
STANDARD

Management of Rural Environment - Integrated Management in Agricultural Production
Part 2: Requirements for the application in crop production



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Introduction

Integrated Management is an environmentally friendly method of agricultural production, which is an alternative to conventional methods, which is based on rational use of all cultivation inputs, a reduction in the use of chemical preparations and the prudent use of cultivation interventions. Producers on agricultural holdings are obliged to follow specific production rules based on guidelines from the Supervisor-Agricultural Advisor and to keep records of the practices employed, to ensure the quality and safety of the end-products, to safeguard the health of producers and consumers, and to protect the environment.

This AGRO 2-2 standard sets out general legal, technical and other requirements for Integrated Management which are accompanied by the phrases 'is obliged', 'must' or 'is recommended', whose meaning is as follows:

Is obliged = has to apply the legal requirements pertaining to activities of agricultural holdings.

Must = has to comply with the core requirements which do not take the form of a legal obligation, but are technical.

Is recommended = should take optional measures to achieve continuous improvements in Integrated Crop Management.

1. Subject - Scope

This standard lays down requirements for carrying on all agricultural activities relating to the cultivation of Integrated Management products.

The AGRO 2-2 standard always applies in conjunction with the AGRO 2-1 standard and is optional.

The requirements of the AGRO 2-2 standard can be applied to all manner of agricultural crops.

The AGRO 2-1 and AGRO 2-2 standards apply to the agricultural holdings with one or more producers.

The AGRO 2-1 and AGRO 2-2 standards are applicable to each agricultural holding irrespective of size, type of crop, headquarters or national origin of the producers.

The AGRO 2-1 and 2-2 standards are applied by:

- a) agricultural holdings involved in the cultivation of crops on their own behalf or on behalf of third parties.
- b) businesses¹ which dispose Integrated Management products in the market (private label products).

This standard, in conjunction with the AGRO 2-1 standard, can be applied to any agricultural holding wishing to:

- a) introduce, apply and, maintain specific standards in the cultivation of Integrated Management products;
- b) ensure that the above specifications are implemented by carrying out self-controls and evaluating itself on how it complies with standards' requirements;
- c) prove such compliance to interested parties;

¹ For the purposes of the AGRO 2-1 and 2-2 standards, each business implementing the standards is described as an 'agricultural holding' based on the definition in paragraph 2.2 of the AGRO 2-1 standard.

d) obtain certification for implementation of the standards' requirements.

In applying the standard, attention is paid to environmental issues related to crop cultivation. The main issues are set out in Annex A to this standard.

2. Definitions

For the purpose of this standard, the terms and definitions applicable shall be those set out in standard AGRO 2-1, in addition to the following:

2.1 Integrated control

The rational application of a combination of biological, biotechnological, chemical, cultural or plant-breeding measures whereby the use of chemical plant protection products (PPP) is limited to the strict minimum necessary to maintain pest populations at levels below those causing economically unacceptable damage or loss.

NOTE: The term 'Integrated', as used in the phrases 'Integrated Control', 'Integrated Pest Management', 'Integrated Crop Management' and 'Integrated Production', is used to indicate the use of all means available, individually or in combination, and the good use of inputs for the purpose of achieving the best possible financial result with minimum adverse impact on the environment. In this standard, the term 'Integrated Control' shall be equivalent to the wider term 'Integrated Plant Protection', to which special reference is made in Annex B.

2.2 Good Agricultural Practice (GAP)

The rational management of natural resources and the proper use of inputs aimed at ensuring economic viability of the agricultural holding and sustainability of the environment.

2.3 Improvement program

The text drawn up by the Supervisor – Agricultural Advisor for each activity of the agricultural holding. The Improvement Program must describe:

1. The objectives, goals and Improvement Program (see AGRO 2-1, paragraphs 4.3.3 and 4.3.4).

2. The holding's current 'operation principles' and the relevant guidelines facilitating their implementation (see AGRO 2-1, paragraph 4.4.6) in a manner that:
 - proves compliance with legal and other requirements,
 - covers all possible effects (positive or negative) caused by activities or inputs.
3. Provisions for crisis prevention and response (see AGRO 2-1, paragraph 4.4.7).
4. The manners available for monitoring and measuring progress of the numbers (see AGRO 2-1, paragraph 4.5.1).
5. Corrective and preventive actions in case of non-compliance (see AGRO 2-1, paragraph 4.5.2).

3. References to standards

3.1 AGRO 2-1: Management of the Rural Environment – Integrated Management for Agricultural Production, Part 1: Specification.

3.3 AGRO 2-3: Management of the Rural Environment – Integrated Management, for Agricultural Production Part 3: Requirements for processing/packing and/or disposal in the market of Integrated Management products.

3.4 This standard contains terms and provisions relating to the following standards, as in force:

ISO 9001: Quality Systems – Model for quality assurance in design, development, production, installation and service.

ISO 14001: Environmental management systems – Specifications with guidance on their use.

ISO 19011: Guidelines for auditing quality and/or environmental management systems.

4. Integrated Management requirements for application in crop production

4.1 Propagating material

4.1.1 Multiannual crops

It is recommended to use stock and varieties that are proven to adapt well to the local soil and climate conditions.

It is recommended to choose stock and varieties with relevant tolerance to financially significant pests or resistant diseases.

The agricultural holding **is obliged** when installing a new plantation or replacing saplings:

- a) to use saplings that meet the conditions of national and Community law from recognised nurseries which operate with a permit from the country of origin;
- b) document the plant health of the propagating material and the reliability of each variety (through valid certificates/confirmations from the nurseries).

4.1.2 Annual crops

Sowing seeds and, in general, propagating material appropriately labelled in accordance with the relevant legislation on propagating material **must** be used on the specific plant or group of plant species.

It is recommended that the above propagating material belong to varieties and hybrids that adapt well to soil and weather conditions.

It is recommended to document that the species and varieties (or hybrids) chosen contribute to producing high quality products and, consequently, add to their commercial value.

It is recommended that species and varieties (or hybrids) with relevant tolerance to financially significant and difficult to control pests or diseases be chosen.

The agricultural holding **is obliged** to use sowing seed in the categories specified in the relevant legislation, which are produced

in the country, acquired inside the European Union or imported from third countries, and varieties registered in the national catalogue of the country and/or common catalogue of varieties, or which are lawfully traded in the country in accordance with Community or national law.

