

# NATIONAL POLICY ON ORGANIC PRODUCTION

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## LIST OF ACRONYMS

<b>ARC:</b>	Agricultural Research Council
<b>DAFF:</b>	Department of Agriculture, Forestry and Fisheries
<b>DRDLR:</b>	Department of Rural Development and Land Reform
<b>DTI:</b>	Department of Trade and Industry
<b>IFOAM:</b>	International Federation of Organic Agriculture Movement
<b>GAP:</b>	Good Agricultural Practices
<b>GHG:</b>	Greenhouse gases
<b>HIV/AIDS:</b>	Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome
<b>IPAP:</b>	Industrial Policy Action Plan
<b>MDG:</b>	Millennium Development Goals
<b>NAMC:</b>	National Agricultural Marketing Council
<b>NEMA:</b>	National Environmental Management Act
<b>NCC:</b>	National Consumer Commission
<b>OSSIC:</b>	Organic Sector Strategy Implementation Committee
<b>PDA:</b>	Provincial Department of Agriculture
<b>PGS:</b>	Participatory Guarantee System
<b>PPP:</b>	Public-Private Partnership
<b>SABS:</b>	South African Bureau of Standards
<b>SAOSO:</b>	South African Organic Sector Organisation
<b>UNCTAD:</b>	United Nations conference on Trade and development

## **PREAMBLE**

The organic sector is the custodian of natural and organic production, harvesting, beneficiation, trade, and consumption of relevant products and services. The sector is founded on the principles of social, environmental and economic responsibility, and integrity.

## **CONTEXT**

This policy on organic production should be viewed in the context of the broader agro-ecology principles, and other relevant national policies and frameworks regarding sustainable development<sup>1</sup> and initiatives such as the LandCare Programme.

The organic sector has pioneered practices and systems that ideally position it to guide the public and private sectors on environmental and sustainability issues. Government, through its Organic Commission, established a partnership with the South African Organic Sector Organisation (SAOSO) to engage, guide and influence widely on sustainability issues impacting the sector and society as a whole.

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<sup>1</sup> Refer to Section 6

# 1. INTRODUCTION

Consumers worldwide are becoming increasingly concerned about nutrition, health and the quality of their food. One of the key ways that environment and health consciousness is getting reflected is through consumers' increased interest in organic food. They are concerned about the effect of pesticides, fertilizers, livestock effluent and veterinary drugs on their health and livelihoods. Organic agriculture is considered to be a viable solution to most of these concerns. More than 140 countries are now producing certified organic food with 32.2 million hectares of agricultural land being managed organically globally by more than 1.2 million producers.

Demand for organic commodities has increased due to greater consumer awareness about their health and the role of food in maintaining a healthy lifestyle. This awareness is fuelled by concerns with modern methods of agricultural production, such as use of chemicals to boost yields and control pests, which may pose considerable health risks to humans. There are also concerns among various consumers groups about use of fertilizers to boost yields. Consumers perceive certified organic commodities as safe, healthy and better quality, as opposed to conventionally produced commodities, despite the inconclusiveness of scientific evidence to underpin these notions.

Codex Alimentarius defines "organic" as a labelling term that denotes products that have been produced in accordance with organic production standards and certified by a duly constituted certification body or authority. Organic agriculture is based on minimizing the use of external inputs, avoiding the use of synthetic fertilizers and pesticides. Codex notes that organic agriculture practices cannot ensure that products are completely free of residues, due to general environmental pollution. However, methods are used to minimize pollution of air, soil and water.

Codex also states that organic food handlers, processors and retailers adhere to standards to maintain the integrity of organic agriculture products.

IFOAM provides a more holistic definition and defines organic agriculture as: "*a production system that sustains the health of soils, ecosystems and people. It relies on ecological processes, biodiversity 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*".

Formal certified organic farming in South Africa is still relatively small; however informal organic farming by small-holder and subsistence producers may feed as much as two-thirds of the population<sup>2</sup> if properly supported. Due to complexity of the agricultural sector in this country, it is envisaged that organic farming will

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<sup>2</sup> Refer to Lavia-campesina (The world peasant organization)

become an alternative production system that will contribute towards the realisation of the envisaged Green Economy as well as complying with agendas such as Sustainable Agriculture, the Clean Development Mechanism. It is anticipated that the organic agriculture will co-exist with conventional system until such a time the consumers on both local and export markets dictate norms and standards aligned with the imperative and obligation of the mitigation and adaptation to climate change. Organic farming is seen as a viable vehicle towards fostering the conversion of agri-business to good agricultural practices (GAPs).

This policy document examines the current state of organic production and its constraints and challenges as well as identifying measures that could be utilised to support the development and growth of this sector. The document also focuses on the factors that may drive the trends. The policy proposes a set of coherent policy instruments that will put the organic sector on a higher growth path.

## **2. RATIONALE FOR NATIONAL POLICY ON ORGANIC PRODUCTION**

There are many compelling reasons as to why the South African government should develop and implement the policy on organic farming. Discussed below are some of these reasons:

### **2.1. Protection of consumers**

One of the critical roles of government is to protect its citizens from unfair practices. There are reports that unscrupulous elements are putting false labels on conventionally produced products and selling them as organic. Many consumers may fall for this trap and sometimes pay premium prices for wrong products. This state of affairs developed because of a lack of a policy framework and regulatory system for organically produced products. Further, the need to improve nutrition and health of the populace is a clear benefit of organic food. Avoiding and reducing public exposure to harmful chemical and additives is a key requirement, as these issues impact on other government responses such as immune impacts related to HIV/AIDS and other health impacts that place additional strain especially on the poor and on government health services.

### **2.2. Environmental benefits**

Reports indicate that organic production enhances soil structures, conserves water, and enhances sustained biodiversity. Through its holistic nature, organic farming integrates wild biodiversity, agro-biodiversity and soil conservation. It takes low-intensity farming one step further by eliminating the use of chemical fertilizers, pesticides and genetically modified organisms. This is also of benefit to associated off-farm biotic communities.

Organic production eliminates the need for external inputs (usually expensive and mostly imported) by controlling pests and diseases naturally. Leaching of fertilisers into water systems are said to be the cause of eutrophication which is the suffocation of aquatic plants and animals due to rapid growth of algae and the building up of nitrates, phosphates and sulphates in the underground water reserves is a real danger for our national potable water assets. Many lakes, rivers and other bodies of water are facing this problem. Some herbicides and insecticides are founding their way into food systems and thus posing health problems for human beings. Organic production, on the other hand is reported to have minimum impact on the environmental balance and ecosystems and protecting the health of people, farm workers, local communities and all the way through to consumers. By using waste residues for compost and mulch, by reviving soil fertility through good farming practices, organic productions would also highly contribute too much better water management practices and the preservation of a unique but fragile biodiversity.

