



Naturland

Naturland Standards for Organic Beekeeping

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Preface

Certified organic agriculture, as practised in accordance with the written standards of Naturland Association has become an established concept. A comparison of the first draft of the "Standards for Organic Agriculture" passed in 1982 after the association was founded with the currently valid version will reveal two aspects of this modern form of land cultivation: on the one hand its dynamism and potential for development and on the other its stability and consistency. The development of standards and their implementation are the core mission of any certified association for organic agriculture. Standards have to be proven to be workable. They have to adapt to changing conditions and extended to cover new areas. The growth of Naturland and its organisations since the association's establishment is a reflection of the success of its work and confirms that this form of cultivation has gained wide acceptance and appreciation among farmers, food producers and consumers.

Standards for specific areas

The Naturland standards existed long before the EU passed its first legal regulations on organic agriculture. Even today the consistent development of our standards provides major impetus; they incorporate ideas that are taken seriously by the legislators.

As they stand today, Naturland's standards are not limited solely to the specific method of cultivation described in detail in its standards on plant production and animal husbandry. For some years now, standards have been developed to cover many specific areas which require special guidelines, such as horticulture and viticulture, bee-keeping, harvesting of wild grown products, and aquaculture. In the same measure that the standards have evolved to cover various forms of cultivation, they also incorporate the next stage - the processing of this produce. The production and processing of food produce, such as bread and bakery products, milk and dairy products, beer and meat, etc. are described in specific standards for different categories of food produces. Whilst foodstuffs are the original sphere of interests, standards have also been drawn up to cover other areas of cultivation, such as organic forestry and timber processing.

Adherence to the elementary principles

To ensure that Naturland's standards develop consistently, it is essential that the fundamental principles of organic agriculture are adhered to. It is also crucial to withstand short-lived trends and any temptation to sacrifice elementary principles for the sake of immediate success. Standards can only provide a framework, since organic agriculture cannot function on the basis of mere regulations. It is realised by consensus on a common aim. Nevertheless, exact and binding rules are necessary in practice, whilst leaving enough flexibility for adaptation to the particular requirements of each agricultural operation.

The experts - farmers, consumers, processors and scientists - who contribute to the development of Naturland's standards have always offered new solutions to the problems posed. The framework of Naturland's standards is dictated by the core fundamental principles of certified organic agriculture: the obligation to treat the elementary basics of our lives with prudence and responsibility. A common starting-point, sustained management, the active protection of nature and the climate, safekeeping and preservation of the soil, air and water and the protection of the consumers are at the heart of all Naturland's standards. This also includes mutual tolerance and respectful terms of co-existence.

Naturland's standards - basis for certification

Standards will only endure and make a lasting impact if they can be clearly monitored and be put into consistent practice. Any decisions involved have to be seen to be made impartially and on neutral, unbiased terms. This is guaranteed by calling on the services of independent and autonomous committees - standards committee, inspection body and certification committee - as well as by the composition of the committees - consisting of diverse interest groups such as scientists, agriculturists and consumers. Independent inspection procedures and the consistent application of Naturland's standards form the basis of the production of high quality products cultivated in a balance with nature and the environment. This quality is visibly documented by the Naturland logo.

Naturland's quality management - national and international

For producers, processors and consumers, certification by Naturland stands for a reliable quality management system, for the dependability of the organically grown produce, from its cultivation to the finished product.

Naturland e.V is a member of the international umbrella organisation IFOAM, which issues binding standards in the fields of production as well as processing.

Naturland was the first German certification organisation for organic agriculture to complete the independent IFOAM accreditation programme successfully, and to receive accreditation by IFOAM in 1997.

In 1998 Naturland furthermore received accreditation according to European standard DIN EN 45011/ISO 65

I General Section

1. Conditions to be fulfilled for the conclusion of a producer contract

Prior to the conclusion of a producer contract, the association must be given the opportunity to acquire comprehensive information on the external and internal conditions of the farm.

