrochemicals on workers, neighbors and visitors. Certified farms identify potential emergencies and are prepared with plans and equipment to respond to any event or incident, as well as to minimize the possible impacts on workers and the environment.

- 6.1 The farm must have an occupational health and safety program with the principal objective being to identify and minimize or eliminate workers' occupational risks. The program must have the policies, procedures, personnel and the resources necessary for reaching its objectives. It must also comply with applicable national laws and with this standard and be known and understood by the workers. The workers must be involved with reviewing the policies, procedures and other activities indicated in the program to ensure compliance. An occupational health committee must be established on farms with ten or more permanent production and processing workers. A written procedure is required for selecting committee members, and records must be kept for committee meetings and actions taken.**
- 6.2 The farm must have a permanent and continuous training program to educate workers on how to carry out their work correctly and safely, especially regarding the handling of machinery and agricultural equipment. Workers must be familiar with the training requirements for their job, and must be trained before starting work on the farm. On farms with ten or more permanent production and processing workers, the farm must keep a written record of each training session, including its objectives, subjects covered, workers required to attend, materials used, frequency and duration, and a list of those who participated.**
- 6.3 All workers that apply, handle, transport or come into contact with agrochemicals or other chemical substances must be trained in at least the following subjects:**
 - a. General occupational health.**
 - b. Formulations, names, and the biocide action or toxicity in the case of pesticides, of the substances used.**
 - c. Interpretation of the pesticide labels and of the Material Safety Data Sheet (MSDS) for the substances used.**
 - d. Correct use of personal protective clothing and equipment.**
 - e. Preventative measures and measures for reducing damage to health and the environment caused by chemical substances: equipment, techniques, signage, medical examinations, etc.**
 - f. Emergency procedures, first aid and medical attention for cases involving poisoning or undue contact with chemical substances.**

- g. Techniques for handling chemical substances and for the correct application of agrochemicals.**
- h. Secure handling and transportation of agrochemicals for drivers.**

Only persons with proven knowledge and experience in the subject must carry out the training. Farms with ten or more permanent workers in production or processing must document for each training event the objectives, topics, the workers or positions that must attend training, the training materials used, the frequency and duration, and the list of participants.

- 6.4 Workers that carry out activities identified as being dangerous or a health risk in the occupational health and safety program, or those that require special skills such as the handling and application of agrochemicals, carrying heavy loads, harvesting manually or using agricultural machinery or equipment, must receive a medical check-up at least annually to assure their physical and mental capacities for such work. Workers must have access to the results of their medical examinations. Those workers who either express or are observed having medical or mental health issues, must have the timely attention of and, as indicated, treatment by medical personnel - with the authority to find that a worker is unfit for the specific job he/she is doing and he/she needs job reassignment. Farm management must implement actions to avoid medical disorders of farm workers caused by harvest and other labor practices. Adequate rehydration must be provided at all times.**
- 6.5 Personnel who apply or handle agrochemicals must have examinations necessary to determine the potential effects of the agrochemicals they handle before initiating such activities on the farm. These workers must not suffer from chronic diseases, hepatitis or renal diseases, or respiratory diseases nor have been declared mentally challenged. Only males between the ages of 18 and 60 are permitted to apply agrochemicals. On farms where organophosphates and carbamates are applied, cholinesterase examinations must be carried out every six months or as stipulated by law, whichever is more frequent. The examination results must be documented in a manner in which the following information is easily found: name of examined worker, examination date and results, and any recommendations regarding the worker's capacity to apply agrochemicals. Workers must have access to the examination results and must be assigned to other activities if the recommendations indicate that they are unfit to apply these products.**
- 6.6 The farm must provide workers in all work areas with the basic services, resources and working conditions necessary to comply with the occupational health and safety program objectives and with the safety, health, and cleanliness requirements of applicable laws and this standard. Farms must provide facilities for human hygiene purposes in all sites with worker presence that is out of reach of administrative infrastructure. The farm must consult workers about the provided services, resources and working conditions, and demonstrate that they take into account the results of these consultations. The farm must provide the necessary protective equipment, and require its usage, for all machinery, tools and other implements considered dangerous.**

