



BETTER COTTON PRODUCTION PRINCIPLES & CRITERIA EXPLAINED

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Acronyms

BCI	Better Cotton Initiative
Bt	Bacillus thuringiensis
FAO	Food and Agriculture Organisation of the United Nations
GM	Genetically modified
ICAC	International Cotton Advisory Committee
ILO	International Labour Organisation
IPM	Integrated Pest Management
IUF	International Union of Food, Agricultural, Hotel, Restaurant, Catering, Tobacco and Allied Workers' Associations
MDG	Millennium Development Goal
MSDS	Material Safety Data Sheet
NGM	National Guidance Material
OECD	Organisation for Economic Cooperation and Development
PIC	Prior Informed Consent
PPE	Personal Protective Equipment
POP	Persistent Organic Pollutant
SEEP	ICAC Expert Panel on Social, Environmental and Economic Performance of Cotton
UNICEF	United Nations Children's Fund
UN	United Nations
WHO	World Health Organisation

Introduction

This explanatory document provides information on the Better Cotton Production Principles and Criteria that form the global definition of Better Cotton. For each Production Principle, a brief introduction is provided that explains why the Production Principle and its associated Criteria have been included within the definition of Better Cotton. Any specific terms used in the Production Principles and Criteria are defined so that the scope of the term, as used by the BCI, is clearly delineated. This document provides, therefore, both a rationale for including a Production Principle (and the concomitant Criteria) and the outcomes the BCI hopes will be achieved by their being met.

The document assists BCI implementing partners interpret the Production Principles and Criteria and help them explain to cotton farmers both the importance of addressing the issues covered by the Better Cotton Production Principles and Criteria, and the practical implications of growing Better Cotton. It also assists other audiences interested in Better Cotton, such as retailers, ginners, spinners, traders, NGOs, trade unions, producer organisations and large independent cotton farmers, to better understand the Better Cotton Production Principles and Criteria.

The Production Principles describe the broad areas under the control of the farmer that need to be addressed by the farmer for the production of Better Cotton. The Criteria listed under the Production Principles provide a greater level of detail on the specific areas that need to be addressed within each Production Principle. Together, the Production Principles and their associated Criteria determine the level of commonality of the issues addressed by producing Better Cotton worldwide.

Underpinning the Production Principles and Criteria is the fundamental premise that growing Better Cotton respects national and other applicable law. Cotton producers should always abide by national legislation, unless that legislation sets standards which are below the referenced internationally recognised standards and conventions, in which case, the international standards prevail. However, where national legislation sets higher requirements on a specific issue than these standards, then national legislation shall apply.

BCI distinguishes between 3 categories of farmers (smallholders, medium farms and large farms) in recognition of the differences in production methods and workforces they use. All categories have a common set of 24 criteria. There are 20 additional criteria for medium and large farms.

To be licensed to grow Better Cotton farmers must first reach a set of Minimum Requirements. Minimum Production Criteria, Management Criteria and reporting on Results Indicators are all part of the Minimum Requirements. Minimum Requirements are just the first stage, as farmers are also encouraged to develop further through Improvement Requirements. The Minimum and Improvement Requirements together constitute the Better Cotton Performance Scale, which uses a scoring system to classify farmers into performance bands. A different scale is proposed for each category of farmers as the requirements to grow Better Cotton differ per category of farmer. Please refer to the Better Cotton Assurance Program for detailed explanations of these requirements.

Cotton farming takes place under a wide range of environmental, social, economic, geographic and climatic conditions. While broad issues (the Production Principles and Criteria) have been identified that are important across this diverse range of conditions, the management options available to a farmer to address a particular issue varies with these

conditions. The identification of appropriate better management practices and implementation techniques to best deal with these issues in a given situation is best left to those responsible for working with farmers to meet the Better Cotton Production Principles and Criteria. Detailed information on specific ways available to farmers to address the BCI Production Principles and Criteria are developed by each implementing partner working with farmers to help them grow Better Cotton. BCI calls such information National Guidance Material (NGM). As every implementing partner contributes to the collective NGM, relevant information is continually built upon and added to. BCI's role is to facilitate access to this material, and to ensure that sufficient information is available so that each Criterion can be met. BCI identifies and distributes material that already exists, and develops material necessary to fill identified information gaps.

It is important to note that BCI is not endeavouring to address every environmental or labour issue associated with growing cotton. The Production Principles and Criteria focus on 6 issues that were identified and confirmed during the consultation phase as the most significant impacts to address at a global level. Nor does this document seek to cover all the potential problems that can occur in cotton farming within each of the 6 Production Principles. Rather, it seeks to provide an introduction to a number of the most significant global issues associated with cotton cultivation, and to explain the intended outcomes by having the Production Principles and Criteria met. To assist with this explanation, some examples of the types of broad practices that might be implemented have been provided. Again, these are designed to be illustrative only and are general in nature. They should not be relied upon as comprehensive or exhaustive solutions, especially as tensions may exist between different Criteria regarding what is the ideal practice.

1. Better Cotton is produced by farmers who minimise the harmful impact of crop protection practices

INTRODUCTION TO THE PRINCIPLE

Cotton is attractive to a range of pests, and subject to diseases and weed infestations. A range of techniques is available for their control and management: this includes the use of bio-control agents, pheromones and hormones; plant breeding and appropriate cultivar selection; various cultural and mechanical techniques; the application of conventional pesticides (both natural and synthetic) and more recently, the use of genetically modified plants.

However, the use of synthetic pesticides is a dominant form of crop protection. Given this dominance, and that inappropriate or improper use of pesticides can adversely affect human health, contaminate water sources, food crops and the environment generally, the focus of the Criteria under this Principle is two-fold:

1. The adoption of Integrated Pest Management and an emphasis on the use of pest control techniques other than pesticide application, in order to reduce reliance on pesticides. As well as the risks associated with pesticide use, over-reliance has led to pest resistance, disruption to populations of natural pest enemies and secondary pest outbreaks, all of which make crop protection more difficult and expensive;
2. The use of practices that minimise the potential harmful effects of pesticides.

As a mainstream initiative, BCI will work with all farmers, including those who choose to grow transgenic (also GM, biotech) cotton varieties, such as Bt cotton. BCI has adopted a position of being 'technology neutral' with respect to transgenic cotton. This means that BCI will neither encourage farmers to grow it, nor seek to restrict their access to it, provided it is legally available to them. The focus is on enabling farmers to make informed choices about the available technologies to use, and how to use them appropriately. BCI encourages informed decision making at the farm level, to change practices that ensure improved outcomes - environmentally, socially and economically.

The Criteria

1.1 An integrated pest management programme is adopted that includes the following principles:

- (i) growing of a healthy crop; and
- (ii) prevention of build-up of pest populations and of the spread of disease; and
- (iii) preservation and enhancement of populations of beneficial organisms; and
- (iv) regular field observations of the crop's health and key pest and beneficial insects; and
- (v) management of resistance.

DEFINITION

The definition of Integrated Pest Management (IPM) adopted by BCI is that of FAO in the International Code of Conduct on the Distribution and Use of Pesticides (Revised Version, 2002):

Integrated Pest Management (IPM) means the careful consideration of all available pest control techniques and subsequent integration of appropriate measures that discourage the development of pest populations and keep pesticides and other interventions to levels that are economically justified and reduce or minimise risks to human health and the environment. IPM emphasises the growth of a healthy crop with the least possible disruption to agro-ecosystems and encourages natural pest control mechanisms.

As well as IPM embodying the integration of a range of preventative and curative control measures for pests, IPM also requires an integrated approach to its implementation: integration of the technical knowledge appropriate in any given field situation on how to manage a pest, with the appropriate social processes for developing, sharing and imparting that knowledge so that farmers can make informed pest management decisions.

BCI INTENT

Rather than being a specific set of rules, IPM is better considered as the fundamental guiding approach to how a cotton farmer should protect their cotton crop from the many and varied pests attracted to it. The principles that underpin an IPM Programme should include:

- The interests of, and impacts on, producers, society and the environment are taken into account in the choice of crop protection techniques, such as the potential health and environmental impacts of pesticide use, and the need to manage genetically-modified varieties to prevent resistant insect and/or weed populations, and the risk of cross-fertilisation of any neighbouring cotton that is not genetically modified
- A range of pest control strategies should be used in an integrated manner, with no single strategy (particularly pesticide application) being overly relied upon, and that both preventative and curative measures are used
- The presence of pests should not automatically lead to control measures being applied
- When control of pests becomes necessary, non-chemical pest control methods should be considered first; the use of pesticides (especially those with broad-spectrum activity) should be seen as a last resort.

The objectives/benefits of implementing IPM include:

- Reduced use of pesticides, and the subsequent reduced risk to human health and the environment
- Use of a wider range of control techniques and reduced reliance on a single method of pest control, leading to a more resilient approach to crop protection.

The specific techniques that can be implemented in any one farmer's field will depend upon a range of agro-climatic, seasonal, socio-economic and political factors, and BCI will not endeavour to prescribe what these should be. The identification and promotion of the specific and most appropriate pest management techniques suitable in a given location is best left to local experts. Nevertheless, there is a range of broad strategies available, examples of which are provided here to help paint a picture of what field-level practices might be included within an IPM Programme:

- Preserving and enhancing populations of beneficial organisms: tactics include planting refuge and / or intercrops - crops that provide a habitat for beneficial animal species; use of attractants; release of beneficial insects; choosing the least disruptive (i.e. a narrow-spectrum) insecticide if this type of control is deemed necessary; maintaining on-farm habitat biodiversity
- Prevention of pest population build-up: tactics include use of crop rotation to break pest and disease cycles; keeping the farm weed-free; avoiding planting crops that host pests
- Ensuring a healthy crop that can withstand some degree of damage: tactics include good soil and bed preparation; choice of appropriate variety and planting date; appropriate water and nutrition management; and harvest management and timing
- Regular monitoring of the crop for pests, beneficial insects and crop damage, in conjunction with the use of appropriate pest thresholds so that some degree of toleration of crop damage can be accepted
- Management of resistance: tactics include rotation of insecticide groups; adoption of pest and damage thresholds; limiting the total number of applications of any one class of insecticide; use of trap crops; use of mechanical means to control a pest (e.g. destruction of overwintering pupae through cultivation); selection of insecticides that are least disruptive to beneficial insects
- Managing the crop to early maturity to reduce the length of time the crop is exposed to pests, and especially late-season pests
- Use of non-chemical means of control: tactics include encouraging bird and bat species that act as predators to cotton pest populations; use of pheromones
- Use of border crops (e.g. maize, sorghum) around cotton fields to provide a physical barrier to pests and which mask the odours given off by cotton plants.

1.2 Only pesticides that are:

- (i) **registered nationally for the crop being treated; and**
- (ii) **correctly labelled in the national language are used.**

DEFINITION

Pesticide means any substance or mixture of substances intended for preventing, destroying or controlling any pest, including vectors of human or animal disease, unwanted species of plants or animals causing harm during or otherwise interfering with the production, processing, storage, transport or marketing of food, agricultural commodities, wood and wood products or animal feedstuffs. The term includes substances intended for use as a plant growth regulator, defoliant, desiccant or agent for thinning fruit or preventing the premature fall of fruit, and substances applied to crops either before or after harvest to protect the commodity from deterioration during storage and transport.

Thus the term includes insecticides, herbicides, fungicides and acaricides, growth regulators, defoliants, conditioners and desiccants, as well as bio-pesticides. No distinction is made between synthetic or natural substances that are applied for any of these purposes.

BCI INTENT

The use of pesticides can pose risks to humans, animals and the environment. Different types of pesticide carry different types and degrees of risk that need to be taken into account. It is therefore important to understand the specific risks associated with each particular type of pesticide so that appropriate precautions can be taken. The labels provided with legally registered pesticides contain important information regarding the properties of the product being used, directions for use and the precautions and measures that should be adopted when using it, all of which need to be followed. The label should contain information on: the type of application equipment and protective equipment that should be used; the appropriate rate and volume of water to be used; any restrictions on use; first aid information; the crop(s) the product is registered for, product compatibility and container disposal requirements. Further information on these matters is available from the product Material Safety Data Sheet (MSDS).

Registration of a particular pesticide for a crop indicates that the relevant regulatory authority has assessed the risks associated with using the pesticide on the crop(s) it has been registered for, and that suitable, crop-specific directions for use have been developed. In particular, the rate (volume per unit area) at which a pesticide is to be applied, and any withholding period (the time that must be allowed to elapse after the application of a pesticide before the crop can be harvested) that must be observed, will be influenced by the crop being treated. Use of a pesticide on a crop for which it is not registered – especially food crops – increases the risk of pesticides entering the food chain, as the appropriate application rates and withholding periods will not have been determined. Lack of registration may be due to a decision that the pesticide should not be registered for the crop.

Furthermore, high application rates may damage the crop or result in unacceptably high residues, while rates that are too low may be ineffective and lead to the development of pest resistance.

1.3 Pesticides listed in Annex A and B of the Stockholm convention are not used.**DEFINITION**

Stockholm Convention means The Stockholm Convention on Persistent Organic Pollutants (POPs), and which provides for the phasing out of production and use of POP's. It entered

into force in May 2004, and seeks to eliminate the use and production of chemicals that share a number of characteristics: highly toxic, persistent, can travel long distances and bio-accumulate in the food chain. The following pesticides are included on the list: aldrin, chlordane, chloredecone, dieldrin, dichlorodiphenyltrichloroethane (DDT), endosulfan, endrin, heptachlor, hexachlorobenzene, hexachlorocyclohexane, lindane, mirex and toxaphene.

1.4 Pesticides are prepared and applied by persons who are:

- (i) healthy; and**
- (ii) skilled and trained in the application of pesticides; and**
- (iii) 18 or older; and**
- (iv) not pregnant or nursing.**

BCI INTENT

Given the hazards associated with pesticide use, it is important that the people who use them are both healthy and trained. Workers who are not healthy, for example who are fatigued or sick, are more likely to have an accident than workers who are healthy, while workers with illnesses — especially liver or kidney diseases — may be more at risk. Equally, workers with open wounds have an increased risk of pesticides entering their body through the wound.

Farmers and workers need to be provided with the information and training they need to perform their work safely and without risk to their health. This leads to understanding about the extent of the hazard, associated risks, why risk controls are used and how to manage the risks. Training enables people to work more safely in the context of the hazards that are the focus of the training. The specific content of training is situation-specific and should be formulated in view of the local context.

People under the age of 18 should not apply pesticides as pesticide application is work 'which by its nature ... is likely to harm their health' and therefore classified as hazardous child labour (*see relevant page in the decent work section for a more complete discussion on Hazardous Child Labour and Child Labour in general*). Reasons for restricting the application of pesticides to people aged 18 and older include the physical nature of pesticide application, and the increased risk of fatigue, injury and poisoning for young workers, and also the likelihood that personal protective equipment, being designed for adults, may not fit properly and therefore not work properly — if it is used at all.