The agricultural holding **is obliged** to use seeds or plants acquired from undertakings that have obtained the licences provided for under the relevant legislation; the necessary data must be kept by the agricultural holding on file [(lot number, producer's name, name of variety (or hybrid) per parcel of land, purchase receipts and relevant quality certificates)].

It is recommended to cultivate species and varieties threatened with extinction, which have recognised quality characteristics.

At the end of each cultivation period **it is recommended** to evaluate the species and varieties grown.

4.1.3 Propagating material interventions prior to use

It is recommended to coat seeds before sowing or plunge seedlings/saplings prior to planting, provided it is required or that it will contribute in limiting the use of plant protection products (PPP) in the field.

4.1.4 Self-produced propagating material

Own-grown native propagating material (seeds) **must not** be used. Local/traditional crops and PDO/PGI products which come from the cultivation of varieties not entered in the national varieties catalogue, where the use of own-grown propagative material is possible, are excluded from this. In that case, when using own-grown native propagative material, the agricultural holding **must** keep records with a detailed description of the production process (documenting the quality and plant health of the material).

4.1.5 Genetically Modified Organisms

The agricultural holding **is obliged** not to use varieties or hybrids of cultivated plants derived from modification by genetic engineering.

As regards the propagating material used, the agricultural holding **must** maintain laboratory certification or an explicit declaration of the producer stating that it has not been genetically modified (especially for crops that can be produced using genetic modification techniques).

4.2 General cultivation operations

The Supervisor – Agricultural Advisor **must** specify in the general cultivation operation plan the cultivation measures applicable and provide instructions on the general cultivation controls required to ensure quality of the products produced.

It is recommended that cultivation methods that are not directly related to the environment, but are of vital importance for product quality (such as pruning, thinning, support etc.) are performed in accordance with the propagating material's requirements.

It is recommended when cultivating cotton to defoliate using suitable defoliators.

Peach trees **must** be pruned every year (winter and summer).

4.3 Soil management

4.3.1 Soil management plan

The Supervisor – Agricultural Advisor **must** prepare a soil management plan which includes environmental issues and possible environmental impacts (positive or negative) which are recognised as related to the soil management method in the specific area.

A risk assessment **must** exist in respect of

new rural areas, ensuring suitability of the area for production of safe products with minimum burden on the user and the environment.

4.3.2 Topographic drawing

The agricultural holding **must** keep on file a topographic drawing of every parcel of land.

The topographic diagrams **must** include information about neighbouring crops on parcels of land included in the Integrated Management plan, so that, if considered necessary they can be taken into account in taking measures to protect against adjacent sprays or other interventions, and to determine the active substances for which residue analyses must be performed.

The producer **must** keep on file all documents pertaining to ownership or leasing of the holding's land parcels or a copy of the latest crop declaration (Integrated Management and Control).

It is recommended that, where no topographic map of the area exists, parcels be identified by recording their GPS coordinates.

It is recommended that each land parcel be visually marked by displaying a sign in a clear location which indelibly uses the phrase 'Integrated Crop Management' and the code number for the land parcel and the producer.

4.3.3 Soil suitability and improvement

The producer **must** analyse the soil (mechanical composition, pH, organic matter, nutrients) in order to evaluate suitability of a parcel or plan improvements to be made before planting a crop (in relation to perennial crops) or before first establishing a crop (in relation to annual crops), taking into account information on the history of the parcel and the interventions that had been effected thereon.

It is recommended to check whether soil-borne problems exist (e.g. salts,

reproductive organs of resistant weed, soil-borne pathogens etc.).

It is recommended to fully describe the soil profile.

4.3.4 Decomposed organic matter

Measures **must** be taken in order to maintain and increase organic matter and biologic activity of the soil.

Crop residues and other dry vegetation (e.g. stubbles) **must not** be burnt, unless this is required to contain diseases, pests or weeds.

The agricultural holding **is obliged** to strictly apply the requirements of the Codes of Good Agricultural Practice (CGAP) in relation to protecting fertility of the soil and in particular the organic matter (current legislation).

The agricultural holding **must** apply suitable methods to retain and increase organic substances such as:

- a) chipping prunings and other plant residues, and incorporating them into the soil or leaving them on the surface where the prunings do not give rise to phytopathological problems.
- b) using chippers to cut up branches and lightly incorporating the chips into the soil with a disk harrow to control diseases and parasites.
- c) light incorporation of leaves fallen on the ground (using a disk harrow) (on non-sloping soils, where this method can be used) in the autumn, after the leaf fall is over, but before they start to be spread by the wind, in order to control diseases and parasites.
- d) plant cover – suitable management of weeds in all seasons (by cutting with a strimmer) and keeping weed cover within the parcel.
- e) adding manure, compost from plant residues or other organic materials (in accordance with the requirements of the fertilisation management plan).
- f) adding sludge from biological treatment

plants or compost, provided that the relevant national and Community laws are strictly complied with.

- g) adding other waste or residues from agricultural industries such as vinasse, tinning/ginning plant residues etc. In all events, the materials must be analysed to avoid problems from the concentration of unwanted chemical elements. In choosing the method, attention must be paid to avoiding enriching the soil with contagious pathogenic organisms.

4.3.5 Mechanical soil conditioning

If mechanical conditioning of the soil is required, **it is recommended** to choose the type of machinery that has the minimum possible negative effects on soil structure.

Deep ploughing (>25 cm) of the soil **must** be avoided. It can exceptionally be used, if necessary, but it should not reach the parent rock, unless adequate justification is provided.

4.3.6 Soil compression

It is recommended to apply cultivation measures that reduce soil compression [avoid using heavy machinery on crop fields with high compression risk and encourage reduced soil conditioning or soil cultivation without ploughing (non-conditioning)].

4.3.7 Soil erosion

Soil management techniques that significantly limit the possibility of soil erosion **must** be applied (e.g. ploughing parallel or diagonal rather than perpendicular to the planes, extended coverage of the soil with controlled vegetation or plant material).

It is recommended to avoid soil crumbling and, where possible, apply systems for reduced conditioning or no conditioning of the soil (non-conditioning).

The agricultural holding **is obliged** to apply a special action plan for controlling

desertification in zones with a high possibility of erosion.

The agricultural holding **is obliged** to strictly apply the requirements of the CGAPs regarding soil protection from erosion (current legislation).

4.3.8 Crop rotation

It is recommended to apply crop rotation systems as much as possible, unless the reasons for not applying them are adequately justified.

The agricultural holding **is obliged** to implement a crop rotation program in accordance with CGAP or the local administrative measures in force.