- 6.7 The farm must maintain strict safety standards in workshops and storage areas in order to reduce the possibility of accidents. Farms must have mechanisms to manage and control access to these areas and workers must have knowledge of them. The farm must assign and train personnel responsible for managing the distribution of materials and for controlling access to storage areas. Materials must be stored separately according to their characteristics. Personal protection equipment must not be stored with chemical substances. A current inventory of materials must be maintained and only the quantities of materials necessary to guarantee the continuity of work on the farm must be stored.**
- 6.8 Workshops and storage facilities of all substances but agrochemicals or flammable must be designed, constructed and equipped to reduce the risk of accidents and negative impacts on human health and the environment. All of these areas must be used exclusively for designated purposes and must have signs inside and outside that indicate the types of substances stored, the dangers they present, and precautionary measures to be taken in the area. The design, construction and equipping of these facilities must comply with applicable laws or with the following parameters, whichever are stricter:**
- a. The corridors and storage areas on the floor of the storage facilities must be well marked. There must be a free space of at least 30 centimeters between the wall and the stored materials.**
 - b. The storage facilities must have shelving and platforms for storing equipment made from non-absorbent materials for storing liquid products.**
 - c. There must be enough natural light to allow visibility during the day in the absence of electricity.**
 - d. There must be enough natural ventilation to prevent the accumulation of odors and vapors.**
 - e. The emergency exits must be clearly marked and unobstructed.**
 - f. In the box and packaging assembly areas, the continuous noise level must not exceed 85 decibels.**
 - g. The box and packaging assembly areas must have at least two meters of free space for each assigned worker.**
 - h. The farm must have packing material (cardboard boxes, plastic and other materials) storage and assembly areas constructed from impermeable and non-flammable materials.**
- 6.9 Those areas used for the storage and distribution of agrochemicals or flammable and toxic substances must be designed, constructed and equipped to reduce the risk of accidents and negative impacts on human health and the environment. These areas must be used exclusively for these purposes. Fuels and other flammable substances must not be stored with agrochemicals. All of these areas must have signs legible at a distance of 20 meters to indicate the types of substances stored, the dangers they present and precautionary measures to be taken in the area. The farm must ensure that all conditions comply with applicable laws or with the following parameters, whichever are stricter:**
- a. The floors and walls must be smooth and waterproof.**

- b. In the agrochemical storage facilities, the floors must have a one percent slope and there must be a retention wall in the different entrances to prevent spilled liquids from escaping the storage area.
 - c. Fuel tanks and containers for flammable substances must be kept in enclosed areas with good ventilation, a retention wall and a smooth, waterproof floor to retain any spills. The walls' height must be calculated to retain 1.2 times the volume of the stored containers.
 - d. Fuel tank enclosures must have a system for removing spills and accumulated water from rain or washing. All drains in the storage areas must be connected to a collection and deactivation system and have an inspection box.
 - e. Underground fuel tanks must be eliminated.
 - f. Storage areas must have a loading area with collection system for spills.
 - g. The storage area must have enough capacity to hold the maximum amount of products needed for normal activities on the farm. Storage facilities must have an area to store empty containers.
 - h. The minimum height of agrochemical storage facilities must be three meters from the floor to the storage facility roof or ceiling.
 - i. There must be enough natural light and the openings for permanent ventilation – windows, extractors and other permanent openings that allow air to circulate freely – must be a minimum of 20% of the total floor area.
 - j. The corridors and storage areas on the floor of the storage facilities must be clearly marked. There must be a free space of at least 30 centimeters between the wall and the stored materials.
 - k. The platforms or shelves must be well labeled, constructed from a non-absorbent material, and isolate the product from direct contact with the floor.
 - l. There must not be any offices within the storage areas, except when the substances are completely separate from the office area and good ventilation is maintained.
 - m. The farm must have designated areas for opening pesticide-treated bags (for the protection of fruit) designed to prevent the escape of these materials and to facilitate the collection of plastic wastes.
 - n. Spill and airplane wash water contention and collection systems in airports used for fumigation services.
- 6.10 The farm must store agrochemicals in a manner that minimizes potential negative impacts on human health and on the environment. The farm must store only the amount of agrochemicals necessary to meet short-term needs. These products must be separated according to their biocide, toxicity and chemical formula. They must not be stored on the floor nor come within contact with absorbent materials. A Material Safety Data Sheet must be kept in the storage facility for each chemical product stored. All agrochemical containers must be washed three times before being stored for disposal or return to supplier. All agrochemical containers must maintain their original labels. The farm must take actions to return to the supplier agrochemicals that are prohibited, expired, or not legally registered, or agrochemicals that have had their licenses canceled. If

the supplier will not accept them, the farm must seek safe alternatives for eliminating them.

