LIVING IN ORGANIC TIMES

Namibian Organic Association

May 2013

What is organic?

Organic food

The definition of organic food is food which is produced using environmentally and animal friendly farming methods on organic farms. These methods are defined and food sold as 'organic' must be produced and assessed according to organic production and processing standards.

Organic farming

Organic farming recognises the direct connection between our health and how the food we eat is produced. Artificial fertilisers are banned and farmers develop fertile soil by rotating crops and using compost, manure, nitrogen fixing plants and other green manuring crops such as oats.

Organic animals

Organic Standards put animal welfare first. As well as requiring that animals are genuinely free range, Organic Standards cover living conditions, feed quality, the routine use of antibiotics and hormones, as well as transport and slaughter. These Standards mean that animals raised in organic systems enjoy the very highest welfare standards of farmed animals.

Organic textiles

When textiles are certified as organic, it means that both the production of the fibre on the farm and the processing of this fibre into textiles has met organic standards and have been checked at every step of the processing supply chain for social and environmental responsibility.

Organic beauty products

Your skin is the largest organ of your body and what you put on it can be absorbed in tiny amounts. Certified beauty products require the maximum amount of organic ingredients, minimum synthetic ingredients, minimum processing of ingredients and clear labeling so that consumers can make an informed choice.

Organic Standards

Organic Standards are the rules and regulations that define how an organic product is made. Anything labeled "organic" that is for human consumption must meet these standards as a minimum. Standards cover all aspects of food production, from animal welfare to food processing.

Organic certification

There are a number of different certification bodies internationally which carry out inspections and paperwork to ensure that organic standards are being met. In Namibia, the Namibian Organic Association conducts assessments according to the Namibian Organic Standards. The assessments are conducted based on a Participatory Guarantee System which is suitable for the local market.

Organic principles

The Namibian Organic Association, its Standards, activities and the practice of organic farmers, are all based on a set of internationally recognised principles. These principles are the root from which organic agriculture grows and develops. They express the contribution that organic agriculture can make to the world and embody a vision to improve all agriculture in a global context.

Why buy organic food?

Food you can trust

You can be safe in the knowledge that hydrogenated fats and controversial additives like aspartame, tartrazine and MSG are banned under Organic Standards.

Better for the environment

Organic farming reduces pollution and greenhouse gases released from food production by restricting the use of artificial chemical fertilisers and pesticides.

Wildlife protection

Organic farms are havens for wildlife and provide homes for bees, birds and butterflies.

Higher animal welfare

Organic Standards insist that animals are given plenty of space and fresh air to thrive and grow - guaranteeing a truly free-range life.

A GM free diet

Genetically Modified crops and ingredients are banned under Organic Standards. Choosing organic is an effective way to avoid GM in your diet.

Principles of Organic Agriculture

The Principles of Organic Agriculture are the roots from which organic agriculture grows and develops. They express the contribution that organic agriculture can make to the world, and a vision to improve all agriculture in a global context.

The Principles of Organic Agriculture serve to inspire the organic movement in its full diversity and they are presented with a vision of their world-wide adoption. Organic agriculture is based on:

Principle of Health

Organic Agriculture should sustain and enhance the health of soil, plant, animal, human and planet as one and indivisible.

Principle of Ecology

Organic Agriculture should be based on living ecological systems and cycles, work with them, emulate them and help sustain them.

Principle of Fairness

Organic Agriculture should build on relationships that ensure fairness with regard to the common environment and life opportunities.

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.

Visit www.ifoam.org for more detailed information.

Food additives

Elga Drews

What if someone were to tell you that a chemical added to food could cause brain damage in your children and that this chemical could affect how your children's nervous systems formed during development so that in later years they may have learning or emotional difficulties?

What if there was scientific evidence that these chemicals could permanently damage a critical part of the brain known to control hormones so that later in life your child might have endocrine problems?

Suppose evidence was presented to you strongly suggesting that the artificial sweetener in your diet soft drink may cause brain tumors to develop, and that the number of brain tumors reported since the introduction of this widespread artificial sweetener has risen dramatically? Would that affect your decision to drink these products and especially to allow your children to drink them?

What if you could be shown overwhelming evidence that one of the main ingredients in this sweetener (aspartate) could cause the same brain lesions as MSG? Would that affect your buying decision?

And finally, what if it could be demonstrated that all of these types of chemicals, called excititoxins, could possibly aggravate or even precipitate many of today's epidemic neurodegenerative brain diseases such as Parkinson's, Huntington's, ALS, and Alzheimer's?