Pregnant and nursing women should not be involved in pesticide application, given the greater risks associated in exposing their developing foetus or nursing child to pesticides. Unborn and young children may be especially sensitive to pesticides for a number of reasons: the development of the foetus' nervous system may be adversely affected; young children do not have the same ability to detoxify pesticides, and their lower body weight makes them more susceptible than adults to the adverse effects of pesticides. As a woman may not be aware that she is pregnant in the early stages of her pregnancy, the ideal situation would be that women of child-bearing age do not apply pesticides at all.

1.5 Use of pesticides in any of the following categories:

- (i) **WHO list of hazardous pesticides Class 1a and 1b**
- (ii) **those listed in Annex III of the Rotterdam Convention**

is phased out, with the timeline based on the availability of better alternatives and ability for the risk to be properly managed.

DEFINITIONS

WHO Class I refers to those pesticides classified by the World Health Organisation as either Extremely (I a) or Highly (I b) Hazardous, based on their acute risk, that is the hazard referred to is “the risk of single or multiple exposures over a relatively short period of time that might be encountered accidentally by any person handling the product in accordance with the directions for handling by the manufacturer or in accordance with the rules laid down for storage and transportation by competent international bodies”. The classifications of pesticides according to WHO provided in Annexure 2 is of active ingredients, and only forms the starting point for the final classification of an actual formulation of a particular pesticide. Thus both the final WHO classification, as well as the detailed precautions necessary for the use of a pesticide, depend on the nature of the formulation of the active ingredient in question.

Rotterdam Convention means The Rotterdam Convention on the Prior Informed Consent Procedure (sometimes referred to as PIC) for certain hazardous chemicals and pesticides. Introduced in 1998 and entering into force in 2004, it is designed to ensure that any international trade of a substance that has been banned or had its use severely restricted in any country does not proceed without the prior and informed consent of the government of the country that the substance is being exported to. The Convention is a multilateral environmental agreement designed to promote shared responsibility and cooperative efforts among Parties in the international trade of certain hazardous chemicals, in order to protect human health and the environment from potential harm and to contribute to their environmentally sound use by facilitating information exchange about their characteristics, providing for a national decision-making process on their import and export and disseminating these decisions to Parties. Thus, information on the particular hazards associated with the substance, and methods for controlling the hazards have to be provided to the importing country prior to consent for the import of the substance being given.

A list of substances currently listed in the Convention is provided at *Annexure 2*.

BCI INTENT

BCI considers that it is in the interest of both the health of the farmer and the farming community, and of the environment, for there to be a reduction in the total toxicity of the pesticides applied to the crop. One method for reducing the total toxicity is to restrict access to certain types of pesticides, based on their toxicity. As FAO notes, restricting access to certain toxic pesticides, such as WHO Class I “may be desirable if other control measures or good marketing practices are insufficient to ensure that the product can be handled with acceptable risk to the user.”

However, BCI recognises that a blanket restriction on the use of a range of generally available pesticides may not be able to take into account either:

- The specific and immediate local impacts of such a restriction. For example, will a farmer have access to alternative products?
- The degree of risk associated with using the pesticide in different regional contexts, i.e. regions with access to different technologies will have differing abilities to minimise the risks associated with applying pesticides. Again, as noted by FAO: “Pesticides whose handling and application require the use of personal protective equipment that is uncomfortable, expensive or not readily available should be avoided, especially in the case of small-scale users in tropical climates”.

1.6 Pesticides are always prepared and applied by persons who correctly use appropriate protective and safety equipment.

DEFINITION

Personal protective equipment (PPE) refers to any clothing, coverings or devices designed to protect the user from exposure to pesticides, for example, gloves, boots, masks, face shields, head-gear, respirators and machinery cabs.

BCI INTENT

Pesticides can enter a person’s body through a person’s mouth (oral), their skin (dermal), or breathing (inhalation). The risk of entry will be affected by the formulation of the pesticide (e.g. liquid or dust), and how it is handled. Oral ingestion can result from eating or smoking while working with pesticides, from mistakenly consuming a pesticide stored in a food or drink container, from not washing hands thoroughly after working with pesticides or through use of a pesticide container for household purposes. Dermal absorption is a major route of poisoning, and can occur during handling, mixing and loading of pesticides, as well as during application, for example as a result of a leaking backpack applicator. Inhalation of pesticide dust and spray droplets can also occur during mixing and application.

The use of PPE should be seen as the last resort to protecting applicators from pesticide exposure. The best method is to remove the source of risk: that is, not to use the pesticide in the first place. Adoption of an IPM programme can assist in making use of pesticides a last resort. If a pesticide application is required, consideration then needs to be given to selecting one that poses the least risk to the user. For example, through choice of the less hazardous active ingredient, or choice of the least hazardous formulation for a given active ingredient. Preventing applicators being exposed to pesticides is essential for managing the risks of acute or chronic health injuries. The label should contain information on the appropriate protective and safety equipment to be used, based on the risks posed by the pesticide.

Where PPE is used to control risks associated with pesticides, it is essential that certain conditions be met in order for it to be effective. It should correctly fit each wearer and users need to understand how and why to use it. All PPE should be readily available, functional and correctly maintained and cleaned.

1.7 Pesticide application equipment and containers are stored, handled and cleaned so as to avoid environmental harm and human exposure.

BCI INTENT

Pesticide containers are a source of risk to the environment and human health, and appropriate storage will help to minimise this risk. What is appropriate will be affected by both the quantity and type of pesticide being stored. The local context will also strongly influence the storage options available to a farmer. Ideally, pesticides would be purchased only in the amounts required for immediate use, and used as soon as they are purchased so that the need for storage by the farmer is eliminated. However, it is recognised that this may not always be possible or practical. If pesticides need to be stored, they should be stored separately from all other substances, and the storage should protect the containers from the weather, to minimise the risks of the containers corroding or the pesticide degrading. Storage also needs to be in a secure and well-ventilated area so that they are protected from unauthorised access, and so that fumes do not pose a risk.

Pesticides should never be stored in drink or food containers. If it is necessary to store a pesticide in a container other than its original container, then the container must be clearly and appropriately marked.

Mixing and cleaning of pesticide containers and application equipment should be undertaken only while wearing appropriate personal protective equipment, and away from sensitive areas, especially water bodies and water courses, so that any run-off drains away from water bodies. Applicators should not eat, smoke or drink while applying pesticides, or when handling and cleaning containers and application equipment, and should have access to appropriate facilities for washing hands and changing clothes after handling or spraying pesticides.

1.8 Pesticides are applied in appropriate weather conditions, according to label directions, and or manufacturers' directions, with appropriate and well-maintained equipment.

BCI INTENT

The risk of off-target movement of pesticides is related to both the prevailing weather conditions, and the suitability of the equipment used to apply the pesticide. Weather conditions to take into account are wind speed and direction, temperature and relative humidity, and atmospheric stability.

Ideally, wind speed should be between 3 and 15 kilometres per hour (2 and 9 miles per hour), and blowing away from any sensitive areas. The application should be carried out in a crosswind, with the operator working into the wind towards the untreated area.

Temperature affects the rate of evaporation, and high rates of evaporation may result in a reduced droplet size for water-based formulations, leading to an increased risk of drift (small droplets are more likely to drift off-target than large droplets).

Application should not take place when rainfall is imminent. If it rains soon after application there is a real risk of off-site contamination (through the rain washing the recently-applied pesticides off the plant), and the efficacy of the application will be adversely affected.

As noted under *Criterion 1.2*, pesticide labels contain important information regarding the properties of the product being used, directions for use and the precautions and measures that should be adopted when using it, all of which need to be followed. The label should always be consulted for specific advice on appropriate weather conditions and application equipment.

Pesticides can be delivered in a number of forms (e.g. emulsions, wettable powders, granules), and can be applied with a range of equipment. Application equipment is designed and manufactured to be operated under certain parameters, and the equipment used needs to be appropriate to the form of the pesticide being applied. The equipment should also be in good condition, with no leaks or worn parts. Leaks pose a threat to the applicator and the environment, and worn parts may result in incorrect application rates and less effective treatment.

Application equipment should be cleaned after each use, to reduce the risk of contamination, and to keep it in good working order.

1.9 Used pesticide containers are collected by a recycling programme, or disposed of safely.

BCI INTENT

The focus of this Criterion is to prevent pesticide containers ever being used, either accidentally or intentionally, for any other purpose. Even if it is possible to clean containers to be free from residues, it is impossible to tell whether a container is clean or contaminated. Therefore this Criterion seeks to ensure that no pesticide containers are used for any household or other purposes, so as to reduce the risk of accidental poisoning through use of a contaminated container.

Used pesticide containers are also a potential source for environmental contamination, and proper disposal needs to reduce the risk of environmental contamination. The best disposal method will depend upon the nature of the packaging. Where possible, options for disposing of the container should be taken into account when making the decision to purchase a pesticide.

The label should contain advice on options for safe disposal. BCI recognises that many farmers may not have access to a container recycling or collection programme, and that external support will be important.

2. Better Cotton is produced by farmers who use water efficiently and care for the availability of water

INTRODUCTION TO THE PRINCIPLE

Water is a major limiting factor in cotton production. While cotton is a relatively drought tolerant crop, farmers who use water efficiently can grow more crop with the same volume of water than farmers who use water inefficiently. And inefficient water use – such as over-watering and waterlogging – can directly decrease crop yield. Efficient water management helps maximise productivity, and minimise cotton’s environmental impact.

Water is also used in the production of crops other than cotton, as well as in livestock watering, for human consumption and for recreation. The growth of the world’s population is placing a dual pressure on farmers: at the same time as there is increasing demand for food and fibre, there is also increased competition from other users of water, meaning that farmers will be expected to produce more, from the same or even lesser amount of water. It is therefore incumbent upon cotton farmers to use water – a common and vital resource – responsibly.

Good water use efficiency means the crop uses as much of the water delivered to the farm as possible. It therefore requires that inefficiencies – water losses – be reduced. Inefficiencies include deep drainage, leaks and evaporation during storage and conveyance around the farm, evaporation caused by excessive cultivation, poor infiltration of rainwater and the non-recycling of tailwater.

The Criteria

2.1 Water management practices are adopted that optimise water use.

BCI INTENT

BCI’s intention is that this Criterion applies to both irrigated and rain-fed cotton. The range of practices available to a farmer to optimise water use will be influenced by whether they rely on irrigation (and on how the irrigation water is delivered to the farm and the crop), rainfall, or a combination of both.

For rain-fed farms, optimising the use of water revolves around ensuring that water that falls on the farm can be captured on the farm and used by the crop. Use of cover crops, adopting a conservation tillage farming system, retaining crop stubble where possible, slowing the speed at which water flows across the farm (which will also help control erosion) and opportunity cropping are examples of ways to optimise water use. Note that capturing water on farm is subject to any local requirements to allow rainfall runoff to leave the farm.

For irrigation farms, optimising the use of water requires consideration of the range of issues noted above for rain-fed cotton farming, as well as the consideration of every stage of water

movement, from the initial extraction of the water, to its application and use by the crop, to the recycling of any water that runs off the crop. Thus optimisation of water use includes good management of storage and delivery systems, as well as of the irrigation of the crop itself. Inefficient water delivery systems and irrigation practices waste water, and can result in salinisation of the soil and rising water tables.

The need to manage salinity should also be considered as part of optimising water use. While cotton is a relatively salt-tolerant crop, cotton grown in soils affected by salinity may suffer reduced yields, and will not use water as efficiently.

Salinity can be caused in two main ways. Irrigation – induced salinity occurs when the irrigation water contains an excess of salts, especially sodium chloride. Where salt levels in the irrigation water are high, salt will be left behind in the top layers of the soil after the water has been used by the crop, and over time will build up. Salinity can also occur when the amount of water entering the groundwater is greater than the amount leaving, and results in a rising water table. The rising water table mobilises salts stored in the soil, and through capillary action they are moved to the soil surface.

2.2 Management practices are adopted to ensure that water extraction does not cause adverse effects on groundwater or water bodies.

DEFINITION

Groundwater refers to water under the ground, and water bodies (or body) refers to any body of water on the surface of the ground (e.g. lakes, streams, rivers). This Criterion applies to extraction from both regulated and unregulated water sources.

BCI INTENT

Groundwater withdrawals need to take into account other users, and must be sustainable. That is, they must not exceed the natural recharge of the groundwater system. If recharge rates are exceeded, the use is unsustainable, and may also result in land subsidence, collapse or consolidation of the aquifers (which reduces the storage capacity of the aquifer), salinisation of the aquifer and an increased risk of pollution. Pumping water from deeper levels will also result in increased pumping costs.

Surface water extraction needs to take into account other users of the water resource, and also the effect on aquatic eco-systems associated with the water body. Structures built to supply water to the farm need to minimise the disturbance of the surrounding environment (e.g. river and stream banks).

3. Better Cotton is produced by farmers who care for the health of the soil

INTRODUCTION TO THE PRINCIPLE

A healthy soil is the fundamental resource required for agricultural production. Soil contains the nutrients and water essential to crop growth. Cotton production by its nature, however, can adversely affect the very properties of a soil that make it valuable to farmers. Poor soil management can lead to large reductions in yield and off-site contamination. Soils need to be properly managed — cared for — to ensure cotton and other crops can continue to be grown.

DEFINITION

A healthy soil is one that:

- Provides the nutrients necessary for crop growth
- Has good structure
- Contains adequate organic matter and organisms
- Is not saline or sodic
- Does not have a pH that is too high or too low

The Criteria

3.1 Soil management practices are adopted that maintain and enhance the structure and fertility of the soil.

DEFINITION

Soil structure describes the arrangement of the soil particles: their size, shape and stability, as well as the size, shape and continuity of the spaces (pores) between the soil particles. Soil pores provide avenues for air, water and nutrient movement, root growth and the space for soil organisms, from microscopic fungi and bacteria to earthworms and beetles, to live. Soil structure influences many important soil properties such as the rate of water infiltration, water retention (water holding capacity), aeration, and drainage. A good soil structure helps provide roots with sufficient water, air and nutrients for good crop growth. Conversely, poor soil structure can result in restricted root growth, waterlogging and poor nutrient uptake, all of which reduce yields.

Microorganisms and organic matter play a key role in soil structure and soil health. Microorganisms convert plant material to soil humus, which in turn binds with soil particles to help form a stable soil structure. The stability of soil structure is affected by both the quantity and quality of binding agents such as organic matter.