- 6.11 The farm must demonstrate that the locations of agrochemical and fuel storage areas comply with applicable laws. If applicable legislation does not exist and if the design, construction and management of these facilities do not comply with some or all of the requirements indicated in Criteria 6.7 to 6.10, the following separations must be maintained:
- a. Sixty meters from buildings used by people on a daily basis (housing, health centers, schools, recreation areas, offices, etc.).
 - b. One hundred meters from public roads.
 - c. One hundred and twenty meters from rivers, streams and lakes.
 - d. Two hundred meters from water wells or springs used for human consumption.
 - e. For agrochemical storage facilities, at least 50 meters from fuel storage tanks.
- 6.12 The farm must take permanent measures to reduce the risk of accidents or spills of agrochemicals during their transportation to and within the farm. Vehicles used for transporting chemicals must be in a good state of repair, legally registered and have insurance policies designed for these services. The persons in charge of transporting agrochemicals must demonstrate that they know how to safely transport and handle the substances. All agrochemicals must be transported to the farm in their original containers and accompanied by a copy of their Material Safety Data Sheet. The farm must only transport to the production areas the quantity of agrochemicals necessary for that day's work. Chemicals must be transported in properly labeled plastic containers that are then returned to the storage facility after use. Mobile agrochemical application equipment must be transported empty to the application area.
- 6.13 *Critical Criterion.* All workers that come into contact with agrochemicals, including those who clean or wash clothes or equipment that has been exposed to agrochemicals, must use personal protection equipment. The farm must provide this equipment in good condition, and must provide incentives to workers to use the equipment. The equipment must reduce contact with the agrochemicals and the possibility of acute or chronic poisoning, and must comply with the strictest of the following requirements: a) the requirements indicated on the products' Material Safety Data Sheet, b) any applicable laws; or c) the equipment indicated in Annex 2 of this standard.
- 6.14 The farm must have the necessary safety measures for the protection of workers applying agrochemicals in the field. A supervisor must check, at least every three hours, all workers applying World Health Organization (WHO)'s categories Ia, Ib and II technical grade active ingredients of pesticides (see Annex 3). Workers must not apply agrochemicals for more than six hours per day in order to limit their exposure to agrochemicals and to minimize the risk of accidents.

- 6.15 The farm must take permanent actions to protect workers, neighbors and other persons from the effects of the application of agrochemicals and biological or organic inputs. The farm must identify the groups that are most exposed to applications and have mechanisms for alerting them well in advance regarding application dates and areas and the time periods during which entry to these areas is restricted. Access to these areas must be prevented by warning signs with symbols or by other safety indications. The farm must implement an application schedule in order to prevent undue entrance of unauthorized persons into the application area. The workers know and respect the restricted entry intervals, and quarantine and pre-harvest periods stipulated in the Material Safety Data Sheet for applying agrochemicals. For products that do not have restricted entry periods in the Material Safety Data Sheet, the following restricted entry intervals must be applied:**
- a. WHO class III and IV technical grade active ingredients of pesticides: between 4 and 12 hours.**
 - b. WHO class II technical grade active ingredients of pesticides (see Annex 3): between 24 and 48 hours.**
 - c. WHO class Ia and Ib technical grade active ingredients of pesticides (see Annex 3): between 48 and 72 hours.**

When two products with different restricted entry or pre-harvest application intervals are used at the same time, the longest interval and the strictest quarantine procedures must be applied. Spray booms must have a colored sign, visible from 30 meters, that corresponds to the toxicity of the product being applied or to that of the most toxic product in the application mix.

- 6.16 The farm must have showers and changing rooms for all persons that apply or come in contact with agrochemicals. There must be policies and procedures that require that all workers that apply agrochemicals shower and change their clothes immediately after finishing the application and before leaving the farm at the end of the workday. There must be exclusive and separate areas for washing personal protection equipment and for washing application equipment.**
- 6.17 Clothes worn while applying agrochemicals must never be washed in the workers' homes. There must be a designated area near the changing rooms for washing application clothing. Handling and safety procedures must be established for transferring or transporting contaminated clothing from the shower area to the laundry room.**
- 6.18 The farm must identify and analyze the types of potential emergencies – caused by nature or humans – that could occur on the farm according to its operations and environment. The farm must have an emergency response plan with actions and documented procedures for responding to all identified emergencies. All workers must be familiar with the emergency response measures relating to their areas of work and responsibilities. The farm must have workers trained in first aid available on each shift.**
- 6.19 The farm must have accessible the necessary equipment for preventing and responding to the different types of emergencies identified in the emergency**

response plan. There must be first aid equipment in the farm's permanent installations and first aid kits available to field workers. There must be a shower, eye-wash facilities and a lavatory or sink in the chemical storage areas and in the areas where agrochemicals are mixed and distributed.

- 6.20 Farms must implement documented procedures for protecting workers in the event of an extreme weather event. When harvesting at night, farms must provide constant lighting in the entire radius of harvest worker activities. Only in the case of monoculture crops with an average plant height lower than two meters, farms must provide shelter for shade and protection from extreme weather conditions, such as heavy rain and lightning.**

7. COMMUNITY RELATIONS

Summary of the principle (not binding for audit purposes): Certified farms are good neighbors. They relate in positive ways with neighbors, surrounding communities and local interest groups. The farms periodically inform the surrounding communities, neighbors and interest groups about their activities and plans, and they consult with interested parties about changes on farms that could have potential impacts on the social and environmental well-being of surrounding communities. Certified farms contribute to local economic development through training and employment and try to prevent negative impacts on the areas, activities or services that are important for local populations.

