Module 5
Livestock Production Standard

Incorporates:

- Cattle
- Dairy
- Sheep
- Poultry
- Deer
- Goats
- Horses
- Pigs
- Ratites, i.e. ostrich and emu

04 MAY 2009

This document replaces the BIO-GRO New Zealand Organic Standards, 30 April 2001: Module 4.1

The reasons for change are:

- regular review required under IFOAM accreditation;
- incorporation of notified changes since the 30 April 2001 Standards were published;
- incorporation of other changes required for ongoing compliance with the IFOAM Basic Standards, the NZFSA OOAP, and overseas market regulations;
- organic production systems are continuously evolving.

This document may be altered at any time. It was current at the date in the header of each page of the document. It is recommended that anyone intending to use this document contact BioGro or check the BioGro website www.biogro.co.nz to confirm that this is the current version.

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1 Scope and purpose

This BioGro Standard contains the production requirements and audit criteria for the certification and licensing by BioGro of producers of organic livestock and livestock products to use the BioGro trademarks and logos. Livestock includes cattle, sheep, dairy animals, goats, pigs, poultry, ratites, deer, and horses.

This BioGro Standard specifies the production requirements that must be followed by all:

- producers of organic livestock and livestock products certified by BioGro; and
- producers of organic livestock and livestock products licensed by BioGro to use the BioGro trademarks and logos.

All livestock and livestock products bearing the BioGro trademarks/logos are produced in accordance with this Standard.

Information on BioGro, applying for certification and the use of the BioGro trademarks/logos can be obtained from *Module 1 Introduction* and *Module 3 Certification System*.

Information on the BioGro requirements for processing and distribution of organic produce can be obtained from *Module 13 Processing Standard* and *Module 14 Distribution Standard*.

The audit checklists (available on request from BioGro) may be used for self-audits in preparation for audits by BioGro.

2 References

All relevant regulations and industry requirements must be complied with.

3 Definitions

The BioGro definitions of terms can be found in the BioGro Standards *Module 2 Glossary of Terms*.

4 Production requirements

4.1 General

Licensees should comply with all relevant and applicable industry codes for best livestock management and agricultural practices.

There must be a livestock management plan for each farm. This plan must include soil fertility, pasture production, feeding, breeding, and animal health. The plan must address how all effluents are to be collected and managed.

Records, including age, certification status, and any treatments, must be kept for all stock.

No animals must be kept in cages. Intensive production systems that do not allow access to pasture are prohibited. All livestock must be able to exhibit their natural behaviour. Herd animals must not be kept individually.

4.1.1 Quarantine area

An area must be clearly designated on the farm map that can be used as a quarantine area if required. This is a designated area of the property where any treated stock and any incoming conventional stock can be run for the duration of the required quarantine period. If the designated area has been used for quarantining in the last 12 months then it is classed as “the quarantine area”. After 12 months has elapsed since the last use of the quarantine area for quarantining, the quarantine area regains the certification status of the lowest certification status land on the farm.

The quarantine area can not be used for the production of certified crops. It can only be grazed by animals which will not be sold for meat for at least 12 months, or will not be producing any certified progeny or products for at least 6 months, e.g. breeding sires, heifers, replacement ewe lambs. The quarantine area can be used to make supplementary feed such as hay and silage, provided the feeding of this complies with the maximum allowances specified in Section 4.4.3 i of this Module.

It is in the interests of the producer to use interim animal health remedies, refer *Module 2: Glossary of Terms*, that have the shortest possible withholding periods, so that the smallest possible area is required as a quarantine area.

4.2 Soil and fertility

4.2.1 Guiding principles

Organic livestock production systems must aim to sustain and enhance the fertility and life-supporting ability of the soil, including its biological, physical and chemical components. Emphasis must be placed on the importance of soil organic matter, and soil flora and fauna, and on achieving cycles and flows of nutrients and organic matter which will conserve and enhance soil fertility and humus.

4.2.2 Recommendations

a. Soil management on organic livestock farms is based on appropriate stocking rates and sympathetic grazing regimes to minimise damage to soil structure and to minimise compaction.
b. Permanent pastures should include legumes for nitrogen fixation and be well managed in order to enhance soil fertility levels and soil structure.
c. As the commercial livestock farm situation may result in net export of some nutrients in the products, replacement of nutrients from external sources may be required. The timing and method of application of approved fertilisers should be determined according to soil type, stock type, climate, and weather conditions.
d. Where the land is suitable, mixed farming is encouraged where livestock are run as part of an organic mixed farming rotation that includes crops and grazed pasture.

4.2.3 Requirements of the Standards

a. Soil management plan

The management plan must include plans to minimise damage to soil structure and to minimise soil compaction.

b. Soil testing

Regular soil testing, as specified below, is required to:

i. monitor fertility levels to ensure that the overall fertility of the farm's soils is maintained and enhanced; and/or
ii. determine whether mineral supplementation is necessary and appropriate; and/or
iii. determine the need for restricted fertilisers.

Herbage testing may also be used to evaluate the need for nutrients such as trace minerals, but is not an alternative to soil tests.

Soil test(s) from at least one productive area on the farm are required annually for C0, C1, and C2 properties. Annual tests thereafter are not obligatory, but may be required at the auditor's discretion if there are concerns regarding fertility levels.

Soil tests must always include tests for organic matter levels.