It is recommended to opt for an autumn cultivation where the crop rotation system provides for dry farming.

It is recommended to use winter plants (water saving), mainly legumes (reduce the application of nitrogen fertilisers) for crop rotation either as main cultivation or as soil cover (reduces soil erosion).

It is recommended in crops grown under cover (greenhouse crops) that:

- a) crops that belong to different botanic families be alternated;
- b) two (2) months of soil solarisation be applied during the summer months, with the case of one crop per year.

4.3.9 Soil chemical decontamination

It is recommended to avoid chemical decontamination of soil.

The agricultural holding **must** use the disinfectants approved by the competent authority, if chemical decontamination of soil cannot be avoided.

If soil disinfectants are used, the producer **is obliged** to follow the instructions on the label.

It is recommended to apply alternative methods other than chemical soil decontamination (e.g. crop rotation,

planting plants that interrupt the life-cycle or reduce populations of pathogens, soil solarisation and other).

With greenhouse crops, **it is recommended** to combine soil solarisation, recommended biological plant protection products and disinfectants.

When cultivating cotton, crop rotation using plants which interrupt the biological cycle or reduce populations of pathogens **is recommended** as is the application of summer ploughing in cases of infestation with click beetles or where there are hard to eradicate perennial weeds.

4.4 Meteorological data monitoring

The climatological history of the area **must** be known and current meteorological data from the closest meteorological stations must be monitored.

It is recommended to measure and monitor the temperature and humidity per microclimate.

4.5 Plant nutrition (fertilising)

4.5.1 Fertilisation plan

The Supervisor – Agricultural Advisor **must** prepare a fertilisation plan based on the crop's nutrient requirements.

4.5.2 Nutrient requirements

The agricultural holding **is obliged** to take appropriate measures to ensure that the fertilisers used are in compliance with applicable national legislation.

Application of fertilisers **must** be based on the estimated nutrition requirements of the crops.

The agricultural holding **must** analyse the soil to determine the nutrients, also performing foliar diagnosis, where considered necessary.

Both soil analyses and foliar diagnosis **must** be based on an annual risk analysis in terms of the choice of parcels and the frequency of checks.

When calculating the quantities of nitrogen needed, particular importance **must** be attached to areas sensitive to nitrogen pollution.

When estimating crop nutrient requirements, macroscopic observation of the crops and the history of the field as well as the quality of the irrigation water **must** be taken into consideration.

To calculate the quantity of fertiliser, attention **must** be paid to the following:

- the pedological analysis (chemical-mechanical composition of the soil);
- foliar diagnostics;
- the type of crop;
- the age of the plant;
- the crop's growth stage;
- the use of composite or simple fertiliser;
- the application method.

Attention **must** be paid to the following for the type of fertiliser:

- the soil pH (pedological analysis);
- whether it is basic or surface fertiliser or foliar spray;
- the crop's nutrient needs;
- the fertiliser's solubility;
- the nutrient release rate;
- the fertiliser composition.

Rational fertilising **must** be done primarily to avoid excessive nitrogen fertiliser which leads to the creation of vulnerable vegetation, and to avoid contamination of ground waters and degradation of the quality of products.

4.5.3 Application records

The agricultural holding **must** record and maintain on file all data pertaining to fertiliser application on soil or foliage. More specifically, fertilisation records should include information on the parcel of land, date of application, type and quantity of fertiliser used, method of application,

operator and weather conditions prevalent after application thereof.

4.5.4 Time and frequency of fertiliser application

The type of fertiliser and time of application **must** be carefully examined.

The agricultural holding **is obliged** to proportionately adapt fertilisation in zones whose management is subject to specific environmental constraints.

It is recommended to apply fertilisers linearly for horticultural crops and, when possible, use fertirrigation (apply using irrigation water).

Fertilisation with the use of mineral or organic fertilisers **must** meet the needs of the crops and must enhance soil fertility.

4.5.5 Levels of nitrate and phosphorus salts in water

The agricultural holding **is obliged** to assist so that national or international limits regarding accumulation of phosphorus or nitrate salts in underground or surface waters are not exceeded.

The agricultural holding **is obliged** to choose the quantities and type of fertilisers as well as the time and method used for application thereof using criteria for the reduction in nitrate leaching.

It is recommended that the fertilisation plan take into account the mineralisation rate of organic fertilisers and/or the breakdown rate of organic matter in the soil as well as the probability that soil nutrients will be washed out.

It is recommended to cultivate annual crops (or grow weeds) between the lines of perennial crops so as to reduce the loss of surplus (or residual) nutrients (from the use of fertilisers on the crops).

When cultivating cotton, immediately after harvesting the cotton **it is recommended** to establish plant cover by seeding grasses

or legumes (which will be incorporated into the soil in spring) to avoid nitrate leaching and to enrich the soil with organic material.

4.5.6 Fertiliser spreaders

It is recommended to choose fertiliser spreaders based on their appropriateness for the specific use.

Fertiliser spreaders **must** be kept in good condition with systematic maintenance and checks (adjustments) at least once per year to ensure uniform application of fertilisers.

4.5.7 Fertiliser storage

Fertilisers **must** be stored in areas under appropriate conditions that offer protection from weather phenomena (with quality assurance), meet safety and agro-environmental requirements pursuant to the provisions of national and European legislation in force from time to time.

It is recommended to store fertilisers in areas different from those where plant protection products (PPP) and propagating material are stored.

Where there is a single area where supplies and inputs are stored, fertilisers **must** be stored in separate parts of the area and be clearly marked, just like PPP.

4.5.8 Organic fertiliser

A risk assessment **must** be carried out before applying non-standardised organic fertilisers. In particular, consideration should be given to the possible presence or non-dangerous pathogens, soil insects and/or seeds of poisonous weeds, heavy metals and other potentially hazardous pollutants.

The agricultural holding **is obliged** not to use untreated wastewater or liquid waste which has not been purified as a soil improver.

Storage/maintenance of organic fertilisers **must** be done in such a way as to avoid environmental pollution and contamination.

4.6 Irrigation

4.6.1 Water management plan

The Supervisor – Agricultural Advisor **is obliged** to prepare a water management plan in accordance with the legal and regulatory procedures pertaining to abstraction and use of water.

The producer **is obliged** to comply with the legal and regulatory procedures for the use of water.

4.6.2 Water requirements estimation

Water requirements **must** be determined based on the variety cultivated, land topography, type of soil and other environmental conditions.