- 7.1 **The farm must respect areas and activities that are important to the community socially, culturally, biologically, environmentally and religiously. These must not be affected by farm activities.**
- 7.2 ***Critical Criterion.* The farm management must implement policies and procedures for identifying and considering the interests of local populations and community interest groups regarding farm activities or changes that could have an impact on their health, employment or local natural resources. The farm must document and make available for public view all complaints and comments it receives related to its activities and its replies to them.**
- 7.3 **The farm must have policies and procedures for prioritizing the hiring and training of a local labor force and for contracting and acquiring local services and products.**
- 7.4 **The farm must contribute to the protection and conservation of community natural resources, collaborate with the development of the local economy, and contribute fairly towards the costs of the community infrastructure and local shared resources consumed – schools, pathways, aqueducts and other infrastructure as well as water and other resources – according to the amount used by the farm. Farms must negotiate a fair compensation with local communities and local and national authorities for resources and infrastructure used.**
- 7.5 **The farm must help with local environmental education efforts and must support and collaborate with local research in areas related to this standard.**
- 7.6 **The farm must have a legitimate right to land use and tenure, demonstrated by presenting the appropriate official documentation. If there is no such documentation the farm must show either:**
 - a. **The absence of significant disputes on land use, tenure and access, or;**
 - b. **The consent of local communities, regarding the land, natural and agricultural resources.**

8. INTEGRATED CROP MANAGEMENT

Summary of the principle (not binding for audit purposes): The Sustainable Agriculture Network encourages the elimination of chemical products known internationally, regionally and nationally for their negative impacts on human health and natural resources. Certified farms contribute to the elimination of these products through integrated crop management to reduce the risk of pest infestations. They also record the use of agrochemicals to register the amounts consumed, and work to reduce and eliminate these products, especially the most toxic ones. To minimize the excessive application and waste of agrochemicals, certified farms have the procedures and equipment for mixing these products and for maintaining and calibrating application equipment. Certified farms do not use products that are not registered for use in their country, nor do they use transgenic organisms or other products prohibited by different entities or national and international agreements.

- 8.1 The farm must have an integrated pest-management program based on ecological principles for the control of harmful pests (insects, plants, animals and microbes). The program must give priority to the use of physical, mechanical, cultural and biological control methods, and the least possible use of agrochemicals. The program must include activities for monitoring pest populations, training personnel that monitor these populations, and integrated pest management techniques. As part of the program, the farm must collect and record the following information about pest infestations: infestation dates, duration, area and location; type of pest; the control mechanisms employed; environmental factors during the infestation; and damage caused and estimated costs of damage and control.**
- 8.2 The farm must demonstrate by comparative agrochemical inventories and use records that it rotates chemical products and reduces their use for crop production. The agrochemical inventory on the farm must include, as a minimum requirement, the commercial and generic product names, the quantities acquired and the purchase dates. For field applications, the farm must record the following information:**
- a. Products applied and application dates.**
 - b. Identification of the area where the application was made (on a map or clearly identified by the name or number of the plot).**
 - c. Application area size (in hectares or another indicated unit of measurement).**
 - d. Dosage and total volume of products used.**
 - e. Names of the persons responsible for mixing the products and authorizing the application.**
 - f. Names of the persons that carried out the field application.**
 - g. Identification of application equipment used (backpack or motorized sprayer, fumigation airplane, spray boom, etc.).**
 - h. The farm must keep a record of applications for five years. The information from records must be summarized and analyzed to determine application trends for specific products during the last five years.**
- 8.3 The farm must implement the procedures and have the necessary equipment for mixing and applying agrochemicals, as well as maintain, calibrate and repair**

application equipment, in order to reduce to a minimum waste and excessive applications. The farm must designate and train personnel who will be responsible for the implementation of these procedures.

- 8.4 *Critical Criterion.*** The following chemical or biological substances cannot be used on certified farms:
- a. Biological or organic substances that are not legally registered in the country for commercial use.
 - b. Agrochemicals that are not registered officially in the country.
 - c. Agrochemicals that are mentioned in the List of Banned and Severely Restricted Pesticides in the U.S. by its Environmental Protection Agency (EPA) or pesticides banned or severely restricted in the European Union.
 - d. Substances that have been banned globally under the Stockholm Convention on Persistent Organic Pollutants (POPs).
 - e. Substances listed in Annex III of the Rotterdam Convention on Prior Informed Consent (PIC), in relation to national bans or severe restrictions for documented health or environmental reasons in at least two regions of the World.
 - f. All Pesticide Action Network Dirty Dozen substances.

