





Naturland sets higher standards



Standards define what is covered by the term “organic agriculture” and how this method of agriculture is to be put into practice. Naturland's standards define the comprehensive approach intrinsic to its understanding of organic agriculture as compared to the minimum legal standards which make up the EU regulation on organic farming.

Naturland has summarised the major differences for you between Naturland's standards and the EU regulation on organic farming (EC nos. 834/2007 and 889/2008 – implementation regulations) in the table below.

Naturland's standards <i>version 05/2010</i> 	EU regulation on organic farming 
1. GENERAL (inspection and transparency)	
<ul style="list-style-type: none"> • Mandatory full farm conversion 	<ul style="list-style-type: none"> • Partial farm conversion possible, with all the negative consequences (poor demarcation, inspection, credibility etc.)
<ul style="list-style-type: none"> • Implementation of requirements governing social responsibility towards workers on Naturland farms world-wide 	<ul style="list-style-type: none"> • No regulation
<ul style="list-style-type: none"> • Prohibition of plant genetic engineering applicable immediately and directly to the entire farm, even in the case of gradual conversion to organic 	<ul style="list-style-type: none"> • One and the same farm can grow organic side by side with conventional produce using genetically modified plants
<ul style="list-style-type: none"> • Organic management must be openly proclaimed to the public (sign on the farm), which allows neighbours, customers etc. to exercise a kind of “social control”, in addition to the compulsory inspection procedure. Irregularities and even violations of the standards can then be reported to Naturland by outsiders. Naturland follows up on these reports and checks to see whether there has actually been any infringement 	<ul style="list-style-type: none"> • No regulation

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2. ARABLE FARMING	
<ul style="list-style-type: none"> Possible risk factors (dangerous waste, emission sources, and sources of contamination e. g. discharge of sewage sludge) must be eliminated 	<ul style="list-style-type: none"> No regulation
<ul style="list-style-type: none"> Minimum percentage of legumes in the main crop (e. g. clover grass) in crop rotation is required, a prerequisite which must be complied with before additional organic fertilisers can be purchased. Legumes bind the nitrogen from the air and are the most natural form of fertiliser. Growing legumes enriches the variety of crop rotation and reduces disease pressure 	<ul style="list-style-type: none"> No regulation
<ul style="list-style-type: none"> When purchasing means of production (e. g. farm-produced fertiliser, fodder), these must be bought from organic farms which have been certified by Naturland as an approved equivalent, wherever possible 	<ul style="list-style-type: none"> No regulation
3. FERTILISERS	
Clearly defined requirements of organic fertilisation: <ul style="list-style-type: none"> Total amount of fertiliser (from the farm's own livestock and external fertilisers) restricted to 1.4 DU/hectare = 112 kg nitrogen/hectare/year. (Higher amounts are only permitted for special crops, e. g. in vegetable growing.) <i>DU = dung unit (1.4 DU corresponds to the excrement of two adult cattle.)</i> 	"Conventional fertilisation" possible with organic fertilisers: <ul style="list-style-type: none"> There is only a limit to the amount of farm-produced fertiliser allowed (annual maximum of 170 kg nitrogen/hectare). No restriction in the total amount of fertiliser allowed. This means purchase of additional commercial fertiliser is permitted, allowing for a much higher amount of fertiliser to be discharged
<ul style="list-style-type: none"> Restriction applicable to the <u>source and kind of organic fertiliser purchased</u>: priority is given to manure produced on organic farms. <ul style="list-style-type: none"> ➤ Only solid manure or fermentation residue from biogas plants (in limited quantities and subject to special regulations) may be purchased from conventionally managed farms ➤ Conventional poultry manure and conventional liquid manure are completely prohibited ➤ Meat meal, blood and bone meal (even as fertilisers) and <u>compost from domestic refuse</u>, are prohibited 	<ul style="list-style-type: none"> Farm-produced fertiliser from questionable livestock husbandry (liquid manure, poultry manure) is permitted. <ul style="list-style-type: none"> ➤ Meat meal, blood meal and bone meal are permitted and may be purchased as organic fertilisers (risk of BSE) ➤ Domestic refuse is permitted if composted (bio-degradable waste bin, with higher risk of impurities)
<ul style="list-style-type: none"> Permissible amount of commercial organic fertiliser <u>which may be purchased</u> is restricted to 	<ul style="list-style-type: none"> No limit to amount of fertiliser which may be purchased. This means that a farm can <u>rely solely on external fertiliser</u>