The producer is obliged to provide any information necessary to assess the conversion conditions. This includes particularly the method of management that has been practised to date (use of mineral fertilizers, management of synthetic chemical pesticides etc.), the economic situation and the environmental conditions (sources of potential contamination, e.g. sewage sludge, traffic and other causes must be reported before conversion can begin). If possible causes of contamination with dubious or harmful substances are detected, analyses have to be carried out prior to the conclusion of a producer contract. These analyses may show that a producer contract is only possible under specific conditions or not at all. A comprehensive description of the areas of land cultivated and of the production and storage sites has to be made.

2. Producer contract

On signing the producer contract, the producer commits himself to adhering to Naturland standards and to extending the conversion to all areas of the farming unit that are managed or farmed under his responsibility (whole farm conversion).

The principle of the manager's unit is being applied, i.e. one and the same farm manager must not manage a conventional and an organically operated farm at the same time.¹

The conclusion of a producer contract is possible at any time of year.

The conclusion of a producer contract does not entitle the producer to the use of the association's logo. A separate license agreement has to be concluded for this.

3. Standards

These standards are obligatory for all producers that have concluded a producer contract with Naturland e. V. (registered association). They have been tested and put into practice in this form. If single regulations or parts of these standards should not be applicable under different climatic conditions, the Naturland standards committee has to draft an amendment or addition to the standards which has to be passed by the assembly of delegates. Naturland's certification commission is entitled to allow a contractual producer to diverge from Naturland's standards in one or two respects, where the exception is justified, and for a limited period of time, provided that the general management of the agricultural operation according to Naturland's standards is not adversely affected.

Only the latest version of the standards as passed by the assembly of delegates is in force. The Naturland association will inform the contractual producers of any changes. If the standards are changed, transition deadlines can be set for the implementation of these changes.

Violations of the standards will be prosecuted according to the sanction catalogue (producer contract appendix IV).

The validity of higher state laws and regulations remains unaffected by these standards. The requirements of the regulations (EC) No 834/2007 and No 889/2008 (EU regulation on organic production of agricultural products respectively the detailed rules for its implementation) and the subsequent amendments have to be observed.

¹ Manager's unit: composed of manager and farming unit. The manager is the natural person or legal entity running a farm independently and responsibly (farm manager). The farming unit is a clearly marked managing sphere which is differentiatedly recordable by the means of inspection and documentation.

4. Conversion

During conversion to organic agriculture, the manager introduces management practises in accordance with the principles of organic agriculture throughout the entire operation.

The conversion of the entire farm must occur under economically acceptable basic conditions. It can therefore take place gradually to cover ever greater areas of the farmland cultivated in accordance with the standards.

However, the time span for conversion set down in section I.9 of these standard has to be complied with.

Where conversion is carried out gradually, it is imperative for the areas under various stages of conversion to be clearly and explicitly delineated. It is prohibited to cultivate plants under various stages of conversion if they cannot be clearly identified as such. The same applies to animal produce; organic and conventional feeding and husbandry at the same time within one animal species are not allowed.

Converted areas and stalls resp. animals may not alternate between organic and conventional farming.

The process of conversion will be attended by an adviser authorised by the Naturland association. In co-operation with the adviser, a conversion plan has to be devised. This will contain a plan for crop rotation which includes the areas of land and the crop to be converted annually, a humus analysis and a fertilisation programme scheme as well as a plan for animal husbandry (stocking rate, feeding plan, assessment of the animals' needs). The Naturland association has the right to request current soil analyses.

It is possible to commence conversion at any time of the year.

5. Changes in the farming system

If new fields (e.g. purchase or lease of land) are taken under organic cultivation on a farm that is in conversion or already certified, these areas too have to comply with the usual conversion period (see I.9. of these standards). These new areas have to be clearly distinguishable and separated according to their stage of conversion.