List of Prohibited Pesticides – Sustainable Agriculture Network is binding for the inserts 8.4.c, 8.4.d, 8.4.e and 8.4.f of this criterion.

- 8.5** The farm must have a plan for eliminating the use of World Health Organization Class Ia and Ib technical grade active ingredients of pesticides, and for reducing the use of World Health Organization Class II technical grade active ingredients of pesticides (see Annex 3). Farms that do use the formerly mentioned ingredients must demonstrate the following:
- a. No technically or economically viable alternatives do exist for the type of pest or infestation.
 - b. The pest or infestation has had, or would have had, proven significant economic consequences that surpass the economic threshold for damage.
 - c. Measures must be taken to substitute World Health Organization Class Ia, Ib and II technical grade active ingredients of pesticides.
- 8.6 *Critical Criterion.*** The farm must take steps to avoid introducing, cultivating or processing transgenic crops. When nearby transgenic materials are accidentally introduced into a certified farm's crop, the farm must develop and execute a plan to isolate the crops and provide follow-up in order to comply with the requirements of this criterion.
- 8.7** Farms must only use fumigation methods for post-harvest treatment that minimize health effects in workers and control applications. Records must be maintained of any post-harvest treatment. These records must at least include the following information: treatment application date, lot or batch number, the active ingredient's name of the applied product, dose, and the names of the persons who applied and mixed the product(s) and approved the application.

- 8.8 Critical Criterion. APPLIES FOR SUGAR CANE CULTIVATION ONLY** Farms that harvest sugarcane with machines are not allowed to use fire for harvest preparation. All other farms – employing manual rather than mechanized harvesting - must eliminate fire for harvest preparation within a maximum period of three years and must implement the following rules:
- a. Explain their fire-elimination plan to workers, suppliers and surrounding communities.
 - b. Comply with local legislation about the use of fire for farm management.
 - c. Conduct burning in a way that minimizes the impact on workers, surrounding communities and natural resources.

Fire must not be allowed to spread to conservation areas. The workers in charge of burning must be adequately trained in fire management, control and suppression.

- 8.9** The use of fire for pest and disease management must only be used if it is the option of less environmental impact in comparison with other pest control measures. This option must be approved by competent authorities, must reflect technical considerations and focus on problematic areas only.

9. SOIL MANAGEMENT AND CONSERVATION

Summary of the principle (not binding for audit purposes): One of the objectives of sustainable agriculture is the long-term improvement of the soils that supports agricultural production. Certified farms carry out activities that prevent or control erosion, and thus reduce the loss of nutrients and the negative impacts on water bodies. The farms have fertilization programs based on the crop requirements and soil characteristics. The use of vegetative ground cover and crop rotation reduces dependency on agrochemicals for the control of pests and weeds. Certified farms only establish new production areas on land that is suitable for agriculture and the new crops, and never by cutting forests.

- 9.1 **The farm must execute a soil erosion prevention and control program that minimizes the risk of erosion and reduces existing erosion. The program activities must be based on the identification of soils affected by or susceptible to erosion, as well as soil properties and characteristics, climatic conditions, topography and agricultural practices for the crop. Special emphasis must be placed on controlling runoff and wind erosion from newly tilled or planted areas, as well as preventing sedimentation of water bodies. The farm must use and expand vegetative ground covers on the banks and bottoms of drainage canals to reduce erosion and agrochemical drift and runoff towards water bodies.**
- 9.2 **The farm must have a soil or crop fertilization program based on soil characteristics and properties, periodic soil or foliage sampling and analysis, and advice from a competent and impartial professional or authority. The number of soil or foliage samples must correspond with the size of the production area, types of soil, and variations in its properties, as well as results of previous analyses. The producer must keep the results of these analyses on the farm for a two-year period. Organic and non-organic fertilizers must be applied so as to avoid any potential negative impacts on the environment. The farm must give priority to organic fertilization using residues generated by the farm.**
- 9.3 **The farm must use and expand its use of vegetative ground cover to reduce erosion and improve soil fertility; structure and organic material content, as well as minimize the use of herbicides. There must be a vegetative ground cover establishment and expansion plan that indicates the areas with existing cover, as well as areas where cover will be established in the future. The farm must include a timeframe for these activities.**
- 9.4 **The farm must promote the use of fallow areas with natural or planted vegetation in order to recover natural fertility and interrupt pest life cycles. The farm must have a plan that indicates the fallow techniques or practices (planting, natural regeneration, etc.) and their timing. These areas must be identified in the fields and on the farm map. Burning is not allowed to prepare land.**
- 9.5 ***Critical Criterion.* New production areas must only be located on land with the climatic, soil and topographic conditions suitable for intensity level of the agricultural production planned. The establishment of new production areas must be based on land use capacity studies that demonstrate long-term production capacity. The cutting of natural forest cover or burning to prepare new production areas is not permitted.**

10. INTEGRATED WASTE MANAGEMENT

Summary of the principle (not binding for audit purposes): Certified farms are clean and orderly. Farm workers and residents cooperate with maintaining the farm clean and are proud of the farm's image. There are programs for managing waste according to its type and quantity, through recycling and waste reduction and reuse. The final destination of waste on the farm is administered and designed to minimize possible environmental and human health impacts. Certified farms have evaluated the transportation and treatment services supplied by contractors and know the final destination of the waste generated on the farm.