BCI INTENT

Good soil management practices are required to maintain soil conditions that are optimal for plant growth over the long term. For example, zero or no-tillage, conservation tillage and minimum tillage systems that incorporate the use of cover crops and maintain crop residues help protect soil from erosion and promote good soil structure by protecting the organic matter, reducing the disturbance of soil micro-organisms, reducing soil compaction, increasing water infiltration and encouraging earthworm activity. The use of cover crops may also reduce nutrient leaching and help suppress weeds, while legume rotations can provide an alternative source of nitrogen as well as improving soil structure.

Cultivating the soil stimulates the breakdown of soil organic matter, incorporates crop residues under the soil surface (where it breaks down faster), disrupts soil structure and increases the risk of compaction.

3.2 Nutrients are applied on the basis of crop and soil needs. Timing, placement and quantity applied are all optimised.**DEFINITION**

The term 'nutrients' is to be interpreted broadly, and includes any material supplied to the crop for its growth, or to ameliorate or improve the soil. It includes organic fertilisers, mineral fertilisers, and synthetic fertilisers.

BCI INTENT

Cotton requires a number of nutrients for good crop growth, and deficiencies can reduce crop yields. Deficiencies in nitrogen (N), phosphorous (P), or potassium (K) in particular can significantly reduce yield, and a shortage of N may result in short and / or weak fibres. Each of these nutrients can be supplied in various forms (e.g. commercial fertilisers, compost, animal manure), and both the form they are supplied in and the stage of the crop they are applied at, will dictate the best options for optimal application.

The timing, placement and quantity of any fertilisers and soil conditioners applied are important factors that affect the uptake of nutrients by the crop, and the minimisation of nutrient losses to the environment. Timing and quantity need to ensure that the nutrients being supplied match the demands of the crop, while placement will influence the availability of the nutrients to the crop, and how efficiently they can be used. The optimal timing, placement and quantity applied will depend on the stage of crop growth, the nutrient being applied and form it is being applied in. The application of nutrients should match the needs of the crop to ensure that:

- 1) Money is not wasted on purchasing and applying nutrients that are superfluous to the needs of the crop; and

2) That the risk of excess nutrients leaving the farm and causing off-farm pollution (especially eutrophication) is minimised.

Furthermore, excess nitrogen may cause rank (excessive) growth of the cotton crop, leading to a longer growing season and greater exposure to pests, and weak, immature fibres. Rank growth also makes the crop more difficult to defoliate, and increases the potential for a high trash content in the lint cotton.

Soil nitrogen in particular is vulnerable to being lost to the crop either through leaching or denitrification, while phosphorus quickly becomes fixed in soil, and less available to the cotton crop; proper placement of P is crucial for optimal uptake by the crop. The potential for nitrogen and phosphorus to cause eutrophication, or to contaminate ground or surface water depends to a large extent on the local site and soil conditions. Locally-adapted better management practices need to be implemented to ensure that nutrients are applied effectively, and to mitigate and control the loss of these nutrients from the farm. As nitrous oxide is a greenhouse gas, efficient use of nitrogen will also help reduce the greenhouse gas emissions associated with cotton production.

3.3 Management practices are adopted that minimise erosion, so that soil movement is minimised and water courses, drinking water sources and other bodies of water are protected from farm run-off.

BCI INTENT

Erosion results in the loss of top soil (the portion of the soil that which contains the greatest level of organic matter and nutrients) reduced potential rooting depth and lower soil water holding capacity, all of which reduce soil fertility and productivity. Soil erosion can also have significant off-site affects, such as reduced water quality (through sedimentation and movement of farm chemicals that may be attached to that soil) and the eutrophication of water bodies through the transport of nitrogen and phosphorus. While erosion control is a critical concern for both irrigated and rain-fed farming systems, each system may have different techniques and strategies able to be implemented.

There are various types of erosion, but the most critical – from a farming perspective – is generally that caused by water movement. Controlling how water moves on the farm can reduce erosion and help protect water sources and water bodies from contamination.

Water that has run off from fields treated with pesticides may contain nutrients and traces of those pesticides, either dissolved in the water, or attached to the soil particles being carried by the water. Reducing water flows and erosion (the amount of soil carried by the water) protects soil fertility and helps to minimise the risk of off-site contamination.

One of the prime contributing causes of soil erosion is over-cultivation of the soil, which reduces soil organic matter levels and can also lead to a decreased ability for water to infiltrate the soil, leading to greater surface run-off. The amount of erosion is also linked to the speed with which the water is moving, making it important to manage and reduce the speed that water flows across the farm. Management practices that control water flows – such as strip cropping, maintenance of crop residues and groundcover, growing cover crops and use of earthworks such as contour banks and diversion banks — are therefore important considerations.

Water movement and erosion can be controlled by ensuring a good ground cover is present whenever possible (especially as cotton stubble does not provide particularly good ground cover over the off-season), and through minimising the number of times the soil is disturbed through tillage. Depending on the availability of suitable climatic conditions and crop options to grow, using crop rotations, strip cropping, inter-cropping and cover crops can provide additional benefits to erosion control: e.g. reducing reliance on added fertiliser; more efficient nutrient uptake; increased biological stability; reduced run-off; and reduced off-site contamination of surface waters.

The specific practices that may need to be implemented on the ground will depend on the prevailing circumstances of the field or farm in question: e.g. is the site at risk of erosion if appropriate management practices and/or structures are not implemented?

It is also important that extant erosion problems, such as gullies, be managed and repaired. Significant erosion problems may require immediate and drastic remedial work, as well as the long-term adoption of management practices designed to minimise erosion so that the problem can be stabilised and prevented from getting worse.

4. Better Cotton is produced by farmers who conserve natural habitats

INTRODUCTION TO THE PRINCIPLE

Habitat extent and quality has a direct and significant impact on biodiversity. Land used for the production of crops has typically been cleared of vegetation and natural habitats, and this clearing of habitat has a direct and significant negative impact on biodiversity. Biodiversity can be of utilitarian, aesthetic, recreational, intrinsic or ethical value to people, and is also linked to ecosystem resilience. The need to conserve natural habitats, and therefore biodiversity, is important for a number of reasons. A reduction in habitat reduces or eliminates the breeding, foraging or migratory routes of many species. The cultivation of single crops over a large area reduces the total number of species able to live within that area, and promotes the establishment of dominant populations that may become a pest. A more diverse habitat will provide for a more diverse range of species able to live there, and therefore allow for more potential competitors for potential pests.

To lessen their impact on biodiversity, cotton farmers can conserve or restore areas of natural habitat on their land, and adopt practices that minimise the negative impact on the habitat that surrounds their farm.

DEFINITION

A natural habitat is an area where the original biodiversity remains largely undisturbed by human activities. It may also include areas where once-disturbed biodiversity has been restored or regenerated by human or natural forces.

The Criteria

4.1 Practices are adopted that enhance biodiversity on and surrounding the farm.

DEFINITION

Biodiversity simply refers to the variety or range of life in a particular habitat. On farm biodiversity includes both the range of crops that are grown on the farm, as well as the range of natural / non-agricultural vegetation growing on the farm.

BCI INTENT

Maintaining on farm biodiversity is important for a number of reasons, including:

- It can provide a refuge for beneficial insects;
- It may act as a trap crop for crop pests;

- Crop rotation is also an important means for improving and maintaining soil health, for example through breaking disease cycles, fixing nitrogen and biological ripping of the soil.

The protection of riparian land — the land surrounding water bodies — is particularly important, as it is often the most fertile and productive part of the landscape. As riparian land is associated with water, it generally supports a greater diversity of plant and animal life than non-riparian land, and provides a refuge for animals during times of stress, such as drought or fire or hunting. It is important that riparian land is protected from farm run-off and that it is not cleared of vegetation. Removal of riparian vegetation can lead to the destabilisation of stream and river banks, and increased erosion. Practices implemented to address *Criterion 3.3* to minimise erosion will also help protect riparian zones, but given its special importance in the landscape, riparian land may require special attention to ensure it is protected from farm run-off. For example, it may be possible to direct water that leaves the farm away from riparian land, or to have well-vegetated buffer strips placed between riparian land and the crop.

Management practices adopted to help achieve other Criteria, such as IPM, pesticide choice (using the least disruptive option), soil fertility, and erosion control, will all contribute to enhancing biodiversity both on and off the farm. Opportunities to provide or enhance off-farm biodiversity through local/national producer collaboration may be possible, and should be explored.

4.2 The use and conversion of land to grow cotton conforms with national legislation related to agricultural land use.

A fundamental requirement of growing Better Cotton is to abide by applicable national and other applicable laws. National legislation governing land use may include provisions that directly and indirectly protect natural habitats and biodiversity.

5. Better Cotton is produced by farmers who care for and preserve the quality of the fibre

INTRODUCTION TO THE PRINCIPLE

As cotton is grown first and foremost for its fibre, the quality of the fibre grown by the farmer is fundamental to its marketability and value. The efficiency of the gin will be affected by the level of trash and contamination of the seed cotton, and the quality and therefore value of yarn that can be spun is directly related to the quality of the lint cotton delivered to the spinning mill (the cost of the cotton can represent up to 65 % of the total operating costs for a spinning mill). Continuing advances in spinning technology are placing greater and greater pressure on cotton farmers to supply cotton that is generally longer, stronger, finer, more uniform and free from contaminants. These characteristics of the cotton are of particular importance to the spinning mills, to maximise the speed and efficiency at which they operate.

Three broad characteristics of the cotton are important: the inherent fibre characteristics, the level of trash (i.e. waste), and the level of contamination. The seed cotton delivered to gins should be as low in trash as possible, free of contaminants, and not too wet or dry. The value of cotton lint is related to both the quality of yarn that can be produced from it, and the efficiency with which this yarn can be produced. It is therefore essential that farmers consider the needs and requirements of these users of the cotton that they grow. It is also generally the case that the higher the quality of the cotton, the higher its value, which should lead to a better price for the farmer.

The glossary details the major fibre attributes either measured by or of importance to the spinning mill and includes a brief indication as to why the attribute is important.

DEFINITION

Quality is used by BCI to refer to the suite of characteristics that are important for determining the spinning value of cotton. These include staple length, length uniformity, strength, micronaire, short fibre content, colour, spottiness, stickiness, neps, contamination, trash content etc. Thus for the purposes of BCI, it includes both intrinsic fibre characteristics (generally governed by the interaction between genotype, seasonal conditions and farm management), such as length and strength, and extrinsic properties, such as the level of contamination.

BCI INTENT

This diverse range of quality characteristics includes both aspects that are directly influenced by genetic and seasonal considerations and conditions – and which can nevertheless also be influenced by farm management decisions —and aspects under the direct control of the farmer, such as the level of contamination. The focus on quality therefore includes the need to manage intrinsic fibre characteristics to the extent possible (*Criterion 5.1*), as well as man-made contamination and trash content (*Criterion 5.2*).

BCI is not establishing a base quality grade that has to be achieved to meet this Production Principle. Rather the focus is on promoting the adoption of practices that are aimed at producing the best quality cotton possible under the prevailing circumstances – taking into account the market that the cotton is being produced for.

BCI is focused on the farm and therefore on those aspects of cotton production that are under the control of the farmer. When it comes to transporting cotton from the farm, and managing the contamination risks associated with transport – given the importance of this stage of the cotton production system for maintaining this aspect of quality — BCI recognises that responsibility and therefore the ability to manage contamination risks will vary. However, as it is possible that the farmer may be directly responsible for transporting cotton from the farm to the gin, this situation is included within the scope of this Principle, under *Criterion 5.2*.

The Criteria

5.1 Management practices are adopted that maximise the fibre quality.

BCI INTENT

Cotton cultivars vary in their fibre quality attributes, and the choice of cultivar is a significant factor in determining fibre quality. Also, the characteristics of the lint actually grown by a farmer will vary according to seasonal conditions.

BCI recognises that the ability of a farmer to influence the characteristics of the fibre they produce will vary according to the characteristic in question (some are more sensitive to farm management than others), and the geographic and seasonal conditions, such as rainfall, daytime and night time temperatures, soil type and pest pressure. Nevertheless, there is a range of management practices that are within the control of the farmer, which if implemented, will help ensure (in the absence of unseasonal weather conditions) that the full potential of the fibre attributes of the cultivar can be reached.

Crop management practices that can significantly affect fibre quality include:

- Choice of cultivar: is it appropriate for the local climatic conditions and the planting date?
- Planting date: does it take into account likely seasonal conditions and pest pressures?
- Planting rate and row spacing: are they appropriate for the variety, soil type and seasonal conditions?
- Nutrition management: poor nutrition can result in lower quality lint, while excess nitrogen can lead to excess growth, delayed harvest and excess levels of trash
- Irrigation management: for irrigated farms, it is important to ensure that the crop is not water-stressed during the critical stages of fibre development
- Disease management: diseases can stunt crop growth and lead to reduced cotton fibre quality

- Insect management: damage to bolls needs to be controlled, and late-season aphids and whiteflies need to be controlled to avoid 'sticky' cotton
- Weed management: weeds in the cotton crop may lead to contamination of the seed cotton and lint.

Generally, good management of these issues for their own sake will result in good fibre quality; thus proper irrigation scheduling to avoid stress and maximise yield will also maximise the quality of the fibre, and good insect management, as well as ensuring a crop yield, will avoid the risk of fibre damage or sticky cotton.

5.2 Seed cotton is harvested, managed, and stored to minimise trash, contamination and damage.

DEFINITION

Trash refers to the degree of cotton leaf remaining in the lint cotton after it has been ginned. Contamination refers to anything found in the lint cotton that is not cotton fibre, or cotton leaf. It includes weeds, bark from the cotton plant, and any man-made substances. Damage refers to degradation of the fibre, and can result from fire, or microbial activity. For example, if cotton is stored when it is too moist, or in conditions that are too moist, damage from microbes is likely.

BCI INTENT

While many of the characteristics of the fibre, such as length and strength, will already have been determined by the time the crop is ready to harvest, good management of the harvest – including of defoliation (where this practice is used), and of storage and transport of the seed cotton is essential to maintain the quality of the fibre, and to ensure that the cotton is not contaminated or damaged. Harvest timing and management will affect the level of trash, and as soon as people start handling the cotton, a contamination risk arises.

Contaminants can be very difficult to remove from cotton, and contamination can result in a significant downgrading – or outright rejection – of a lot of yarn, fabric or garments. Contamination is most likely to occur as a result of poor management practices during harvest, storage and transport, and ginning and baling (pressing). Care needs to be taken therefore to ensure that practices are adopted that reduce the risk of contamination. For example, choosing appropriate materials and methods for wrapping and storing cotton, and observing hygiene 'rules' during storage and handling.