It is recommended to take into consideration evaporation, plant transpiration and possible precipitation when determining water requirements.

The Supervisor – Agricultural Advisor **must** monitor meteorological forecasts and, when the use of rain gauges is possible, hydropluviometric data should be recorded so as to facilitate irrigation planning and render it more reliable during application.

4.6.3 Irrigation method

The irrigation method **must** be chosen based on the cost and effectiveness of water utilisation and the possible negative effects on disease spreading.

The irrigation management plan **must** at least include general guidelines regarding the irrigation methods available and the recommended quantities of water.

Producers **must** be trained on issues pertaining to the rational use of water.

It is recommended generally to implement drip irrigation as it is the most appropriate method in terms of effective use of water.

The flooding method **must** be avoided,

where possible, as it reduces moisture content, causes a state of asphyxia in the root system, soil erosion, nutrient leaching and helps spread certain diseases.

The flooding method is only **recommended** when aimed at improving pathogenic soils. In this case, of course, producers shall take measures to limit the loss of water and soil nutrients.

Furrow irrigation **is recommended** where appropriate irrigation networks exist and the fields are flattened.

Drip irrigation **is recommended**, where appropriate.

It is recommended to irrigate during the night.

It is recommended to maintain the irrigation network (reduce leaks) and store irrigation means during winter (avoiding damage).

All producers **must** keep an irrigation log where they record the quantity of water and the manner and time of irrigation per parcel.

Calendar irrigation alone **must not** be carried out.

It is recommended after harvesting all varieties of stone fruits (apart from very late fruiting ones) to irrigate the orchard.

4.6.4 Irrigation water quality

The water from a borehole or from biological treatment plants **must** be examined and analysed for its suitability, every five years. More specifically, it should be examined as to its microbial load and concentrations of individual pollution parameters (salinity, nitrogen, heavy metals etc.). Water quality control should be made in cooperation with health authorities and the competent water resource management bodies.

In case of micro-biological analysis, the laboratory should be accredited for the relevant analysis.

An annual risk analysis for irrigation/fertirrigation water **must** be carried out, which takes into account the type of crop, the water sources, the irrigation method, the sources of pollutants and run-off water and the environment, potential microbiological, chemical or physical contamination of all sources of irrigation/fertirrigation water, and the results of chemical or microbiological analyses.

It is recommended that nitrate levels of irrigation water be taken into consideration when drafting the irrigation plan.

The agricultural holding **is obliged** not to use water from sewers or drainage networks.

4.6.5 Irrigation water supply

Water from non-renewable sources **must not** be used.

It is recommended to use a hydrometer at the irrigation water mains.

The water management plan **must** include a special provision for water from protected wetlands.

The water management plan **must** be consistent with the national action plan for controlling desertification at salinization zones, negative water balance zones and high erosion potential zones.

The agricultural holding must establish the legality of using irrigation water.

If water is abstracted from a well, the water **must** be used in compliance with national legislation. The agricultural holding's records must be retained to prove the legality of those boreholes.

4.7 Plant protection

4.7.1 Plant protection management plan

The Supervisor – Agricultural Advisor **must** prepare a plant protection management plan. The plant protection management plan

must include a provision for monitoring the development of every target-organism population, the effects thereof and, if possible, the manner in which such effects are measured; it must also present measures and methods for controlling it.

The plan **must** also include measures for controlling expansion of pest populations.

4.7.2 Methods and means for plant protection

Plant protection **must** be based on a combined application of methods, however on condition that non-chemical methods (cultivation, mechanical and biological means) are the first choice.

The requirement to apply PPP **must** be substantiated.

Protection of the crops from pests, diseases and weeds **must** be achieved with the minimum possible use of PPP (reduction of number of interventions) in particular those that have the least adverse impact on the environment.

As regards PPPs, producers **are obliged** to abide by the applicable legislation on the transport, storage, application, management of unused PPPs and destruction of empty means of packaging.

When cultivating olives, if the agricultural holding combats the olive fruit fly using bait sprays it must: a) install and monitor a network of McPhail-type food traps and examine the insect's fertility and b) take into account the olive fruit's receptiveness to egg laying for the first generation of insects which infests the fruit.

If coverage sprays are required during autumn months for table olives and olives for oil, fat-soluble insecticides **must not** be used.

4.7.2.1 Controlling pests, diseases and weeds

It is recommended that the Supervisor – Agricultural Advisor remain up-to-date at all

times through cooperation with academic and research institutions.

The Supervisor – Agricultural Advisor **must** have the knowledge required to recognise the most important species of fauna and flora (pests, diseases, beneficial organisms), the methodology of observations as well as knowledge on recording and determining the limit of tolerable pest population density (provided it is known for the specific crop and environment).

It is recommended to select and apply the most suitable measures or methods to protect the crop, the environment and ensure user safety (methods, measures and means for Integrated Plant Protection are set out in Annex B).

The agricultural holding **must** keep on file the material that will facilitate recognition of the main target organisms and beneficial insects, as well as a documented methodology for observing the main harmful and beneficial organisms.

A plant protection history **must** be kept in respect of the agricultural holding; target organisms must be classified and conditions favouring the development of the main pests, weeds and diseases must be documented, as well as the methods and means that may possibly be used for controlling them.

It is recommended for each microclimate on the agricultural holding, to install insect traps and arrange for the flights of the main target insects to be monitored.

4.7.3 Choosing Plant Protection Products (PPP)

Producers are obliged to:

- only used PPP approved for the crop in accordance with applicable law.
- follow the instructions on the label when applying PPP or biological preparations.
- take into account restrictions that apply concerning residues of certain PPP in countries where their products are sold.

In selecting PPP, the agricultural holding **must** take into account any additional customer requirements.

PPPs **must** be selected based on their effectiveness, mode of action, action spectrum, selectivity relevant to the cultivated crops, the disease, pest or weed, the special environmental targets of the location, compatibility with other PPPs, cost, ease of application, residues on the agricultural product, residual effect, toxicological labelling, compatibility with the pest resilience management strategy as well as possible impact on the next crop to be cultivated.

Priority **must** be given to the use of selectively acting PPPs, namely those with maximum effectiveness on the target organism, minimum impact on non-target organisms (operators, consumers, bees, useful arthropods, birds, fish etc.), low leaching level in water and rapid degradation rate.

Wide-range PPP **must** not be used unless there are no other methods and means for controlling pests which directly threaten production. In this case, they must either be applied in specific areas or in periods when beneficial or non-target organisms have a minimal presence.