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0.5 DU/hectare	
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4. ANIMAL HUSBANDRY



<ul style="list-style-type: none"> The permissible stocking density (animals per hectare) is more stringent, to guarantee an even balance between fodder and the area to which their manure is applied: <u>maximum stocking density/hectare:</u> <u>140 hens</u> <u>280 broilers</u> <u>10 fattening pigs</u> 	<ul style="list-style-type: none"> Maximum stocking density/hectare: Particularly in the critical sectors of product transformation, considerably more animals are possible – with all the ensuing problems (ground water, nitrate accumulation etc.). The maximum limits/hectare are: <u>230 hens (64% higher nitrogen discharge)</u> <u>580 broilers (107% higher)</u> <u>14 fattening pigs (40% higher)</u> Besides this, it is even possible for EU member states to increase the maximum number of animals allowed per hectare
<ul style="list-style-type: none"> Laying hens: When calculating the free-range areas, only those areas are included which the birds actually do use Outdoor access is mandatory at all times. In bad weather an additional roofed forecourt has to be provided in addition to the prescribed grassland, as part of the free-range area. This both accommodates the birds' natural behavioural patterns and allows for the best hygienic conditions. The roofed forecourt must be accessible all year round 	<ul style="list-style-type: none"> No regulation Laying hens must always have access to free-range areas, if the weather permits (<u>which means that in bad weather it is possible to prevent the birds from roaming freely!</u>)
<ul style="list-style-type: none"> Maximum stocking density for hens kept in aviaries: 12 laying hens per square metre of floor space 	<ul style="list-style-type: none"> No specific stocking density limit for hens kept in aviaries
<ul style="list-style-type: none"> Separate specific regulations for rearing of pullets e. g. feeding with organic fodder, no coccidiostatics, chicken runs available even at this stage 	<ul style="list-style-type: none"> No regulation
<ul style="list-style-type: none"> Prohibition of cow trainers (electrical aids used to prevent the cows' natural excretion behaviour) 	<ul style="list-style-type: none"> No regulation

5. FODDER



<ul style="list-style-type: none"> Self-sufficiency with farm-grown fodder is to be aimed at; at least 50% of the fodder must come from the farm itself (nutrient cycle) (or from a neighbouring farm which supplies fodder under a contractual agreement approved by Naturland and, in return, applies the manure from its partner's farm to its own fodder crops) 	<ul style="list-style-type: none"> No obligation to produce own feed; any amount or type of livestock possible, completely irrespective of the area farmed (Only the method of manure disposal must be proven)
<ul style="list-style-type: none"> The positive list of feed for monogastric mammals 	<ul style="list-style-type: none"> The positive list of conventional