### **2.3. Health benefits**

It is reported that there are more than 500 additives in foodstuffs permitted for use, some of which may negative human health and natural effects such as hydrogenated fats can increase the risk of heart disease; phosphoric acid can deplete calcium in bones; Mono Sodium Glutamate (MSG) can cause dizziness, headaches, and asthma. Pesticides have potential to cause undesirable side effects. These include adverse effects on workers, consumers, community health and safety, groundwater, surface waters, and non-target wildlife organisms. In addition, pesticide use raises concerns about the persistence and accumulation of pesticides in food chains quite distant from the original point of use, and about the role of certain pesticides in causing reproductive failure and endocrine system abnormalities in both wildlife and humans and other species that are not their intended target.

The livestock are regularly injected with or fed with antibiotic drugs to prevent disease and hormones to promote growth. There is a concern that humans are developing resistance to antibiotics due to the indirect consumption of antibiotic drug residues in animal-based products and many of the hormones are known to mimic human hormones, leading to endocrine disruption amongst other negative impacts. Organic production systems are designed to respect the natural integrity in the relationships between the environment, health, biodiversity, and the biotic community, humans being part of the “family”.

Large numbers of the South African population can benefit from eating more nutritious organic food which will also reduce the drain on the national healthcare system and a positive impact on the cost of health externalities (e.g. pollutants, chemical inputs).

## **2.4. Climate change**

Organic production has a significant role to play in addressing one of the world's biggest and most urgent challenges, namely climate change. Climate change mitigation and adaptation and inherent beneficial characteristics of organic production must be taken seriously by all stakeholders. Organic production has well established practices that simultaneously mitigate climate change, build resilient farming systems, reduce poverty and improve food security. Organic production emits much lower levels of greenhouse gases (GHG), and quickly, affordably and effectively sequesters carbon in the soil. In addition, Organic production helps to make farms and people more resilient to climate change, mainly due to its water retention efficiency, resilience to extreme weather events and lower risk of complete crop failure. Correct systems approaches to ecological agriculture can also make significant additions to materials and energy for other non-food uses.

Organic production reduces greenhouse gases, especially nitrous dioxide, as no chemical nitrogenous fertilizers are used and nutrient losses are minimized. It stores carbon in soil and plant biomass by building organic matter, encouraging agro-forestry and forbidding the clearance of primary ecosystems. It minimizes energy consumption by 30-70% per unit of land by eliminating the energy required to manufacture synthetic fertilizers, fossil based fuels and by using internal farm inputs, thus reducing fuel used for transportation.

## **2.5. Social justice**

One of the fundamental principles of the South African constitution is the freedom of choice. This means that amongst others, consumers are free to decide about what type of food they would like to eat. It is the constitutional right in this country for people who would like to produce and use organically produced food, medicinal, fibre, cellulose products to be enabled to do so. The consumers are also willing and can afford to pay high prices for these food products, however, there is also evidence that the "costs" to society and the environment of chemical based farming are externalised and that organic production only appears more expensive as all its costs are internalised. Organic production is based on a holistic view of the integration of farming into nature. Its proponents maintain that this fountain promotes "social justice" issues by recognising the essential role of farmer; improving labour conditions, work place health and safety; the contribution of farming to rural communities and engaging in "fair trade". The development of an effective policy framework for organic production will ensure that South African citizens' freedom of choice in terms of food, medicinal, cosmetics, fibres and cellulose is respected and protected; create more safer and decent work, assist in reducing the current 90% failure rate of emerging farmers and help to protect farm workers, adjacent communities and consumers. Producing more organic foods will increase the change of price deduction and affordability.



## 2.6. Economic benefits

The management style of organic agriculture is not dependent on manufactured input products like fertilizer and pest and disease control products, which leads to improved control of input costs. By not having to pay for increasingly expensive or unaffordable and external chemical inputs, organic food producers will be able to save on scarce resources for feeding their families while progressively generating more income for themselves. Low production costs would also mean that local consumers spend less money for more food while also enjoying better and safer fresh food products. Labour intensive organic productions would create endless working opportunities with minimal capital investment while producing optimal economic and social returns. Self-subsistence would be accompanied by self-employment which, in turn, would contribute to a progressive transformation of the informal economy and rural /peri-urban sector into a more vibrant economy characterized by more substantial and durable incomes and reduced inequalities.

## 3. SCOPE OF THE POLICY

This policy shall cover organic food production, farming systems and trade. It will address accreditation of certification bodies, development of national organic standards and legislation that will govern the production and trade of organic food. It will also address Government's role in marketing, research and development and the provision of extension and other services to the organic sub-sector. Capacity building among farmers and extension officers will also be addressed by this policy. The policy also outlines the key institutions through which it will be implemented.

## 4. GUIDING PRINCIPLES OF THE POLICY

The principles guiding the policy are as follows:

- **Government-Sector led** with Government playing a facilitatory role;
- **Socio-economic development** with emphasis on enhancing rural development;
- **Competitiveness** is central to the development and sustenance of the industry;
- **Food Security**- Organic agriculture contributes to increased availability and accessibility of food;
- **Food Safety**- Organic food should not endanger consumers' health; and
- **Environmental sustainability**- Organic agriculture promotes ecological balance and mitigate against the adverse effects of climate change.

## 5. PURPOSE AND OBJECTIVES

The purpose of this policy is to create a broad framework for the development of a prosperous organic sector that is globally competitive and capable of supporting government's commitments towards poverty alleviation, job creation, rural development, food security, improved health and sustainable economic development.

The objectives of the policy are:

- To support the wide-spread production of high quality and safe organic products for both community, local and export markets.
- To facilitate broad participation in the organic farming sector.
- To protect consumers against false, misleading and unfounded claims and create the obligation for all producers to indicate the levels of inputs used in their produce.
- To improve competitiveness and profitability of the organic sector both on community, local and export markets.
- To provide a regulatory protocol framework to govern the organic sector in order to increase compliance, transparency, traceability and accountability.

## 6. LEGAL FRAMEWORK

Documents that directly underpin this Policy are the following:

- Section 24 of the Constitution stated that everyone has the right:
  - a. to an environment that is not harmful to their health or well-being; and
  - b. to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that
    - prevent pollution and ecological degradation;
    - promote conservation; and
    - secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.
- Industrial Policy Action Plan (2012/13-2014/15)
- Kyoto Protocol: Article 3 (a) iii promotion of sustainable forms of agriculture in light of climate change considerations (1998).
- Consumer Protection Act: 68 of 2008: Section 41 effectively outlaws false, misleading or deceptive representations through either words or conducts whether express or implied.
- National Environmental Management Act (1998): conservation of biodiversity and integrated environmental management.
- Policy on Agriculture in Sustainable Development (2004).