The farm is obliged to report any factors that may have a negative influence on the quality of the produce, in particular any possible sources of contamination.

The marketing deadlines according to section I.9 and the regulations under II.9. of these standards apply to brought-in animals and to the respective conversion periods.

6. Documentation and inspection

The association must be provided with the latest data (e.g. livestock, cultivation). The product flow (e.g. brought-in feed and fertilizers as well as the sale of produce) has to be recorded according to Naturland's specifications. In addition, the farm must maintain livestock records (e.g. on the input and output of livestock, medication). Previously announced and/or unannounced visits on site and inspections by Naturland's representatives will be made at least once per year to check on compliance with the standards. These representatives must be given full access to and insight into all relevant information concerning the agricultural operation. Any documents requested concerning the management of the farm have to be shown, and all relevant questions have to be answered. If third parties act on behalf of the farmer (e. g. in the preparation, storage, processing and transport of the produce), the farmer has to take measures (such as the conclusion of a sub-contracting agreement) to ensure that the standards are implemented and that they can be monitored by Naturland.

7. Certification

The Naturland certification commission confirms that the producer is adhering to the standards with the annual certification letter. If the producer violates current standards, the penalties listed in the catalogue of sanctions, which is part of the producer contract, can be imposed.

It is standard practice for complaints in connection with matters within Naturland's sphere of responsibility to be addressed to Naturland's head offices in Gräfelting, Germany.

8. Approval

Approval of the enterprise documents the successful conclusion of the conversion period and will be granted by the Naturland certification committee (CC).

The period for conversion of the whole farm takes at least two years. In the case of gradual conversion, it takes five years at the most. The conversion period has to be concluded at the latest by the sixth harvest after commencement of the conversion period.

Prior to the certification of a farm, all areas of land must have been cultivated in accordance with the standards for a period of two years. The applicable Naturland standards on animal husbandry and all other forms of farming must also have been implemented where relevant.

Another prerequisite for certification of a farm is proof of sufficient knowledge and ability in the field of organic agriculture.

9. Labelling and marketing

The labelling of products enables the trader legally responsible for the product to be identified.

The provisions of regulations (EC) No 834/2007 and No 889/2008, as far as they apply to the EU Community logo and the declaration of origin (place where the agricultural raw materials were produced) are to be observed.

The application of the Naturland logo is regulated in a particular licence agreement with the Naturland Trademark Company.

For products which have been produced in compliance with the Naturland standards and which are to be marketed with reference to the organic production, to Naturland or with the Naturland logo, the following deadlines and conversion periods for management in compliance with the standards must be adhered to:

Vegetable products:

24 months prior to their having been sown or 24 months prior to the beginning of growth in feed crops.

36 months prior to the harvest in the case of permanent crops (except feed crops).

The starting point considered as management in compliance with the standards is that following the demonstrable conclusion of management measures not complying with the standards.

It is permitted to label vegetable produce only as a **conversion product** – with a respective note – if the product consists of one sole ingredient of agricultural origin and is coming from an area of land that has been cultivated in compliance with the standards for at least 12 months before the harvest of the respective ingredient.

Animal products:

eggs:	6 weeks
milk:	6 months
meat:	
- poultry:	10 weeks; small poultry 6 weeks
- pork:	6 months
- small ruminants:	6 months
- beef:	12 months, and at least three quarters of their lifetime
honey:	ref. section II.9

Animal products may only be labelled if the farm has been in conversion for at least 12 months and the above mentioned marketing deadlines for the respective products are met.

With conversion of the entire farm at the same time the conversion period will be reduced to 24 months altogether.

In addition, the conditions listed under II.7 have to be observed for brought-in animals.

II. Special Section

1. Location of the colonies

Uncultivated or organically farmed land is to be chosen when installing the bees. The location must be such that a guarantee can be given that no significant deterioration of the bee products by contamination from agricultural or non-agricultural sources of pollution can be expected within a radius of 3 km of the hive.

