



por un planeta vivo

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WWF SPAIN'S PROPOSALS FOR THE ENVIRONMENTAL IMPROVEMENT OF QUALITY PROTOCOLS IN THE MARKETING OF FRUIT AND VEGETABLES - WATER CONSERVATION CRITERIA-

1. Quality protocols and the Environment

WWF Spain is conscious of the importance of the quality protocols as a marketing tool for the improvement of agricultural practices and for the reduction of the environmental impact on food production. However, after studying some quality protocols or purchasing criteria of European markets, WWF Spain has detected important gaps with environmental implications. The main weaknesses of these criteria concern water, the maintenance of forests, the preservation of soils, the management of residues and the preservation of biodiversity.

WWF Spain has taken the Global GAP protocol as a reference and has developed the following proposals of improvement. Once incorporated to the current protocol and joined to the compulsory traceability of the production, these proposals would involve a meaningful improvement on the reduction of the environmental impact on the production of fruit and vegetables and, more concretely, on the strawberry in Doñana. Other protocols would need a specific study to propose the changes that would lead to the necessary improvement of the environmental aspects that they contain, but some of this environmental criteria can be used perfectly.

2. WATER CONSERVATION WWF SPAIN'S CRITERIA

The criteria for the improvement of the production protocols proposed by WWF are initially thought to improve the environmental integration and to reduce the ecological footprint on the strawberry production in Spain, but they have been designed wide and generic enough to be able to be applicable to other geographic areas and other fruit and vegetable productions, as the cultivation of the raspberry in Huelva, due to the similar characteristics to the strawberry one, or production of vegetables in Almeria. Although there can be differences among the cultivations, the following stated criteria are applicable to any irrigation farming.

The following developed criteria have been divided into two groups. The first one includes three **Non-Negotiable Criteria**. They are crucial and must be carried out unconditionally as they refer to basic legal questions. The second group, **Criteria for Environmental Improvement**, includes other criteria that should be useful to design and plan actions for future improvements on the cultivations in a short period of time.

3. Non-Negotiable Criteria

Scope of application: the proposed Non-Negotiable Criteria will be applied to the whole exploitation containing the farms, regardless the kind of cultivation or the customer they provide.

Aim: by means of these criteria, the legality of the exploitations must be certified. This question itself does not secure the sustainability of the agricultural exploitations, but it is a key and essential question.

3.1. Legal use of water

What does Global Gap propose?

- **CB.6 IRRIGATION/FERTIRRIGATION**

“Water is a scanty natural resource and irrigation should be undertaken in accordance with a suitable planning and with technical fittings which allow the efficient use of the irrigation water”

CB.6.1. Calculation of irrigation needs

CB.6.2. Irrigation systems.

CB.6.3. Quality of irrigation water.

- Concerning the use of water:
 - ✓ P.C.C.C. **recommends** that the producer should carry out the calculation of the needs taking into account objective data.
 - ✓ P.C.C.C **recommends a** Management Plan of Irrigation Water to make consumption better, and the recording of this consumption. It also checks that the irrigation system is the suitable one. (This is of minor obligation)
 - ✓ P.C.C.C **verifies** that the quality of the irrigation water is the right one, by means of analysis (**minor**) and **making sure** it does not come from residual waters (**major**)
 - ✓ P.C.C.C. **verifies (minor)** that water abstractions are sustainable and the Competent Authorities have been asked for about their origin.

- The farm must have the permit for irrigation water from the Competent Administration. In the case of Huelva and depending on the exact location, that is “Guadalquivir River Basin Authority” or “Water Andalusian Agency” and “Water Andalusian Agency” in the case of Almería.

A document from the Irrigation Community is also valid as far as it is not of a provisional character. The Irrigation Community must have been legally founded and must have the permit for the use of waters from a Competent Authority.

The document must specify the farm for which it has been given, its surface, the quantity of water that can be used in a year, the period of time for which the permit is valid, and the origin of waters (underground or surface water).

Indicators:

Is there legality in the use and sources of water in the farm? Is the endowment of water wide enough to irrigate the entire irrigable surface of the farm?