Would you be concerned if you knew that these excitotoxins food additives are a particular risk if you have diabetes, or have ever had a stroke, brain injury, brain tumor, seizure, or have suffered from hypertension, meningitis, or viral encephalitis?

Would you also be upset to learn that many of these brain lesions caused by these products in your children are irreversible and can result from a SINGLE exposure of these products in sufficient concentration?

How would you feel when you learn that the food industry hides and disguises these additives (MSG and Aspartate) so they can't be recognized?

The fact is many foods are labeled as having "No MSG" but in fact not only contain MSG but also are laced with other excitotoxins of equal potency and danger.

Unfortunately all of the above is true. And all of these well-known brain toxins are poured into our food and drink by the thousands of tons to boost sales. These additives have no other purpose but to enhance the taste and sweetness of food and drink products. The amount of MSG added to foods since its introduction in 1948 has doubled every decade.

A Japanese study at the Hirosaki University indicated that ingestion of Monosodium Glutamate (MSG) caused injury of the retina and damaged eyesight. A growing number of clinicians and scientists are convinced that a group of compounds called excititoxins play a critical role in the development of several neurological disorders including migraines, seizures, infections, abnormal neural development, certain endocrine disorders, neuropsychiatric disorders, learning disorders in children, episodic violence, lymeborreliosis, hepatic encephalopathy, specific types of obesity, and especially the neurodegenerative diseases, such as ALS, Parkinson's disease, Alzheimer's disease, Huntington's disease and olivopontocerebellar degeneration.

An enormous, compelling amount of both clinical and experimental evidence has been accumulated over the past two decades supporting these suspicions. Yet the FDA still refuses to recognize the immediate and long term danger to the public.

Excitotoxins are present in almost all processed foods. In many cases they are added in disguised forms, such as natural flavoring, spices, yeast extract, textured protein, soy protein extract, etc. Liquid forms of excitotoxins as in soups, gravies and diet soft drinks are more toxic than in solid food.

MSG

Monosodium Glutamate is the sodium salt of glutamate. This amino acid is actually a normal neurotransmitter in the brain. Glutamate as a neurotransmitter exists in the extracellular fluid only in very, very small concentrations. When the concentration rises neurons begin to fire abnormally. At even higher concentrations, the cells undergo a specialized process of delayed cell death known as excitotoxicity. It has been linked to nerve degeneration, migraines, seizures, brain trauma, strokes, Parkinson's, Alzheimer's, ALS, ADDHD and other learning disorders in children, eyesight damage and retinal injury, AIDS dementia.

Food additives that always contain MSG

Monosodium Glutamate
Hydrolyzed Vegetable Protein
Hydrolyzed Protein
Hydrolyzed Plant Protein
Plant Protein Extract
Sodium Caseinate
Calcium Caseinate
Yeast Extract
Textured Protein (including TVP)
Autolyzed Yeast
Hydrolyzed Oat Flour
Corn Oil

Food additives that frequently contain MSG

Malt Extract
Malt Flavoring
Bouillon
Broth
Stock
Flavoring
Natural Flavors/Flavoring
Seasoning
Spices

Food additives that may contain MSG or Excitotoxins

Carrageenan
Enzymes
Soy ProteinConcentrate
Soy ProteinIsolate
Whey Protein Concentrate

Aspartame

An intense source of excitotoxins

Aspartame is a sweetener made from two amino acids, phenylalanine and the excitotoxin aspartate. It should be avoided at all costs. Aspartame complaints account for over 75% of all complaints to the FDA. It is implicated in everything from blindness to headaches to convulsions, seizures and even death. A few of the 90 different documented symptoms listed as being caused by aspartame include: headaches/migraines, dizziness, seizures, nausea, numbness, muscle spasms, weight gain, rashes, depression, fatigue, irritability, tachycardia, insomnia, vision problems, hearing loss, heart palpitations, breathing difficulties, anxiety attacks, slurred speech, loss of taste, tinnitus, vertigo, memory loss and joint pain.

According to researchers studying the adverse effects of aspartame, the following chronic illnesses can be triggered or worsened by ingesting aspartame: brain tumors, MS, epilepsy, chronic fatigue syndrome, Parkinson's, Alzheimer's, mental retardation, lymphoma, birth defects, fibromyalgia, and diabetes.

