CHAPTER 7

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Namibian Organic Association
Enabling Sustainable Organic Agriculture

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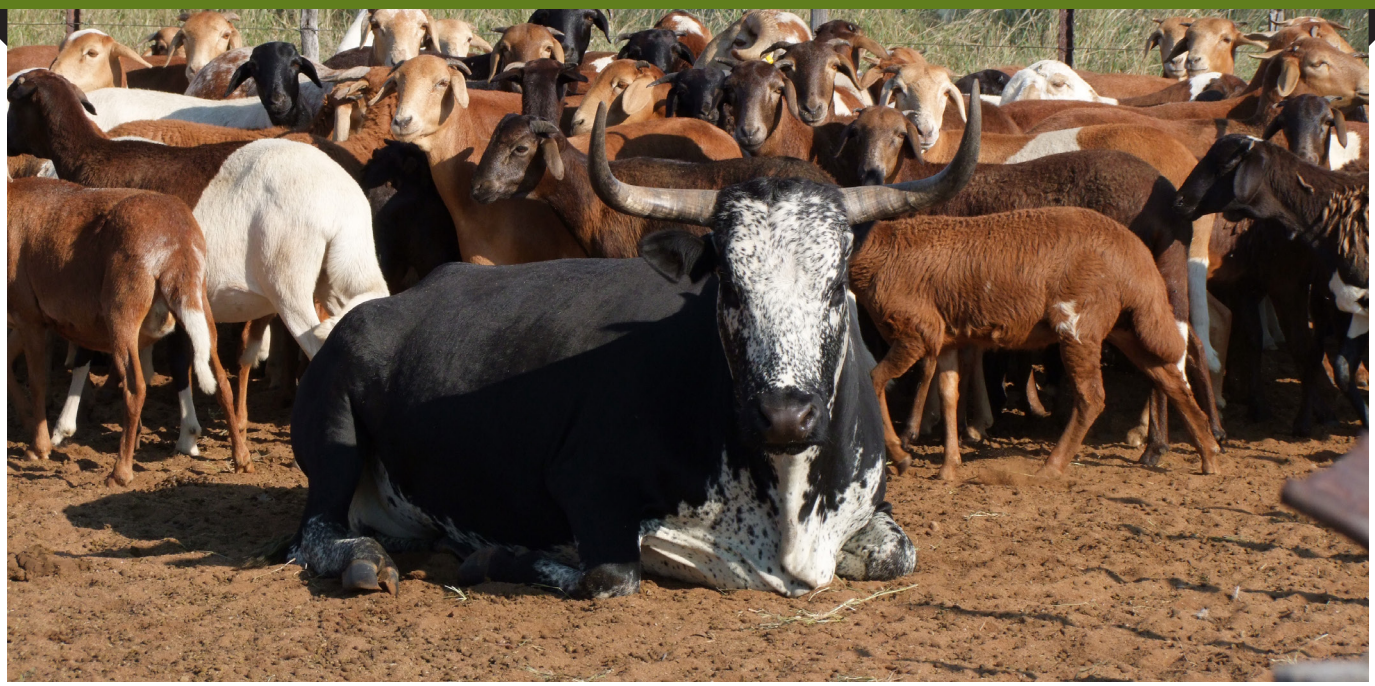
ORGANIC LIVESTOCK PRODUCTION PRINCIPLES



This manual focuses on the production of beef cattle, sheep and goats. The principles are the same for dairy cattle, poultry and other livestock – some details however are unique to the individual type of animal under consideration.

The reader must note that these discussions are generic in nature, based on the NOA's Organic Standard version 1.1, dated 29 June 2010.

The reader must always refer to the specific standards against which they seek certification or are certified, as requirements do differ and standards are reviewed and updated.

Of particular significance in this regard are the Regulations of the United States' National Organic Programme and the Canada Organic Regime. The differences are significant and, in some instances, make them stricter than the EU Regulations and IFOAM standards.

7.1. The first principles of organic livestock production

To gain an idea of the first principles of organic livestock production, the prospect organic livestock producer needs to look at the definitions of organic agriculture in different Regulations and Standards:

- IFOAM: Organic agriculture is "a production system that sustains the health of soils, ecosystems and people. It relies on ecological processes, bio-diversity and cycles adapted to local conditions, rather than the use of inputs with adverse effects. Organic agriculture combines tradition, innovation and science to benefit the shared environment and promote fair relationships and a good quality of life for all involved".

  "Organic livestock" husbandry is based on the harmonious relationship between

land, plants and livestock, respect for the physiological and behavioural needs of livestock and the feeding of good quality organically grown feedstuffs." *(IFOAMs Norms for Organic Production, 2012).*

- EU: "Organic production is an overall system of farm management and food production that combines best environmental practices, a high level of bio-diversity, the preservation of natural resources, the application of high animal welfare standards and a production method in line with the preference of certain consumers for products produced using natural substances and processes."

- NOP: "A production system that is managed … to respond to site-specific conditions by integrating cultural, biological, and mechanical practices that foster cycling of resources, promote ecological balance, and conserve bio-diversity."

The principles expressed by these definitions and expanded upon in the standards give rise to the following first principles of organic livestock production.

7.1.1. A production system

Organic producers have to consider how to run the whole farm according to organic principles – the management of soil flora and fauna and the soil itself, crops (all grazing is considered a crop), livestock and processing. Many standards also include social welfare of employees.