If suspicion exists that the beekeeping produce may be contaminated to a degree greater than that which can be expected from the general pollution of the environment, tests may be required. If suspicions are confirmed, then the location has to be abandoned and the bee products may not be marketed under the Naturland logo. This also applies if colonies are situated in areas which the authorities have designated as being unsuitable for organic agriculture. Honey foraged from plants under conventional cultivation beyond unavoidable quantities (e.g. single-source honey varieties from intensive conventional crops) may not be sold with reference to Naturland or under the Naturland label.

From an organic point of view, it is preferable to keep the colonies in one location all year round. If it is necessary to move the location because forage is not available all year round and all in one area, care should be taken that the right moment is chosen, so that the colonies are not weakened by, for example, lack of food.

At each location only as many colonies should be installed as can be sustained by the supply of pollen and nectar available.

If the location is changed, the location of the colonies should be recorded on a migration plan (map), showing also the dates, the place (name of the field or plot), pasture and number of colonies.

2. Hives

With the exception of connecting sections, small elements, roof covering, mesh flooring, feeding equipment and roof insulation, the hives are to be constructed of natural materials such as wood, straw or clay.

2.1. Treatment of the hives

External treatment of the hives is permissible if natural, not synthetic, means are used. Pesticide-free paint on the basis of natural matter (e.g. linseed oil or wood oil) as well as glues as free as possible of harmful substances are permissible for external treatment. Internal treatment of the hives is prohibited, except with beeswax, propolis and vegetable oils.

Hives which already exist and which have been painted with harmless materials can be re-used after approval by Naturland.

2.2. Cleaning and disinfection

Cleaning and disinfection can be performed with heat (flaming out, hot water) or mechanically.

In the case of acute infection, NaOH-solutions are permissible to disinfect the hive and to clean it out, if they are then neutralised by organic acids. The use of other chemicals is not permitted.

3. Wax and honeycombs

In natural beekeeping, the continual renewal of the wax by the bees' own means, is to be aimed at. The colonies should be given the opportunity to construct natural honeycombs on several supers. Septums, starter strips and other wax products may only be made from wax originating from beekeeping which is certified by Naturland or complies with any certification accepted as equivalent by Naturland². Plastic septums are prohibited.

² In case of unavailability (the manager is obliged to supply disclosure and proof) wax which has been produced in accordance with the regulations (EC) No 834/2007 and No 889/2008 may be used.

By the end of the conversion period, the wax must have been produced by organic beekeeping methods or be of equivalent quality. This condition can be met by the honeycombs already produced by the colonies (i.e. if it can be proved that former treatment measures were harmless), by exchanging the combs completely for such made of harmless wax, or by wax renewal by own means. By termination of the conversion period the non-existence of residues in the wax has to be proved by an analysis (collective sample). Converted frames and hives are to be marked clearly as such.

If wax from organic beekeeping is not available, uncontaminated beeswax from cappings or of a higher quality (e.g. wax from natural honeycomb construction) may be purchased, if a test can prove that it is free of noxious substances. In particular there should be no residue present indicating the use of chemicals forbidden by Naturland's standards in combating varroa or wax moths. Records must be kept of any wax purchased.

The wax may only be obtained by heat. It may not come in contact with solvents, bleaches or other additives.

When the wax is processed, only instruments and containers made of non-oxidising materials may be used.

Combs should be stored at low temperatures and well ventilated. It is permissible to use thermal methods, acetic acid or *bacillus thuringiensis* preparations to keep the combs hygienic.

4. Feeding

It is permissible to feed the bees, provided this is necessary for the healthy development of the colonies. As far as the farm's situation allows, the bees should be fed with honey from its own apiaries.

It is only permissible to feed sugar or sugar syrup to tide the colonies over the winter and to stimulate brood rearing. The feed must be of organic origin. In order to guarantee that the sugar is sufficiently inverted, at least 10% of the winter feed must be in the form of honey left in the combs or supplemented to this level.