- Millennium Development Goals (MDG) (Millennium Declaration, signed by 187 world leaders at the Millennium Summit on 8 September 2000): Ensure environmental sustainability.
- Foodstuff, Cosmetic and Disinfectant Act (Act 54 of 1972)
- DAFF Sustainable Agriculture Strategy and the Declaration of Good Agricultural Practices (GAP).
- New Growth Path (2010).
- National Strategy for Sustainable Development and Action plan (2011-2014).
- National Development Plan: Vision for 2030 (2011).

## **7. OVERVIEW OF THE ORGANIC FARMING SECTOR IN SOUTH AFRICA**

### **7.1. General introduction**

The South African organic sector has a long history. This country was one of the founders of International Federation of Organic Movements. The value of the organic produce in South Africa is estimated to be between R200 million and R400 million (2005), of this less than half is certified. Most of the products are exported, with Rooibos tea, organic wine and fruits as main products. The domestic market has developed rapidly the past five years and several supermarkets are actively promoting organic products. Organic agriculture will provide employment opportunities for millions of small farmers and for women and youth groups, together with economic and financial benefits.

### **7.2. Size**

According to current estimations there are about 45 000 ha of certified land which account for 0.05 % of the country's total agricultural area, with 250 farms in South Africa (IFOAM & FiBL, 2006)<sup>3</sup>. South African organic farmers produce a large variety of produce. These include various cereals; vegetables, roots and tubers; herbs and spices; fruits, nuts and Rooibos tea. The largest fruit crops in terms of hectares were bananas, avocado pears and mangoes, while the largest vegetable crops were cucurbits, tomatoes, asparagus, brassicas and potatoes. Organic wine and olive oil is also produced and organic dairy farming has just started in some provinces.

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<sup>3</sup> IFOAM & FiBL (2006): The World of Organic Agriculture. Statistics and Emerging Trends 2006. International Federation of Organic Agriculture Movements (IFOAM), Bonn & Research Institute of Organic Agriculture FiBL, Frick, pp. 27–35.

### **7.3. Certification**

South Africa does not as yet have an official certification system in place. Inspection and certification of South African organic farms is carried out by both private international and domestic certification bodies. There are about nine private certification bodies that are active in South Africa. Eight of these are accredited to ISO Guide 65, the basic requirement for certifiers to ensure professionalism, impartiality and fairness, and all but two are European certifiers. There is one accredited local certifier.

Not all organic farmers in South Africa are certified as such, even though they follow the principles of organic agriculture. Thousands of subsistence farmers had been practising some of these principles for many years. These farmers do not use pesticides and fertilizers in their farming operations because they cannot afford the high prices attached to these inputs and many are aware of both the harm of such inputs as well as the benefits of organic production. The main markets for their surplus produce are local village markets or farmers markets.

There are individuals and organisations involved in the certified organic sector that dismiss the validity of production systems of subsistence farmers as complying with the principles of organic production. This is largely due to the difficulties of small scale farmers in maintaining record-keeping to such a standard that certification bodies can ensure there is adherence to the organic standards. There are organisations which are not seeing the necessity or the obligation of an organic certification but who prefer a system of “equivalence” be established by the organic regulatory body. This could apply to system like Participatory Guarantee System (PGS).

### **7.4. Markets**

Organic products produced in South Africa are sold at both local and export markets. Exports are principally sent to European markets, United States and Far East include vegetables, plant products, processed fruits, sugar, wine, essential oils and Rooibos tea. Grapes are also exported to the United States. Within South Africa, the products are usually sold in supermarkets, as home deliveries, directly from the farmer, through specialized restaurants and through special organic markets. Some schools are also beginning to serve organic foods as part of the National School Feeding Programme. There is a robust but underdeveloped, local market for organic produce with limited premiums for organic products. Local retailers sell reasonable amounts of organic produce to the South African public.

### **7.5. Sector leadership**

The organic sector in South Africa is greatly fragmented. There is no single body that represent the interests of the majority of organic farmers. There are many

splinter organisations that represent particular farmers and there are many approaches and opinions as to which way is best for the sector.

The organic sector in South Africa is in a phase of institutionalisation, the main divisions are along the lines of the “have” and “have nots”, the fundamentalists of certification, and those who see that the unity of the sector will happen when there is a co-existence between the certified organic industry players, and those who want to practice organic agriculture for their own use, or to be marketed to a clientele which can trust them. The single body, providing that it accommodates the different organic agriculture ideologies, will ensure the leadership of the sector. In this case; the sector is also to co-lead and share the platform of the regulations with the government through a Public-Private Partnership (PPP) type of agreement.

## **8. PROBLEM STATEMENT**

### **8.1. Fragmentation of the sector**

The organic sector in South Africa was for many years characterised by high levels of fragmentation. There was no single organization to represents the interests of the whole organic sector. Previous initiatives to unite the sector resulted in formation of Organics South Africa (OSA). The limitation of this body was that it focused mainly on certified organic farmers. There were also major differences among practitioners with regard to cultivation practices and the methodologies to use in organic farming.

The fragmentation of the organic sector in South Africa also originated from the fact that it was marginalised by agri-business and the research community. A culture of silos and protected intellectual territories developed amongst the different organic farming tendencies, claiming to detain the truth in methods and ways.

### **8.2. Inspection and Certification challenges**

South Africa does not have an official inspection and certification programme for organic food products, cosmetics, textiles and other industries using organic agricultural practices in their production. Certification is driven by international standards and accreditation systems. This had led to a situation where farmers and other operators are said to be paying very high and unaffordable certification costs. High certification costs act as barriers to new entrants in the sector, especially international standards and accreditation systems that small-holder farmers wishing to access retail or export markets, have to comply with.

### **8.3. Inadequate information and knowledge on organic farming**

Producers and processors need technical and market information to make decisions in their operations. Lack of information is a major obstacle to organic farming, according to most stakeholders in the organic sector. Government extension personnel rarely receive adequate training in organic methods. There is a serious lack of information on organic production methodologies as well as market information.

The absence of advocacy and knowledge inhibits the introduction and management of sustainable organic (and related) production systems. Producers and processors need technical information about sustainable systems by means of extension management packages and fact sheets. Issues affecting the negative impact of conventional chemically driven agribusiness on organic agriculture need to be addressed. The above-mentioned scenarios lead to poor participation of subsistence and smallholder farmers in the organic sector.

### **8.4. False and misleading claims**

Consumers are bombarded with a multitude of messages about organic products. The fact that this sector is still unregulated compounds the problem. Consumers are never sure of the validity of claims on labels when they purchase food in retail outlets. This makes consumers vulnerable to unscrupulous dealers and their suppliers. The label “organic” is perceived as reserved for elite market and a tool to access apparent lucrative retail and export markets. Consistent and equitable labelling requirements for both organic and non-organic produce will ensure a level playing field to ensure the possibility for consumers to make an informed choice based on adequate information.