Soil and herbage/foliar testing must be carried out under an ISO 17025 accredited laboratory test, where available. If an ISO 17025 accredited laboratory test is not available for that type of test, then BioGro written approval for the test to be carried out is required for acceptance under these standards.

c. Soil health

Measures of biological fertility and soil structure must show either good or generally improving levels of these soil parameters.

d. Composts and Vermicasts

Composts and vermicasts may be made on the farm or purchased from BioGro certified/approved sources. Composts and vermicasts made on the farm must be made from ingredients sourced from certified farms and/or ingredients selected in compliance with the *BioGro Compost Guide*. The compost must have heated, been aerated and mixed, and matured sufficiently, in compliance with the *BioGro Compost Guide*. Vermicasts made from low risk ingredients approved by BioGro do not have to go through a heat process.

Management of composts must comply at all times with the requirements of the local authority .

e. Leaching

Leaching losses from stored and applied composts must be actively minimised.

f. Nitrogen rates

Application rates of compost along with other fertiliser additions must not lead to excessive levels of available nitrogen. Nitrogen applied through the use of approved composts and foliar fertilisers should be no more than that required for maintenance of pasture needs, and as a guide should not exceed 170 kg nitrogen per hectare per year.

g. Raw manures

With the exception of a certified property's own dairy or pig effluent from the certified area and certified livestock being spread onto pasture, raw livestock manures must not be applied directly to soils. Other than for the above exception, raw livestock manures (including those from the certified property if collected) must be hot composted before use, refer to the *BioGro Compost Guide*.

h. Sewage by-products

Sewage sludge or bio-solids are prohibited and must not be applied directly, or used as an ingredient in composts.

i. Industrial by-products

Food and textile industry by-products of biodegradable material, i.e. of microbial, plant or animal origin, free of synthetic additives, may be used provided they are hot composted according to the requirements of the *BioGro Compost Guide*.

j. Mulches

Where available, mulch materials must be sourced from certified farms. If certified mulches are not available, mulches from conventional sources may be used subject to the following:

i. they must not have had any prohibited substances applied directly to them; and
ii. documentation must be obtained from the producer to confirm this; and
iii. they must have BioGro-approval prior to purchase; and
iv. residue tests may be required.

k. Biological activators

The following biological activators are allowed providing the product formulations are certified/approved by BioGro:

i. bio-dynamic preparations; available from the Bio-Dynamic Farming and Gardening Association and other BioGro certified/approved suppliers;
ii. microbial activators; and
iii. plant-based preparations.

l. Permitted fertilisers

Refer *Appendix B*.

m. Restricted fertilisers

Refer *Appendix B*.

n. Fertiliser supply

Fertilisers should be obtained from a BioGro certified/approved supplier where available locally. If not, then every effort must be made and documented to ensure that any brought-in materials comply with all requirements of the BioGro Standards. If fertilisers are not obtained from a BioGro certified/approved supplier then particular attention must be paid to potential contamination from the source or during storage or transport by prohibited fertilisers, heavy metals, pesticides, animal health remedies, and other prohibited chemicals.

o. Liquid fertilisers including vermicast liquids and compost teas

Liquid fertilisers may be made on the farm or BioGro certified/approved products can be used. If liquid fertilisers are made on the farm then evidence must be provided that all ingredients comply with the requirements of this Module and are not contaminated with prohibited materials.

p. Sewage
Manures containing human excrement, i.e. faeces and urine, are prohibited, and may not be brought onto the property or used as a compost ingredient.

q. Miscellaneous fertilisers
Any other materials for fertilisation and soil conditioning must comply with the requirements of these Standards and be certified/approved by BioGro prior to use, refer *Module 22 Procedure for Evaluation of Inputs*.

r. Burning vegetation
Land preparation by burning vegetation must be restricted to the minimum.

s. Salinization
Relevant measures must be taken to prevent or remedy soil and water salinization.

4.3 Water supply and irrigation

4.3.1 Guiding principles

Water is regarded as a valuable resource. Good quality drinking water is essential for organic livestock production.

4.3.2 Recommendations

a. Water sources should be chosen to ensure adequate supplies of uncontaminated water, and where necessary water purity tests should be carried out.
b. Water reticulation systems should be in place to provide adequate supplies of good quality drinking water for livestock and avoid wastage, leaching, or waterlogging.
c. Where irrigation is used for pasture production then irrigation systems should be chosen which provide sufficient water to satisfy soil and pasture needs only and avoid over-watering, leaching, or waterlogging.

4.3.3 Requirements of the Standards

a. Water source purity
Where there is potential contamination, e.g. the catchment area includes conventional horticulture, then proof must be provided annually that irrigation water is not contaminated with any restricted or prohibited materials. Refer to *Appendix A: Residue Levels in Certified Products, Water, Soil and Composts*.

b. Catchment
Information must be supplied to BioGro describing the catchment area and detailing any likely contamination of water sources with prohibited materials.

c. Optimal watering
Irrigation systems must be efficient and effective in supplying pasture needs. Soil and paddocks must not exhibit signs of excessive irrigation, namely over-watering, leaching or waterlogging.

d. Monitoring water
Optimum water use strategies must be demonstrated and supported by an appropriate method of monitoring.

e. Regional plan and resource consents
Water supplies and usage must meet the requirements of the Regional Plan, and where required have a current resource consent.

f. Livestock drinking water
Drinking water for livestock must be of satisfactory quality and sufficient quantity.

