

**SOURCE  
OF  
LIFE**

**FOODS  
FROM**

**Chile**

**CHILEOLIVA  
SECTORAL  
SUSTAINABILITY**



# COMMITMENT FROM THE SECTOR TO SUSTAINABILITY

The Chilean Association of Olive Oil Producers (ChileOliva) is a trade association made up of businesses which directly participate in the production of extra virgin olive oil. It aims to organise the industry and put Chilean extra virgin olive oil in the national and international markets.

**The growing presence of Chilean extra virgin olive oil in international markets forces the national olive industry to work proactively in all areas relating to sustainability and product competitiveness in order to incorporate aspects which are taken into consideration and valued by the most demanding markets into the management of their everyday operations.**

In this way, attempts are being made to strengthen the position of Chilean olive oil within the international context. With that being said, the country has already reached a level for which it has received many awards and accolades for the quality of its product.

Three years ago, ChileOliva began a campaign to make continued improvements on environmental matters. For its first project, an initiative for clean and efficient production was trialled as part

of an international cooperation project, which counted on participation from the World Environment Center (WEC) and was funded by the U.S. Department of State. During this pilot programme, a number of businesses pertaining to the association were visited and advised by specialists from the WEC and began to work on areas such as clean energy and efficient use of water. The programme lasted two years.

Building on this initiative in 2013, ChileOliva decided to replicate and extend its efforts throughout the entire national olive oil production industry through the Clean Production Agreement (CPA), with support from the National Council for Clean Production. The Agreement was signed during 2014, has a duration of two years and came into effect in December 2014. Businesses are currently working on implementing actions and the association is supporting them via training and site visits. Of the 38 businesses associated with ChileOliva, 20 adhere to the CPA.

The CPA has been confirmed by the industry as an instrument for managing production and the environment. It represents the authority for identifying



the most relevant environmental issues, setting management priorities, committing the industry to activities and goals which aim to improve production management and making a positive contribution to creating a more competitive industry with high standards of sustainability. The Agreement generates a more organised and effective alliance for accomplishing targets and deadlines which not only enables change but also allows for the impact of this change to be measured at an industry-wide level, whilst at the same time maintaining a constructive dialogue between public and private parties.

The main objectives of the ChileOlive Clean Production Agreement are:

- 1. To develop a set of sustainability indicators for the industry which take economic, environmental and social dimensions into account and which can be measured at an individual level and by the industry.**
- 2. To strengthen the management of efficient water use within the industry in order to provide conditions for measuring the water footprint caused by the olive oil production process.**
- 3. To establish an energy management system which allows for energy-**

**saving targets and goals to be devised and monitored, as well as the implementation of methods for measuring carbon emissions.**

**4. To improve the management and recovery of organic waste produced during olive processing.**

**5. To establish health and safety conditions which allow for the standards of workers in the working environment to be improved through the implementation of measures which give way to a reduced risk of accidents and illnesses in the workplace.**

**6. To strengthen the ability of the workforce via training in clean production and issues relating to sustainable development.**

**7. To encourage businesses to develop social responsibility activities.**





# ENVIRONMENT

## ENERGY

ChileOliva began its Clean Production projects with a pilot programme on clean production and efficiency. This programme formed part of an international cooperation project which counted on participation from the World Environment Center and was funded by the U.S. State Department. During this project, appraisals and checks were carried out on a number of the sector's businesses to assess energy management at field level and within the industry. This work paved the way for a subsequent assessment of the sector which found that energy was one of the industry's most important goals.

Consequently, **improving energy management from within the sector was incorporated as a third target in the Clean Production Agreement**. Work on this goal has been met with support from the Chilean Energy Efficiency Agency (ACHEE) with two projects: "Technical assistance for trade associations with voluntary energy efficiency agreements" and "Technical management for sectoral entities".

Thanks to both projects, businesses pertaining to the association have received support for complying with the Agreement, a baseline has been established for businesses and the industry, and new measures and improvements have been proposed. Currently, a number of businesses are evaluating technical and economic measures to be taken, while others are already implementing improvements. **It is expected that, once the Agreement has come to an end, energy consumption within the sector will have decreased.**

To assess this, sustainability Indicators have been created to measure the results of

businesses and of the sector. The indicators set out by the CPA for the industry are:

- Specific electrical energy consumption in the fields (KWh/m<sup>3</sup> of water used for irrigation).
  - Specific energy consumption in olive oil production plants (KWh/ kg of olive oil produced).
  - Specific energy consumption for fuel used in the fields (KWh/ha).
  - Specific thermal energy consumption in olive oil production plants (KWh/kg of olive oil produced)
- Percentage of renewable energy consumption.