It is sold under a dozen brand names such as Nutrasweet, Equal, etc., aspartame breaks down within 20 minutes at room temperature into several primary toxic and dangerous ingredients:

1. DKP (diketopiperazine) when ingested, converts to a near duplicate of a powerful brain tumor causing agent, can cause a particularly dangerous form of cancer, primary lymphoma of the brain
2. Formic acid (ant poison)
3. Formaldehyde (embalming fluid= deadly neurotoxin and known carcinogen)
4. Methanol (causes blindness etc.; very dangerous substance)

You will find it in: diet soft drinks (Light, Zero), sugar free gums, sugar free Kool Aid, Crystal Light, children's medication, thousands of products claiming to be 'low calorie', 'diet' or 'sugar free'. Dr Russell Blaylock, MD, author of the book "Excitotoxins-The Taste That Kills" who held various meetings with senior executives of the food additive industry, after requesting to stop using these dangerous additives was told point blank that these excitotoxins are going to be in our food no matter how many name changes are necessary!

Also check out "The honest Coca Cola Obesity Commercial" on http://youtube/bHhCP5ad-ZM

Tartrazine

This is a yellow food colouring produced synthetically from petroleum. It is also called 102 or E102. Many people are allergic to foods containing it. Typical effects are skin disorders and respiratory problems. It has been shown to have an adverse effect on hyperactive children.

Numerous other colourants and flavorants are added to our foods that do not have any nutritional value whatsoever and merely serve to enhance taste and colour of the products. Many of these have been linked to hypersensitivity, intolerance and allergic reactions and in some cases cancer. Toxins overload our immune system and the liver. They are deposited in fat tissue and around our organs making it difficult for normal functioning of the body.

Food Preservatives

All have various numbers allocated to them either with or without an E infront of them. **For a complete list have a look at www.traditionaloven.com**

Sodium Benzoate, Calcium Benzoate, Potassium Benzoate, Potassium Sorbate, Calcium Sorbate, Sulphur dioxides and other sulphur derivatives most widely used preservatives to extend the shelf life of food products like pickles, breads, canned food, dried fruit, biscuits and almost everything. They have all been linked to hypersensitivity, allergies and some to cancer. Sodium Nitrates and Nitrites are preservatives used to preserve processed foods like the cold meats and fish for example. These are carcinogenic substances. E330 is artificially produced Citric acid which often contains sulfites that can cause a severe reaction in allergy and asthma sufferers.

A complete list is on www.traditionaloven.com

It is better to make an informed decision than to bury your head in the sand.

Note that organically certified or assessed food, does not contain any food additives or preservatives.

Where to buy Organic

Organic Box
Order your weekly selection of organic and natural products online. Deliveries in Windhoek and Okahandja.
www.organic-box.com

Maerua Superspar
'The Health Nut' Section at Maerua Superspar stocks a large variety of local and imported organic products, as well as special dietary needs products.
Maerua Lifestyle Centre, Centaurus Road, Windhoek
Tel: 061 383 000

Saturday Green Market / Bio Markt
Selected stalls at the Green Market offer NOA Organically Assessed products and a wide range of other produce directly from farmers and crafters.
3 Uhland Str, Klein Windhoek
Tel: 061 223 959

Fruit & Veg City - Food Lovers Market
Selected local and imported organic food products.
Metro Centre, Olympia Windhoek
Tel: 061 414700

Ina Cramer
NOA Organically Approved milk, yoghurt, kefir, ice cream and frozen yoghurt.
cramer@iway.na
www.cramer.com.na
Cell: 081 365 6858

Farm Krumhuk
NOA Organically Approved beef, vegetables and dairy products as well as other farm produce.
krumhuk@iway.na
Tel: 061 233645

Greenspot Organics
NOA Organically Approved herbs, vegetables and eggs.
greenspot@greenspot.com.na
Cell: 081 129 5575

Bellissima Farming
NOA Organically Approved herbs, vegetables and eggs.
suzette@organicnamibia.com
Cell: 081 127 0681

Komnik & Franck
Organic coffee, tea and wine.
48 Cobalt Str, Prosperity Windhoek
Tel: 061 22 2411

Root to Health
Organic and natural skin and body care products.
35 Chateau Str, Windhoek
Tel: 061 245677

Solar Age Agriculture: an Update for 2013

by Conrad Roedern

Driven by falling prices for Photovoltaic Modules or "solar panels" as they are more commonly known, the use of solar power has become a much more attractive option as a source of electricity.