4.4 Pasture and feeding

4.4.1 Guiding principles

Livestock should have free access at all times, weather permitting, to graze and range on land containing a wide range of pasture and browsing species.

Where required livestock should also have access to supplementary feed to ensure that they will thrive with minimal health problems.

All livestock feed should ideally come from the farm itself or from another certified farm in the region.

The livestock should be fed in a way that allows them to execute their natural feeding behaviour.

4.4.2 Recommendations

a. Plant multi-species pastures, ideally herbal leys which include deep rooting species such as chicory.
b. Determine stocking rates so that all livestock have adequate space for feeding and adequate grazing. The use of strip grazing using temporary fencing is not recommended if it will lead to stress on the livestock, and soil pugging and compaction.
c. Where supplementary feed is used in addition to grazing then at least 50 percent of this supplementary feed should come from the certified farm itself or from other certified farms in the region.

> Note that as supplies of organic feed increase this recommendation will become a standard.

d. Supplementary feed comprises only certified and approved ingredients.

4.4.3 Requirements of the Standards

a. Feeding livestock
Animals must have access to sufficient feed to satisfy their needs. Management systems must ensure maximum use of pasture rather than the use of conserved or brought-in feeds.

b. Intensive livestock farming
Factory farming or intensive livestock farming based on enclosures with no pastoral access is prohibited. Feeding pads, loafing pads, or barns may be used for short periods:
i. in exceptionally wet weather in order to protect the farm soils from pugging; or
ii. in exceptionally cold weather to protect the livestock; or
iii. to collect compost materials.

c. Seeds, seedlings and vegetative propagative materials

Certified organic seeds, seedlings or vegetative propagative materials must be used where available for pasture establishment .

i. If certified organic seed or vegetative propagating material is unavailable, then seed and vegetative propagative material may be taken from a mother plant (in the case of seeds) and a parent plant (in the case of vegetative propagating material) which have been produced under certified conversion to organic production for at least one generation, or in the case of perennial crops, for two growing seasons.

ii. If neither full or conversion seeds, seedlings or vegetative propagative materials are available then conventional sources may be used provided they are not treated with any prohibited materials and the supplier has provided a written guarantee to confirm this.

iii. Treated seed cannot be used unless prior written approval has been received from BioGro. If a certified grower is unable to source untreated seed for the required varieties and wishes to use treated seed then they must apply in writing to BioGro for prior written approval. Written documentation must be supplied for:

- evidence of the unsuitability of other varieties;
- evidence of the unavailability of untreated seed; and
- the cleaning procedure which will be used for the treated seed.

> Note that seeds treated with prohibited materials can not be used under any circumstances for some export crops.

iv. Genetically engineered varieties and seeds are expressly prohibited.

d. Weed management

Weeds must be controlled by appropriate grazing management and by maintaining a vigorous sward of diverse species. Mechanical and thermal methods of weed control are permitted. Introduced biological control agents and bio-dynamic preparations and peppers are permitted.

e. Grazing and foraging

Certified stock grazed off the certified property must be grazed on other certified pastures to maintain their certification. Grazing may be sold to pasture certified stock. Grazing of uncertified stock is subject to the requirements of section 4.5.3 d. of this Module.

> Note that stock certified to the USDA NOP can only graze and forage on NOP certified land.
>
> Note that dairy herds converting to USDA NOP certification can only graze BioGro C2 land on that farm (ie not BioGro C2 land on other farms) and NOP certified land.
>
> Note that stock certified to JAS Organic can only graze and forage on JAS certified land.

f. Milk

Young mammalian livestock must receive maternal first milk (ie containing colostrum) or certified first milk from their own species for at least 3 days after birth. They must receive maternal milk or certified milk from their own species for at least the recommended minimum period. Examples of recommended minimum periods for some classes of stock are:

- calves: 3 months;
- lambs: 45 days;
- kids: 45 days;
- piglets: 40 days; and
- fawns: 10 weeks.

BioGro may consider approving reduced periods where the rearing system uses certified/approved supplements and other feeds as well as milk in order to produce well-reared, hardy livestock. Such approval must be obtained from BioGro in writing.

g. Silage preservatives

The following silage preservatives are permitted:

i. bacteria and enzyme additives;
ii. molasses; and
iii. salt.

h. Mineral licks

BioGro certified/approved mineral licks are allowed.

i. Stored feeds such as hay and silage:

Once the farm is certified then the feeding plan must be that all stored feeds such as hay and silage, whether made on the farm or brought in, must be certified organic.

Note that stock certified to the USDA NOP can only be fed stored feeds which are NOP certified.

Note that dairy herds converting to USDA NOP certification can only be fed stored feed made on that farm during the BioGro C2 year (ie the farm can not carry over it's own C1 stored feeds, and can not bring in C2 feed from other farms) and NOP certified feed.

Note that dairy herds in the first year of USDA NOP certification can only be fed stored feed made on that farm during the first BioGro full organic year (ie the farm can not carry over its own C2 stored feeds) and NOP certified feed.

Note that stock certified to JAS Organic can only be fed stored feeds which are JAS certified.

At least 50% of the livestock feed, including grazing and foraging and stored feeds, must be produced on the farm or in cooperation with other BioGro certified farms in the region. This may also be in cooperation with farms certified by other certifiers subject to BioGro's approval.

Stored feeds from uncertified sources are not permitted as a routine practice, but BioGro may be able to consider applications to feed a limited percentage of uncertified stored feed under specific conditions for a limited time in the following cases:

- Unforeseen severe natural or man-made events;
- Extreme climatic or weather conditions;
- Certified feed is of inadequate quantity or quality;
- Areas where organic agriculture is in early stages of development.