To avoid adulteration of the honey by remains of the winter feed, it must be removed before the bees start foraging again.

If there is a time of need or interruption in the availability of forage, then it is permissible to feed only honey which is certified by Naturland or complies with any certification accepted as equivalent by Naturland³.

It is forbidden to feed pollen substitutes.

5. Beekeeping practice, breeding, increasing stocks

It is a principle tenet of organic beekeeping that the bees be treated as gently as possible. The use of synthetic chemical means to pacify or expel the bees is prohibited. The use of smoke should be reduced to a minimum. Natural materials (e.g. wood, dried vegetable parts) or products from natural materials (e.g. olive seed pellets) are to be preferred as smoking materials.

It is forbidden to mutilate the bees e.g. by clipping their wings.

It is permissible to remove part of the brood of drones in order to keep varroa under control.

The hives of each of the bee colonies have to be marked distinctively and the colonies to be listed in an inventory.

The aim of breeding is to produce bees which are adapted to the local organic situation, of a robust constitution and tolerant of varroa. Preference should be given to European strains of *apis mellifera* and their locally occurring organic varieties. Genetic engineering and the use of genetically manipulated bees is prohibited.

Preference should be given to natural breeding and reproduction methods. The swarming instinct is to be taken into account.

Stocks should be increased by taking advantage of the bees' swarming habits. It is possible both to anticipate swarming by creating an artificial swarm and dividing the remaining colony to increase stocks further, as well as to re-unite anticipated swarms.

Artificial insemination may only be performed in breeding operations and with Naturland's approval.

Care must be taken not to injure the bees when gathering pollen. The holes in the pollen comb should round for preference.

³ In case of unavailability (the manager is obliged to supply disclosure and proof) honey which has been produced in accordance with the regulations (EC) No 834/2007 and 889/2008 may be used.

6. Health of the bees

A bee colony should be reared in such a way that it is capable of correcting any imbalances by itself. The measures employed in organic beekeeping are designed to retain and promote the natural curative powers and the vitality of the bee colonies. The use of synthetic chemical medication is prohibited.

In cases where they are allowed under EC Regulation No 834/2007 and No 889/2008, the following methods and substances may be employed to combat the varroa mite:

- lactic acid
- formic acid
- acetic acid
- oxide acid
- herbal teas
- essential oils⁴
- biological technical and physical methods (e.g. use of heat)

Any treatment of commercial colonies is only permitted during the period after the last honey harvest until up to 6 weeks before nectar flow begins.

Naturland must be informed of any treatment prescribed by the authorities with substances not listed above. Products from colonies thus treated may not be marketed under the Naturland label. When the treatment has been concluded, the colonies are subject to the conversion procedure (ref. 9. Labelling).

All treatment measures have to be recorded in a treatment book.

7. Brought-in bees

It is only permissible to buy colonies or queens from sources which are certified by Naturland or comply with any certification accepted as equivalent by Naturland⁵.

Purchased colonies may not be contaminated with substances the use of which is forbidden under Naturland's standards.

It is permissible to capture foreign swarms provided they do not make up more than 10% per year of the existing stock. This regulation also applies to the purchase of queens from conventional origins. Where severe losses have been sustained, Naturland may make an exception to this rule.

If colonies from conventional sources are added to the farm, they are subject to the conversion procedure (ref. 9. Labelling).

8. Extraction of honey, storage

In organic beekeeping, attention must be paid to all aspects known to ensure the best quality, according to the principles of carefully applied and well-established practice (maturity of the honey, no brood in the combs, working with materials approved in foodstuffs) when extracting the honey.

The honey's valuable ingredients should be altered as little as possible during the processes of extraction, storage and conservation.

⁴ In order to avoid residues in wax and honey, essential oils (e.g. thymol preparations) may only be applied during the period after the last honey harvest until up to 12 weeks before nectar flow begins. The duration of the application must not be longer than 8 weeks.