Until a few years ago it was possible to use solar pumping only at boreholes with a shallow water table (typically less than 70m) and low daily yield (typically 10 cubic meters or less @ 70m head). Now, photovoltaic solar water pumping (PVP) can fulfil all requirements in terms of volume and lifting head. This stems from the fact that today, solar electricity can be produced much cheaper on site than produced by a diesel generator or even supplied via the Namibian electricity grid. Highly efficient submersible pumps are available which can be run directly from the panels or in case of emergencies, from a small AC generator. But it also make senses to convert traditional shaft-driven MONO pumps to run directly from solar power (with no batteries involved) while keeping the typical LISTER engine just as backup. Swopping is easy -one just changes V-belts back to the LISTER engine.

But why look only to pumping water? Running a farmstead on solar power now makes perfect sense not only to sites that are already grid-connected but definitely for those that operate "off-grid". In the case of "on-grid-farms", the solution is a photovoltaic PV feed-in system which is available for both single-phase and 3-phase requirements.

During hours of sunshine, the system feeds directly to power the needs of the homestead, while excess power goes back into the electricity grid. The grid acts like a battery which "buffers" differences in supply and demand. Sources that feed excess solar power into the electricity grid will be compensated under the upcoming "net-metering" legislation with a non-cash credit that can be used again during night time or when solar power is not sufficient.

Off-grid systems have benefitted from the strong fall in panel price which is now 30% of what it was four years ago. Farms and lodges typically run on a hybrid system where hybrid means running from two energy sources: solar and diesel. Since solar energy can be produced cheaply, the amount of electricity that is still required to be produced from diesel can be reduced to below 10%. Night-time power comes from energy stored in a professional deep-cycle battery set with a 10 to 15 year life span.

What else helps the "Solar Revolution" become reality? Ultra efficient appliances have become available, especially for lighting and refrigeration. Even modern energy saving bulbs, "CFLs", saves up to 80% in energy consumption compared with incandescent bulbs. Despite this advantage, because of their minute mercury content compared with traditional fluorescent lights, they now find strong competition in LED lighting. LED lights last about 5 times longer than good CFLs (some 50 000 hours) and pose even less of a threat of environmental contamination. However, because LED technology is expensive and comes in different quality variants, consumers should look at factors such as product longevity, good light colour and low power consumption.

Today's high quality fridges, freezers and cool rooms consume less than 40% of the energy of their low-cost conventional predecessors. Look for fridges, freezers and combinations that carry efficiency labels like "A+" or even "A++". Good quality energy-saving cool rooms with soft-start and extra strong thermal insulation are made in Namibia and their reduced power and energy requirements allow them to run even on medium sized solar systems.

The Ministry of Environment and Tourism and NamPower are using PV feed-in systems

New technology has also found its way to solar home systems (SHS). So-called pico-SHS is the latest product offering that meets the basic demand for lighting, cell-phone charging and playing a radio. These systems normally come as DIY-kits.

A word of caution; quality systems use long-lasting LED hanging lights with switches, a lithium-ion battery - not a lead or cadmium commonly found in low quality systems - and a powerful cell-phone charger capable of fully charging a smart phone. Accessories and repairs are available locally.

Bio farmers and solar users have so much in common. Irrespective of whether it is photosynthesis or converting "photons to electrons" with solar cells – it is the quality of the converted and stored energy - and the environmental impact in its production that counts.

Solar power is clean and must be seen as the great game changer for Namibia!

Look out for the Organic Mark

Anyone can label their products "organic" or "natural". But how do you know if it is really organic? Easy, look out for the organic mark!

The only way to be sure if a product is truly organic, is to look for the Organic Mark. Organic certification is the process where a farmer or processor applies for verification that their production is in compliance with a given set of organic standards, and which provides the end consumer with the guarantee that production has been in compliance with those standards.

Third party, ISO accredited certification is a method of organic assurance for export markets. Typical third party certification marks include the Afrisco, EU, Soil Association, Demeter, Naturland, USDA Organic marks etc.

For local markets, alternative systems such as NOA's Participatory Guarantee System (PGS) can be used which provides a credible, relevant and cost effective mechanism through which producers can provide an organic guarantee to consumers. It embodies the active participation of producers and other stakeholders such as consumers and traders.

In Namibia, look out for the "NOA Organic Mark" which means that the farm is fully compliant with the NOA Standards, or "NOA Organic-in-Conversion Mark" which means that the farm is managed according to the Standards, but is still in the 2-3 year conversion phase.