The Supervisor – Agricultural Advisor **must** include a detailed table containing all approved PPPs for all crops cultivated by the producer in the plant protection management plan.

It is recommended that this table be available to the producer and be constantly updated with all changes made in relation to approval of PPPs and the relevant legislation.

4.7.4 Recommendations on the quantity, type and time of application of a PPP

The Supervisor – Agricultural Advisor **must** take into consideration all agricultural notification bulletins regarding crops and the areas covered by the relevant network

of the competent authority.

Producers/operators **must** receive specific written application instructions from the Supervisor – Agricultural Advisor, which must include as a minimum: the target, the type of PPP (active substance), the time of application, the dose, the volume of spray liquid, combinability and waiting times prior to harvesting.

Written instructions **must** be provided on personal protective equipment, the manner in which the PPP should be mixed and applied.

Producers **must** confirm their compliance with the written instructions pertaining to the application of PPPs.

It is recommended that the Supervisor – Agricultural Advisor provide special training to producers and operators in respect of every new PPP use. Such training must be documented.

The Supervisor – Agricultural Advisor must include general recommendations on the use of PPP and the suitability of the water used in preparing the spray liquid in the PPP application plan.

It is recommended to adjust the pH of the spray liquid to achieve optimum effectiveness of the active substance at the minimum recommended dose.

4.7.5 Recording applications

Every producer **must** record the following data as regards each application of PPPs:

- a) Land parcel
- b) Date and time of application
- c) Objective and justification of the application
- d) Trademark, type, accumulation and total quantity of every PPP (if mixed) or other means
- e) Volume of spraying liquid used
- f) Type of spraying machine, type of nozzle, spraying pressure, average speed during spraying, name of spraying machine operator
- g) Waiting time before harvest

Every producer **must** undertake to document records pertaining to PPP applications in his parcels, which shall be inspected by the Supervisor – Agricultural Advisor.

4.7.6 Personal protective equipment

Spraying machinery operators and all persons involved in preparing and using PPP **must** use the protection means specified in the instructions provided by the Supervisor – Agricultural Advisor.

Spraying machinery operators **are obliged** to comply with the measures indicated on PPP labels when there are no other special instructions.

When mixing PPPs (before spraying) the following means **must** be available for:

- a) measuring and mixing PPPs;
- b) washing the operator in case he is exposed to the PPP.

Each sprayer **must** have available and in good condition, and use both during spraying and mixing PPPs (before spraying), suitable spraying clothes, such as rubber boots, waterproof clothing, a protective suit, rubber gloves, a face guard, goggles etc.

After each use, personal protective equipment **must** be washed and kept separately from PPPs or fertilisers in a well-ventilated area.

The personnel, including sub-contractors who operate spraying machinery or apply PPPs, **are obliged** to prove their ability and knowledge by holding professional user certificates or certificates of attendance at special training seminars on the safe and proper use of PPPs (as specified in the applicable legislation).

4.7.7 Pre harvest interval (PHI)

Producers **are obliged** to harvest the crops after the lapse of the PHI indicated on the PPP label and in the plant protection plan.

In case of continuously harvested crops, the plant protection plan **must** provide for ways to avoid PHI compromising.

4.7.8 PPP applying means

The agricultural holding is required to comply with the requirements of the legislation on inspection of pesticide application equipment.

The means for applying PPPs **must** be stored in good condition.

At least once a year, spraying means **must** be maintained, inspected and adjusted.

It is recommended that the workshop where the maintenance, adjustment or inspection is carried out be appropriately equipped and approved for the conduct of such works. If no such workshop exists, maintenance can be carried out by personnel of the holding and such work **must** be documented.

The means of application stated on the label of the PPP **must** be chosen.

The nozzles and spraying pressure **must** be chosen by the Supervisor – Agricultural Advisor based on the type of PPPs sprayed, the type of crop and the type of harmful organism.

The nozzles and filters thereof **must** be replaced when worn out to ensure accurate application of the products.

Every producer **must** have the appropriate equipment required for preparing the spray.

PPP **must** be mixed in a different area from the one in which they are stored.

The sequence of mixing PPPs **must** follow the instructions on the label and the recommended spray volume **must** always be used.

It is recommended to inspect the nozzles before application to check whether they are worn out or partially blocked in order that worn out nozzles **must** be replaced, whereas partially worn out nozzles **must** be

mechanically unblocked using water.

It is recommended to inspect nozzles as regards spraying manner (fan or cone), spray distribution (uniform or overlapping), spraying angle, jet stream and droplet size to avoid droplets being spread to adjacent crops by air.

4.7.9 Disposal of spray surplus – tank cleaning

Spray volume **must** be calculated by the producer exactly so as to cover crop spraying needs and not cause a spray surplus disposal problem.

The producer **is obliged** to dispose of any spray surplus or the cleaning water used for the sprayer in accordance with the provisions of the applicable national legislation.

When any spray surplus or cleaning water used for the sprayer is sprayed on an already sprayed section of the crop, it **must** be demonstrated that the maximum permissible doses are not exceeded, and applications **must** be recorded in the same and with the same detail as applications of PPPs.

The plant protection plan **must** indicate the cleaning method and the location where the cleaning sprays of the spraying system (tank) are to be disposed.

4.7.10 PPP residue analyses

In the plant protection plan, the Supervisor – Agricultural Advisor **must** specify the sampling procedure to check for residues of PPPs in the product, which is based on a documented risk analysis.

When choosing samples of PPP residues to be analysed, attention **must** be paid to the following factors during the risk analysis:

- The cultivated area and the harvest time for each variety.
- The cultivated crops which neighbour the parcels on the agricultural holding and the PPPs applied to those crops.
- The active substances that **must** be

checked.

- The entry of new producers to the Integrated Management agricultural holding.
- Background to non-conformities.
- Customer complaints, grievances.

It is recommended to determine sampling frequency based on the possibility of tracing residues in concentrations exceeding the maximum residue limits (MRLs).

The lab where the residue analyses are carried out **must** be accredited for the said analyses by the competent national authority in accordance with the ISO 17025 or equivalent standard.

The agricultural holding **must** keep written records of the annual PPP residue analysis results or proof of participation in a third party traceable PPP residue calculation program.