## WATER

Thanks to the pilot programme on clean production and efficiency, introduced as part of the WEC project, appraisals and checks were carried out on a number of the sector's businesses to assess energy management and the efficient use of water at field level and within the industry. As with energy, the use of water as a resource constitutes one of the main areas of the current Clean Production Agreement.

**The second target of the CPA is to improve management of water as a resource, encourage businesses to improve their water management and optimise water use, produce less liquid waste and reduce costs.** Businesses are also being prepared for measuring their own water footprint and are currently in the process of implementing procedures for this stage of the Agreement.

As a way of gauging the impact of this target, a number of sustainability indicators have been created to measure water



consumption in the fields and in the industry. These indicators are:

- Water consumption in the fields (m<sup>3</sup>/kg of olive oil produced).
  - Specific water consumption during the production process (m<sup>3</sup>/kg of olive oil produced).
  - Water consumption per hectare (m<sup>3</sup>/ha)
- Specific production of liquid industrial waste (m<sup>3</sup>/kg of olive oil produced).

## WASTE

In the olive oil industry, during the processing of olives and successive mechanical extraction of oil, different types of waste are produced depending on the extraction process that the business has employed. If olive oil is extracted in two phases, i.e. in a horizontal centrifuge which separates the olive oil from the remaining components of the olive, a semi-solid residue made up of olive pulp, stone fruit and water (known as alperujo) is produced. However, if the extraction is performed over three phases, i.e. in a horizontal centrifuge which separates the olive oil from water and the remaining components of the pulp, water and a separate olive pulp containing more stone fruit (known as orujo) are produced.

Target five of the Clean Production Agreement addresses management and removal of organic waste generated from the processing of olives. As part of this target, a "Guide to the Best Available Techniques for Treating Organic Waste Generated from the Production of Olive Oil"<sup>5</sup> will be written up, whilst businesses will be guided towards improving their waste management by measuring and classifying waste and having a greater control over its final disposal.

Sustainability indicators have been created to assess how much waste is produced by each business and measure how much of it is recovered:

- Specific production of orujo (m<sup>3</sup>/ton of olive oil).
- Specific production of alperujo (m<sup>3</sup>/ton of olive oil).
- Specific production of harmful waste (Kg)
- Specific production of recovered waste (Kg)

## THE USE OF CHEMICAL INPUTS

In Chile, pest pressure on olives is lower than in other countries in the world as we are free from major pests such as the olive fly. **Many businesses in the association are working on integrated pest management**, but the majority employ conventional methods in which pests are managed using chemical, biological and cultural control, respecting technical recommendations for application.

## CLIMATE CHANGE

Target four of the Clean Production Agreement denotes that **100% of the businesses will assess the implementation of non-conventional renewable energies and measurement of their carbon footprint**. The target gives businesses the incentive to have at their disposal the necessary data for calculating their carbon footprint, producing records which enable them to assess their performance.

Some energy consumption and waste production indicators mentioned in the CPA are related to measuring carbon footprints.



# SOCIAL

## WORKERS

One of the targets of the CPA is linked to risk prevention systems. It outlines how activities must have records on contribution rates for occupational injury, annual payrolls, monthly number of workers and accident rates. A hazard and related risk matrix must be drawn up, accident rates must be recorded and training programmes on risk control must be organised.

The Agreement generated a series of indicators for these areas which must be used by all associated businesses. They assess, for example, working days lost due to work-related accidents and the percentage of workers who have been trained in environmental issues. Currently, businesses in their first year of the CPA are working on this area.

## FOOD SAFETY AND SECURITY

**All businesses in the industry comply with certifications and food health and safety standards, such as the ISO 22.000, HACCP, Good Agricultural Practices and Global GAP, amongst others.**

Many of our associate businesses export produce in accordance with international standards.

## SURROUNDING COMMUNITIES

One of the targets of the Agreement is related to corporate social responsibility. The objective of this target is for businesses, by the end of the Agreement, to be working and integrating with communities while identifying the needs of surrounding communities. Businesses are currently working on this area.

The CPA includes another related indicator for measuring the percentage of professional hours invested in social responsibility activities.

## RELATIONSHIP WITH SUPPLIERS

Businesses adhering to the Agreement follow a sustainability policy which is made known to service and product suppliers.

CHILE OLIVA  
ASOCIACIÓN DE PRODUCTORES DE ACEITE DE OLIVA



[www.foodsfromchile.org](http://www.foodsfromchile.org)