Issues to consider therefore are: harvest management and general hygiene, choice of materials in which to pick and carry/move cotton, how and where cotton is stored, and how cotton is transported.

As noted above, cotton may be at risk of microbial damage if it is stored at too high a moisture content. Further, high moisture can increase the risk of fire. The choice of location for storing cotton is therefore important to minimise these risks.

6. Better Cotton is produced by farmers who promote decent work

INTRODUCTION TO THE PRINCIPLE

Decent Work

Decent Work is understood by the BCI as the concept originated by the International Labour Organisation (ILO) to describe work that provides opportunities for women and men to work productively in conditions of freedom, equity, security and human dignity. For the ILO, Decent Work encompasses four 'pillars': fundamental principles and rights at work and international labour standards; employment and income opportunities; social protection and social security; and social dialogue.

Decent Work has been endorsed by a wide range of international actors including the UN family, the G8 and the European Commission. The Millennium Development Goals were amended in 2008 so that MDG1 – to eradicate extreme poverty and hunger – includes a new target 'To achieve full and productive employment and decent work for all, including women and young people'.

As a means of describing how work contributes to equitable, inclusive and sustainable development, the concept of Decent Work enables BCI to develop a broad-based and consistent approach to the diversity of contexts in which cotton is grown, from family smallholdings to large-scale farms.

Evidently, not all four 'pillars' of the Decent Work Agenda are 'normative' – that is, giving rise to standards. The part of the Decent Work Agenda most relevant to the standards encapsulated in the BCI Production Principles is the respect of labour rights, expressed in international labour standards and in national labour legislation.

International labour standards

BCI considers the ILO, the UN specialised agency on work and employment, to be the international authority on labour matters. The ILO has developed a system of international labour standards. These standards primarily take the form of Conventions. In 1998, the ILO issued its Declaration on Fundamental Principles and Rights at Work which identified eight of these Conventions as 'fundamental'. These Conventions cover the four so-called 'core labour standards': freedom of association and the right to collective bargaining; the elimination of forced labour; the abolition of child labour and the elimination of discrimination in respect of employment and occupation. The 1998 Declaration commits all 183 ILO Member States to respect and promote principles and rights in these four areas, whether or not they have ratified the relevant Conventions.

In determining the content of its Decent Work Production Principle, BCI has referred to both other private voluntary standards bearing on primary agriculture and, primarily, the Conventions of the ILO which form the basis for these voluntary standards. While the BCI Decent Work Criteria are worded in their own terms, references are given to the key international standards (ILO Conventions) that BCI follows.

National labour and occupation health and safety legislation

As stated in the preface to this document, underpinning all the BCI Production Principles and Criteria is the fundamental premise that growing Better Cotton respects national law. This is particularly relevant to the Decent Work Principle. Many, and in some cases all, of the areas covered in the Principle are regulated by national law in cotton-producing countries. BCI therefore requires that all cotton producers abide by national labour and occupation health and safety legislation, unless that legislation sets standards which are below the referenced internationally recognised standards and conventions, in which case the international standards prevail. (This may, for instance, be the case in countries where agriculture is excluded from the scope of labour and occupation health and safety legislation.) However, where national legislation sets higher requirements on a specific issue than these standards, then national legislation shall apply.

BCI INTENT

The sustainability of global cotton production entails not only environmental but also social considerations. For BCI, Better Cotton is 'Better' only to the extent that it entails improvements for farming communities and farm workers, as well as the environment.

BCI understands that downward economic pressures bearing on developing country producers are an effective bar on improving both the environmental and social performance of cotton farming. In seeking to support the development of skills and institutions – particularly producer organisation – alongside facilitating access to information, BCI's commitment is to seek to change the circumstances which perpetuate and entrench unsustainable labour practices in many cotton-growing regions, and to enable investment in improvements for community, environment and workforce.

The meaningful application of 'labour standards' to global cotton cultivation is by no means straightforward. Within the sector, there are fluid boundaries between self-employment, family/community labour and waged labour. It is also important to note that agricultural waged workers do not form a homogeneous group of people: they may be full-time, seasonal, temporary, migrants, child labourers, indigenous workers, piece-rate workers or a combination of these. Moreover, the distinction between farmer and worker may be blurred, as many small farmers also work regularly for other farmers to supplement their income.

The numerical majority of cotton farmers worldwide are small-scale producers whose capacity to modify employment practices is closely related to farm economics. This is why BCI has adopted the broad perspective of Decent Work, in order to locate the promotion of labour rights within the broader context of BCI's commitment to farm-level capacity building on the basis of need. It also serves to explain why BCI has developed, in close consultation with stakeholders worldwide, a differential series of Decent Work Criteria, reflecting the different working realities of varying scales of cotton cultivation.

BCI CATEGORISATION OF FARMERS AND WORKERS

BCI recognises that there is a diversity of cotton farming, and that not all farms or farmers have the same needs or the same capacities. However, BCI is committed to the concept of a Better Cotton that can be grown by all cotton farmers, irrespective of their farm size or

landholding. Better Cotton will not be 'Better' if it is not achievable by all categories of farmers.

The Decent Work Production Principle is relevant in all forms of cotton farming, but has different provisions according to the size of the farm and the proportion of hired labour involved in cotton cultivation. In recognition of the difference in production methods and workforces used in cotton farming, BCI differentiates farms according to three categories: (i) smallholders (ii) medium farms and (iii) large farms. Smallholders and medium farms are grouped into Producer Units, whilst large farms go through the assurance process on an individual basis.

BCI defines smallholders as Producer Units where farmers are not structurally dependent on permanent hired labour. Smallholders manage their farm using mainly their own and their family's labour, but may use temporary/seasonal labour for specific activities or permanent labour in limited cases. The farm size does not exceed 20ha of cotton. BCI defines medium farms as Producer Units where farmers are structurally dependent on permanent hired labour. Farm size in the Producer Unit is between 20 to 200ha of cotton. BCI defines large farms as farmers which are structurally dependent on permanent hired labour. Farm size is above 200ha of cotton.

In the case where (1) there is an extreme minority of growers that are in a different category (for a particular Producer Unit, project or country), (2) cultivated area of a particular farmer change from year to year across categories: common sense is applied by the partner for the categorisation of farmers and confirmed by BCI before the start of the growing season.

Cotton workers, like farmers, do not form a homogeneous group of people. For the purposes of the Decent Work Principle, the term 'workers' refers to all waged employees of cotton farmers, including migrant, temporary, seasonal, sub-contracted and permanent workers. Where family members are employed directly by cotton farmers, the term 'workers' also includes them.

RESOURCES

General

ILO Decent Work

<http://www.ilo.org/global/topics/decent-work/lang--en/index.htm>

ILO International Labour Standards

<http://www.ilo.org/global/standards/lang--en/index.htm>

ILO Programme for the Promotion of the Declaration

www.ilo.org/declaration/lang--en/index.htm

Decent Work and the Millennium Development Goals

<http://www.ilo.org/global/topics/millennium-development-goals/lang--en/index.htm>

ILO Declaration

ILO Declaration on Fundamental Principles and Rights at Work. 86th Session, Geneva: June 1998.

www.ilo.org/declaration/thedeclaration/textdeclaration/lang--en/index.htm

Guidelines and Training Material

ILO, 2008. Guide to International labour Standards. International Training Centre of the International Labour Organisation.

http://www.ilo.org/wcmsp5/groups/public/---ed_norm/---normes/documents/publication/wcms_086223.pdf

ILO, 2005. Rules of the Game. A brief introduction to International Labour Standards

http://www.ilo.org/wcmsp5/groups/public/---ed_norm/---normes/documents/publication/wcms_084165.pdf

Agriculture Specific

Food Agriculture and Decent Work. FAO & ILO working together

www.fao-ilo.org/

FAO-ILO-IUF, 2007. Agricultural Workers and their Contribution to Sustainable Agriculture and Rural Development

www.fao-ilo.org/fileadmin/user_upload/fao_ilo/pdf/engl_agricultureC4163.pdf

International Union of Food, Agricultural, Hotel, Restaurant, Catering, Tobacco and Allied Workers' Associations (IUF)

www.iuf.org/www/en/

ILO, 2008. Promotion of Rural Employment for Poverty Reduction. Report IV, International Labour Conference 97th Session.

www.ilo.org/wcmsp5/groups/public/---ed_norm/---relconf/documents/meetingdocument/wcms_091721.pdf

ILO, 2003. Decent Work in Agriculture

http://www.ilo.org/sector/activities/action-programmes/agriculture/WCMS_161567/lang--en/index.htm

FREEDOM OF ASSOCIATION AND COLLECTIVE BARGAINING

The Criteria

Criterion applicable to all: smallholders, medium farms, large farms

6.1 Smallholders (including tenants, share-croppers and other categories) have the right, on a voluntary basis, to establish and develop organisations representing their interests.

Criteria applicable to medium and large farms

6.7 All workers and employers have the right to set up and join organisations of their own choosing, and to draw up their constitutions and rules, to elect their representatives and to formulate their programmes.

6.8 Workers and employers have the right to bargain collectively.

6.9 Workers have the right to belong to a trade union and carry out lawful union activities without any fear of anti-union discrimination.

6.10 Employers should provide access and reasonable facilities for workers' representatives.

DEFINITIONS

What is freedom of association?

Freedom of association refers to the right of workers and employers to freely form or join organisations that promote and defend their interests at work, without interference. The right to organise applies to all workers and employers, including persons in the informal economy.

What is collective bargaining?

Collective bargaining is a voluntary process through which employers (or their organisations), and trade unions (or in their absence, workers' representatives) discuss and negotiate their relations and interaction at the workplace. This process of bargaining aims to reach mutually acceptable agreements on issues including wages, contracts of employment, hours of work, leave, occupational health and safety, and so on. The ability for workers to bargain collectively with their employers is a major factor influencing workers' terms and conditions of employment.

Relevant ILO Conventions

The key reference points in this area are ILO Conventions No. 87 (Freedom of Association and Protection of the Right to Organise Convention, 1948) and No.98 (Right to Organise and Collective Bargaining Convention 1949). A more specific Convention (No. 141) relating to rural workers was adopted by the ILO in 1975. This convention provides that all categories of rural workers, whether they are wage earners or self-employed, shall have the right to establish and to join organisations of their own choosing.

BCI follows ILO Conventions 87 and 98. This entails that ‘workers and employers, without distinction whatsoever, shall have the right to establish and, subject only to the rules of the organization concerned, to join organisations of their own choosing without previous authorisation. Workers’ and employers’ organisations shall have the right to draw up their constitutions and rules, to elect their representatives in full freedom, to organize their administration and activities and to formulate their programmes’.

BCI INTENT

BCI recognises the fundamental importance of the right of association in order to represent and defend interests, and considers this right to enable to effective realisation of other labour rights. Freedom of association paves the way for improvements in social and labour conditions, for example through collective bargaining.

Within the global cotton context, however, this right takes on different inflections, given that in many producer countries in the developing world, cotton work is performed by smallholders who are neither exclusively ‘employers’ or ‘employees’.

In the context of family smallholdings where the majority of labour inputs derive from family members, organisation logically relates in the first instance to producer organisation. For this reason, the first Criterion on the right to association under the Decent Work Principle – and the only Criterion which applies to self-employed smallholders, as well as tenants and sharecroppers – refers to the right of smallholders to form and join organisations. This in no way contradicts the vital importance of worker organisation – captured in the following Criteria – but rather reflects the structure of the Principle, in which the initial Criterion applies to all production systems, including those where there are no external hired labour inputs.

The term ‘workers’ organisation’ as used in the Decent Work Principle refers to any organisation of workers with the aims of furthering and defending the rights and interests of workers. BCI considers independent trade unions the best means for achieving this. The recognition of a workers’ organisation for the purposes of representation and negotiation would typically take the form of the employer recognising in writing – and in practice – the right of all workers to establish and to join workers’ organisations of their own choosing and to collectively negotiate their working conditions.

Given the low rates of union density in any cotton production setting other than large-scale plantations, BCI has opted to iterate the fundamental right for workers to enjoy adequate protection against acts of anti-union discrimination solely in the context of medium and large farms. This in no way reflects a belief on the part of BCI that such discrimination is acceptable in other settings, but rather a desire to formulate standards which speak most directly and concisely to the particular context of farming to which they apply.

The same rationale guides the inclusion of rights of access and facilities for union organisers only in the context of medium and large farms. This Criterion means that the employer allows trade unions not based at the farm to meet and share information with the workforce at an agreed time and place without the interference of farm management.

RESOURCES

General

ILO resources on Freedom of Association and Collective Bargaining

<http://www.ilo.org/declaration/principles/freedomofassociation/lang--en/index.htm>

<http://www.ilo.org/global/standards/subjects-covered-by-international-labour-standards/freedom-of-association/lang--en/index.htm>

<http://www.ilo.org/global/standards/subjects-covered-by-international-labour-standards/collective-bargaining/lang--en/index.htm>

ILO Conventions

Freedom of Association and Protection of the Right to Organise Convention, 1948 (No. 87)

www.ilo.org/ilolex/cgi-lex/convde.pl?C087

Right to Organise and Collective Bargaining Convention, 1949 (No. 98)

www.ilo.org/ilolex/cgi-lex/convde.pl?C098

Rural Workers' Organisations Convention, 1975 (No.141)

www.ilo.org/ilolex/cgi-lex/convde.pl?C141

Agriculture Specific

FAO-ILO-IUF, 2007. Agricultural Workers and their Contribution to Sustainable Agriculture and Rural Development

ILO, 2008. Promotion of Rural Employment for Poverty Reduction. Report IV, International Labour Conference 97th Session.

HEALTH AND SAFETY

The Criteria

Criterion applicable to all: smallholders, medium farms, large farms

6.2 Access to potable and washing water is provided.

(See also Crop Protection Criteria)

Criteria applicable to medium farms and large farms

6.11 Workers receive regular health and safety training appropriate to the work that they perform.

6.12 Employers meet their workers' basic requirements, as specified above, and including a clean place to eat, and access to adequate medical care at no charge.

6.13 Employers identify work hazards, inform workers of safe work practices, and adopt preventive measures to minimise hazards in the workplace. Employers maintain records of any accidents and occupational diseases.

6.14 Employers ensure that measures are in place to deal with accidents and emergencies, including first aid and access to appropriate transportation to medical facilities.

DEFINITION

ILO Conventions and national legislation

BCI follows ILO Convention 155 which aims 'to prevent accidents and injury to health arising out of, linked with or occurring in the course of work, by minimising, so far as is reasonably practicable, the causes of hazards inherent in the working environment'.