7.1.2. Bio-diversity enhancement

Organic farming embraces a range of living plants and animals. The reasons for enhancing bio-diversity are that the greater the number of species living within an ecosystem, the more likely it will sustain life under adverse conditions.

In such a healthy ecosystem if a particular food source is wiped out by disease, pests or predators, the other food sources will ensure the stability of the overall food supply. Bio-diversity also relates to the number of useful connections which can be made between the different components or elements which make up the farm enterprise. This concept of bio-diversity ties in with nutrient cycling.

7.1.3. Promotion of nutrient cycling

The concept is that nutrients are taken up from the soil by plants which are then eaten by livestock which dung and urinate back onto the soil. The soil flora and fauna then work with the dung and urine, converting it back into plant nutrients held in the soil.

This is a very "tight" nutrient cycle. A looser one may be that which occurs on a mixed farm, where "wastes" from one enterprise, such as vegetable packing, are fed to chickens. Their manure goes into compost used for producing grains which are fed to dairy cattle. Their manure, in turn, also goes into compost which may be used for vegetable production. So the nutrients cycle through many different organisms on the farm, with the produce which is sold from each enterprise being the only export of nutrients off the farm. Organic agriculture focuses on nutrient cycling, preventing runoff or pollution from occurring, where waste or product from one enterprise is an input for another, thus enhancing bio-diversity and the health of the farm.

7.1.4. Ecological balance

By conserving and promoting nutrient cycling and bio-diversity, organic systems also promote ecological balance. The presence of a diverse range of plants, animals, birds and insects are evidence of ecological balance – each depends on habitat, including shelter, nesting sites as well as food and water sources.

Each performs multiple functions on the farm and within the greater environment. A farm with abundant, diverse life forms functions in a way that maintains balance and makes optimal use of the solar energy it receives. Niches (opportunity for a life form to manifest itself) are occupied by health-promoting organisms, ensuring the balance with pests and diseases, reducing the opportunity for them to manifest as problems.

The grazing management systems of extensive livestock farms must ensure that there is no accelerated soil erosion and veld degradation which occurs through under- and over-stocking and grazing, a lack of rotational grazing methods which include ample recovery periods. It is critical to select the right type and combination of animals to ensure balanced diverse utilisation of the natural resources. For example, cattle, sheep and goats have different grazing and browsing patterns and preferences for plants. A well-managed enterprise using a combination of grazers and browsers, with different utilisation patterns, may result in more optimal utilisation of the veld than one or two types of animal on the same land.

7.1.5. Focus on the health of soil, plants, animals and people

It is a well-known fact that healthy living soils enable the production of healthy plants which in turn promote the health of livestock and humans which are the consumers. This health is based on nutrient cycling facilitated by an ecologically balanced and bio-diverse environment reliant on natural processes.

So it all starts with living, healthy soils. Health is also actively promoted by farmers through well-managed preventative husbandry in preference to the use of curative measures, often based on synthetic inputs. The use of off-farm inputs is thus the exception rather than the norm – the adage that *"farmers purchase their veterinary bill through the feed they purchase"* rings true.

7.1.6. Animal welfare as a primary concern

The domestication of animals means that we are responsible for their well-being. We have to ensure that they live safe, natural lives, and intervene only when circumstances such as physical injury or illness occur. An animal's horns perform many roles one of which being for their self-defence. Therefore if we de-horn animals we have to ensure their safety and ability to protect themselves and their young in other ways.

Animal welfare is of primary concern of all standards, taking precedence over certification requirements, although there will be consequences for certified livestock. Animal welfare considers every stage of an animal's life, from conception, through birth until death, how it is treated, what it is fed, opportunity to express its innate behaviour and the manner in which it dies, usually being slaughtered if not a natural death.

In fact, standards stipulate that a certified producer may not withhold medical

treatment of a sick or injured animal in an effort to preserve its organic status. The animal must receive appropriate treatment to restore it to health and if such treatments are prohibited by the standards, the animal will lose its certification status. Alternatively, the animal must be culled, either by removal from the certified herd, or by humane emergency slaughter.

Animal welfare also includes the age and sexual composition of a herd or flock for them to be able to express their natural behavioural patterns.

7.1.7. Practices allowed, restricted or prohibited by the standards

Practices which are allowed by the standards mean that the producer can implement them in their management system and be in conformity with the standards. Examples of allowed practices are artificial insemination and vaccination of livestock against diseases, typically as required by law.

Those which are restricted may only be used if the allowed practices have failed to achieve a desired effect, or if circumstances require their adoption. In such cases the certifier has to be informed of their intended use which must be justified, before they are implemented. The certifier has to give permission for the implementation, thereby confirming the consequences, if any, to the certification status. A restricted practice may be the necessity to feed non-certified feed to organically certified cattle in quantities above the limits set by the standards. This may be due to fire or drought, typically circumstances beyond a producer's control. The certifier may then grant permission, but may decertify the cattle without imposing sanctions on the producer for not conforming to the requirements of the standards.
Prohibited practices are those not allowed under any circumstances on a certified organic farm. The most infamous of these are the use of chemically synthesised urea and other synthetic agro-chemicals. Embryo transfer, cloning and the use of growth hormones are prohibited practices.