Means of control

- Legal document of the Competent Authority or a document from the Irrigation Community which gives proof of its legality
- In the case of underground waters, the permit by the Mining Agency for the construction of the well.
- A flow meter in good conditions and its periodic reading. By means of this reading, it will be verified that the endowment for irrigation water established by the hydraulic administration is not overcome.
- Inspection in the farm to verify possible non-authorized wells.
- A scaled map with all the water harnessing and storing places in the farm

- Any work of water regulation or harnessing in the exploitation (accumulation reservoir, regulation reservoir or pools, dams, ditches) must be proved by the necessary authorization from a Competent Authority.

Indicator:

Is there a legal document for the permission of the work?

Means of control:

- Legal document for the permission of the work

4. Criteria for Environmental Improvement

Scope of application: the Criteria for Environmental Improvement are recommendable for the whole exploitation but they will only be demanded in those farms producing the product to certify.

Aim: the Criteria for Environmental Improvement pretend to reduce the ecological footprint on agricultural exploitations, at the same time that they invite the farmer to lead a continuous pursuit of his production parameters towards a better professionalism and towards the sustainable use of natural resources.

To start applying these criteria, it is necessary to have the following information:

- **Baseline** of the exploitation at the beginning of the campaign¹
- **A Management Plan** which should define the aimed improved situation three years after the beginning of the campaign and point out the actions to undertake to improve the conditions and environmental behaviour of the exploitations. This plan will include:
 - Description of the actions to undertake in relation to the criteria proposed by WWF Spain, depending on the initial situation of the exploitation.
 - Information and indicators that can be counted to verify the fulfilment of the exposed criteria.
 - An Exploitation log-book, where detailed information about ploughing, fertilizers, agrochemicals, irrigation actions during the campaign and improvement actions can be included.
 - A detailed working schedule including the development of the actions for the environmental improvement (irrigation, biodiversity...) with a final date of achievement.

¹ For this **Baseline** we can use information about the systems of certification currently used, especially those referring to the criteria established in Global GAP

4.1. Efficient use of water

Indicator

Does the exploitation have a General Irrigation Plan? This plan must specifically contain the needs of water for all the year, based on climatic data of the area, and an agronomic design of the production.

Means of control:

- A detailed study of irrigation in the farm, including the study of soil horizons, evolution in the levels of Permanent Wilt Point, capacity of the field and point of saturation.
- written irrigation orders made by a competent technician
- Accrediting training in the efficient use of waters and good irrigation practices of the staff in charge of the irrigation in the farm.

Indicator

The farmer has to show the efficient use of water by using the best available techniques and the most suitable irrigation systems for the cultivation.

Means of control:

- Including a paragraph about irrigation in the log book. It must record all the related actions: date of the irrigation, number of pulses a day, time of the irrigation, doses, maintenance of the equipment.
- Accrediting, by means of the recording of irrigation action, that these have been done according to the recommendations of assisting systems for the farmer.
- Including a periodic reading of the flow meter and the relation of this reading to the irrigated surface
- Using a programmer of irrigation that irrigates in pulses or short periods of time so as to avoid the loss of water by percolation or washing, especially in sandy soils.

- Accrediting an adequate maintenance of irrigation fittings with periodical inspections by an authorized irrigation company, proved with bills or invoices
- Knowing the capacity of water retention of the soil and using this information to schedule irrigation.
- Basing irrigation on the control of humidity by using tensiometers, probes, and sensors; and implement new technical devices in irrigation.
- Graphs on the humidity of soils or periodical notes on the irrigation log-book.
Programme/criteria for irrigation advice based on graphs of humidity

In Global GAP (CB 6.1.1.), it is recommended that periodical measures for the calculation of irrigation needs should be carried out

According to Global Gap (CB 6.1.1.), it is only recommendable to register dates and volumes used

4.2. Preservation and improvement of biodiversity

Indicator

Does the exploitation have an Integrated Plan of Environmental Management?

Means of control:

There is an Integrated Plan of Environmental Management that must include a description of the present situation of the farms and the remarkable natural values of the farms and their bordering areas in order to work on improvement measures to be included in the Management Plan. It must specifically include:

- i. Analysis about the natural values of the farm (streams, groves, vegetation, fauna, nests...) and a report about the surroundings, including the identification of habitats

and species included in the Principles 92/43/ EEC and 79/409 EEC as well as the species catalogued by the state, regional or local regulations²

- ii. A sketch or map pointing out the location of these natural values, the cultivation area in the farm and the region where the exploitation is, and showing the protected areas nearby. This sketch will be attached to an aerial photo (orthophoto) of the farm.
- iii. An action plan, with concrete measures to contribute to the maintenance and improvement of the identified values, with a detailed schedule made by a qualified technician.