The other key international reference points for labour standards in this area are the Safety and Health in Agriculture Convention 2001 (No.184), and the Plantations Convention, 1958 (No. 110). In particular, Convention 184 covers preventive and protective measures regarding machinery safety, handling and transport of materials, chemicals management, animal handling, and the construction and maintenance of agricultural facilities. Other provisions address the specific needs of young workers, temporary and seasonal workers, and of women workers before and after childbirth.

National legislation will typically establish minimum standards for policies and practices on health and safety in agriculture which will apply to the cotton sector, although this is not the case in all cotton producer countries. Where national legal requirements on occupational health and safety are more comprehensive than the Criteria above, as is the case in many producer states, these statutory standards must be met.

BCI INTENT

Health and Safety constitutes another key component of Decent Work central to a productive and sustainable agriculture. This is clearly reflected in the cross-reference to the agronomic Production Principle on Crop Protection which outlines the BCI approach to minimising impacts of Crop Protection practices on farmers, farm-workers, producer community and environment. The intent of this reference to the Crop Protection Principle is to ensure that the specified types of workers (under-18s, pregnant or nursing women, untrained and unskilled workers, and workers suffering from illness or injury) do not carry out potentially hazardous work, such as application of pesticides. This applies to all farms, as does the basic Criterion that drinking and washing water facilities must be placed within reasonable proximity to the workplace.

Most work related accidents and illness are preventable. Given the nature of activities in the cotton cultivation cycle, worker and farmer health and safety is a critical issue in cotton farming. It is also a key to the livelihoods of worker and small farmers in cotton cultivation: unlike in factory or office settings, there is no clear distinction between working and living conditions on smallholder farms. Moreover, it should be noted that investments in health and safety improvements can help to reduce absenteeism due to accidents and improve productivity.

The key risks for worker health and safety are that workers – family or hired, depending on regional context – are exposed to harmful toxins. This has grave implications for women farmers/workers, in particular, in terms of the impact of pesticides on women's reproductive health. Moreover, children who work on farms – and particularly on family farms – are especially vulnerable to unsafe and unhealthy working practices, resulting in injuries such as cuts and wounds, eye infections, skin problems, and fever and headaches caused by exposure to pesticides. For this reason, the Crop Protection Principle applies to all farms, large, medium, and smallholder.

In attributing employer responsibilities for worker health and safety, BCI has sought to balance the capacity of diverse cotton farms to meet the standard without compromising risks to the well-being of workers.

Training enables workers to work more safely in the context of the hazards that they are presented with. The appropriate level of training to be made available to employees of smallholders, medium farms, and large farms will depend largely on context and is most likely to be provided as part of an Integrated Pest Management Programme, described under the Crop Protection Principle above. In the case of certain key hazardous tasks, including spraying, working with hazardous chemicals, substances and materials and other potentially hazardous tasks such as operating vehicles and other machinery, good practice entails that workers' participation in training is formally recorded and regularly reviewed.

Work processes, workplaces, machinery and equipment on the farm should be as safe as reasonably practicable. Medium and large farms are expected to carry out a formal risk assessment of health and safety issues to identify risk areas and potential hazards.

The BCI Decent Work Criteria also entail that medium and large farms train a reasonable number of workers (in relation to the size of the operation) in first aid, that suitably stocked first aid boxes are readily accessible at all times, and that transportation to medical facilities is made available.

RESOURCES

General

ILO Programme on safety and health at work and the environment: Agriculture Sector (Safe work)

www.ilo.org/public/english/protection/safework/agriculture/index.htm

Food, Agriculture and Decent Work: ILO & FAO working together

<http://www.fao-ilo.org/more/fao-ilo-safety/en/>

Pesticide Action Network International

www.pan-international.org/panint/?q=node/33

Africa Stockpiles Programme

<http://www.croplife.org/case-study-africa-stockpiles-programme>

ILO Conventions

Plantations Convention 110 (1958)

www.ilo.org/ilolex/cgi-lex/convde.pl?C110

Safety and Health in Agriculture Convention 184 (2001)

www.ilo.org/ilolex/cgi-lex/convde.pl?C184

Guidelines and Training Material

ILO, 2010. Code of Practice on Safety and Health in Agriculture

http://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---safework/documents/normativeinstrument/wcms_161135.pdf

ILO, 2004. Health, Safety and the Environment: A series of Trade Union Education Manuals for Agricultural Workers

http://www.ilo.org/safework/info/instr/WCMS_110199/lang--en/index.htm

CHILD LABOUR

The Criteria

Criteria applicable to all: smallholders, medium farms, and large farms

6.3 There is no child labour, in accordance with ILO Convention 138.

Exceptionally, in the case of family smallholdings, children may help on their family's farm provided that the work is not liable to damage their health, safety, well-being, education or development, and that they are supervised by adults and given appropriate training.

6.4 For hazardous work, the minimum age is 18 years.

DEFINITION

What is child labour?

Child labour is work that is mentally, physically, socially or morally dangerous and harmful to children. It interferes with their schooling by depriving them of the opportunity to attend school, obliging them to leave school prematurely or to combine school attendance with excessively long and heavy work.

Not all work done by children is classified by the ILO as child labour that should be eliminated. Work that does not affect children's health and personal development or schooling can be a good thing, such as helping around the home or in a family business or earning pocket money outside school time. Whether a job is classified as 'child labour' depends on the child's age and the type and hours of work performed.

ILO Conventions and national legislation

In reality, there is no clear line separating 'good' children's work from 'bad' child labour. It is more practical to refer to two approaches to defining child labour, as does the ILO in its Conventions on child labour (C138 on minimum age and C182 on Worst Forms of Child Labour). These approaches focus on age and activity respectively.

- **Age:** according to the first approach, children under a certain age should not work. ILO Convention 138 sets this at 15 (14 in developing countries), or statutory school-leaving age, whichever is higher. The two main exceptions are: a lower minimum age of 13 (12) for 'light work' – which neither harms a young person's development nor prejudices school attendance – and a higher minimum age of 18 for hazardous work, defined below.
- **Activity:** according to the second approach, child labour is defined according to its negative effects on children. While 'light work' may be undertaken by younger workers from age 13, 'hazardous work' should not be performed by anyone aged

under 18. ‘Hazardous work’ is work which jeopardises children’s physical or psychological well-being, due to the nature or conditions of the work. This aspect is key in understanding the concept of child labour in cotton, because several activities relating to cotton cultivation may be deemed hazardous, including pesticide application and harvesting. Convention 182 calls upon ILO member countries to determine through national legislation the list of activities which would give rise to Hazardous Child Labour if performed by a worker aged under 18.

The combination of age and activity in defining what constitutes child labour is summarised below:

Source: International Labour Organisation	The minimum age at which children can start work	Possible exceptions for developing countries
Hazardous work Any work which is likely to jeopardize children’s physical, mental or moral health, safety or morals should not be done by anyone under the age of 18.	18 (16 under strict conditions)	18 (16 under strict conditions)
Basic Minimum Age The minimum age for work should not be below the age for finishing compulsory schooling, which is generally 15.	15	14
Light work Children between the ages of 13 and 15 years old may do light work, as long as it does not threaten their health and safety.	13-15	12-14

BCI INTENT

The issue of child labour is usually at the forefront of discussions when dealing with labour concerns in the cotton sector and is reported in many cotton-producing countries, mostly though not exclusively those characterised by high levels of smallholder production. Children contribute labour to cotton growing in these countries, primarily in cotton picking and to a lesser degree in weeding activities.

BCI considers that child labour is both a symptom and cause of poverty. Given the importance, and complexity, of the issue, BCI has given considerable thought to its approach, and consulted a broad range of parties, including the Regional Working Groups . This process brings to light the following key issues.

Contracted child labour is employed in some cotton-producing regions, including those regions where children’s contributions are commonly described as ‘family-based’ work. There is agreement that national and international standards should apply to the employment of children, governed by C138, or where national legislation sets a higher minimum age, by the law of the country in question. This minimum age of employment is at least 15 years of age, except in those developing counties which have temporarily set a lower threshold at 14 years, in accordance with ILO C138.

There is also broad agreement that hazardous work should not be undertaken by children and young workers aged under 18. The nature of activities in the cotton cultivation cycle which are deemed to constitute hazardous labour will be reviewed during implementation. As a minimum, the BCI Crop Protection Principle stipulates that pesticides are prepared and

applied by persons who are 18 or older. In many cases, national legislation enumerates further tasks to be considered as hazardous work and, in line with the ILO Convention 182 which provides for states to establish scheduled activities which would give rise to Hazardous Child Labour if performed by a worker aged under 18, BCI defers to national legislation for the definition of hazardous tasks other than pesticide preparation and application.

BCI's approach to child labour in family smallholdings seeks to foreground the basic issues at stake – the child's right to education, children's health and developmental well-being according to age and activity – while recognising the context of family smallholder agriculture in many developing country settings. For this reason, the Criteria refer to the following exception for smallholders: children aged under the national minimum age for access to employment may help on their family's farm in certain defined conditions, and these conditions are cumulative (that is, all of them must apply at the same time):

- children may only work on family smallholdings if their work is structured so as to enable them to attend school
- this work should not be so demanding as to undermine their education
- they should not perform tasks that are hazardous for them because of their age – that is, the hazardous work Criterion described above also applies to family smallholdings
- they must be guided – both in terms of learning skills and supervision of tasks – by a family member

A family smallholding is understood as a small-scale cotton farm which is not structurally dependent on external hired labour.

This exemption follows the logic of both the ILO Convention 138 and with other social sustainability standards in smallholder agriculture, including the recommendations of the ISEAL Alliance SASA harmonisation project. (The provisions of ILO C138 exclude 'family and small-scale holdings producing for local consumption and not regularly employing hired workers' (Art.5).)

RESOURCES

General

IPEC: International Programme on the Elimination of Child Labour, International Labour Organisation

www.ilo.org/ipec/lang--en/index.htm

ILO, 2002. Bitter Harvest: Child Labour in Agriculture

http://www.ilo.org/actrav/what/pubs/WCMS_111427/lang--en/index.htm

UNICEF Child Labour Resource Guide:

http://www.unicef.org/csr/css/Child_labour_resource_Guide_UK_NatCom.pdf

ILO & FAO working Together: Child Labour in Agriculture

www.fao-ilo.org/fao-ilo-child/en/?no_cache=1

ILO Conventions

ILO Convention 138 on Minimum Age

<http://www.ilo.org/ilolex/cgi-lex/convde.pl?C138>

ILO Convention 182 on Worst Forms of Child Labour

www.ilo.org/ilolex/cgi-lex/convde.pl?C182

Guidelines and Training Material

ILO, 2002. Eliminating the worst forms of child labour: a practical guide to ILO Convention no. 182.

www.ilo.org/ipecinfo/product/download.do?type=document&id=1200

ILO, 2006. Tackling hazardous child labour in agriculture: Guidance on policy and practice, User guide.

www.ilo.org/ipecinfo/product/viewProduct.do?productId=2799

ILO, 2007. Rooting out child labour from cocoa farms – A manual for training education practitioners: Ghana.

www.ilo.org/ipecinfo/product/viewProduct.do?productId=6448

ILO, 2005. Training resource pack on the elimination of hazardous child labour in agriculture.

www.ilo.org/ipecinfo/product/download.do?type=document&id=1759

FORCED LABOUR

The Criterion

Criterion applicable to all: smallholders, medium farms, large farms

6.5 Employment is freely chosen: no forced or compulsory labour, including bonded or trafficked labour.

DEFINITION

What is forced labour?

Forced labour is work exacted under the threat of penalty and for which the person has not offered himself or herself voluntarily. In essence, persons are in a forced labour situation if they enter work or service against their freedom of choice, and cannot leave it without penalty or the threat of penalty. Penalties can be extreme, such as beatings, torture, sexual assault or threats of physical violence, but can also include the withholding of identity documents or wages and threats of deportation.

Another penalty may involve imposing debt on workers (for instance, through large pay advances or transportation fees) that is difficult or impossible to repay on low wages: this is debt bondage, or bonded labour.

ILO Conventions and national legislation

The ILO has adopted two conventions on forced labour: The Forced Labour Convention, 1930 (No. 29), and the Abolition of Forced Labour Convention, 1957 (No. 105). These two conventions are among the most widely ratified of the ILO and they are considered as 'fundamental' conventions. The ILO Forced Labour Convention (No. 29) defines forced or compulsory labour as 'all work or service, which is exacted from any person under the menace of any penalty and for which the said person has not offered himself voluntarily'. Additionally, forced or compulsory labour performed by under-18s is considered as one of the worst forms of child labour in the Worst Forms of Child Labour Convention, 1999 (No. 182). Forced labour is normally unlawful under national legislation.

BCI INTENT

Forced labour is a documented phenomenon in different cotton growing regions. It is a concern in cotton plantations in Brazil, and in Pakistan and India in the form of debt bondage. There are also reports of forced child labour in cotton cultivation in Central Asia, India and trafficked child labour in some parts of West and Central Africa.

The underlying factors that contribute to forced labour and bonded labour include:

- The use of labour agencies with unreasonable service fees which can be repaid only by continued work
- Social exclusion, often connected to caste or tribe
- Asymmetric information, whereby illiterate workers are not aware of their rights and can be taken advantage of
- Labour migration – particularly the situation of (irregular) migrant workers, who are commonly unaware but also unable to assert their legal labour rights
- Financial and labour market monopolies, which limits the workers' employment and credit options; inequitable loan or credit schemes managed by the employer
- In-kind remuneration, which allows employers to exacerbate dependent relations and hide low wages
- Coercion on the part of state authorities (in a defined number of countries)
- There may also be situations whereby guards are present on the farm for protection: these guards may protect the farm, but not intimidate or prevent a worker from leaving.

The most important safeguard for all cotton farm employers is to fully disclose terms and conditions of employment prior to workers' recruitment, and to ensure that workers understand these terms.

BCI considers that forced labour is for the most part rooted in poverty, inequality and discrimination, and most often affects vulnerable and unprotected workers. Children, young workers, migrant workers and tribal or ethnic minorities are often among the least protected of workers, and at most risk of forms of coercion tantamount to forced labour. The BCI Criterion on forced labour is therefore closely linked to the Criteria on child labour and non-discrimination.

Moreover, it is important to understand the forced labour Criterion in the light of the BCI Enabling Mechanisms, particularly on access to finance. Bonded labour as it occurs in cotton-producing regions reflects a deficient interlocking of labour and credit markets. Workers are indebted to their employer as this in any cases represents the sole source of advance credit available to them. While promoting access to finance by no means represents a simple solution to the multiple challenges around bonded labour, it is commonly viewed as part of an effective package to change the dynamics whereby workers' debts – or indeed those of their parents – restrict their freedom of employment.