There are reports that some agrochemical input suppliers create the perceptions that organic agriculture is high risk and unattainable and the source of certain localised problems like the spread of weeds, as they depend on the continued use of synthetic inputs for their economic livelihood. In many countries there has actually been a move towards organic production due to the failure of input-driven chemical agriculture to address production challenges, the increasing costs of inputs, and the resurgence of pests and diseases due to increased resistance to pesticides. Other farmers are also convinced that organic production would not be able to feed the growing global population. These perceptions are said to be highly overstated and do not reflect the whole picture.

### **8.5. Market access challenges**

Certified organic products fetch premium prices and their market is perceived as niche. Entering this lucrative market is not easy. Non-organic farmers in organic conversion are denied access to developed country certified organic markets in developed countries for two to three years after beginning organic management.

The organic standards of most countries require an extended period of conversion arguing that it is necessary for the purging of chemical residues. Certification requirements act as a market barrier for small and emerging farmers locally for the same reasons.

### **8.6. Production challenges**

Most seeds and plant material are bred to best fit the agro-chemical production environment and the solution is to develop organic seed. The soils that are agro-chemically farmed in South Africa are inherently poor in terms of nutrient content, which must be corrected by the returning of organic material back into the soil. Much of the livestock sector in South Africa cannot do without the use of urea as part of the lick for animals during winter, due to overgrazing and pasture mismanagement. During winter veld conditions are so poor that supplements like licks are critically needed.

Organic production, when and where properly implemented provides all the solutions for soil fertility, natural parasites, pest and weed control and remediate the challenges of irrigation. There is a rich literature of known, reputable and scientifically proven facts that organically enriched soils with composts and natural fertility enhancers are producing equal and superior quality and quantity of produce (plant and animal) and are retaining moisture in the soil. The principle of organic is that a healthy soil enables healthy pastures, and crops, hence animal production.

## **9. POLICY INSTRUMENTS**

The organic sector in South Africa would be developed and supported through the following policy instruments:

### **9.1. Education and Training programmes on organic farming**

The organic production requires higher level skills and expertise. Education at all levels will play a big role in shaping the future of the organic sector. Enhanced training of extension personnel and farmers and improved technology transfer systems are identified as of critical importance for improved production, natural resource management, and wealth generation for all agricultural stakeholders. Training could also be in the form of mentorship. This is a deliberate pairing of a more skilled or experienced person with a lesser skilled or inexperienced one, with the agreed-upon goal of having the lesser skilled person been groomed and supported to acquire specific competencies.

Critical policy actions are:

- Organic agriculture should be integrated in the curricula for primary and secondary schools.

- Higher education programmes in organic agriculture should be developed and implemented.
- Specialised institutions that involved in training for organic agriculture should be supported.
- Support informal training programmes at agricultural colleges and through sector training authorities (AgriSETA and FoodBev).
- Training of key extension workers in organic farming, including certification procedures and required level of record-keeping.
- Development and implementation of targeted training programmes for farmers.
- Create a system that taps into existing wisdom and knowledge from successful organic farmers and circulate this through on-farm learnerships and mentor programmes.

## **9.2. Awareness programmes**

Many studies and surveys had shown that consumers are not well informed about the principles and the benefits of organic farming. In order to broaden the information available about organic farming, it is important that objective and reliable information is made available by government and other stakeholders. Information campaigns about the principles, the practices and the environmental and other benefits of organic farming should be established. They should target consumers as well as farmers, but also operators in the processing industry, retailers, large-scale kitchens as well as schools.

These programmes would be aimed at raising awareness levels of farmers, consumers and other stakeholders. In case of organic products the awareness programmes are intended at creating information led demand for these products. The programmes would be based on various aspects of production of organic crops. They would also be aimed at promoting the image of South African organic sector. These programmes would ensure that technologies aimed at improving production are promoted and adopted by the farming communities. The awareness programmes would also assist consumers to make informed choices when buying products that are said to be organically produced. Nation-wide professional promotion of organic production and products is necessary to increase required levels of awareness. Collaboration between organizations and alliances in promotional activities or campaigns has been identified by market analysts as an important strategy. Food processors and retail businesses are target groups for promotion, since they are important actors in the supply chain.

Critical policy actions are:

- Development and implementation of multi-year and country-wide information and promotion campaigns aimed at informing consumers, public institutions, schools and other key actors in the food chain about the merits of organic farming, especially its environmental and nutritional



benefits, and to increase consumer awareness and recognition of organic products, including recognition of the South African organic logo.

- Launch tailored information and promotion campaigns to well-defined types of consumers such as the occasional consumer and public canteens.
- Development and implementation of a website, radio programs and targeted videos dedicated to organic farming.
- Establish partnership with all institutions and agencies involved in the organic sector or those that are affected by it.

### 9.3. National inspection and certification programme

Consumers want assurance that products labelled “organic” are indeed produced according to organic production methods, and producers want to know that other producers also claiming to produce organic products are competing fairly. The “organic authenticity” of a product cannot be established by looking at the harvested product or by testing it. Rather, it is ascertained through documentation and inspection of the whole production process and the putting in place of a traceability program, so that any certification of labelling process is controllable and regulated.

The Department of Agriculture, Forestry and Fisheries shall develop an effective and affordable certification programme for organic products as a matter of urgency. The programme will be made up of standards setting as well as implementation. The department shall assign the inspection and certification responsibility to the relevant bodies that comply with those standards. DAFF would conduct regular audits on the delegated institutions and bodies as part of its oversight role. The certification of organic products shall be for both local and export markets. International standards will be assessed and equivalence granted based on the outcome of adjudication.

Other forms of certification that shall be implemented to cater for specific needs of farmers are:

- **Group Certification:** This type of certification allows farmers to organise themselves into groups by adopting an Internal Control System. With group certification the role of the external certification is mainly to verify that the Internal Control of the group is working rather than inspecting the individual farmers. Through group certification, producers can get access and assistance in the complicated organic certification. It can also result in substantial savings for small-holder farmers.
- **Participatory Guarantee System (PGS):** PGS is an alternative mutual accreditation system among a group of smallholders producing for a local market. They certify producers based on active participation of stakeholders and are built on a foundation of trust, social networks and knowledge exchange. PGS does not only address the quality assurance of the product,

but is linked to alternative marketing approaches (home deliveries, community supported agriculture groups, farmers markets, popular fairs) and help to educate consumers about products grown or processed with ecological methods. PGS is ideally suited for local markets with short supply chain. A number of PGS systems are already in operation in South Africa, providing organic assurance to consumers and creating market access to small-holder farmers.

Critical policy actions regarding certification are:

- Development of a regulatory framework and protocols for certification and inspection for organic systems.
- Provide support for the development of domestic certification bodies, by appropriate regulations, capacity building and other interventions.
- Facilitate participation by small-holders by supporting their certification systems. Training programmes for farmer groups to set up Internal Control Systems should be supported.
- Development and support of alternative quality control systems like group certification and PGS.