Non-organic feed must be less than 5 percent dry matter for ruminant and less than 15 percent dry matter for non-ruminant calculated on an annual basis.

Feed purchased from uncertified sources must not contain prohibited substances or genetically modified organisms or their derivatives and there must be documentation to prove this.

Written approval from BioGro must be obtained prior to the purchase and/or use of any uncertified feed. Any approval from BioGro to allow such uncertified feed will be granted for a limited time, usually less than six months, until it is expected that certified feed will be available again. Approval will have the condition that the annual management plan for that farm includes the steps taken to ensure that uncertified feed will not be required in future.

j. Supplements and Vitamins

BioGro certified/approved supplements and vitamins are allowed.

k. Compound feeds

Compound feeds for poultry, pigs, ratites, and ruminants:

i. The following ingredients are permitted in compound feeds:
   - certified organic ingredients: grains, pulses, other plant products, plant extracts, milk and milk products;
   - protein supplements: fish by-products, such as fishmeal, with no added synthetic anti-oxidants or prohibited additives, subject to satisfactory heavy metal levels; and
   - natural forms of vitamins and minerals where available.

ii. The following ingredients are restricted and may only be used with BioGro's written approval. The request to BioGro for approval must include the written justification for their inclusion in the feed:
- mineral supplements;
- trace elements;
- synthetic vitamins identical to natural vitamins for layer pullets up to 10 weeks of age and meat chickens up to 2 weeks of age, where natural sources are not available in sufficient quantity and quality; and
- For non-ruminant livestock only – uncontaminated meat, blood and bone products from sources approved by BioGro. Such products can not be fed to the same species, must be guaranteed as being free of BSE and other contaminants, and can only be used as part of a feeding regime approved by BioGro.

> If meat meal is used in the feed then those livestock products can not be exported as organic to USA and EU.

iii. Certified ingredients must be BioGro certified organic where available in sufficient quantity and quality.
- If BioGro certified organic ingredients are not available in sufficient quantity and quality then up to 30 percent of the feed may be BioGro certified conversion ingredients, subject to market requirements and prior written approval from BioGro.
- If insufficient BioGro certified organic or BioGro certified conversion ingredients are available, then on a short term basis BioGro may consider written requests for approval to use ingredients certified by other certifiers.
- If certified ingredients are unavailable then BioGro may consider written requests for approval to use uncertified ingredients on a short term basis for ingredients comprising no more than 5 percent of the feed for herbivores, and less than 15 percent for non-herbivores, subject to market requirements and prior written approval from BioGro..

iv. For poultry, at least 65 percent of the feed used in the fattening stage must contain cereals.

v. The following products must not be included in or added to feed, or in any other way be given to farm animals:
- artificial colouring agents;
- all types of excrements including droppings, dung or other manure are prohibited in the diet of all species;
- farm animal by-products and abattoir waste products such as meat meal, bone meal, and blood products to ruminants;
- feed, such as soy and rape seed meal, that has been subjected to solvent extraction, e.g. hexane, or the addition of other chemical agents;
- genetically engineered organisms or products thereof;
- preservatives, except when approved as a processing aid;
- pure amino acids;
- synthetic appetisers;
- synthetic growth promoters or stimulants; or
- urea and other synthetic nitrogen compounds.

4.5 Breeds, breeding, and incoming stock

4.5.1 Guiding principles

Health problems will be minimised by selecting appropriate breeds and breeding livestock which suit the region, the farm, and organic production.

4.5.2 Recommendations

a. Select breeds which are hardy and well suited to the region, the farm, and organic production.
b. Select breeding livestock for their suitability to organic production, in particular their resistance to health problems.
c. Aim to source brought-in livestock from other certified organic farms, preferably in the same region to ensure they are suited to organic production and the farm.

4.5.3 Requirements of the Standards

a. Animal health plan and breeding systems

If livestock health problems are prevalent on the farm then there must be a documented breeding plan to reduce this problem. Livestock breeding systems must be based on breeds that are able to copulate and give birth naturally.

For meat chicken production, breeds selected should be those which suit free ranging and organic production and will mature satisfactorily without the use of prohibited feed ingredients and/or practices.

b. Conversion of existing stock and certification of offspring

i. Stock on a certified property at the start of registration can never gain certification for their meat, but can gain certification during conversion for their progeny and products such as milk and wool.

> Dairy herds converting to USDA NOP certification must be managed to the NOP standards for at least 12 months before the herd can gain NOP status. During that period they must only graze NOP certified land and be fed NOP certified feed, except they may graze BioGro C2 status land on the farm they belong to, but not other C2 land.
>
> Beef and sheep breeder stock to produce USDA NOP certified progeny must be managed to the NOP and on NOP certified land for at least the last third of the gestation of their progeny.

ii. Stock born to certified (organic or conversion) livestock and reared on certified land take the same status as the lowest status land they are born and reared on. If stock are born onto and run on conversion land then the stock can take certified organic status when the land completes conversion and becomes certified organic.