The total number of PPP analyses carried out by the agricultural holding for the purpose of determining residues **must** be the result of a documented risk analysis, which will take into consideration the type of crop, the variety, the number and type of applications, neighboring crops, the pre-harvest safety limit, the use of the product and time of application, and must be at least equal to the root square of the agricultural holding's producers per crop. Agricultural holdings with crops for which there are no maximum residue limits (MRLs) for PPPs enacted in applicable national or EU law are excluded from the requirement to implement the minimum number of analyses. In those cases, the number of PPP analyses is calculated after the documented risk analysis taking into account the criteria referred to above as a minimum.

The agricultural holding is required to comply with the requirements of EU legislation on residue analysis.

The agricultural holding **must** keep a list of applicable MRLs in the EU as well as a list of applicable MRLs in the countries where the products are exported. The above lists may

be kept in printed or electronic format and must be regularly updated.

Where stricter MRL requirements apply in the market where the producer intends to sell its products, the agricultural holding **must** put in place a specific procedure ensuring compliance of the production with the stricter MRLs.

The agricultural holding **must** keep available the data from the PPP residue analysis measurements for inspection or whenever requested by the competent authorities or whoever has a legal interest therein.

The findings of residue measurements **must** always be correlated to the time the PPP was applied, the time of sampling, the crop from which the sample was taken and the producer.

It **must** be possible to notify customers in good time and take suitable measures to recall or destroy products with PPP residues which exceed the MRLs in accordance with the procedure specified for non-conforming products.

4.7.11 Storing plant protection products

Producers **are obliged** to store PPPs in accordance with the instructions provided on the label.

PPP **must** be stored in safe and fireproof areas with good ventilation and adequate lighting.

PPP **must** be stored in areas away from food, seeds, feed and packing material.

PPP stores **must** be made in such a way that they retain liquids in the case of accident and prevent the pollution of neighboring sources of water (wells etc.), such as a raised sealed floor (interrupted skirting) or floor covered with plenty of sawdust.

The entrance of the area where PPPs are kept **must** have a hazard warning signal.

Access to the area where PPPs are stored **must** be limited to the personnel that has been trained in their handling.

Emergency contact numbers (doctor, fire department, poison centre) **must** be available on a clear sign in a prominent location at the PPP storage area.

The main instructions on handling emergencies (in case of an accident) **must** be available in the area where PPPs are stored.

An inventory of fertilisers **must** be made at their storage area on a continuous basis.

All PPPs **must** be stored in their initial packaging.

Solid PPPs **must** always be placed on the shelves above those where liquid PPPs are stored.

Shelves in the storage area **must** be made of non-absorbent materials.

PPP storage areas or the area where they are mixed, if different, **must** have the equipment necessary for handling the PPPs used.

PPP measuring equipment **must** be calibrated and recorded each year. Off-the-shelf standard measuring devices accompanying PPP packaging are excluded from the calibration requirement.

PPP storage and mixing areas **must** be equipped with a container, absorbent-adsorbent and/or inert material (e.g. sand), broom, shovel, rake and plastic bags.

If their initial packaging is destroyed, PPPs **must** be kept in a new packaging containing all information presented on the original label.

PPPs for other crops (not included in Integrated Management) **must** be stored in separate sections and/or if stored jointly must bear clear marking.

PPP storage areas and the mixing area **must** provide a washing facility and have a first aid kit.

The agricultural holding **is obliged** to take measures to ensure that expired PPPs or PPPs whose marketing authorisation has expired are safely stored and managed in accordance with applicable national and European legislation.

4.7.12 Empty PPP containers

The agricultural holding **is obliged** to take measures so that empty containers are cleaned at least three (3) times using water and that cleaning liquids are added in the sprayer (tank).

Producers **are obliged** to destroy/manage empty PPP packages in accordance with the applicable national legislation.

It is recommended that sprayers include a pressed water device for cleaning PPP packaging containers.

Disposal of the empty PPP packages **must** be done in such a way so as to avoid pollution of the environment and human exposure thereto.

The plant protection plan **must** provide for the manner of disposal or destruction/management of empty packages.

4.7.13 Expired PPPs

The plant protection plan **must** provide measures for the management and/or destruction of expired PPPs.

When choosing among identical PPPs, it is recommended to use the oldest ones first and then the ones produced later.

4.8 Harvest and post-harvest operations

4.8.1 Time and method of harvest

The method and time of harvest **must** contribute to the quality of the resultant product.

When special requirements exist in relation to the harvesting method, producers and harvest personnel **must** first receive training, which must be certified.

The agricultural holding **is obliged** to abide by the circulars of the competent bodies in relation to the harvest commencement date.

The time and quantity harvested every time, per parcel of land, **must** be recorded to facilitate traceability.

Compliance with product specifications (as defined in paragraph 2.17 of the AGRO 2-1 standard) **must** be checked.

Sanitary measures **must** be taken when harvesting products so that both products and their containers are not contaminated, and to avoid the transfer of contaminants to storage areas.

Proper handling of products during and after harvest **must** be ensured in order to avoid deterioration of their quality and, therefore, the possibility of becoming unsuitable for marketing.

When cultivating cotton: a) harvesting **must** be done on a day when there are dry conditions, to ensure the necessary humidity for delivery of the unginned cotton to the ginning plant.

b) stripper machines must not be used to collect the product to ensure the low content of the harvested foreign matter as required for delivery to the ginning plant.

When cultivating cotton, **it is recommended** that varieties with different quality characteristics in terms of harvesting and storage should not be mixed.

It is recommended that the period between harvesting and crushing should not exceed two (2) days.

When cultivating olives for oil, the

agricultural holding **must not** use plastic bags.

When cultivating table olives, the agricultural holding **must** ensure that the olives are transported in plastic crates.

4.8.2 Employee hygiene

The agricultural holding **is obliged** to employ personnel not carrying infectious contagious diseases for the harvest of fresh products.

It **must** be ensured that harvest workers have access to a toilet, drinking water and means to clean and wash themselves.

Harvest workers that work with fresh agricultural products **must** have received basic training in hygiene issues.

Following a risk analysis, a documented procedure **must** be applied in relation to employee hygiene during harvest and product transportation.

Understandable written instructions **must** be available for the employees concerning their actions in case of an accident or emergency. Such instructions may also be supported by symbols.

The person in charge of the crop harvest of a parcel **must** have a first aid kit that will be available to employees.

4.8.3 Washing after harvest

The agricultural holding is obliged to take measures so that water used for washing products is in accordance with the relevant legislation on drinking water.

The source of the water used for washing the products **must** belong to the local drinking water network; alternatively, use thereof must be permitted under current legislation.