#### **9.4. Sector leadership**

The organic sector needs effective leadership at the national level with the ability to champion organics. The sector lacks a well resourced and credible organisation which has the capability to represent and advocate on behalf of the range of interests within the sector. The present structure within the organic sector is based on many organisations each with their own responsibilities, but none with an over arching national role. The sector needs to be assisted in setting up organisational structures that would represent the interest of all stakeholders.

The Organic Sector Strategy Implementation Committee (OSSIC) is assisting the sector to establish an all inclusive and representative national umbrella body. The new organisation would be known as South African Organic Sector Organisation (SAOSO). It is anticipated that SAOSO will be strong national organization with sound governance practices and a coherent vision. Several small organizations operate within the South African organic sector and participate in the process driven by the OSSIC-SAOSO forum. They would all affiliate to SAOSO once it is operational.

Critical policy actions are:

- Promoting unity and harmony among all stakeholders in the organic sector.

- Facilitation and provision of support towards the establishment of a unified, strong and credible sector body that would be able to represent its interests.
- Establishment of a consultative platform between government departments and the organic industry.

### **9.5. Research and Development programme**

Organic agriculture is knowledge intensive sector. The development of the organic farming sector thus depends a great deal on research and technology development. There are still many aspects of organic farming that are major sources of contention and disagreements. These could be dealt with by putting more resources into research of this type of farming system. Organic sector needs research approaches that deal holistically with the organic production systems. There is thus a need for researchers with ability to think outside the boundaries of other production systems and practices. It also needs proactive researchers who are able to champion research for the sector.

Research and technology development for organic farming should focus on the following:

- Production techniques and practices;
- Soil fertility management;
- Life-cycle analysis of all production techniques for comparison (excluding external costs);
- Nutrition analysis including micro and macro-nutrients;
- To research further on integrated pest and disease management;
- Processing techniques
- Development of effective and appropriate production inputs
- Soil health
- Pest and disease management

Critical policy actions regarding research and technology development for organic farming are:

- Development of a short, medium and long-term research agenda for organic farming between government and the private sector.
- Facilitate broad participation of all stakeholders in the sector in terms of priority setting.
- Integration of Indigenous Knowledge Systems (IKS) as a foundation for building sustainable organic farming sector.
- Mobilisation of resources for research and technology on organics should be prioritised.
- Establishment of special research programmes for organic farming with an emphasis on providing practical support to organic farmers and farmers in conversion to organics.

- Incorporation of organic research as part and parcel of the overall research done in South Africa. This must be linked with a digital database that is freely available to the farmers, extension officers, the general public and other stakeholders.
- Dissemination of improved technologies on organic production to all farmers, processors and other stakeholders in the sector.

## **9.6. Regulatory framework**

An effective regulatory system is critical for development of a sustainable organic sector. There are currently two international standards for organic agriculture, the Codex Alimentarius Guidelines for the production, processing, labelling and marketing of organically produced foods and the IFOAM Basic Standards. Countries are expected to develop their own regulatory systems in line with these two international standards. Experience from most countries had indicated that the main push for organic regulations comes from producers or organic certification bodies that want to have fair competition; consumers are rarely involved.

Critical policy actions are:

- South Africa should prioritise the development of national legislation and regulations for organic products.
- Development of regulations should be done in close consultation with the organic sector to ensure that the regulation is enabling rather than controlling by nature.
- Regulations for local markets shall be based on local conditions, and not in the conditions expressed by export markets.
- Export market access shall be supported through capacity building and other support to certification agencies.

## **9.7. Support schemes for organic farmers**

An important means of promoting organic production is to eliminate existing constraints that discourages new entrants. The government would use various incentive schemes to support the development of this sector and its farmers.

Critical policy actions are:

- Setting up of dedicated support systems at both national and provincial levels.
- Development and implementation of special incentive schemes for organic farmers.
- Mobilisation of resources for implementation of support programmes and incentive schemes.

## **9.8. National organic mark / logo**

Several studies have shown that a uniform logo or mark increases consumer recognition of organic products. National unification of the certification system with a common standard and logo is considered a key factor to increase consumers' trust in and identification of organic products. It would also be an effective tool in promoting development of markets. It is envisaged that it would give the organic movement a common ground and a voice in the overall development process. Farmer involvement in the early stage of standard development would be of major importance.

Critical policy actions are:

- Development and implementation of a national system of one or more marks under a common logo for South African organic products.
- Development and implementation of a promotion campaign to support the national mark system and logo for organic products on both local and export markets.

## **9.9. Market development**

Consumer interest and willingness to buy organic food is the foundation for market development. Consumer awareness is built with availability of good quality products and positive promotion, and a common standard, logo and system of marks is an efficient tool for promotion. The media play an important role in spreading the values of organic, informing about the logo and presenting good examples. Market information is an important tool for all market actors, not least the public sector and the farmers.

Development of a diversity of market channels is essential for long-term growth of the organic sector and for the establishment of successful and sustainable organic businesses. Large outlets such as supermarkets, as well as specialized stores and direct sales, complement each other and stimulate each other's growth rather than competing for market shares.

Research in most countries has established six (6) critical conditions for the development of organic markets:

- Strong consumer demand
- High degree of involvement by food companies
- Sales through conventional supermarkets
- Moderate organic price premiums
- One national logo or mark
- Nation-wide professional promotion

Some countries has applied a push strategy for the expansion of the organic markets and others a pull strategy. A push strategy focuses on measures to enlarge production, assuming that once there is more supply market demand will be created. The pull strategy has the market demand as driving force. A push strategy is based on generous payments to organic farms, something that is out of reach for most developing countries. On the other hand too forceful efforts in marketing can fail if there are no products to sell. South Africa should use a combination of both pull and push strategies.

Critical policy actions are:

- Consumer education and awareness should be actively promoted.
- Public sector procurement and consumption of organic food should be encouraged in government institutions such as hospitals, schools, clinics, prisons, and welfare establishments.
- A common national logo for organic products should be established and heavily promoted.
- Domestic market development should consider both the supply and demand side.
- Support mobilisation of farmers with regards to collective distribution and storage.
- Facilitate development of appropriate infrastructure like packhouses, processing plants and other important facilities to support market access and development.
- Development and implementation of user-friendly market information systems for organic products.

### **9.10. Technical support and advisory services**

Extension services would be important in the growth and development of the organic sector. Extension officers would be expected to provide technical support and advisory services to both commercial and smallholder farmers. The current extension workers are largely biased in favour of conventional production systems. Given the limited number of current organic farmers in South Africa, it makes sense that organic agriculture extension should be specialised service to begin with (point competency; point engagement). There is a need for a dedicated and specialised group of extension officers focused on organic production and related aspects.