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<p>and birds (pigs, poultry) which is not yet available in sufficient quantity from organic sources, is restricted to a very few protein feedstuffs</p>	<p>fodder that may be used includes approx. 80 products</p>
<ul style="list-style-type: none"> Cattle: exclusive feeding with silage all year round is prohibited. In summer, green forage must be offered 	<ul style="list-style-type: none"> No regulation, which means that even in summer, when fresh grass would be available, it is possible to feed the cattle silage only
6. AQUACULTURE	
<ul style="list-style-type: none"> In accordance with welfare oriented animal husbandry and ecological balance, the stocking densities are limited to: 10kg trout per cubic meter 10kg salmon per cubic meter 10kg seabream and seabass per cubic meter 80g shrimps per square meter 	<ul style="list-style-type: none"> For EU organic operations, higher maximum upper limits apply: Up to 25kg trout per cubic meter Up to 20kg salmon per cubic meter Up to 15kg seabream and seabass per cubic meter Up to 240g shrimps per square meter
<ul style="list-style-type: none"> Antibiotics and conventional medication are forbidden for shrimps. For finfish, the use of conventional medicine is strongly limited (<i>e.g. immediate suspension even after one-time treatment of tropical species like Tilapia and Pangasius</i>). 	<ul style="list-style-type: none"> Antibiotics and conventional medication are permitted for shrimps. For finfish, the regulations concerning conventional treatments are less strict as well (<i>general permission of conventional medication, no or only little limitation according to species and number of treatments</i>).
<ul style="list-style-type: none"> Regular analytics of water, sediment, feed and finished product/fish are required. 	<ul style="list-style-type: none"> Analytics are not mandatory.
<ul style="list-style-type: none"> Shrimp producers are obligated to reforest former mangrove areas. This provision is part of the yearly organic inspection. 	<ul style="list-style-type: none"> No regulation.
<ul style="list-style-type: none"> Net cages cannot be treated with anti-fouling chemicals, but may only be cleaned mechanically. 	<ul style="list-style-type: none"> The use of copper sulfate is allowed (currently until 2015).
<ul style="list-style-type: none"> Detailed requirements for the use of fishmeal in regard to sustainable sources. Fish trimmings from conventional aquaculture are not allowed for feed. 	<ul style="list-style-type: none"> Requirements regarding the origin of fishmeal as feed ingredient are imprecise. The use of fish trimmings from conventional aquaculture is allowed at least until 2014.

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7. VEGETABLE GROWING/SPECIAL CROPS	
<ul style="list-style-type: none"> • Growing in sacks or containers on the basis of a nutrient solution is <u>not permitted</u> when growing vegetables 	<ul style="list-style-type: none"> • It is possible to grow them in sacks or other containers and feed the plants solely on nutrient solution
<ul style="list-style-type: none"> • Prohibition of CMS hybrids (cytoplasmic male sterility) from protoplast fusion - transfer of genetic material from one species to another in a manner which is not possible naturally (with traditional cultivation techniques) (transition to genetic engineering processes) 	<ul style="list-style-type: none"> • Use of CMS hybrids permissible
<ul style="list-style-type: none"> • Prohibition of pyrethroids 	<ul style="list-style-type: none"> • Use of pyrethroids (synthetic insecticides) permitted
<ul style="list-style-type: none"> • Prohibition of chemically synthesised inputs 	<ul style="list-style-type: none"> • Approval of chemically synthesised inputs (art. 4c) can be given in exceptional cases
<ul style="list-style-type: none"> • The amount of copper (Cu salts) permissible is strictly limited: max 3 kg/hectare/year; max. 4 kg/hectare/year for hops 	<ul style="list-style-type: none"> • Use of copper: considerably higher quantities permissible. Up to 6 kg copper/hectare/year (and in excess of this if approval obtained)
<ul style="list-style-type: none"> • Mushroom cultivation: organic source materials, components and supplementary substances of the substratum must come from organic production 	<ul style="list-style-type: none"> • Substratum may contain up to 25% conventional substances (e. g. poultry manure)
<ul style="list-style-type: none"> • Viticulture/fruit growing: limitation of the total amount of fertiliser in a three year rotation cycle (total of max. 150 kg/hectare) 	<ul style="list-style-type: none"> • No special consideration of total permissible amount of nitrogen fertilisers in viticulture/fruit growing
8. IMPORTANT EXAMPLES IN THE SPHERE OF PROCESSING	
<ul style="list-style-type: none"> • Source of raw goods is clearly defined and complies with the requirements of Naturland's standards • Guaranteed traceability through every commercial stage right back to the farm 	<ul style="list-style-type: none"> • Any raw goods from sources anywhere in the world possible (focus on lowest possible global prices) from producers working to the lowest possible permissible standards, even, for example, from countries only operating to standards equivalent to the EU eco-regulation • No compulsory traceability throughout every commercial stage back to the original farm
<ul style="list-style-type: none"> • <u>Processing standards specific to certain product groups, e. g. comprehensive and detailed processing standards for milk and dairy products,</u> 	<ul style="list-style-type: none"> • Appendix VIII of the regulation governs the ingredients, additives and auxiliary substances permitted.