> Note the requirement for USDA NOP certified dairy herds in (4.5.3b.i) above.

iii. Subject to the requirements of section 4.5.3 f. below and/or section 4.7.3 g. vii., stock born onto certified land from uncertified stock (either stock which were brought on as conventional, or stock which have lost certification for 12 months due to being treated) can gain the certified status of the land at birth provided the uncertified mother has been on the certified land and her management has complied with the requirements of the Standards from at least the time of conception onwards. The progeny can be reared on the mother. The progeny takes the status of the lowest status land that the mother has been on since the conception of the progeny and the land it is born and reared on.

> Note that this is not allowed for dairy herds certified to the USDA NOP.

c. Incoming certified livestock

i. Conversion (C1 or C2) livestock brought onto conversion land will retain their conversion status while they remain on the conversion land. If the land they are grazing gains organic status, then they will retain conversion status for the remainder of the period that they would have remained as conversion status on the previous property or for 12 months, whichever is the lesser.

ii. Conversion (C1 or C2) livestock brought onto certified organic land will retain conversion status for the remainder of the period that they would have remained as conversion status on the previous property or for 12 months, whichever is the lesser.

iii. Organic livestock brought onto conversion (C1 or C2) land will be downgraded in status to conversion. Subject to prior written approval from BioGro these livestock can return to organic land and regain organic status 3 months after returning to the organic land.

> Note that this is not allowed for dairy herds certified to the USDA NOP.
>
> For dairy herds certified to the USDA NOP there are supplementary requirements for bringing in certified livestock from other certified farms, including other farms certified to the NOP. This must be applied for in writing to BioGro, and only stock which qualify under the NOP rules will gain approval to be brought into the dairy herd.

d. Incoming conventional livestock

For all conventional livestock brought onto certified land, other than up to 2-day-old chicks, the following requirements must be met:

i. all such livestock must be clearly and permanently marked; and

ii. all treatments administered in the 3 months prior to their arrival on the certified property, and any internal bolus treatments during their lifetime, must be recorded; and

iii. at least double the withholding period must have elapsed since any animal health treatments (including internal boluses) they have received; and

iv. they must be quarantined for at least 2 days on the quarantine paddock of the certified farm; and

v. the dates of quarantining must be recorded.

e. Certification of incoming conventional livestock

Any conventional stock, other than up to 2-day-old chicks, brought onto a certified property will be restricted to Partial Certification status. After 12 months their progeny (note the exceptions to this in section 4.5.3 b. iii. above), fibre, milk or other products can be certified. Meat from this stock can never gain certification.

> Note that dairy herds certified to the USDA NOP can not bring in any conventional stock to add to the herd and replacements, they can only bring in stock to add to the herd and replacements from other NOP certified farms which qualify under the NOP rules, and only subject to BioGro's written approval.

f. Conventional breeding stock

Female breeding stock must ideally be bred on the farm or obtained from certified sources. If certified breeding stock are not available then a maximum of 10 percent of uncertified adult female breeding stock of the same species may be able to be brought in during any twelve month period, subject to written approval from BioGro. These uncertified breeding stock are subject to sections 4.5.3 d. and e. above. A derogation to this requirement can be applied for where the farm is undergoing a significant change of management, e.g. from dairy farming to beef farming.

Breeding sires must be certified where suitable sires are available, otherwise section 4.5.3 d. above must be complied with.

The percentage above does not apply to production units with less than 10 equine, bovine or cervine (ie farmed deer) animals, or with less than five porcine, ovine or caprine animals. For these units, any renewal is limited to a maximum of one animal per year.

The above requirements are also subject to market requirements.

g. **Chicks**
Up to 2-day-old chicks (layer and meat) may be brought in from any source.

h. **Artificial insemination**
Artificial insemination using BioGro certified/approved semen is allowed. Written approval must be obtained from BioGro prior to using non-certified semen. The application to BioGro must include information on why the certified/approved semen options aren't suitable, and a written declaration from the supplier of the semen that :

- The bull is non-GMO and not cloned, and
- The semen preparation doesn't contain any ingredients which are GMOs or are the product of GM/GE, and that the manufacturing process of the semen preparation does not use GM/GE.

Embryo transfers and/or other reproductive manipulations are prohibited.

Artificial synchronisation and induction are prohibited unless applied to individual animals for veterinary reasons, and prior written approval is obtained from BioGro.

Cloning is prohibited.

i. **Genetic engineering**
Genetically engineered breeds and livestock, and the progeny of genetically engineered breeds and livestock, are expressly prohibited.

j. **Raising livestock**
Animals must be raised organically from birth apart from the exceptions listed in this module Section 4.5 Breeds, breeding, and incoming stock.

4.6 Housing and management

4.6.1 Guiding principles

Adequate housing should be provided for those livestock that require housing to ensure their welfare and well being.

The management of all livestock should enable them, as far as is possible, to exhibit their natural behaviour and to forage.

4.6.2 Recommendations

a. Provide clean, dry housing with adequate space for poultry, pigs and other livestock requiring housing.
b. Provide all livestock with adequate pasture, water, shade, and shelter.

4.6.3 Requirements of the Standards

a. **Intensive livestock farming**
Factory farming or intensive livestock farming in enclosures with no pastoral access is prohibited.