- 10.1 The farm must have an integrated waste management program for the waste products it generates. This must be based on the concepts of refusing or reducing the use of products that have actual or potential negative impacts on the environment or human health as well as reusing and recycling waste. As part of this program, the sources and types of waste must be identified and the quantity (weight or volume) must be estimated. The activities of the integrated waste management program must be in accordance with the types and quantities of waste generated.**
- 10.2 The use of open waste dumps and open-air burning of waste is not permitted. The burning of waste products is only allowed in an incinerator designed for that purpose, based on technical studies that determined the size, optimum location and control measures for minimizing the environmental and human health impacts related to its construction and operation. The farm must have the relevant legal permits for the construction and operation of this incinerator, as well as the appropriate operating procedures.**
- 10.3 The final or semi-permanent waste deposit areas on the farm must be designed and managed to reduce the risks of environmental contamination and damage to human health. Its location must be in accordance with applicable laws regarding distances from houses and other areas of human activity, water channels and sources, and conservation areas. The farm must have identified the sites and designs that are technically suitable for the final deposit or processing of both organic and inorganic waste through an evaluation of site characteristics, the volume and type of waste to be eliminated or treated, and potential impacts.**
- 10.4 Farms must not transfer waste to persons or businesses without checking that its treatment or final use complies with legal requirements and the requirements of this standard. Waste products or materials that have been in contact with agrochemicals or any other toxic or harmful substances must not be given away without first verifying that they will be used for similar purposes that do not represent a danger to human health or produce negative environmental impacts.**
- 10.5 The farm must be clean and free of accumulations of all types of waste products in order to maintain a positive image and contribute to the workers' well-being. The farm must regularly implement educational activities for farm workers and residents with the objective of promoting cleanliness and preventing the indiscriminate disposal of waste. The farm must strategically place waste receptacles on the farm and regularly collect and dispose of their contents.**

- 10.6 The farm must implement practices to diminish its emissions of greenhouse gases and increase carbon dioxide sequestration. Such practices include soil cover management, planting trees and other perennial vegetation, proper sourcing and management of fertilizers and fuels, management of effluent ponds and manure, proper waste management, use of clean technologies, improvement of energy efficiency, reduction in tillage, and participation in local or regional initiatives aimed at greenhouse gas reduction and carbon dioxide sequestration.**

Annex 1 Distances between production areas and terrestrial ecosystems, aquatic ecosystems and areas of human activity

Separations in meters between areas of crop production terrestrial ecosystems, aquatic ecosystems and areas of human activity, based on crop-management intensity, are shown in the following table. The farm must comply with the distances indicated in the table or by applicable laws, whatever is stricter.

The separation from aquatic ecosystems is indicated according to the average percentage of slope of the surrounding terrain. For example, farms that apply agrochemicals less than once per month and do not use WHO category Ia, Ib or II products, must maintain a separation of five meters between streams and crop production areas on flat land.

For roads, the separation indicates the width of the buffer strip between the crop and the edge of the road in which the use of agrochemicals or the production of crops is prohibited. These areas must have vegetative barriers.

In some cases, different distances apply per distance category (columns), with respect to crops that use or do not use aerial or sprayboom fumigation, or agroforestry crops.

This table applies to all crops specified in the Farm Certification Policy. In the case of mixed crops in the same production area, the greatest distance must apply.

The following definitions apply:

- **High use of inputs:** Minimum one of the following conditions is met by the farm: a.) WHO category Ia, Ib and II pesticides (see Annex 3) are applied; b.) The frequency of pesticide application is two or more times per month.
- **Housing or similar areas:** Houses, schools, dining areas, health clinics, recreation areas or similar infrastructure where human activity takes place on a daily basis.
- **Infrequent use:** Storage areas, packing sheds, warehouses, workshops, processing plants and other similar infrastructure where workers carry out activities for short periods of time (less than 30 minutes per day) no more than twice per week.
- **Low use of inputs:** All of the following conditions are met by the farm: a.) Only WHO category III and IV pesticides are used; b.) The frequency of pesticide application is maximum once per month; c.) Aerial fumigation or applications using spraybooms are not employed.
- **Organic:** Farms in which the audit team proves that chemical pesticides or fertilizers are not used; or farms that are certified organic by certification bodies accredited by the International Organic Accreditation Service (IOAS).
- **Permanent use:** Storage areas, packing sheds, warehouses, workshops, processing plants and other similar infrastructure where workers carry out activities on a daily basis.
- **Public roads:** Roads, streets or highways that connect or lead to population centers (towns, settlements, cities) and are used for transportation or by pedestrians on a daily basis.