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meat and meat products	Permission is general: only in isolated cases is permission for ingredients, additives and auxiliary substances <u>restricted to individual groups of products or specific purposes</u>
<ul style="list-style-type: none"> • Regulations on processing with particular reference to permissible processing methods (e. g. prohibition of sterilisation of dairy products, fruit juices from fruit juice concentrates etc.) 	<ul style="list-style-type: none"> • No regulation
<ul style="list-style-type: none"> • Prohibition of any use of genetically modified organisms and their derivatives 	<ul style="list-style-type: none"> • Under certain conditions the use of genetically modified additives and auxiliary substances for processing may be allowed (art. 22 (2) g)
<ul style="list-style-type: none"> • Only possible to apply Naturland logo to a product if at least 95% of the agricultural ingredients comply with Naturland's standards. Not possible to identify individual ingredients as organic (i. e. if the actual product is not organic, but only a small portion) 	<ul style="list-style-type: none"> • Risk of deceptive advertising due to the possibility of identifying individual ingredients as organic in the list of ingredients in a conventional product with less than 95% organic contents
<ul style="list-style-type: none"> • Positive list of permissible food additives is much shorter and restricted to specific purposes and product groups. Naturland allows less than half (21) of the permissible EU additives (48) 	<ul style="list-style-type: none"> • More general positive list of permissible food additives. EU processors can use 48 different additives
<ul style="list-style-type: none"> • Restrictive permission to use natural flavourings and enzymes specific to specific product groups 	<ul style="list-style-type: none"> • General permission for natural flavourings and enzymes
<ul style="list-style-type: none"> • The preservation of shrimps with sulfites (suspected to be allergenic) is not allowed. 	<ul style="list-style-type: none"> • The use of sulfites for preservation is allowed.
<ul style="list-style-type: none"> • Salting by injection for smoking of fish is not allowed. 	<ul style="list-style-type: none"> • Salting by injection is allowed.
<ul style="list-style-type: none"> • Where fodder is produced, the processing plant (dedicated solely to organic fodder) must be installed in a separate area to that used to produce conventional fodder 	<ul style="list-style-type: none"> • Conventional and organic fodder can be produced in the same plant (risk of contamination)
<ul style="list-style-type: none"> • Wine: detailed processing standards 	<ul style="list-style-type: none"> • No regulation

The examples cited below describe situations in practice which comply with the EU regulation on organic farming but are not possible under Naturland's standards.

1. Partial conversion to organic:

An EU farmer can **convert part of his farm only to organic agriculture** (e. g. dairy cattle).

- At the same time the farmer can continue to keep conventional battery hens and feed them on medicated intensive fodder.
- The poultry manure, with all its inherent **residual risks**, can even be spread on the fodder-growing areas of the organic section of the farm.
- The milk is sold in the shops as organic, from cows kept and fed according to the principles of organic farming.
- Should the farmer who has converted only part of his farm to organic want to, he can continue to have conventional artificial fertiliser in stock, **and no-one would be able to prove which areas he applied it to.**

2. No fodder produced on the farm:

A large facility with laying hens, managed according to the EU standards, can be run **without producing any of its own fodder.**

- The producer can feed his hens on **fodder purchased completely from external sources**, even from abroad, and have it transported to his country by ship (risk of genetic engineering).
- If the producer complies with EU standards, he can keep **many more birds** – because he is not required to produce his own fodder.
- The resulting **manure has to be disposed of in other areas** and can lead to overfertilisation and contamination of the soil and ground water there.
- **Fodder and manure have in some cases to be transported long distances**, which makes a considerable negative impact on the climate.
- Under the EU eco-regulation, the fodder given to laying hens can, moreover, contain a long list of conventional ingredients, among them conventional soya beans (= **risk of genetic engineering**).