RESOURCES

General

ILO Website on Forced Labour

<http://www.ilo.org/global/topics/forced-labour/lang--en/index.htm>

ILO Special Action Programme to Combat Forced Labour

www.ilo.org/sapfl/lang--en/index.htm

Anti-Slavery International website

www.antislavery.org/

ILO, 2005. A Global Alliance against Forced Labour.

www.ilo.org/wcmsp5/groups/public/---ed_norm/---declaration/documents/publication/wcms_081882.pdf

ILO, 2009. The Cost of Coercion

www.ilo.org/wcmsp5/groups/public/---ed_norm/---relconf/documents/meetingdocument/wcms_106230.pdf

ILO Conventions

Forced Labour Convention, 1930 (No. 29)

www.ilo.org/ilolex/cgi-lex/convde.pl?C029

Abolition of Forced Labour Convention, 1957 (No. 105)

www.ilo.org/ilolex/cgi-lex/convde.pl?C105

Guidelines and Training Material

ILO, 2008. Combating Forced Labour- A Handbook for Employers and Businesses. International Labour Organisation: Geneva.

www.ilo.org/wcmsp5/groups/public/---ed_norm/---declaration/documents/publication/wcms_101171.pdf

NON-DISCRIMINATION

The Criterion

Criterion applicable to all: smallholders, medium farms, large farms

6.6 There is no discrimination (distinction, exclusion, or preference) practised that denies or impairs equality of opportunity, conditions, or treatment based on individual characteristics and group membership or association.

DEFINITION

Discrimination

Discrimination in employment means treating people differently and less favourably because of characteristics that are not related to their merit or the inherent requirements of the job. Common grounds for discrimination include – but are not limited to – gender, race, age, ethnicity, religious belief, disability, sexual orientation, marital status, family responsibilities, trade union membership or HIV/AIDS status. Distinctions based on the inherent requirements of a job are not be deemed to be discrimination.

Discrimination can take place at many different stages of a working relationship: hiring, on the job (e.g. allocation of work, remuneration, discipline, access to training or promotion, working conditions) and at the end of the relationship (dismissal). It can include intimidation, harassment (including sexual harassment) or bullying. Non-discrimination measures should apply to all workers.

ILO Conventions and national legislation

Among the ILO's eight fundamental conventions, two are related to equality of opportunity and treatment. The Equal Remuneration Convention, 1951 (100) enshrines the principle of equal remuneration for men and women workers for work of equal value. The term 'remuneration' is broadly defined to include the ordinary, basic or minimum wage or salary and any additional benefits payable directly or indirectly, whether in cash or in kind, by the employer to the worker and arising out of the worker's employment. The term 'equal remuneration for men and women workers for work of equal value' refers to rates of remuneration established without discrimination based on sex.

The Discrimination (Employment and Occupation) Convention, 1958 (111) provides a basic definition of the concept of discrimination as 'any distinction, exclusion or preference made on the basis of race, colour, sex, religion, political opinion, national extraction or social origin, which has the effect of nullifying or impairing equality of opportunity or treatment in employment or occupation'. 'Employment or occupation' is defined to include access to vocational training, access to employment and to particular occupations, and terms and conditions of employment.

Workplace discrimination is generally prohibited by national legislation, although the prohibited grounds and extent of protection differ between countries.

BCI INTENT

Freedom from discrimination is widely recognised as a basic human right. Discrimination at work is harmful to both employers and employees, preventing workers from making their fullest possible contribution to the workplace and impeding the creation of a harmonious, motivated and productive working environment. More broadly, employment discrimination generates socio-economic inequalities that undermine social cohesion and solidarity and slow poverty reduction. Given its fundamental importance, the BCI Criterion on non-discrimination applies to all farms, large and small. BCI also considers the principle of non-discrimination key outside the employment sphere, for instance in the formation and operation of producer groups.

Gender discrimination remains one of the greatest challenges to workplace equality in the cotton sector, partly as a result of pre-existing social attitudes and beliefs about gender roles. Women are frequently paid less than their male equivalents, despite the crucial role that they play in the labour force. Rural women in several smallholder contexts (such as in West Africa or South Asia) provide substantial labour input to the cotton cultivation cycle as 'unpaid' family labour or low-paid day labourers. They commonly perform some of the most arduous tasks, with over-representation in manual work such as picking and weeding. In addition, women workers often face significant difficulties in gaining access to credit and their views are often overlooked in decision-making processes as a result of entrenched gender bias in farming families.

Discrimination against indigenous, tribal or migrant workers is another important issue in the cotton sector. Migrant workers and members of ethnic minorities make up a large part of the cotton cultivation labour force in some regions and often face discrimination in relation to wages, working conditions and health and safety (e.g. performing more difficult tasks over longer working hours for less pay). These groups are particularly vulnerable to discrimination for a number of reasons. They may not have a strong awareness of their employment rights and may not even be eligible for the same protection under national legislation as citizens or permanent residents. Poverty, lack of proficiency in the local language and cultural misunderstanding may also invite prejudice and unfair treatment.

Combating discrimination is an essential part of promoting Decent Work and BCI seeks to ensure equal and respectful treatment in all matters for all workers engaged in cotton cultivation.

RESOURCES

General

ILO website on Non-Discrimination

www.ilo.org/declaration/principles/eliminationofdiscrimination/lang--en/index.htm

<http://www.ilo.org/global/topics/equality-and-discrimination/lang--en/index.htm>

ILO, 2003. Time for Equality at Work

www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_publ_9221128717_en.pdf

ILO, 2009. Gender Equality at the heart of Decent Work

www.ilo.org/wcmsp5/groups/public/---ed_norm/---relconf/documents/meetingdocument/wcms_105119.pdf

ILO Conventions

Equal Remuneration Convention, 1951 (N°100)

www.ilo.org/ilolex/cgi-lex/convde.pl?C100

Discrimination (Employment and Occupation) Convention, 1958 (N°111)

www.ilo.org/ilolex/cgi-lex/convde.pl?C111

Agriculture Specific

IUF, 2008. Workers and Unions on the Move. Organising and Defending Migrant Workers in Agriculture and Allied Sectors.

www.ituc-csi.org/IMG/pdf/IUF_migration.pdf

WB, 2009. Gender in Agriculture Sourcebook

www.fao-ilo.org/fileadmin/user_upload/fao_ilo/pdf/GAL_Sourbook.pdf

IDS, 2009. Gender Dimensions of Rural and Agricultural Employment. Differentiated Pathways out of Poverty

www.fao-ilo.org/fileadmin/user_upload/fao_ilo/pdf/Overview_paper/Overview__Final_.pdf

EMPLOYMENT CONDITIONS

The Criteria

Criteria applicable to medium farms and large farms

6.15 Waged workers are paid wages at least equivalent to the applicable legal national minimum wage or regional norm, whichever is higher.

6.16 Where workers are paid at a piece-rate, this rate permits the worker to earn the applicable national minimum wage or regional norm (whichever is higher) during normal working hours and under normal operating conditions.

6.17 Workers are paid regularly in cash, or in a form that is convenient to them.

6.18 The principle of equal pay for work of equal value is observed.

6.19 The worker's consent is obtained in advance as regards all working conditions.

6.20 Workers are employed under legally binding (preferably written) contracts of employment.

6.21 Adequate records are kept in accordance with national law, but in any event sufficient to enable monitoring.

6.22 Temporary, seasonal and (sub-) contracted workers receive equivalent benefits and employment conditions to permanent workers in relation to their period of employment.

6.23 Working hours comply with national laws or relevant collective agreements, whichever is more favourable to the worker.

6.24 Overtime work is voluntary and remunerated in accordance with the law or applicable collective agreements.

DEFINITION

Terms and conditions of employment vary tremendously across the agricultural waged workforce. Working terms and conditions in the cotton sector are influenced by a range of factors such as the type of working arrangement (e.g. permanent, casual, seasonal, migrant, piece rate), the nature of the job and the employer's geographic location and size. The extent to which national labour law regulates working conditions varies according to the level of development and local living standards in each country.

Wages are undoubtedly among the most important working conditions, with an obvious and critical link to the living standards of workers and their families. The term 'wages' refers to the total remuneration paid to workers for their labour, including monetary compensation provided on an hourly, daily, weekly or monthly basis, piece work rates, bonuses and in-kind payments, such as food and housing. Piece work rates are wage payments on the basis of a fixed rate according to units or actions completed, such as a certain amount of cotton picked, rather than on the basis of time worked.

In general, wages in the agricultural sector are low and many agricultural workers live below the poverty line. Wages may be affected by conditions beyond workers' control, such as adverse weather conditions, which mean that workers are not paid for unproductive time. Many workers may need to work long hours to earn a basic wage, especially where they rely on piece work rates. To protect these workers, national labour legislation and collective agreement may establish a minimum wage, a minimum monetary rate that employers may pay employees for their labour. It is often expressed as an hourly rate and may vary across sectors or regions. However, the agricultural sector is often exempted from the requirement to pay a minimum wage, or may be subject to a lower rate. Alternatively, certain categories of workers that are common in agriculture may be excluded from minimum wage protection, such as casual, piece-rate and seasonal workers. Regional wage norms may exceed the legal minimum wage, particularly where minimum wage rates are low and insufficient to meet basic needs, and workers should be paid whichever is higher. Where workers rely on piece work rates, it is important that this rate permits them to earn at least the minimum wage or regional norm.

Wages should be paid regularly and on time. In extreme situations, debt bondage or forced labour can arise where wages are not paid for long periods of time. This can also be a problem if a large component of wages consists of in-kind payment rather than cash, as reduces workers' discretionary income and their freedom to decide on how to meet their own needs. Consequently, the provision of in-kind payment is often strictly regulated by national legislation or collective agreement and restricted to a percentage of the overall wage.

The principle of equal pay for work of equal value means that men and women are paid the same rate for performing work that is the same, broadly similar or of comparable value. Determining whether jobs are of comparable value can be complex, but rates should be established without reference to gender. 'Pay' should be understood as a broad concept that includes all payments, including basic wages, bonuses and non-monetary benefits.

An employment contract is an agreement between the employer and the employee on the employee's basic terms and conditions of employment. In general, contractual arrangements in the agricultural sector tend to be concluded verbally rather than in writing. However, regardless of the form of agreement, any changes to an employee's working conditions (such as working hours) represent a change to this agreement and should therefore be made with the prior consent of the employee.

The content of contracts in the agricultural sector varies hugely, as a result of the wide variety of employment and other working relationships; for example, seasonal, daily and permanent employment; task or piece rate work; sharecropping or contract farming. Temporary working arrangements, such as seasonal, casual, daily, and contract labour, are prevalent in the agricultural sector. Workers under these arrangements do not enjoy the length of tenure or employment security as permanent workers, but should receive equivalent benefits and employment conditions relative to their period of employment, such as wages, overtime payments, rest times and health and safety protection.

Working hours are another basic working condition with a strong impact on workers' health and quality of life. Maximum limits for daily and weekly working hours, rest times, shift time and overtime are often set by national legislation, although the agricultural sector is commonly exempted from these laws. This is an important gap in the protection of agricultural workers, as many workers regularly perform arduous manual labour for long hours, which can be extended further during peak periods such as planting and harvesting. Despite health risks, workers may request these longer hours and even forego rest days in order to raise their income. Overtime hours must always be carried out with due regard for requirements in national legislation and collective agreements, including wage rates and health and safety.

RELEVANT ILO CONVENTIONS

A number of ILO conventions set standards relating to working conditions; these are directed towards legislating governments. Agricultural workers are not covered by the two main conventions on hours of work (ILO C1 and C30) or weekly rest (C14 and C106). In terms of wages, Convention C 99 requires states to establish minimum wages for the agricultural sector; the Equal Remuneration Convention, 1951 (No. 100) lays down the principle of equal remuneration for men and women workers for work of equal value (see 'Discrimination' above). The Plantations Convention, 1958 (No. 110) deals with conditions of employment of plantation workers. It covers conditions of work, contracts of employment, collective bargaining, methods of wage payment, paid leave, weekly rest, maternity protection, accident compensation, freedom of association, labour inspection, housing and medical care. It also covers the recruitment and engagement of migrant workers.

BCI INTENT

BCI does not consider it appropriate to determine 'cash standards' for cotton production, such as wages and working hours. Collective and individual agreement establishes these in national legislation, collective bargaining agreements and individual contracts of employment. BCI requires producer-employers to comply with national employment legislation and that national legislation prevails where it sets higher standards on particular issues than the BCI Criteria.

Due to the importance of wage employment in cotton cultivation and its relation with poverty, the issue of employment conditions is central to the promotion of Decent Work. The different Criteria under employment conditions are applicable to medium and large farms, but not to smallholders. These were drafted on the basis of consultation with the Regional Working Groups in the different focus regions which often considered the issue of employment conditions as essential in the situation of hired labour.

RESOURCES

General

ILO website on Working Conditions

<http://www.ilo.org/global/topics/working-conditions/lang--en/index.htm>

<http://www.ilo.org/global/standards/subjects-covered-by-international-labour-standards/wages/lang--en/index.htm>

<http://www.ilo.org/global/standards/subjects-covered-by-international-labour-standards/working-time/lang--en/index.htm>

ILO Conventions

Equal Remuneration Convention, 1951 (N°100)

www.ilo.org/ilolex/cgi-lex/convde.pl?C100

Minimum Wage Fixing Machinery (Agriculture) Convention 1951 (N°99)

www.ilo.org/ilolex/cgi-lex/convde.pl?C099

Plantations Conventions, 1958 (N°110)

www.ilo.org/ilolex/cgi-lex/convde.pl?C110

Agriculture Specific

FAO-ILO-IUF, 2007. Agricultural Workers and their Contribution to Sustainable Agriculture and Rural Development

www.fao-ilo.org/fileadmin/user_upload/fao_ilo/pdf/engl_agricultureC4163.pdf

ILO, 2008. Promotion of Rural Employment for Poverty Reduction. Report IV, International Labour Conference 97th Session

www.ilo.org/wcmsp5/groups/public/---ed_norm/---relconf/documents/meetingdocument/wcms_091721.pdf

BASIC TREATMENT AND DISCIPLINARY PRACTICES

The Criteria

Criteria applicable to medium farms and large farms

6.25 Employers do not engage in or tolerate the use of corporal punishment, mental or physical coercion, sexual or other harassment or physical or verbal abuse of any kind.

6.26 There is a transparent and clear policy and system for disciplinary measures and this is communicated to workers. The system includes fair warning principles and any disciplinary actions are proportionate to the conduct in question.

To a large degree, these Criteria are self-explanatory and for BCI, it is essential that every employee is treated with respect and dignity. While this may be self-evident, BCI considers it important to explicitly address this issue within the Decent Work Principle in order to reflect the importance of fairness and transparency in disciplinary practices.