Critical policy actions are:

- Establishment of special organic extension services and the training of staff.
- Organic modules to be developed for tertiary training institutions.
- Establishment of centres of excellence for organics.

- Development and implementation of information systems to support organic extension officers.

### **9.11. Traceability**

Traceability is an important element in organic production. Traceability is all keeping records of production practices and activities that occurred in the farm. It is important to implement traceability in organic farming for quality assurance systems. Most food products might get contaminated along the supply. Traceability is important in terms of establishing the source of contamination in order to implement corrective measures.

Traceability is a tool that can be used to provide important information that can be used to build trust between a consumer and the producer of food. Most of the time traceability is associated with the follow up of serious incidents. It can also be used to find back production and packaging problems, such as labels that are wrongly placed, errors in coupons or price indication, taste problems in a specific batch. Traceability is increasingly being used to guarantee certain food attributes such as organic or fair trade production and processing.

Traceability is essential for farmers, brand-owner, manufactures and consumers, fast access to information describing the complete history of product include:

- Quality (nutrient content of the product)
- Safety (in terms of health)
- Social and environmental factors (environmental friendly product)
- Origin provenance and terroir
- Local content

Critical policy actions are:

- Promotion of best production and post-production practices
- Introduction of compulsory record keeping systems from production up to the retail levels.
- Regular inspection of records in order to increase compliance levels.

## **10. POLICY IMPLEMENTATION**

### **10.1. Department of Agriculture, Forestry & Fisheries [DAFF]**

DAFF will be responsible for setting the policy, legislative and regulatory framework for the industry. DAFF will also be responsible for implementing the following aspects of the policy:

- Research and development programme for organic production systems in collaboration with other Agencies or Institutions;
- Designation of an Organic Coordinator to oversee the Research and Development and Extension Programmes;
- Market information/intelligence for domestic and export markets;
- Marketing infrastructure, as appropriate, such as packing houses and post-harvest facilities;
- Development and promulgation of new organic legislation;
- Data collection on organic production;
- Exploration of alternative acceptable phytosanitary treatments that meet international organic standards;
- Public education and sensitization;
- Establishment of National Organic Seed Bank;
- Assist producers in forging linkages with international organic seed companies and conduct Pest Risk Analysis for importation of organic seeds and planting material;
- In collaboration with SAOSO, provide technical assistance to farmers to develop seed production programme and establish seed banks; and
- In collaboration with DRDLR, designate land for organic farming.

### **10.2. Department of Rural Development and Land Reform [DRDLR]**

DRDLR will be responsible to:

- Support the implementation of organic rural development projects.
- Provide relevant support programme and incentives to organic farmers.

### **10.3. Department of Trade and Industry [DTi]**

DTi will be responsible for:

- Provide relevant incentives/support programmes/offering to organic farmers.
- Facilitate strategic linkages between buyers and sellers in the export market.



#### **10.4. Department of Education [Basic and Higher]**

DBE will be responsible for:

- Introducing the concept organic food production in the curricula of primary, secondary schools and tertiary institutions.

#### **10.5. Provincial Departments of Agriculture [PDAs]**

PDAs will be responsible for:

- Implementation of national programme supporting organic agriculture
- Establishment of organic projects (community-based).

#### **10.6. South African Bureau of Standards [SABS]**

SABS will be responsible for:

- Accrediting private certification bodies for organic agriculture and food in South Africa; and
- Developing National Organic Standards to regulate production, trade and marketing of organic products.

#### **10.7. National Agricultural Marketing Council [NAMC]**

NAMC will be responsible for:

- Providing market information/intelligence for export markets;
- Facilitate strategic linkages between buyers and sellers in the export market; and
- Encourage the use of “National logo” on locally produced organic products.

#### **10.8. South African Organic Sector Organization [SAOSO]**

SAOSO will be responsible to:

- Collaborate with the South African Bureau of Standards to develop national organic standards;
- Assist the Department of Agriculture, Forestry & Fisheries in the training and sensitization of farmers and extension officers;
- Collaborate with the Department of Agriculture, Forestry & Fisheries in increasing public awareness about organic production systems and standards and certification of organic products;
- Collaborate with the Department of Health to control the sale, manufacture, importation and exportation of organic foodstuffs;

- Collaborate with the Department of Education (Basic and Higher) to introduce the concept of organic food production in the curricula of primary secondary schools and tertiary institutions; and
- Assist in training organic inspectors in collaboration with DAFF and DRDLR.

### **10.9. Agricultural Research Council [ARC]**

ARC will be responsible for:

- Carry –out organic research and development agenda.
- Facilitate research activities through training and information exchange with other countries.
- Developing alternative methods of preparation for processing organic foods.

### **10.10. National Consumer Commission [NCC]**

NCC will be responsible for increasing consumer awareness about the purchase and consumption of certified organic products.

### **10.11. Role of Producers**

Producers will be responsible for:

- Investing in production;
- Marketing their goods;
- Adopting and maintaining national standards; and
- Producing in an environmentally sustainable manner.

## **11. TARGETED SUB-SECTORS**

In the short term, priority will be given to the promotion of commodities that can gain immediate certification under the category of wild collection/harvesting areas such as fruit tree crops, spices and honey. Other areas such as greenhouse production of organic vegetables/condiments, production of livestock and value-added products that already have a niche market will be explored.

## **12. FINANCING**

Policy elements will be financed by the following measures:

- Government of South Africa
- Grants from donors; and
- Private producers

## **13. POLICY OWNERSHIP**

Programme: Plant Production and Health

Directorate: Plant Production

Department of Agriculture, Forestry and Fisheries, Republic of South Africa:  
Pretoria

## **14. BIBLIOGRAPHY**

Reference was made to the following base documents during the compilation of the policy:

- FiBL & IFOAM (2006): The World of Organic Agriculture. Statistics and Emerging Trends 2006. International Federation of Organic Agriculture Movements (IFOAM), Bonn & Research Institute of Organic Agriculture FiBL, Frick.
- FiBL & IFOAM (2009): Global organic agriculture statistics. Organically managed land by country 2007.
- Organic Agriculture: sustainability, markets and policies (2003).
- Policy on Agriculture in Sustainable Development (2004).
- Study to develop a value chain strategy for sustainable development and growth of Organic agriculture (2008).
- The Constitution of the Republic of South Africa, Act 1996 (Act No. 108 of 1996).
- The Policy and Regulatory Environment for Organic Farming in Europe (1999).
- UNCTAD (2006), Best practices for organic policy: What developing country government can do to promote the organic sector?