⁵ In case of unavailability (the manager is obliged to supply disclosure and proof) colonies or queens which are kept in accordance with the regulations (EC) No 834/2007 and No 889/2008 may be used.

8.1 Removal of the honeycombs

The bees must be removed from the honey as gently as possible (e.g. using vibrators, escape boards, brushes or fans). The use of chemical repellents and killing the bees to facilitate honey harvesting is forbidden.

8.2 Extraction of honey

The equipment and vessels used in the extraction of honey by spinning or pressing have to be such that the honey only comes into contact with materials approved for use in the processing of foodstuffs (e.g. stainless steel, glass, non-contaminating plastics).

The measures employed and the relevant data on the honey harvest (when the combs were removed, date of spinning, amount harvested, pasture) have to be recorded.

During spinning, straining, filtering and conservation, or if the honey crystallises, it may not be heated to more than 38° C. The temperature has to be measured regularly.

Filtering under pressure is prohibited in all forms. Low pressures such as those which occur in normal operation (e.g. when pumping) are permissible.

8.3 Storage and conservation

Only vessels of non-contaminating materials (e.g. stainless steel, glass) may be used. The honey must be stored in a dark, cool and dry place.

Whenever possible, the honey should be filled into jars before it becomes solid. Recycling jars must be used. The admixture of raw materials not produced according to these standards must be excluded.

8.4 Measurable quality of the honey

In addition to the legal stipulations, the following criteria must be fulfilled:

- water content, measured by the AOAC method, max. 18% (heather honey 21.5%)
- HMF (= Hydroxymethylfurfural)-content, measured according to Winkler, max. 10 mg/kg⁶
- invertase index, min. 10 (Hadorn-/Gontarski unit). In the case of honey from acacia, lime trees and phacelia, min. 7 (analyses according to AOAC = Association of Official Agricultural Chemists).

As a general rule these criteria will be met if the honey has been produced according to these standards and the honey extracted only from sufficiently capped combs or parts of combs. It may be necessary to have the honey analysed. In borderline cases, the HMF and invertase have to be examined concurrently.

Honey which does not meet the quality criteria with regard to its content of HMF, enzymes and water, may only be sold under the Naturland logo as honey suitable for industrial processing.

No traces of chemotherapeutic drugs should be found in the honey indicating forbidden methods of treatment.

⁶ Exceptions are possible for special climatic conditions which do not allow compliance with this regulation

9. Labelling

The Naturland logo may be applied to bee products if the colonies have been reared for at least a year according to Naturland's standards and the production of wax/construction of the honeycombs corresponded to Naturland's standards before the first time nectar was foraged. All the colonies and their products are to be labelled distinctively.

Previous rearing methods e.g. treatment of the colonies exclusively with substances permitted in Naturland's standards can be recognised by Naturland upon consultation.

In addition to the legal requirements, it must be possible to identify the farmer, the bottler and the forage plant from a lot number on the label.

In the interests of clear labelling, notice to the effect that the bees' extensive flight radius means that they may also forage beyond the borders of the organic or equivalently farmed land should appear on the jars. Ultimately the definition of organic quality rests on the beekeepers' method of working.

The production of mead is covered by Naturland's processing standards.

It is possible to apply the Naturland logo for beeswax and beeswax products if the beeswax was produced according to these standards.

If substances have to be applied on the instructions of the authorities and these substances do not correspond to Naturland's standards, then the Naturland logo may not be applied to the bee products.

10. Trade in supplementary products

It is possible for the beekeeper to sell products purchased elsewhere in his or her own shop, on a local market stall etc. Separate records are to be kept of all such products.

Conventionally produced goods may only be offered for sale if organically produced equivalents are not available. Conventional goods must be clearly labelled as such. One and the same product may not be sold concurrently from organic and conventional agriculture.