Table of Separations

Note: As determined by criterion 1.1, the respective distances defined in the local legislation apply, if these are stricter than the distances defined in this table of separations.

		Type of crop management						
		High input use		Low input use		Organic		
Slope:		≤ 8% ¹	> 8% ²	≤ 8%	> 8%	≤ 8%	> 8%	
1. Terrestrial ecosystems (meters):								
a.	Secondary growth (without significant human disturbance for minimum 10 years)	10	20	5	10	3	5	
b.	Primary and secondary forests, bush lands, grass lands and paramos	10	Crops with Aerial / Sprayboom Fumigation	30	10	20	5	10
			Crops without Aerial/ Sprayboom Fumigation or Agroforestry Crops	20		10		
2. Aquatic ecosystems (meters):								
a.	Perennial and seasonal streams, brooks, creeks (width less than or equal to 3 m)	10	20	5	10	3	5	
b.	Rivers (width greater than 3 m), lakes, lagoons, swamps, marshes, bogs	10	Crops with Aerial / Sprayboom Fumigation	30	10	20	5	10
			Crops without Aerial/ Sprayboom Fumigation or Agroforestry crops	20		10		
c.	Springs	20	Crops with Aerial / Sprayboom Fumigation	50	10	20	10	10
			Crops without Aerial/ Sprayboom Fumigation or Agroforestry crops	15				
3. Areas of human activity (meters):								
a.	Public roads	10		5		5		
b.	Buildings: Housing or similar use	30	Crops with Aerial / Sprayboom Fumigation	30	10	5	10	
			Crops without Aerial/ Sprayboom Fumigation	20				
			Agroforestry crops	10				
c.	Buildings: Permanent use	30	Crops with Aerial / Sprayboom Fumigation	30	10	5	10	
			Crops without Aerial/ Sprayboom Fumigation	20				
			Agroforestry crops	10				
d.	Buildings: Infrequent use	10	Crops with Aerial / Sprayboom Fumigation	10	5	2	0	
			Crops without Aerial/ Sprayboom Fumigation or Agroforestry crops	5				

¹ Slope of less than or equal to 8%

² Slope of greater than 8%

Annex 2 Basic personal protection equipment for the handling and application of organic and inorganic farm inputs

Application of insecticides, herbicides and nematicides:

- Work clothes, overalls or long-sleeved shirt, and long pants made from a heavy material
- Respirator with a special filter in accordance with the characteristics of the agrochemical used
- Head protection (cap, hat, etc)
- Unlined nitril gloves that cover at least halfway up each arm
- Vinyl back protector in cases when a backpack sprayer is used
- Unlined rubber boots
- Face screen or goggles with indirect ventilation designed for chemical substances
- Socks

Flag persons for aerial fumigation:

- Work clothes, overalls or long-sleeved shirt, and long pants made from a heavy material
- Respirator with a special filter in accordance with the characteristics of the agrochemical used
- Head protection (cap, hat, etc.)
- Unlined nitril gloves that cover at least halfway up each arm
- Raingear, poncho or other similar waterproof protection
- Unlined rubber boots
- Face screen or goggles with indirect ventilation designed for chemical substances
- Socks

Fertilizer application:

- Apron
- Unlined nitril gloves
- Unlined rubber boots
- Socks

Collection of agrochemical spills:

- Work clothes, overall or long-sleeved shirt and long pants
- Respirator with a special filter in accordance with the agrochemical's characteristics
- Unlined nitril gloves
- Unlined rubber boots

Handling materials impregnated with pesticides (bags, plastics, plant materials, tests, etc.):

- Work clothes, overall or long-sleeved shirt and long pants
- Respirator with a special filter in accordance with the agrochemical's characteristics
- Unlined nitril gloves

Washing clothes and work equipment contaminated with agrochemicals:

- Apron
- Unlined nitril gloves
- Unlined rubber boots

Annex 3 World Health Organization Class Ia, Ib & II active ingredients

Extremely hazardous (Class Ia) technical grade active ingredients of pesticides

- | | | |
|--------------------|-----------------------|---------------------------|
| 1. Aldicarb | 11. Difethialone | 21. Parathion-methyl |
| 2. Brodifacoum | 12. Diphacinone | 22. Phenylmercury acetate |
| 3. Bromadiolone | 13. Disulfoton | 23. Phorate |
| 4. Bromethalin | 14. EPN | 24. Phosphamidon |
| 5. Calcium cyanide | 15. Ethoprophos | 25. Sodium fluoroacetate |
| 6. Captafol | 16. Flocoumafen | 26. Sulfotep |
| 7. Chlorethoxyfos | 17. Hexachlorobenzene | 27. Tebupirimfos |
| 8. Chlormephos | 18. Mercuric chloride | 28. Terbufos |
| 9. Chlorophacinone | 19. Mevinphos | |
| 10. Difenacoum | 20. Parathion | |