## **APPENDIX**

### **A. ORGANIC AGRICULTURE IN CONTEXT**

#### **i. Organic farming concept**

Central to the organic production system is the biological management of the fertility of the soil. Soil is managed in such a way as to optimise and improve soil health through the management of the inorganic and organic soil components to enhance biological processes that consequently improve plant health and enabling the return of organic material back into the soil. Crop combinations, ecological companionships and rotations are also managed in such a way as to improve plants' competitive ability and create a favourable environment for the presence of natural predators of crop pests. In livestock, animals are selected, bred and managed to enhance natural resistance to pests and diseases through good nutrition and management practices such as interrupting host / pathogen relationships. These practices ultimately eliminate the use of external inputs to manage disease and infertility.

Organic production aims at a sustainable production system based on natural processes. Key characteristics are that organic agriculture:

- relies primarily on local, renewable resources;
- maximises food security at the micro and macro levels;
- maximises the labour opportunities for workers, while ensuring their protection and well-being;
- makes efficient use of renewable and other sustainable energy and the production potential of integrated biological systems;
- builds and maintains the fertility of the soil;
- enhance and preserve the health of the surrounding environment and the agro-diversity of a specific region.
- maximises recirculation of plant nutrients and organic matter;
- does not use organisms or substances foreign to nature (e.g. GMOs, chemical fertilisers or systemic pesticides);
- maintains diversity in the production system as well as the agricultural landscape;
- gives farm animal's life conditions that correspond to their ecological role and allow them natural behaviour.

## **ii. Principles of Organic Agriculture**

According to IFOAM, organic agriculture is based on four fundamental principles:

### **a. Principle of health**

- Organic agriculture should sustain and enhance the health of soil, plant, animal, human and planet as one and indivisible. The health of individuals and communities cannot be separated from the environment.
- The role of organic agriculture is to sustain and enhance the health of ecosystems and organisms. Organic agriculture aims to produce high quality, nutritious food that contributes to preventive health care and well-being. It should avoid the use of fertilisers, pesticides, animal drugs and food additives that may have adverse health effects.

### **b. Principle of ecology**

- Organic agriculture should be based on living ecological systems and cycles, work with them, emulate them and help sustain them. It is rooted within living ecological systems and production is to be based on ecological processes and recycling.
- Organic farming, pastoral and wild harvest systems should fit the cycles and ecological balances in nature and organic management must be adapted to local conditions, ecology, culture and scale. Inputs should be reduced by reuse, recycling and efficient management of materials and energy in order to maintain and improve environmental quality and conserve resources.
- Organic agriculture should attain ecological balance through the design of farming systems, establishment of habitats and maintenance of genetic and agricultural diversity. Those who produce, process, trade, or consume organic products should protect and benefit the common environment including landscapes, climate, habitats, biodiversity, air and water.

### **c. Principle of fairness**

- Organic agriculture should build on relationships that ensure fairness with regard to the common environment and life opportunities
- Fairness is characterised by equity, respect, justice and stewardship of the shared world, both among people and in their relations to other living beings.
- This principle emphasises that organic agriculture should conduct human relationships in a manner that ensures fairness at all levels and to all parties, should provide everyone involved with a good quality of life, contribute to food sovereignty and reduction of poverty. Animals should be provided with the conditions and opportunities of life that accord with their physiology, natural behaviour and well-being.

- Fairness requires systems of production, distribution and trade that are open and equitable and account for real environmental and social costs.

#### **d. Principle of care**

- Organic agriculture should be managed in a precautionary and responsible manner to protect the health and well-being of current and future generations and the environment.
- Organic agriculture is a living and dynamic system that responds to internal and external demands and conditions. Practitioners of organic agriculture can enhance efficiency and increase productivity, but this should not be at the risk of jeopardising health and well-being. Consequently, new technologies need to be assessed and existing methods reviewed. Given the incomplete understanding of ecosystems and agriculture, care must be taken.

## **B. DIFFERENT METHODOLOGIES OF SUSTAINABLE AGRICULTURE**

The organic sector is characterised by a diversity of views, many held with a strong passion. There are various versions of organic farming and there are disagreements among the proponents of various versions about which should be regarded as true organic production. The six main versions are discussed below:

### **i. Biodynamic farming**

Biodynamic agriculture is the first (1924) scientific method of organic farming. It uses specially prepared compost and field preparations and the farm is treated as a unified and individual organisms, emphasizing balancing the holistic development and interrelationship of the soil, plants, animals as a self-nourishing system minimizing external inputs insofar as this is possible.

Biodynamic agriculture advocates the combination of animal husbandry and crop production (mixed farming) and it uses biodynamic field and compost preparations (naturally occurring plant, animal and mineral materials which are combined in specific recipes) in order to vitalize the soil and to enable it to transmit this vitality through life-processes to plants and subsequently to animals and human beings. As a methodology all activities such as seed sowing, cultivation and harvesting are timed according to cosmic and seasonal rhythms. The maintenance and furtherance of life-processes in the soil and in nature in general as well as the harnessing of cosmic energy and other formative influences from the sun, the stars, the moon and other planets, are basic principles.

## **ii. Permaculture**

Permaculture is an approach towards designing human settlements and agricultural systems that mimic the relationships found in natural ecologies. The intent is that, by rapidly training individuals in a core set of design principles, those individuals can design their own environments and build increasingly self-sufficient human settlements that reduce society's reliance on industrial systems of production and distribution that had been blamed as fundamentally and systematically destroying earth's ecosystems. In permaculture, practitioners learn from the working systems of nature to plan to fix the damaged landscapes of human and agricultural systems. Permaculture practitioners apply everything deemed necessary to build a sustainable future.

Modern permaculture is a system design tool. It is a way of:

- looking at a whole system or problem;
- observing how the parts relate;
- planning to mend sick systems by applying ideas learned from long-term sustainable working systems;
- seeing connections between key parts.

## **iii. Biological farming**

Biological farming is a system that uses nature and science to build the quality of the soil with the understanding that healthy soil will be able to support healthy crops and livestock. It takes advantage of natural processes, which promote good soil, healthy crops, and healthy animals. These natural processes include: crop rotations; best tillage methods; growing green manures; proper livestock manure use; reducing toxins; promoting soil life, and balancing the soil's minerals. These terms mean using natural systems to improve soil structure; control weeds, pests, and diseases, and improve crop quality.

Biological farming works with natural systems and methods to build optimum soil, plant and animal health, while incorporating the best of conventional farming methods to maintain production levels and quality. Ultimately it also looks for outcomes in food nutrition and improved ecosystems. Biological farming methods present a viable way of producing high quality, nutritious produce without the use of non-organic fertilisers, pesticides or gene modification.

## **iv. Natural farming**

Natural farming involves the use of all inputs from natural materials, observes the law of the Nature and respects the rights of crops and livestock. Natural farming heals the soil slashed by chemicals, herbicide and machines. Basic idea of nature farming is to keep the soil as pure as possible, without using artificial

fertilizers of any kind, chemical or non-chemical. Where natural farming is practiced, the soil and water become clean and ecology is recovered.