Disciplinary practices are often regulated by national legislation, although the degree and nature of coverage varies considerably by country. In particular, many countries have specific national legislation making abuse in the workplace a criminal offence, as well as requirements that must be complied with where disciplinary measures lead to dismissal. It should also be noted that collective agreements often contain clauses on disciplinary procedures. The ILO does not have a specific convention addressing disciplinary practices. However, different UN agreements are relevant, such as the Universal Declaration of Human Rights, and most voluntary initiatives for managing working conditions in supply chains contain standards on disciplinary procedures.

Fair disciplinary procedures not only help to eliminate inhumane treatment of workers: they are a basic tool for sound people management that help to create a productive and harmonious workplace. In the case of medium and large farms, policies on disciplinary practices should provide a clear statement of what constitutes acceptable behaviour in the workplace and establish a fair and transparent framework to follow where there are allegations of misconduct. This ensures that all workers are aware of their rights and receive fair and consistent treatment.

ANNEXURE 1:

TERMS AND DEFINITIONS

A

Acre:

A unit of area equal to 4,840 square yards or 43,560 square feet. Approximately 0.4 hectares.

Atmospheric stability:

Is the resistance of the atmosphere to vertical motion. A large decrease of temperature with height indicates an unstable condition which promotes up and down air currents. A small decrease with height indicates a stable condition which inhibits vertical motion. Where the temperature increases with height, through an inversion, the atmosphere is extremely stable. Indicators of atmospheric instability include fast moving cumulus clouds and the build-up of thunderstorms.

B

Bale:

A unit of compacted cotton lint ready for shipping to the spinning mill generally wrapped in a protective covering and tied with bands or wires. By convention, a 'statistical' bale weighs 480 pounds. However, nominal cotton bale weights vary depending on the country of origin; for example, a standard bale weighs 227 kilograms (500 pounds) in Australia, 180 kilograms (396.6 pounds) in Brazil, and 170 kilograms (375 pounds) in India and Pakistan. Actual or physical bale weights will vary around the standard weight.

Beneficial insects:

Predators and parasitoids of pests.

Bio-control agents:

Parasites, predators or pathogens used to control the population of a pest. They may occur naturally in the field, or may be reared in a laboratory and released in the field as required.

Biodiversity:

The variety or range of life in a particular habitat.

Boll:

The fruit or seedpod of the cotton plant. Bolls typically have 4 or 5 segments (locks) that each contain 6 – 10 seeds, from which the cotton fibres grow.

Bract:

The opened segments of the boll, encasing the seed cotton.

C**Colour:**

Colour is a measure of the whiteness and brightness of the cotton fibre. Colour is directly affected by the weather, and length of exposure to the weather of the open boll. Colour will start to deteriorate as soon as the boll opens and the lint is exposed to moisture and light. Other factors that may affect colour include: pest damage, green leaf at harvest, seed cotton with too high a moisture content, incorrect storage and transport of cotton on dusty roads. Abnormal colour may indicate deterioration in quality, and variations in the colour of the raw cotton may lead to variations in the colour of the dyed fabric made from it.

Conservation tillage:

A tillage system that leaves at least 30 % of the soil surface covered with crop residue / plant matter.

Contamination:

Any foreign matter, i.e. any material in a lot of cotton other than cotton lint or trash (cotton leaf). It may be either be man-made (e.g. grease, plastic, cloth, hair, machinery parts) or natural (bark, grass, seed coat fragments).

Contamination can occur during picking, transportation and ginning, and include items such as jute, cloth/clothing, thread pieces, polyethylene, pieces of polypropylene string, human and animal hairs, metal items, birds' feathers, paper, cigarette packages, etc.

Cotton lint (raw cotton):

The cotton fibre separated from the seed cotton during the ginning process. Each cotton fibre is a single cell that arises from the cotton seed.

Criteria:

The Criteria listed under the Production Principles provide a greater level of detail as to the specific areas required to be addressed within each Production Principle.

Cultivar:

An assemblage of plants that has been selected for a particular attribute or combination of attributes, and that is clearly distinct, uniform and stable in those characteristics and that, when propagated by appropriate means, retains those characteristics. (International Code of Nomenclature for Cultivated Plants).

D**Decent Work:**

Decent Work is understood by the BCI as the International Labour Organisation (ILO) concept which describes work that provides opportunities for women and men to work productively in conditions of freedom, equity, security and human dignity. This concept is understood to encompass respect for the ILO core labour standards and national labour legislation, alongside the promotion of safe and productive work, social protection, and social dialogue.

Defoliation:

The removal of leaves from the cotton plant in preparation for harvest.

Denitrification:

The loss of plant available nitrogen through conversion of soil nitrates to nitrogenous gases through microbial action.

E

Eutrophication:

An increase in nutrients (especially nitrogen and / or phosphorus) in water; leads to excessive plant growth and decay that in turn may lead to algal blooms and a decline in water quality. An algal bloom can deplete the oxygen available for fish to breathe, and lead to their death.

F

Fibre length:

See Length.

G

Genotype:

The genetic make-up of an organism.

Ginning:

The process whereby the cotton lint (fibres) are removed from the cotton seed.

Grade:

Is the overall appearance of a sample of cotton, primarily based on a classer's assessment of colour, visible trash and preparation (ginning), where preparation describes the degree of smoothness or roughness with which the cotton is ginned and the relative neppiness and nappiness of the ginned lint. Longer cottons normally will have rougher appearance after ginning than shorter cottons. Naps are relatively easier for classers to detect, but they are not as detrimental to cotton quality as neps. OR Cotton classification by grade is defined as the art and science of describing cotton quality in terms of grade according to official standards. Grading is based on a visual inspection and evaluation of raw cotton quality.

H

Hectare:

A unit of area, equal to 10,000 square metres. Approximately 2.47 acres.

Honeydew:

A sticky, sugar rich waste excreted by aphids and whiteflies when feeding on the cotton plant. Can adversely affect crop growth, and when present on lint, cause difficulties in fibre processing (spinning).

I

Integrated Pest Management:

The careful consideration of all available pest control techniques and subsequent integration of appropriate measures that discourage the development of pest populations and keep pesticides and other interventions to levels that are economically justified and reduce or minimise risks to human health and the environment. IPM emphasises the growth of a healthy crop with the least possible disruption to agro-ecosystems and encourages natural pest control mechanisms. FAO's International Code of Conduct on the Distribution and Use of Pesticides (Revised Version, 2002).

L

Large farms:

BCI defines large farms as those farmers which are structurally dependent on permanent hired labour. Farm size is above 200ha of cotton.

Length:

The length of the cotton fibre. As with strength, generally the longer the better. While staple length is primarily determined by variety, seasonal factors may limit the ability of the variety to produce its maximum possible staple length. Critical stress factors for staple length are high temperatures, severe moisture stress and potassium deficiency.

Length uniformity:

Length uniformity is the ratio of the mean fibre length and upper half mean fibre length. The more uniform the fibre length, the better the cotton is for spinning, as variability makes it more difficult to produce yarns of uniform strength and quality. The lower the value of the measurement for length uniformity, the higher the percentage of short fibres in the sample, and spinning mill efficiency decreases, as the amount of waste fibre (i.e. raw cotton that does not end up in yarn) increases.

M

Maturity:

As the cotton fibre grows and matures, the cell wall thickens. Fibre maturity is determined by the degree of thickening of the cell wall of the cotton fibre relative to its perimeter. Fibre maturity can be affected by lower than normal temperatures during fibre development and timing of harvest.

Medium farm:

BCI defines medium farms as Producer Units where farmers are structurally dependent on permanent hired labour. Farm size in the Producer Unit is between 20 to 200ha of cotton.

Micronaire:

Micronaire is a combined measure of two different fibre attributes:

1. the thickness (fineness) of the fibre, i.e. its diameter; and
2. the thickness (maturity) of the fibre wall (cotton being a hollow tube) Fibre diameter is largely determined by genetics, while fibre wall thickness is determined by environmental factors, such as late season stress. Fibre fineness is important to the spinner as fine cotton allows more fibres per given cross-sectional area of yarn, making for a stronger yarn. Low micronaire (immature) fibre creates problems as it cause neps, and is likely to result in more short fibres and a lower length uniformity, all of which have a detrimental effect on spinning mill efficiency, and on the quality of the yarn and fabric produced from that cotton.

N**Natural habitat:**

A natural habitat is an area where the original biodiversity remains largely undisturbed by human activities. It may also include areas where once-disturbed biodiversity has been restored or regenerated by human or natural forces.

Naps:

Large, relatively loose clumps of fibres or matted masses of fibres (cf. neps). Generally the term 'nappy' describes lint that is rough in appearance. The formation of naps is often pronounced when seed cotton is wet and when the seed roll in the gin is too tight causing faulty removal of fibres.

Neps:

Neps are small clusters or entanglements of fibres, and may fall into 1 of 3 categories:

1. biological neps
2. mechanical neps
3. white specks.

Neps may be caused by environmental factors or processing; the exact level of contribution from each source is unknown. The list of potential causes is extensive, and includes immature fibres, poor staple length, moisture content, fineness, mechanical handling by the cotton picker and or gin, once-over harvesting practices, premature defoliation, disease and frost.

Longer and finer cotton fibres are more prone to form neps than shorter and coarser fibres. Neps in the cotton lint can translate into neps in the spun yarn, which in turn can reduce the quality of the yarn, as neps can result in white dots or specks in finished fabric.

O

Organic matter:

Carbon containing material in the soil derived from living organisms.

P

Parasite:

An organism that lives in or on another organism.

Parasitoid:

Parasites of insects that kill the host insect.

Personal Protective Equipment:

Any special clothing, material or equipment designed to provide protection against exposure to (PPE) pesticides.

Pesticide:

Any substance or mixture of substances intended for preventing, destroying or controlling any pest. The term includes substances intended for use as a plant growth regulator, defoliant, desiccant or agent for thinning fruit or preventing the premature fall of fruit, and substances applied to crops either before or after harvest to protect the commodity from deterioration during storage and transport. FAO International Code of Conduct on the Distribution and Use of Pesticides (Revised Version), 2002. The term includes insecticides, herbicides, fungicides and acaricides, growth regulators, defoliants, conditioners and desiccants, as well as bio-pesticides. No distinction is made between synthetic or natural substances that are applied for any of these purposes.

pH:

A measure of acidity or alkalinity. Cotton prefers soils with a pH of between 6 and 8.

Pheromone:

A substance secreted by an organism that affects the behaviour of the opposite sex of the same species.

POP:

Persistent Organic Pollutant (per the Stockholm Convention), considered to constitute a serious environmental hazard as they are extremely stable, persist in the environment, accumulate in high concentrations in fatty tissues, are bio-magnified through the food chain, are transported in the environment over long distances and have toxic and chronic effects on humans and animals.

Preparation:

A measure of the degree of roughness or smoothness of ginned lint cotton. Generally, smooth cotton will produce a smoother and more uniform yarn, with less waste, than rougher cotton

Production Principles:

Broad areas under the control of the farmer that are required to be addressed by the farmer for the production of Better Cotton.

Pupa / pupae:

The life stage of an insect undergoing transformation, e.g. between the caterpillar (larval) and moth (adult) stages of the life cycle of the cotton bollworm (plural: pupae).

Q

Quality:

The suite of characteristics of a lot of cotton that influences its suitability for yarn and textile processing. For the purposes of BCI, it includes both intrinsic fibre characteristics relating to its length, strength, fineness, maturity and colour, as well as extrinsic properties, in particular contamination.

R

Raw cotton (cotton lint):

The cotton fibre separated from the seed cotton during the ginning process. Each cotton fibre is a single cell that arises from the cotton seed.

Riparian land:

The land surrounding water bodies, rivers, streams etc.

Rotterdam Convention:

Rotterdam Convention on the Prior Informed Consent Procedure (PIC) for certain hazardous chemicals and pesticides was introduced in 1998, and is designed to ensure that any international trade of a substance that has been banned or had its use severely restricted in any country does not proceed without the prior consent of the government of the country that the substance is being exported to. Information on the particular hazards associated with the substance, and methods for controlling the hazards have to be provided prior to consent being given.

S**Saline / Salinisation:**

Soil with a high salt content (the process of becoming saline), especially sodium chloride. While cotton is a relatively salt tolerant crop, very saline soils will affect yields. The ability to grow some rotation crops (for example legumes) may also be adversely affected by saline soils. Indicators of salinity include: poor crop growth, increasing numbers of salt tolerant weeds and prolonged soil wetness.

Seed coat fragments (SCF):

Parts of the seed coat that remain attached to the fibre after ginning. Are undesirable.

Seed cotton:

The cotton lint, still attached to the cotton seed, as harvested from the plant and prior to ginning.

Short fibre content (SFC):

Short fibre content is a measure of the number of fibres below 12.7 mm / 0.5 inches in length. As with length uniformity, the fewer short fibres, the less waste cotton that is generated, and the better the efficiency of the spinning mill. Yarn quality is also improved with reduced short fibre content. Mechanically harvested cotton is more susceptible to having unacceptable levels of short fibres than hand-harvested cotton.

Smallholders:

BCI defines smallholders as Producer Units where farmers are not structurally dependent on permanent hired labour. Farm size in the producer unit does not exceed 20ha of cotton.

Sodic:

Soil with excessive level of sodium. Sodic soils are at an increased risk of structural instability, and may adversely affect crop growth. Indicators of sodicity include dispersion (the separation of sand silt and clay) on wetting, waterlogging, and crusting when dry.

Soil structure:

Describes the arrangement of the soil particles: their size, shape and stability, as well as the size, shape and continuity of the spaces (pores) between the soil particles.

Staple length:

See Length.

Stickiness:

Stickiness is caused by sugary deposits on the fibre left by either insects (e.g. honey dew from aphids, whitefly), or produced by the plant itself.

Spinning mills have nearly zero tolerance for stickiness due the significant damage sticky cotton may cause to a spinning mill. The sugary deposits adhere to the surfaces of the machinery in the spinning mill, necessitating the shutdown of the mill to clean the machinery, and thereby increasing production costs.

Stockholm Convention:

The Stockholm Convention on Persistent Organic Pollutants (POPs) provides for the phasing out of production and use of persistent organic pollutants. The following pesticides are included on the list: aldrin, chlordane, chloredecone, dieldrin, dichlorodiphenyltrichloroethane (DDT), endosulfan, endrin, heptachlor, hexachlorobenzene, hexachlorocyclohexane, lindane, mirex and toxaphene.

Strength:

Strength is a measure of a fibre sample's resistance to longitudinal stress and the stronger the fibre the better as there is a direct correlation between fibre strength and yarn and fabric quality. Strong fibres are required to allow today's high-speed spinning mills to operate at maximum capacity and efficiency. Fibre strength is a varietal characteristic, and is less influenced by adverse growing conditions than length and micronaire.