When water not from the local drinking water network is used, an analysis **must** be performed at least once (1) a year to document its suitability.

Any water recycled when washing agricultural products **must** be used only on condition that it is sanitised and filtered.

4.8.4 Use of chemical means post-harvest

Post-harvest chemical interventions **must** be minimised by taking measures before and after harvest.

The agricultural holding **must** use approved chemicals in accordance with label instructions when no alternative solution is available to ensure protection of the products.

All post-harvest applications of chemicals **must** be registered and filed.

Registration **must** include the lot number of the specific product and must be able to be linked to one or more specific producers; it must also record the location of the application, the date, the reason for which it was applied, the type and quantity of the chemical used, the equipment used and the name of the operator.

4.8.5 Transport and packing of products at the harvest location

The means used for transporting agricultural products during or after harvest **must** be washed and decontaminated regularly in order to avoid contamination of the product by micro-organisms and pollution from earth impurities, organic fertilisers, various chemical substances etc.

When the final packaging of the products is done at the harvest location, health and safety measures **must** be taken to avoid cross-contamination and degradation in general of the quality of the products.

Any means or materials used to transport or package the products **must** be stored and kept in suitable premises under suitable conditions, to ensure they are protected against risk of degradation, pollution or contamination.

NOTE: The requirements in the AGRO 2-3 standard must apply to the final packaging at the harvest location.

4.8.6 Storage

The agricultural holding **is obliged** to take measures to ensure that the storage areas comply with the requirements of the applicable legislation and are appropriate for storing the specific product.

Storage areas **must** be kept clean and cold stores must be disinfected prior to storing the product.

The quantities and time of entry and exit of the agricultural product **must** be recorded.

The measures required to maintain traceability **must** be kept.

When cultivating table olives, the agricultural holding must ensure that the harvested olives are not stored in the meanwhile.

4.9 Equipment and energy management

The agricultural holding **must** keep records of its main equipment (machinery, tools, constructions etc.) and the respective maintenance thereof.

It is recommended to operate and maintain the equipment in accordance with the manufacturer's instructions.

Equipment **must** be maintained at least once (1) a year.

Steps **must** be specified to manage spent machinery lubricants (such as disposal at nearby recycling workshops).

It is recommended to measure and record energy consumption (fuel, electricity) during operation or at the production stage, where possible.

It is recommended that each management plan include an evaluation of

the sustainable use of energy and measures to reduce the use thereof.

It is recommended to measure and record its carbon footprint.

The soil management plan **must** document the need to limit the number of hoeing equipment passages (plough, cutter, disc harrow, cultivator etc.), in order to save energy and reduce other environmental effects (compression, erosion).

It is recommended to take into consideration energy conservation when purchasing, converting, maintaining (damage inspection) and using (e.g. tyre pressure, sprayer pressure etc.) the equipment.

It is recommended to avoid using heavy machinery in order to reduce energy consumption and soil compression.

It is recommended to use alternative (mild) forms of energy.

4.10 Management of pollutants

4.10.1 Pollutants identification and management plan

An identification and management plan in relation to possible pollutants, pollution sources and sources of infection of the agricultural holding **must** be prepared and implemented.

The pollutants management plan **must** at least include the following:

- a) a written action plan for avoiding or reducing residues and pollution at the field and building facilities (packing and distribution centres, etc.)
- b) visible actions and measures at the agricultural holding confirming that the objectives of the action plan regarding residues and pollutants are being applied.

4.11 Environment – Biodiversity

4.11.1 Agricultural activity's impact on the environment

The Supervisor – Agricultural Advisor **must** prepare an environmental management plan.

The environmental management plan **must** at least include the following:

- a) specific environmental legislation in the case where the agricultural holding is in a protected zone (such as NATURA 2000, RAMSAR etc.).
- b) the manner in which the agricultural holding will comply with the requirements of the relevant legislation and cultivation practice specifications.

A risk assessment **must** be in place for areas of first agricultural use demonstrating that they are appropriate for the production of safe products with minimum load on the user and on the environment.

Producers **must** substantiate their compliance with the special restrictions pertaining to each area, in particular those that have been characterised as ecologically sensitive, the use of which is governed by special management studies from the competent authorities or national action plans.

It is recommended to protect and maintain contour strips of steeply sloping grounds in order to protect the landscape and avoid erosion phenomena.

It is recommended to maintain traditional elements of the rural landscape.

4.11.2 Maintaining biodiversity

The Supervisor – Agricultural Advisor **must** include in the environmental management plan the holding's biodiversity policy (some aspects of that plan are set out in Annex C) which **must** focus on sustainable production of agricultural crops and minimising impact on the environment.

4.11.3 Non-productive areas of the agricultural holding

It is recommended to maintain no-production or common areas around the holding (such as road slopes etc.) aimed at contributing to the enrichment of local flora and fauna and the aesthetic upgrading of the holding's surroundings.

4.12 Health, safety and training of employees

4.12.1 Hygiene regulations

Measures **must** be taken to avoid the development of harmful organisms in areas where agricultural products are handled, packed and stored or in areas where propagating material, PPPs and fertilisers are stored.

Adequate waste bins **must** be provided and working areas must be kept clean.

Toilets in good condition in terms of hygiene and cleaning means **must** be made available.

4.12.2 Training

All employees using PPPs and/or machinery **must** prove their training on the safe handling, maintenance and storage thereof.

Those employed by the holding **must** receive training in first aid especially as regards dealing with PPP-related accidents.

Well-documented and understandable instructions to workers **must** be in place with regard to the manner in which they should react in case of an accident and emergencies.

It is recommended that instructions regarding accidents are available in all languages used by the personnel.

It is recommended that, where possible, instructions are accompanied by symbols.

4.12.3 PPP handling

A recent, documented risk assessment in handling PPPs **must** be in place aimed at protecting the health of workers, especially those operating sprayers.

A documented action plan **must** be in place in case of accidents resulting from bad handling, which must include specific measures and an implementation timetable.

The agricultural holding **is obliged** to check and ensure that it does not employ workers involved in the use of PPPs who are aged under 18, or women who are pregnant and breastfeeding.

The agricultural holding **is obliged** to ensure it checks producers use lawful PPPs which have labels in the language of the country they are being applied in, as specified in the applicable legislation.

It is recommended to monitor the health of PPP operators on the basis of a plan prepared by the Supervisor – Agricultural Advisor in cooperation with the local health authorities (e.g. hospitals, rural medical stations).