Natural farming is about working with natural energies rather than trying to conquer wild nature. The problem of agriculture long pre-dates modern industrial farming methods. Everywhere farming has been widely practiced soils have been eroded and depleted and the natural biodiversity has been reduced. Understanding of soil is central to natural farming. Soil is far from an inert substance, it is a complex living ecosystem comprising innumerable microorganisms that enable plants to take up nutrients essential for their growth and help defend them against diseases and insects.

#### **v. Traditional farming**

Traditional farming is an indigenous practice of cultivating land to produce crops, breeding, and raising livestock while managing natural resources in order to produce nutritious and continual food supply without external contribution but using self-reliance and locally available resources. Traditional knowledge is knowledge that has been preserved from generation to generation through oral and practical means. For many years our ancestors have tried to find ways of making good use of natural resources, to appreciate our natural environment, and learn to preserve it. From the use of herbs/plants for medicine to the utilization of astrological movements to tell time and weather, these traditions where ever they might have originated has become part of our culture and has contributed to who we are, how we learn, and has shaped our views.

Traditional farmers developed sustainable agriculture practices which allowed them to produce food and fiber for thousands of years with few if any outside inputs. Many of these practices have been forgotten or abandoned in developed countries, but are still used by many traditional, subsistence, or partially subsistence farmers in rural areas of South Africa and in some of the developing countries. Most traditional methods of agriculture were developed through millennia of trial and error, natural selection, and keen observation. These practices aim to conserve energy, maintain natural resources, and eliminate chemical use. Today, perhaps over half of the worlds' arable land is farmed by traditional farmers. Many of their techniques are unknown or poorly understood, but have allowed them to produce crops and animals with minimal or no purchased inputs. Traditional farming systems often resemble natural ecosystems. Their striking diversity gives them a high degree of stability, resilience, and efficiency.



## **C. BEST PRODUCTION PRACTICES**

There is a need to promote adoption of best production practices for both plants and livestock as discussed below:

### **i. Plant production**

Organic farming in terms of plant production refers to exclusion of synthetic fertilizers, herbicides and pesticides. It is more dependent on active improvements, such as crop rotations and green manure. Organic crop farmers also employ natural pest controls; e.g. biological control, plants with pest management and control properties rather than synthetic/systemic pesticides which, when usage, are known to kill beneficial organisms, cause pest resistance and often pollute communities, water and land.

Organically produced crops should be produced according to the following production practices:

- Soil fertility and crop nutrients are managed through tillage, crop rotations, cover crops, green manures and animal and crop waste with diversion of organic resources from towns and cities being a critical component;
- Physical, biological, and mechanical means are used to control pests, weeds, and diseases.
- Conversion period from conventional should be over a period of 2 (for annual crops) to 3 years (for perennial crops).
- Organically open-pollinated propagated seeds and other propagating material and the use of bees should be given preference.
- The use of modern biotechnology, food radiation, and/or sewage sludge is prohibited.
- Scouting and monitoring pests.
- Plant succession management from pioneer to climax phases.
- Use of pest resistant plants and planting in areas suitable for the crops.
- Use of composts and composted manures as a substitute for inorganic fertilizers.
- Use of biological pest control methods
- Avoidance of farming practices that degrade soil and water quality
- Introduction of shelterbelts as wildlife corridors, carbon sequestration and moderation of climate and humidity.
- Incorporate water harvesting techniques and other soil hydrating methods for effective utilization of the water cycle.

## ii. Animal production

The basis for organic animal production is the development of a harmonious relationship among soil, plants, animals and humans. Organic animals should be provided with the conditions and opportunities that accord with their physiology and natural behaviour. Organic livestock production methods enhance the sustainability of agricultural production systems. Organic livestock production methods produce healthy animals and quality livestock products that enhance human health.

Organically produced livestock should be produced according to the following production practices:

- Use of breeds that can both copulate and give birth naturally.
- Animals should have access to grazing that is appropriate to their type.
- Feed products must be 100% organic – vitamin and mineral supplements allowed.
- Animals should have sufficient free movement and should not be confined or restricted in an undesirable manner.
- Poultry, rabbits and pigs should not be kept in cages.
- Dairy animals must have organic management for at least 12 months before their products can be sold as “organic.”
- No hormones can be used to promote growth. No antibiotics and Genetically Modified Organisms (GMOs) feed can be used for any reason.
- No conducting of painful procedures on animals, such as tail docking, castrating, dehorning, and debeaking without the use of anaesthetic.
- Cannot withhold treatment of sick or injured animals. If treated with prohibited product, cannot be sold as organic.
- Must have access to outdoors. Ruminants must have access to pasture.
- Temporary confinement allowed for health, safety, inclement weather, animal’s stage of production, or protection of soil or water quality.
- Embryo transfer techniques are not allowed.
- Integrated appropriate animal interventions.
- Adequate provision of shade for animals.

## GLOSSARY

1. **Additive:** An enrichment, supplement or other substance which may be added to a foodstuff to affect its keeping quality, consistency, colour, taste, smell or other technical property;
2. **Audit:** A systematic and functionally independent examination to determine whether activities and related results comply with planned objectives;
3. **Organic Agriculture:** A holistic production management system which promotes and enhances agro-ecosystem health, including biodiversity, biological cycles and soil biological activity. It emphasizes the use of management practices in preference to the use of off-farm inputs, taking into account that regional conditions require locally adapted systems. This is accomplished by using where possible, agronomic, biological and mechanical methods, as opposed to synthetic materials, to fulfil any specific function within the system.
4. **Organic Certification:** is a procedure for verifying that the production process conforms to organic production standards. Certification is normally carried out by a certifying body, which ensures adherence to a specific organic standard. Once certified, organic products carry a certification label indicating that products are certified as organic
5. **Certification mark:** A mark or a symbol, that has been registered by the delegated authority, indicating that compliance with these standards has been verified;
6. **Certification programme:** An approved system of rules, procedures and management for carrying out certification;
7. **Certifying organisation:** An approved organisation performing certification;
8. **Crop rotation:** The practice of alternating the species or families of annual and biennial crops grown on a specific field in a planned pattern or sequence so as to break weed, pest and disease cycles and to improve soil fertility and organic matter content;
9. **Labelling:** Any written, printed or graphic representation that is present on the label of a product, accompanies the product or is displayed near the product, for the purpose of describing or promoting the sale or disposal of the product;
10. **Operation:** A farm, production unit or project involved in the production and/or processing of products;

**11. Operator:** Any person who is involved at any stage of the chain of production, processing, storage, packaging, transporting, retailing, displaying, importing or exporting of organic/organic in conversion products or who markets such products;

**12. Synthetic:** A substance that is formulated or manufactured by a chemical process or by a process that chemically changes a substance extracted from naturally occurring plant, animal or animal sources, except that such term shall not apply to substances created by naturally occurring biological processes; and

**13. Wild harvesting:** products not cultivated, but found naturally in the wild.