All planned housing must be submitted to BioGro for approval prior to it being used for organic production. Herd animals must not be kept individually.

b. Shade and shelter

Where a farm has inadequate shade or shelter for livestock then a documented plan must be in place to address this.

c. Disinfection

Disinfection of housing can only be done with materials allowed in these Standards.

d. Artificial lighting

Artificial lighting to prolong daylight requires prior written approval from BioGro. A total daylight period of 15 hours must not be exceeded, and it must commence and end with a dimming period. Fluorescent lights are not permitted. The maximum hours of artificial light used to prolong natural day length must be set to respect the natural behavior, geographical conditions and general health of the animals.

e. Stocking rate for laying hens

The stocking rate for laying hens in the hen houses must not exceed:

i. 5 birds/m^2 of deep litter floor space; or
ii. 10 birds/m^2 of slatted floor space; or
iii. 13 birds/m^2 on framed perches.

f. Poultry runs

i. Poultry must have unrestricted access to outside runs, which must provide access to fresh grass or a forage crop containing a diversity of species.
ii. If the run area is limited, access to fresh pasture must be provided by a controlled rotation with either fixed or movable fences and/or movable housing.
iii. The stocking rate must not exceed 833 hens per hectare for laying hens and 1500 birds per hectare for meat chickens.
iv. Poultry runs must provide adequate natural shelter and provision for dust bathing.
v. Both meat and layer chicks must be encouraged to forage as soon as possible, weather permitting, ideally within their first week.
vi. Meat chickens must have ongoing access to fresh pasture.

g. Mutilations

All mutilations, including tail docking of cows, debeaking or toe cutting of chickens, etc., are prohibited except for the following:

i. Tail docking of lambs is permitted.
ii. De-horning of cattle is permitted, and should preferably be done at the bud stage. Relevant national regulations must be complied with. An animal that has been anaesthetised for de-horning must be quarantined and will lose its certification for twice the withholding period of the product used plus the subsequent 12 months.
iii. Mulesing of merino type sheep may be allowed as a restricted practice, and only after written approval by BioGro. Breeding towards wrinkle-free sheep must be an objective.
iv. Velveting. Velveting of deer is prohibited on certified animals.
v. Nose ringing of grazing pigs is a restricted practice and requires prior written approval from BioGro.
vi. Castration of cattle, pigs, and lambs is permitted at an early age.
vii. Vasectomising of teaser bulls is a restricted practice and requires prior written approval from BioGro.

h. Housing

Housing design, construction, and operation must provide for insulation, heating, cooling and ventilation of the building, that ensures air circulation, dust levels, temperature, relative air humidity, and gas concentrations to within levels that are not harmful to the livestock. It must also protect the livestock from predation by feral animals.

i. Housing Conditions

Housing conditions must ensure:

- ample access to fresh water and feed according to the needs of the animals;
- animals have sufficient space to stand naturally, move around, lie down easily, turn around, groom themselves and assume all natural postures and movements such as stretching, and wing flapping;
- where animals require bedding, adequate natural materials are provided.

j. Treated timber

Use of timber treated with arsenate and/or other prohibited materials is a restricted practice and requires BioGro written approval. All alternatives must be evaluated first.

> Note that properties producing certified products to be exported to US (including products which will be ingredients of processed products to be exported to US) must comply with the USDA National Organic Program (NOP) requirements for treated timber.

k. Construction materials

The operator must ensure that the environment, the facilities, stocking density and flock/herd size provides for the behavioral needs of the animals and provides for:

- construction materials and production equipment that do not significantly harm human or animal health.

4.7 Livestock health, welfare, and treatments

4.7.1 Guiding principles

Maximise livestock health and welfare by managing stock positively with respect to their well being at all times, and adopting preventative methods, such as avoidance of stress, provision of shade and shelter, and adequate food supply.

Where treatments are required then natural methods and medicines such as homeopathic treatments are preferred.

4.7.2 Recommendations

a. Ensure all dietary requirements are met.
b. While it is important to select stock for resistance to health problems, stock which are not thriving must not be allowed to suffer and must be treated if necessary.
c. National regulations for livestock diseases of national significance must be complied with, even if it leads to loss of certification. It is recommended that all relevant industry best practice codes are complied with.

4.7.3 Requirements of the Standards

a. Livestock health plan

If stock health problems are evident on the farm then there must be a documented livestock health plan to address these problems.

b. Statutory requirements

The *Animal Welfare Act* places statutory obligations on livestock owners to prevent unnecessary pain and suffering. It is therefore a legal requirement to take adequate steps to treat disease

situations. If a producer fails to meet the requirements of this Act, or is proved in any way to have caused unnecessary pain or suffering to a stock animal, it may result in immediate loss of certification of the whole property.

c. Shade and shelter
If there is inadequate shade and shelter to provide protection from weather extremes, according to the needs of livestock, then there must be a documented plan to establish such shade and shelter.

d. Provision of water
Animals must have access to drinkable water in all paddocks, during periods when fluid intake from herbage is not sufficient.

e. Herbal, naturopathic, and homeopathic therapies and remedies
BioGro certified/approved products are allowed.

f. BioGro's requirement to treat
Certified livestock producers must never allow diseased or severely infected stock to go untreated in order that it may be classed as certified. Any BioGro licensee, who is proven to be keeping, or selling, or have recently kept or sold, stock that would not comply with the *Animal Welfare Act* will face immediate loss of certification of the whole property.

g. Effect of treatment on certification status

i. When selecting any interim animal health remedy (refer *Module 2: Glossary of Terms*) the producer must select the appropriate product with the shortest withholding period so that the quarantine area can be minimised, and in order to optimise the effectiveness of selection of livestock for resistance to health problems. Where chemical allopathic veterinary drugs or antibiotics are to be used then this must be under veterinary supervision.

ii Routine or scheduled use of any interim animal health remedy is prohibited.

iii. Any animal treated with an interim remedy will lose certification immediately. This loss of certification is for the following 12 months.