T**Tailwater:**

Water that has drained from the surface of the cotton field.

Tillage:

Mechanical manipulation of the soil.

Trash, trash content:

Cotton leaf material found in seed cotton or cotton lint. Trash content refers to the level of leaf in the ginned cotton. A balance needs to be struck between the level of trash removed during ginning and the subsequent adverse effects on fibre quality of increased cleaning to remove more trash. The more cleaning cycles employed, the greater the damage to the fibre, in particular fibre breakage, which leads to increased short fibre content. Poor defoliation is a major contributor to excess trash in the cotton, and rank growth needs to be managed to minimise the risk of excess trash content. Seed cotton usually contains various amounts of trash depending on harvesting method; hand-picked cotton is much less contaminated by trash than mechanically harvested cotton. Even when cotton is carefully harvested under ideal field conditions, it is very difficult not to include at least some trash. Although much of the trash is removed in the cleaning and drying processes during ginning, it is impossible to remove all trash. Minimizing trash content is important as it must be removed as waste, accompanied by a loss of fibre. Further, small fine particles of trash that cannot be removed detract from the quality and appearance of the manufactured yarns and fabrics. In general, cottons that contain the least amount of trash, other conditions being equal, are those with the highest spinning value.

W

Waterlogging:

A prolonged period of the plant roots being under water and which prevents oxygen being available to the roots. Results in impaired water and nutrient uptake by the plant, which in turn can adversely affect crop growth and yield.

Water table:

The point at which the ground is completely saturated. Below this level the pore spaces between every grain of soil and rock crevice completely fill with water.

WHO Class I:

World Health Organisation Class 1 a and 1 b: Those pesticides classified by the World Health Organisation as either Extremely (1 a) or Highly (1 b) hazardous, based on their acute toxicity.

Withholding period:

The time that must be allowed to elapse after the application of a pesticide before the crop can be harvested.

Workers:

BCI defines workers as all waged employees of cotton farmers, including migrant, temporary, seasonal, sub-contracted and permanent workers. Where family members are employed directly by cotton farmers, the term 'workers' also includes them.

ANNEXURE 2:**GUIDANCE ON CHEMICALS INCLUDED IN CATEGORIES WHO CLASS 1, STOCKHOLM AND ROTTERDAM CONVENTIONS**

The following lists are provided for guidance only, and not all compounds detailed in the relevant lists are included (for example, rodenticides have not been included in the WHO Class I lists). The original sources should be consulted for specific details, context and references.

Please also note that listing of a chemical in this annexure does not mean that that chemical is necessarily used in cotton production.

For WHO classification, the lists below are of the active ingredient; the final classification of any product depends on its formulation. As noted in The WHO Recommended Classification of Pesticides by Hazard (2004), with 2006 corrigenda, "The final classification of any product is intended to be by formulation. The classification given in the tables below is of active ingredients, and only forms the starting point for the final classification of an actual formulation."

WHO Class I a

Common Name	Notes
Aldicarb	
Brodifacoum	
Bromadiolone	
Bromethalin	
Calcium cyanide	
CaptafoL	<i>Listed in Rotterdam Convention</i>
Chlorethoxyfos	
Chlormephos	
Chlorophacinone	
Difenacoum	
Difethialone	
Disulfoton	
Diphacinone [ISO]	
EPN	
Ethoprophos	
Flocoumafen	

Hexachlorobenzene *Listed in Rotterdam Convention*
 Mercuric chloride *Listed in Rotterdam Convention*
 Mevinphos
 Parathion *Listed in Rotterdam Convention*
 Parathion-methyl *Listed in Rotterdam Convention*
 Phenylmercury acetate
 Phorate
 Phosphamidon *Listed in Rotterdam Convention*
 Sulfotep
 Tebupirimfos
 Terbufos

Source:

World Health Organisation http://www.who.int/ipcs/publications/pesticides_hazard_2009.pdf
 [pages 19-20]

WHO Class I b

Common Name	Notes
Acrolein	
Allyl alcohol	
Azinphos-ethyl	
Azinphos-methyl	
Blasticidin-S	
Butocarboxim	
Butoxycarboxim	
Cadusafos	
Calcium arsenate	
Carbofuran	<i>Listed in Rotterdam Convention</i>
Chlorfenvinphos	

3-Chloro-1,2-propanediol
 Coumaphos
 Zeta-cypermethrin
 Demeton-S-methyl
 Dichlorvos
 Dicrotophos
 Dinoterb
 DNOC *Listed in Rotterdam Convention*
 Edifenphos
 Ethiofencarb
 Famphur
 Fenamiphos
 Flucythrinate
 Formetanate
 Furathiocarb
 Heptenophos
 Isoxathion
 Lead arsenate
 Mecarbam
 Mercuric oxide *Listed in Rotterdam Convention*
 Methamidophos *Listed in Rotterdam Convention*
 Methidathion
 Methiocarb
 Methomyl
 Monocrotophos *Listed in Rotterdam Convention*
 Nicotine
 Omethoate
 Oxamyl
 Oxydemeton-methyl
 Paris green

Pentachlorophenol *Listed in Rotterdam Convention*

Propetamphos

Sodium arsenite

Sodium cyanide

Strychnine

Tefluthrin

Thallium sulfate

Thiofanox

Thiometon

Triazophos

Vamidothion

Warfarin

Zinc phosphide

Source:

World Health Organisation. World Health Organisation
http://www.who.int/ipcs/publications/pesticides_hazard_2009.pdf [pages 20-23]

**Rotterdam Convention
(Prior Informed Consent)**

Common Name	Notes
2,4,5-T and its salts and esters	
Alachlor	
Aldicarb	
Aldrin	<i>Listed in Stockholm Convention</i>
Binapacryl	
Captafol	
Chlordane	<i>Listed in Stockholm Convention</i>
Chlordimeform	
Chlorobenzilate	

DDT *Listed in Stockholm Convention*

1,2-Dibromoethane (EDB)

Dieldrin *Listed in Stockholm Convention*

Dinitro-*ortho*-cresol (DNOC) and its salts

Dinoseb and dinoseb salts

DNOC and its salts (such as ammonium salt, potassium salt and sodium salt)

Endosulfan *Listed in Stockholm Convention*

Ethylene dichloride

Ethylene oxide

Fluoroacetamide

HCH (mixed isomers)

Heptachlor *Listed in Stockholm Convention*

Hexachlorobenzene *Listed in Stockholm Convention*

Lindane *Listed in Rotterdam Convention*

Mercury compounds, including inorganic mercury compounds, alkyl mercury compounds and alkyloxyalkyl and aryl mercury compounds

Pentachlorophenol 2,4,5-T

Toxaphene *Listed in Stockholm Convention*

All tributyltin compounds including: Tributyltin oxide, Tributyltin fluoride, Tributyltin methacrylate, Tributyltin benzoate, Tributyltin chloride, Tributyltin linoleate. Tributyltin naphthenate

Dustable powder formulations containing a combination of: Benomyl at or above 7%, Carbofuran at above 10%, Thiram at or above 15%

Methamidophos (soluble liquid formulations of the substance that exceed 600 g active ingredient/L)

Methyl-parathion (emulsifiable concentrates (EC) at or above 19.5%, active ingredient and dusts containing 1.5%, 2% and 3% active ingredient

Monocrotophos (all formulations)

Parathion (all formulations – aerosols, dustable powder (DP), emulsifiable concentrate (EC), granules (GR) and wettable powders (WP) of this substance are included, except capsule suspensions (CS)

Phosphamidon (soluble liquid formulations of the substance that exceed 1000 g active ingredient/L)

As noted in The WHO Recommended Classification of Pesticides by Hazard (2004), "According to the PIC Convention, export of a chemical can only take place with the prior

informed consent of the importing Party. The PIC procedure is a means for formally obtaining and disseminating the decisions of importing countries as to whether they wish to receive future shipments of a certain chemical and for ensuring compliance to these decisions by exporting countries. The aim is to promote a shared responsibility between exporting and importing countries in protecting human health and the environment from the harmful effects of such chemicals (further information can be found at: <http://www.pic.int/>)”

Source:

World Health Organisation

**Stockholm Convention
(Annex A – ELIMINATION - Part I and Annex B-RESTRICTION- Part I)**

Common Name	Notes
Aldrin	
Chlordane	
Chloredecone	
Dieldrin	
Dichlorodiphenylt-richloroethane (DDT)	
Endrin	
Heptachlor	
Hexachlorobenzene	
Hexachlorocyclohexane	
Lindane	
Mirex	
Pentachlorobenzene	
Perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride	
Technical endosulfan and its related isomers	
Tetrabromodiphenyl ether and pentabromodiphenyl ether	
Toxaphene	

Source:

<http://chm.pops.int>

ANNEXURE 3:

SUMMARY OF RELEVANT ILO CONVENTIONS

CORE CONVENTIONS

The ILO has declared eight conventions as fundamental to workers' rights worldwide: these are summarised below. The eight conventions basically come down to four international labour standards:

1. Workers everywhere should have the right to organise in trade unions and negotiate their working conditions collectively.
2. Workers should be free from any form of forced labour, such as slavery, servitude, compulsory labour for political re-education, or debt indenture.
3. Children, meaning persons below the age of 15 (or as defined by national law), should not work so that they have the opportunity to learn and develop freely.
4. Discrimination on the grounds of gender, race, nationality, religion, political opinion or social origin is banned, as is discrimination in remuneration on the grounds of gender.

The eight ILO core conventions are international standards that apply to industrial countries as much as to developing countries (but are addressed to member states, not private sector actors). Because the ILO core conventions are essential labour standards, they have been integrated in a range of guidelines for companies, such as the UN Global Compact and the OECD Guidelines for Multinational Enterprises.

Freedom of Association

Freedom of Association and Protection of the Right to Organise Convention, 1948 (No.87)

This fundamental convention sets forth the right for workers and employers to establish and join organisations of their own choosing without previous authorisation. Workers' and employers' organisations shall organise freely and not be liable to be dissolved or suspended by administrative authority, and they shall have the right to establish and join federations and confederations, which may in turn affiliate with international organisations of workers and employers.

Right to Organise and Collective Bargaining Convention, 1949 (No. 98)

This fundamental convention provides that measures appropriate to national conditions shall be taken, where necessary, to encourage and promote the full development and utilisation of machinery for voluntary negotiation between employers or employers' organisations and workers' organisations, with a view to the regulation of terms and conditions of employment by means of collective agreements.

The Abolition of Forced Labour

Forced Labour Convention, 1930 (No. 29)

This fundamental convention prohibits all forms of forced or compulsory labour, which is defined as 'all work or service which is exacted from any person under the menace of any penalty and for which the said person has not offered himself voluntarily'. Exceptions are provided for work required by compulsory military service, normal civic obligations, as a consequence of a conviction in a court of law (provided that the work or service in question is carried out under the supervision and control of a public authority and that the person carrying it out is not hired to or placed at the disposal of private individuals, companies or associations), in cases of emergency, and for minor communal services performed by the members of a community in the direct interest of the community. The convention also requires that the illegal extraction of forced or compulsory labour be punishable as a penal offence, and that ratifying states ensure that the relevant penalties imposed by law are adequate and strictly enforced.

Abolition of Forced Labour Convention, 1957 (No. 105)

This fundamental convention prohibits forced or compulsory labour as a means of political coercion or education or as a punishment for holding or expressing political views or views ideologically opposed to the established political, social or economic system; as a method of mobilising and using labour for purposes of economic development; as a means of labour discipline; as a punishment for having participated in strikes; and as a means of racial, social, national or religious discrimination. Additionally, forced or compulsory labour is considered as one of the worst forms of child labour in the Worst Forms of Child Labour Convention, 1999 (No. 182).

Equality

Equal Remuneration Convention, 1951 (No. 100)

This fundamental convention requires ratifying countries to ensure the application to all workers of the principle of equal remuneration for men and women workers for work of equal value. The term "remuneration" is broadly defined to include the ordinary, basic or minimum wage or salary and any additional emoluments payable directly or indirectly, whether in cash or in kind, by the employer to the worker and arising out of the worker's employment.

Discrimination (Employment and Occupation) Convention, 1958 (No. 111)

This fundamental convention defines discrimination as any distinction, exclusion or preference made on the basis of race, colour, sex, religion, political opinion, national extraction or social origin, which has the effect of nullifying or impairing equality of opportunity or treatment in employment or occupation. It requires ratifying states to declare and pursue a national policy designed to promote, by methods appropriate to national conditions and practice, equality of opportunity and treatment in respect of employment and occupation, with a view to eliminating any discrimination in these fields. This includes discrimination in relation to access to vocational training, access to employment and to particular occupations, and terms and conditions of employment.

The Elimination of Child Labour**Minimum Age Convention, 1973 (No. 138)**

This fundamental convention sets the general minimum age for admission to employment or work at 15 years (13 for light work) and the minimum age for hazardous work at 18(16 under certain strict conditions). It provides for the possibility of initially setting the general minimum age at 14 (12 for light work) where the economy and educational facilities are insufficiently developed.

Worst Forms of Child Labour Convention, 1999 (No. 182)

This fundamental convention defines as a 'child' a person under 18 years of age. It requires ratifying states to eliminate the worst forms of child labour, including all forms of slavery or practices similar to slavery, such as the sale and trafficking of children, debt bondage and serfdom and forced or compulsory labour, including forced or compulsory recruitment of children for use in armed conflict; child prostitution and pornography; using children for illicit activities, in particular for the production and trafficking of drugs; and work which is likely to harm the health, safety or morals of children. The convention requires ratifying states to provide the necessary and appropriate direct assistance for the removal of children from the worst forms of child labour and for their rehabilitation and social integration. It also requires states to ensure access to free basic education and, wherever possible and appropriate, vocational training for children removed from the worst forms of child labour.

ILO Conventions applicable solely to agriculture

In addition to the core conventions cited above, there are some conventions which relate only to agricultural work.

Plantations Convention, 1958 (No.110)

This convention covers the recruitment and engagement of migrant workers and affords protection to plantation workers in respect of employment contracts, wages, working time, medical care, maternity protection, employment accident compensation, freedom of association, labour inspection, and housing.

Rural Workers' Organisations Convention, 1975 (No.141)

All categories of rural workers, whether they are wage earners or self-employed, shall have the right to establish and, subject only to the rules of the organisation concerned, to join organisations, of their own choosing without previous authorisation. The principles of freedom of association shall be fully respected; rural workers' organisations shall be independent and voluntary in character and shall remain free from all interference, coercion or repression. National policy shall facilitate the establishment and growth, on a voluntary basis, of strong and independent organisations of rural workers as an effective means of ensuring the participation of these workers in economic and social development.