3. No limit to amount of fertiliser:

An EU farm is allowed to buy and use further **commercial fertilisers containing nitrogen, without restriction**, to be used in addition to the fertiliser it produces itself.

- This considerably increases the risk of high rates of nitrate e. g. in vegetables – and at the same time of nitrate seepage or displacement into the ground water.

The examples cited below describe situations in practice which comply with the EU regulation on organic farming but are not possible under Naturland's standards.

4. Fertilisers from questionable sources:

An EU arable farm can fertilise its organic areas on a regular basis with conventional liquid manure from pigs or conventional poultry manure – i. e. **fertilisers from problematical farming systems**.

- The excrement from conventional livestock more often contains residue from antibiotics (**problems with residue and resistance**) and other medication.
- The conventional fertiliser can be procured from a neighbour with a conventional farm or even from conventional parts of the farmer's own farm, which leaves the door wide open to abuse (**surveillance problems**).
- It is then no longer necessary for the farmer to grow his own legumes, which is the actual basis of nutriment supply in organic agriculture. This will, however, lead to greater disease pressure on his other crops.
- He could also resort to animal meal or bone meal, which are considered critical since BSE times and have to be disposed of – for example on organic EU areas.

5. Dangerous waste:

A problematic history or even dangerous waste are not considered important issues on EU farms.

- Areas of an EU farm on which sewage sludge was discharged shortly before conversion can be producing organic fodder twelve months later, which can comprise up to 100% of the fodder used on the farm itself, for examples as feed for its cows, the milk of which can already be sold as organic.

6. Controllability/credibility:

A farm specialising in growing vegetables farms 40 hectares and decides to convert four hectares to organic agriculture according to the EU regulation on organic farming.

- Accordingly the farmer can then grow, for example, organic kohlrabi on these four hectares, for sale. He can also grow kohlrabi on his conventionally farmed area, as long as it is a different variety (parallel production = **surveillance problems**).
- The farmer specialising in growing vegetables can, however, legally establish two separate entities (two different limited liability companies). He can be farm manager on both and could produce identical ranges of organic and conventional vegetables in the immediate vicinity of each other (parallel production = **surveillance problems**).
- A conventional strawberry farm with 30 hectares of pick-your-own strawberries can include an organic strain in its range, grown on an adjoining one acre strawberry field. **Such constellations soon reach the limits of controllability.**

7. Vegetables/special crops:

In a greenhouse, tomatoes are grown solely in substrate containers or sacks and fed on a nutrient solution. They are then sold as organic tomatoes.

The examples cited below describe situations in practice which comply with the EU regulation on organic farming but are not possible under Naturland's standards.

8. Social aspects:

In many countries there are comprehensive laws governing working conditions and social aspects. However, they are often poorly implemented or monitored. Naturland's social standards are part and parcel of the general production and processing standards and compliance with them is regularly monitored in the course of organic inspection tours. In the plant, for example, of an international tea processor adhering to the EU regulation on organic farming, there are no mechanisms to inspect social aspects besides those established by the state.

This can mean, for example, that:

- some children have to spend so much time at work that it is impossible for them to attend school regularly
- safety in the work place is not taken seriously and, for example, potentially very dangerous areas, such as stairs or machines, are not guarded or marked. This can present great risk to life and limb for all the workers.
- plants do not have a fixed schedule of minimum wages for their workers
- an employer makes it difficult or impossible for unions to be established or workers to perform collective activities
- that there are no rules about the length of the working week or days of rest or clearly understandable rules about overtime during the harvest (high season).

9. Processing methods:

An EU plant produces organic products using the following processes:

- apple juice from apple juice concentrate
- pastries using enzymes and ascorbic acid as a flour improver
- beer using rapid fermentation and fining with malt extract

10. Processing/fruit juice concentrate:

When producing fruit juice concentrates, the flavour partially evaporates. This is "captured" and sold separately from the concentrate itself. When the concentrate is later treated, the flavours are added back. The EU regulation on organic farming permits the use of natural flavouring without any restriction. This means that it is possible, as is common practice, for the evaporated flavours from conventional fruits to be added to organic concentrates in the later processing stages.