> Note that for exports of livestock products to US, the USDA NOP requires the following:
>
> - Stock treated with an antibiotic must be removed from the NOP certified herd/flock and can not ever supply products, including milk and meat, as NOP certified. The only exception to this is cows in a dairy herd may have been treated with an antibiotic prior to commencing their 12 months conversion to NOP.
> - If an animal has been treated with a synthetic parasiticide at any time during its life then meat and meat products from that animal can not be exported to US as NOP certified.

iv. All treated stock must be held in the quarantine area for at least 48 hours.

v. After the quarantine period, any stock so treated may be returned to the main flock or herd, provided they are clearly and permanently marked.

vi. If quarantine procedures are not followed then all certified parts of the property to which treated stock had access during the quarantine period of the stock will be considered a quarantine area and subject to loss of certification for a minimum of 12 months.

vii. At the end of the loss of certification period, the animal will regain the status of the lowest status land it has grazed during the loss of certification period. For female breeding livestock also see section 4.5.3 b. iii.

h. Quarantine area regaining of certification
A quarantine area can regain certification 12 months after its last use as a quarantine area. At this stage it will take the certification status of the lowest certification status land on the farm.

i. Tracing treated animals

Following treatment, animals treated with interim remedies must be clearly identified at all times. Records must be kept of all treatments and post-treatment management, including disposal of dead stock. Veterinary treatment, including details of the treatment and its duration, as well as all brand names of drugs used, must be included.

j. Records of treated stock

Treated stock must be clearly and permanently marked. Records of **every** administration of **any** restricted or interim animal health remedy, including antibiotics, must be kept. These records must include:

i. treatment date and the animal(s)/livestock treated;
ii. the type of product used, by brand and by active ingredient(s);
iii. the withholding period;
iv. the location of the quarantine area;
v. the date that quarantine ended and details of where the stock went on leaving quarantine; and
vi. the date that certification will be regained.

k. Vaccinations

i. Breeding to obtain stock with high levels of natural immunity and the use of acceptable methods and practices that will eliminate the need for vaccines, must be an objective.
ii. Routine or scheduled vaccination is prohibited, unless evidence satisfactory to BioGro is produced, showing that the infection is inherent in the property. In such situations, and where acceptable farming practices or alternative treatments are unlikely to succeed, prior written permission must be obtained from BioGro for the use of vaccines which stimulate the animal's natural immune system, and are prepared from naturally occurring organisms. GE or GM vaccines and their derivatives are specifically prohibited.

l. Specific diseases and remedies

In cases where specific diseases or health problems are known to occur, prior permission to use specified control measures must be sought in writing from BioGro.

m. Internal parasites

i. Elimination, by breeding resistant and/or resilient animals, and using grazing management and non-chemical procedures must be a key objective.
ii. The level of parasitic worm inoculum present in pastures must be reduced or eliminated by cropping, cross grazing, rotations or browsing fodder.
iii. Natural purgatives and homoeopathic remedies are permitted.
iv. Stock carrying an unacceptable worm burden must be treated and if an interim animal health remedy is used then, subject to the requirements of section g. above, the animal(s) must be quarantined for at least two days. The treated animal loses certification for the following 12 months.

> Note that for stock certified to the USDA NOP, the only parasiticide which can be used is ivermectin, and only on stock not producing organic meat for the US market.

n. Ectoparasites and flystrike

Natural remedies are allowed. Stock carrying an unacceptable lice burden must be treated and if an interim animal health remedy is used then, subject to the requirements of section g. above, the animal(s) must be quarantined for at least two days. The treated animal loses certification for the following 12 months.

o. Footrot

Zinc sulphate or copper sulphate treatment is permitted.

p. Calf scours

Oral rehydration with glucose electrolyte solution is permitted. Infected animals must be isolated from the herd until cured. Homoeopathic, naturopathic, chalk and fine clay remedies are permitted.

q. Mastitis

i. Use of homoeopathic and naturopathic remedies is permitted.
ii. Drying-off mildly infected quarters is permitted.
iii. If an antibiotic is used then, subject to the requirements of section g. above, the animal(s) must be quarantined for at least two days. The treated animal loses certification for the following 12 months.

r. Bloat

Vegetable oils, fish oils, and natural sodium bicarbonate may be used where needed.

s. Facial eczema

Zinc oxide or zinc sulphate may be used in cases where pasture spore count indicates a definite need.

t. Navel ill

Where occurrence is likely, iodine may be used preventatively.

u. Pre and post parturition treatments

Natural prostaglandins may be used for the induction of parturition only when essential for veterinary reasons.