Highly hazardous (Class Ib) technical grade active ingredients of pesticides

- | | | |
|------------------------------|---------------------|--|
| 1. Acrolein | 20. DNOC | 39. Nicotine |
| 2. Allyl alcohol | 21. Edifenphos | 40. Omethoate |
| 3. Azinphos-ethyl | 22. Ethiofencarb | 41. Oxamyl |
| 4. Azinphos-methyl | 23. Famphur | 42. Oxydemeton-methyl |
| 5. Blasticidin-S | 24. Fenamiphos | 43. Paris green (Copper-arsenic complex) |
| 6. Butocarboxim | 25. Flucythrinate | 44. Pentachlorophenol |
| 7. Butoxycarboxim | 26. Fluoroacetamide | 45. Propetamphos |
| 8. Cadusafos | 27. Formetanate | 46. Sodium arsenite |
| 9. Calcium arsenate | 28. Furathiocarb | 47. Sodium cyanide |
| 10. Carbofuran | 29. Heptenophos | 48. Strychnine |
| 11. Chlorfenvinphos | 30. Isoxathion | 49. Tefluthrin |
| 12. 3-Chloro-1,2-propanediol | 31. Lead arsenate | 50. Thallium sulfate |
| 13. Coumaphos | 32. Mecarbam | 51. Thiofanox |
| 14. Coumatetralyl | 33. Mercuric oxide | 52. Thiometon |
| 15. Zeta-cypermethrin | 34. Methamidophos | 53. Triazophos |
| 16. Demeton-S-methyl | 35. Methidathion | 54. Vamidotion |
| 17. Dichlorvos | 36. Methiocarb | 55. Warfarin |
| 18. Dicrotophos | 37. Methomyl | 56. Zinc phosphide |
| 19. Dinoterb | 38. Monocrotophos | |

Moderately hazardous (Class II) technical grade active ingredients of pesticides

- | | | |
|-----------------------|---------------------------|--------------------------|
| 1. Alpha-cypermethrin | 30. Haloxyfop | 59. Prallethrin |
| 2. Cyphenothrin | 31. HCH | 60. Profenofos |
| 3. 2,4-D | 32. Imazalil | 61. Propiconazole |
| 4. DDT | 33. Imidacloprid | 62. Propoxur |
| 5. Deltamethrin | 34. Iminoctadine | 63. Prosulfocarb |
| 6. Diazinon | 35. Ioxynil | 64. Prothiofos |
| 7. Difenzoquat | 36. Ioxynil octanoate | 65. Pyraclofos |
| 8. Dimethoate | 37. Isoprocarb | 66. Pyrazophos |
| 9. Dinobuton | 38. Lambda-cyhalothrin | 67. Pyrethrins |
| 10. Diquat | 39. Mercurous chloride | 68. Pyroquilon |
| 11. Endosulfan | 40. Metaldehyde | 69. Quinalphos |
| 12. Endothal-sodium | 41. Metam-sodium | 70. Quizalofop-p-tefuryl |
| 13. EPTC | 42. Methacrifos | 71. Rotenone |
| 14. Esfenvalerate | 43. Methasulfocarb | 72. Spiroxamine |
| 15. Ethion | 44. Methyl isothiocyanate | 73. TCA (acid) |
| 16. Fenazaquin | 45. Metolcarb | 74. Terbumeton |
| 17. Fenitrothion | 46. Metribuzin | 75. Tetraconazole |
| 18. Fenobucarb | 47. Molinate | 76. Thiacloprid |
| 19. Fenpropidin | 48. Nabam | 77. Thiobencarb |
| 20. Fenpropathrin | 49. Naled | 78. Thiocyclam |
| 21. Fenthion | 50. Paraquat | 79. Thiodicarb |
| 22. Fentin acetate | 51. Pebulate | 80. Tralomethrin |
| 23. Fentin hydroxide | 52. Permethrin | 81. Triazamate |
| 24. Fenvalerate | 53. Phenthoate | 82. Trichlorfon |
| 25. Fipronil | 54. Phosalone | 83. Tricyclazole |
| 26. Fluxofenim | 55. Phosmet | 84. Tridemorph |
| 27. Fuberidazole | 56. Phoxim | 85. Xyllycarb |
| 28. Gamma-HCH | 57. Piperophos | |
| 29. Guazatine | 58. Pirimicarb | |