According to Global GAP (AF 5.1.1.), this belongs to minor obligation facts. It says that there should be a recorded management plan of environmental preservation in order to improve the habitat and increase biodiversity in the exploitation.

The actions to be included in the plan of environmental management will be adapted depending on the situation of each farm and will be of the following kind:

Actions for the protection of streams, rivers and other wetlands. These actions will include, among others:

Indicator

Is there respect for the Hydraulic Public Dominion? We understand HPP as five metres from the highest level of the usual flood.

Means of control

- Inspection in the farm.

Indicator

Is there an authorization to cultivate in the Police Area? We understand police area as a hundred metres, including the five metres of HPP, from the highest level of the usual flood.

² To get information about natural values, areas of Natura 2000 Network, and so on, we will turn out to the environment competent authority, to the Municipality or to the corresponding Self-governing Region

Means of control

- Inspection in the farm

Indicator

Are there actions for the recovery of bank vegetation with autochthonous species?

Means of control

- Inspection in the farm.
- Certificate of having taken part in the Program of Hedges of the Environmental Council, or bills of forest nurseries.

Indicator

Are there actions for the introduction of plug-crops or autochthonous hedges to avoid the drift of sediments and agro-chemicals to the courses of water?

Means de control

- Inspection in the farm.
- Certificate of having taken part in the Program of Hedges of the Environmental Council, or bills of forest nurseries.

Indicator

Are there actions to avoid the percolation of water with fertilizers that are led to natural courses by means of the introduction of collection or accumulation systems that allow its reuse?

Means de control

- Inspection in the farm and checking there is no course of water affected by the excess of fertilizers

4.5. Environmental impact of housing in farms and holdings.

In the last few years, due to the demand of workers for agricultural production, there has been a remarkable increase in housing inside the exploitation. However, there is not always a fulfilment of the environmental requirements.

It has been observed that there are important flaws in the management of residues, organic or non-organic, which seriously affect the surroundings. It is for this concern that important measures have to be included in GlobalGap or any other Quality Protocol. These measures concern the worker's health and well-being and are related to the management of residues and polluting agents as well as the respect for the Environment.

Indicator

Does the exploitation follow any proceedings for the removal of residues compatible with those of the municipality or of a private certified organization?

Means of control

- Documents about the removal of residues from a certified organization or the evidence that the exploitation belongs to the area where the removal systems of the municipality work

Indicator

Do the elements to store residues and faecal waters (containers, septic tanks) fulfil the law in force?

Means of control

- Accrediting the fulfilment of the law in force.
- Inspection in the farm

Indicator

Can it be assured that periodic removals of the rests of septic tanks are undertaken by a qualified and certified company? Are there other means of depuration?

Means of control

- Document which accredits the law in force.

Application of the criteria

In order to check that these criteria imply a positive effect on the environment, and consequently, on the quality of life of the local community, purchasers will follow a detailed **control** of their suppliers, and the **traceability** will be strictly respected.

On the other hand, the application of these criteria should be **gradual**, so as supplier farmers could fulfil them. The priority of each given criterion will depend on the characteristics of the farm and its exploitation, and will be negotiated between the customer and the producer, so that the adaptation of the producer can be feasible.

To make the application easier, it is recommended that the customer could give the producer enough **information** to fulfil these criteria, by means of courses for farmers and technicians; and that the customer could get involved with local farmers, providing them, for instance, with **technical means**.

The customer and the producer should reach an **agreement for more than a farming campaign** in order that the farmer could retrieve some of his investment and effort to fulfil these criteria, and that the customer could pay off the help given to the farmer.

Finally, the importance of a **fair price** of the product must be pointed out. This price should consider the real costs of production and prevent the farmers to resort to illegal practices in order to reduce those costs and assure the yield of the exploitation.

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WWF Spain Works for a living planet to stop the environmental degeneration of the Earth and build a future in which the human being would live in harmony with nature:

- Preserving the world biological diversity
- Making sure that the use of natural renewable resources is sustainable
- Promoting the reduction of pollution and excessive consumption

WWF Spain is one of the biggest independent organizations of preservation in the world .WWF was born in 1961 and it is known for the symbol of the Panda. Nowadays, about five million people cooperate with WWF. It has a worldly net which works in more than a hundred countries. To know more about WWF go to: <http://www.wwf.es>.