Oxytocin may be used for post parturition therapy where required.

v. Metabolic disorders

i. Magnesium chloride may be used to treat grass staggers.
ii. Injections (intravenous) of calcium borogluconate may be used to treat milk fever.
iii. Addition of magnesium and/or phosphorus salts to metabolic solutions is permitted to assist recovery from the above.

w. Mineral and trace element deficiencies

i. Mineral and trace element deficiencies that persist after conversion to certified status must ideally be corrected by application to pastures of permitted fertilisers and approved restricted fertilisers so that the animals' intake is in a natural (plant) form.
ii. Multiple pasture species must be planted, especially those plants known to accumulate the deficient element(s).
iii. Pure salt licks, or those supplemented with products of natural origin are permitted.
iv. Approved mineral and trace element supplements may be supplied on an as needed basis using mineralised licks as a restricted practice, refer form *Application for Use of Restricted Inputs*.
v. If the above methods are inadequate then, to prevent stock ill-health and/or where tissue tests show mineral and trace element deficiencies, mineral and trace element supplements may be added to water supplies or directly administered as a restricted practice, refer form *Application for Use of Restricted Inputs*.

x. Hormones and growth promotants

The use of substances to promote growth or production, (including antibiotics, coccidiostats and other artificial aids for growth promotion purposes) and the use of hormones or similar substances to control reproduction, e.g. induction or synchronisation of oestrus, or for other purposes, is prohibited.

y. Growth promotants

Production stimulants, suppressants and growth promoters are prohibited.

z. Poultry health

i. Vaccination of up to 2 day-old chicks (both meat and layer chicks) is allowed as a restricted practice, refer form *Application for Use of Restricted Inputs*.
ii. Sick or parasite infested birds must be isolated and treated.
iii. Birds requiring conventional medication must be treated, quarantined and diverted to conventional markets or culled.

aa. Permitted cleaners for livestock buildings

Permitted products for cleaning and disinfection of livestock buildings and installations, e.g. equipment and utensils, are:

i. alcohol;
ii. caustic potash (potassium hydroxide);
iii. caustic soda (sodium hydroxide);
iv. citric, paracetic, formic, lactic, oxalic and acetic acid;
v. iodine products for teats and milking facilities;
vi. hydrogen peroxide;
vii. lime;
viii. milk of lime;
ix. natural essences of plants;
x. nitric acid (for dairy equipment);
xi. phosphoric acid (for dairy equipment);
xii. potassium and sodium salt;
xiii. quicklime;
xiv. sodium carbonate;
xv. sodium hypochlorite, e.g. as a liquid bleach;
xvi. water; and
xvii. steam

ab. Restricted cleaners for dairy shed hygiene

Subject to BioGro's written approval, MAF-approved detergents and sanitisers for dairy shed hygiene may be allowed as a restricted practice.

4.8 Transport and Slaughter

4.8.1 Requirements of the Standards

a. Pain and distress

Transport and slaughter of livestock must minimise any pain and distress to the livestock.

b. Planning

i. When planning transportation, consideration must be given to factors such as distance to be traveled, temperature and humidity, species, age and sex of stock, and condition of roads and vehicles.
ii. In all cases, where feed is to be provided to livestock, it must be certified.
iii. Long distance transport of livestock must be planned so that stopovers are on certified land.

c. Stock condition

All stock presented for transportation must be in a condition that enables them to endure the stress of travel.

d. Stock handling

Stock handling methods during loading and unloading must minimise avoidable stress:

i. Loading and unloading must use suitably designed and constructed facilities and be carried out in ways that minimise stress and avoid the likelihood of injury.
ii. Transport vehicles and loading facilities must be clean and free from protrusions that could cause bruising and/or injury.
iii. Electrical stimulation to coerce stock is prohibited during transport and slaughter.
iv. No chemically synthesised tranquilisers or stimulants are allowed prior to or during transport and slaughter.
v. Care must be taken when organising loads to avoid the mixing of stock from different species, sexes, or social groups where this could cause stress to the stock. Vehicles should allow for segregation of groups if required.
vi. All stock must be identified at all stages of transport and slaughter

e. Welfare

i. When stock are transported they must be handled with proper care and concern for their welfare and in accordance with all relevant national legislation and livestock transportation quality assurance standards.
ii. Throughout each stage of transport there must be a nominated person responsible for the well being of the stock.
iii. All staff involved in the transport process should be qualified by way of training, qualifications and experience.
iv. Transportation must provide adequate ventilation, temperature , relative humidity, and comfortable headspace so that the stock are able to stand in a natural position.

f. Duration of transport

i. Long periods of transport in extreme weather conditions must be avoided.
ii. Slaughterhouse journey times must not normally exceed 8 hours. If there is no certified slaughter house within eight hours of the farm then this time may be extended, subject to prior written approval from BioGro. Under normal conditions, subject to the requirements of *Module 5 Livestock Production* Section 4.8.1 a – e above, sheep and goats must not have more than 8 hours without water and 16 hours without food, and adult cattle must not have more than 12 hours without water and 24 hours without food.

g. Droving of stock

Droving of stock is allowed provided stock can not access feed not allowed under these standards.

4.9 Livestock products

4.9.1 Principles

Livestock products must be handled, packed and stored to ensure the ongoing integrity of the organic products.

4.9.2 Requirements of the Standards

a. Meat processing

Meat processing facilities must be certified by BioGro. Refer *Module 13 Processing Standard*.

b. Wool and fibre

If sheep or goats are shorn at a site other than the certified property or in a non-dedicated woolshed, then parallel production procedures must be supplied and prior written approval obtained from BioGro. Wool bales must be identified by batch numbers and ideally also labelled as BioGro. Off-site storage must have prior written approval from BioGro.

c. Milk

Dairy sheds must comply with all relevant regulatory and industry requirements .

d. Eggs

Eggs must be collected regularly, stored in a cool (below 15°C), dark, dry and odour-free area, with the pointed end facing downwards. Eggshells must be free of manure and clean. Eggs must be packed in suitable containers, preferably recyclable. When containers are re-used then to prevent any confusion with uncertified eggs, the containers must be clearly over-labelled with the name, address and certification status of the certified producer.

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