4.12.4 Equipment and area signage

A first aid kit **must** be available at permanent locations known to everyone.

Special warning signs **must** be placed at dangerous areas of the agricultural holding (e.g. storage/area where PPPs are kept).

To ensure safety of the workers, dangerous areas of the agricultural holding **must** be covered and bear evident marking.

4.12.5 Use of agricultural equipment

It is recommended for agricultural tractors to be equipped with protective structures (safety cabins, protective frames), to avoid exposing operators to danger.

It is recommended that safety cabins are regularly maintained.

Annex A
(for information purposes)

Indicative list of environmental issues

<u>Environmental issues</u>	<u>Negative impacts</u>
1. Soil sustainability	Erosion, compression, reduction of organic matter via mineralisation.
2. Water	Salinization, exhaustion of resources, chemical pollution (nitrogen, PPP residues), contamination.
3. Work environment	Farmers' health (PPP, fertilisers, dust, sun, vegetable poisons, pollen, infections, accidents when using agricultural equipment, natural disasters, etc.).
4. Biodiversity	Shortening, disturbance of the food chain, population boom and/or dominance of tolerant pests, change in flora and fauna composition.
5. Natural resources	Waste, use of non-renewable and depletion of energy sources.
6. Landscape	Aesthetic degradation.
<u>Quality of agricultural products</u>	
7. Climatological and other abiotic factors (Libeccio, heatwave, storm, flood, water scarcity, hail, frost, acid rain, dioxins, radioactive clouds, etc.)	Destruction of production and/or quality degradation
8. Inputs	Pollution from chemicals (nitrates, plant protection product residues)
9. Biotic factors	Product contamination from pests, diseases and weeds.

NOTE: This table may be specialised or expanded to an agricultural holding. The significance of individual environmental issues may vary substantially depending on the crops, the location of the country, etc.

Annex B

(for information purposes)

Integrated Plant Protection means and methods

Out of the following measures, means and methods you can choose the most suitable, independently or in combination with others to address a specific plant protection problem. Appropriateness of a measure is not general or applicable in any case, neither is it independent; therefore, it has to be documented. The general principles of Integrated Plant Protection are set out in the applicable EU and national legislation (Annex III of Directive 2009/128/EC, as in force from time to time).

A. Prevention to avoid establishment of organisms harmful to the crop

- Use propagating material tolerant to or free from any diseases (e.g. material generated using cell culture or quarantine seedbeds or other relevant techniques).
- Weed management (avoid seeding, spread desired weeds, etc.).
- Manage cultivation works so as to not facilitate spreading of weeds, pathogens, insects and other pests.
- Clean machinery and compartments each time before moving them to a new crop (to avoid transferring weeds, insects, diseases, etc.).
- Destroy host plants (usually weeds) used by pathogens and insects infecting the crops.
- Use water and fertilisers properly to avoid rendering the cultivation more sensitive or creating an environment that is favourable for installation of pathogens.
- During irrigation, avoid using water infected by pathogens and weed seeds.
- Use biological means (spread pests, parasites, micro-organisms, microbial insecticides, etc.).
- Avoid wounding plants.
- Take any other means to maintain hygiene of the crops that may not be stated in this standard.

B. Measures to avoid population booms of pests, weeds and diseases already existing on the crops in small populations.

- Immediately remove and destroy infected plants and residues thereof at the end of the cultivation.
- Destroy hibernating types of pests and diseases during winter.
- Crop rotation (annual crops).
- Use propagating material with integrated resistance (annual crops).
- Use trap plants.
- Regulate sowing season so as to keep a distance between the sensitive stage of the cultivation from the time when the harmful organism appears.
- Adapt pruning to avoid creating an environment that favours development of harmful organisms and helps to reduce their population.
- Discourage installation of cultivations that favour multiplication of pathogens and diseases.
- Preventively apply PPPs if this is justified by the history and conditions prevalent in the area (increased possibility of appearance of large populations of the harmful organism at the next stages of cultivation).
- Application of plant protection products locally.

C. Monitoring the development of pests, weeds and plant diseases (life-cycles and populations) at the crop and in the overall area in order to be able to take and implement appropriate repressive measures in time.

- Identify the species and become familiar with the various stages of development of pests, weeds and diseases in relation to the development phases and requirements of the cultivated crops.
- Monitor agricultural warning bulletins and weather forecasts.
- Systematically monitor (scouting) and register (using traps, sampling measurements etc.) the presence and development of pests, weeds, pathogens in the crops and study their life-cycle.

D. Means to reduce population of pests, weeds and diseases.

- Manage seeding density of the crops.
- Use alternative methods for soil processing (non-processing, minimum processing, processing only in a narrow zone, etc.).
- Cover or fertilise the soil with vegetal wastes.
- Use allelopathic properties of plants cultivated in rotation.
- Cover the soil with plastic (to control weeds).
- Soil solarisation.
- Collect and destruct first infestations
- Use pheromones for mass trapping or to control insect coupling.
- Use biological means (spread pests, parasites, micro-organisms, microbial insecticides, etc.).
- Protect natural pest populations during cultivation operations (pruning, foliage, etc.) and manage the plants on which they live (hosts).
- Support natural pest populations by ensuring alternative food, using attractive or trap plants etc.
- Use mechanical means and other cultivation measures.
- Apply techniques varying climatic conditions (regulation of temperature, lighting, relative humidity, CO₂, etc.).
- Use selective plant protection substances (insecticides, fungicides, herbicides etc.) preferably non-toxic (salts of fatty acids and other)

Annex C

(for information purposes)

Main points of a biodiversity management plan

- Measurement using indicators of the current situation. Locating parts of the holding that have a particular problem or particular importance for wild species.
- Actions to avoid destruction of wildlife habitats (e.g. bird nests, etc.) and spontaneous ligneous plants (provided those do not become weeds).
- Planning measures to increase habitats and biodiversity (e.g. careful management of hedges and weeds, cover crops for multiannual crops, planting new hedges).
- Means for protecting environmental elements of the crops or of adjacent parcels from pollution caused by the holding (e.g. maintaining safety zones when applying fertilisers and plant protection substances).
- Mixed cropping of several types of trees or vegetables instead of monoculture.
- Maintaining part of the land uncultivated (preferably on the perimeter) for environmental reasons.
- Taking special measures for the protection of endangered species of the area (e.g. cultivating grains even in deficient areas in order to protect species of birds that nest or feed there. Moreover, maintaining part of the crop free of plant protection products that are toxic for mammals and birds during the breeding season).