Each Organically Assessed Farm receives a certificate indicating all products which are assessed according to the NOA Standards. If you are in doubt, ask the farmer to present his/her NOA Organic Certificate to you. The certificate will indicate specifically which products comply with the Standards, and whether processing is assessed by NOA. For instance, a producer's beef can be organic, but if the same beef is used in a sausage and mixed with non-organic ingredients, it may loose its full organic status.

Components of NOA's Assessment system

The elements of the NOA PGS are:

- the NOA Organic Standards;
- the NOA Organic Mark;
- Documented Management Systems and Procedures;
- Pledge; and,
- Defined consequences for non-compliance.

NOA Standards

The NOA Standards are based on the Afrisco Standards, which is equivalent to the international IFOAM Standards.

The Standards can be downloaded from www.noa.org.na

Organic Mark

NOA producers either receive the "NOA Organic Mark" for full organic status, or the "NOA Organic-in-Conversion Mark" if the farm is in the conversion period.

Documented Management Systems and Procedures

For an organic guarantee system to be transparent and to be able to deliver on a consistent and equitable basis the NOA PGS has a well documented system consisting of the NOA Organic Standards, Producers Database, PGS Operations Manual and Individual Farm Assessment Notes, recommendations and requirements for future assessments.

Pledge

During each assessment, the producer needs to provide a pledge that all statements made in the application are true and correct, and that no chemical products have been applied to any of the organically managed fields, crops and livestock. The producer also commits him/herself to unannounced assessment visits, and will provide right of access to all appropriate facilities.

Defined consequences for non-compliance

Non-compliances to the Standards are dealt with on individual cases and depends on the severity thereof. NOA will institute corrective and/or preventive actions required to bring the operation to organic integrity, whether the contravention with the

Standards was deliberate or not. Actions may include immediate cancellation of the organic status or withdrawal of specific product lines from the market. The application of penalties due to non-compliance is transparent, and the outcomes are publicly available on the NOA website.

How can your products be Organically Assessed by NOA?

Step 1

Knowledge of the NOA Standards is required to know if you fulfill organic production standards. It includes all aspects of plant, animal, mushroom and bee production, as well as the processing and labeling thereof.

Download the standards from www.noa.org.na

Step 2

Download the relevant application forms, complete and send to NOA.

Step 3

The NOA Assessment Team screens the application to determine the Applicant's eligibility and completeness of the application forms, and may request additional information.

Step 4

NOA performs an on-site assessment, completing the appropriate Organic Assessment Documentation.

Step 5

The Assessment Team reviews all of the documentation and makes a decision on the organic assessment status (Full Organic Status or Organic-in-Conversion Status)

Step 6

The decision is ratified by the NOA Board.

Step 7

The applicant is informed of the status, and the appropriate certificate is issued, with the producer's right to use the relevant NOA Organic Mark.

Step 8

Annual re-certification.

Costs

NOA Assessors do not request payment from the producer, however participation in other peer-review assessments is required.

Transparency

The NOA PGS system is based on a complete transparent, formal, and systemised decision making process. Participation embodies the principle of a collective responsibility for ensuring the organic integrity of the PGS. This collective responsibility is reflected through shared ownership of the PGS, stakeholder engagement, and direct communication between producers, consumers and other stakeholders.

In addition to the appointed Assessment Team, any fellow organic farmer, consumer, retailer or trader is welcome to attend an organic assessment as an observer.

NOA is keen to increase the number of qualified assessors, so let us know if you are interested in joining this process.

NOA receives official international recognition

NOA's Organic Participatory Guarantee System (PGS) is one of only 5 assessment systems in the world that has received official recognition by the International Federation of Organic Agricultural Movements (IFOAM). This means that NOA has passed a thorough quality review carried out by the IFOAM PGS Committee. Other PGS initiatives that received recognition are:

- ANC - Associação de Agricultura Natural de Campinas e Região
- Associacao Brasileira de Agricultura Biodinamica - ABD (Brazil)
- Certified Naturally Grown - CNG (USA)
- Organic Farm New Zealand - OFNZ (New Zealand)

Through IFOAM's recognition of NOA's PGS system, Namibian consumers can be assured that products carrying the NOA Organic Mark, is assessed according to an internationally recognised system.

"By developing and implementing a PGS system, NOA plays an essential role in supporting the development of the local domestic market, ensuring that the benefits of the organic sector will be shared by various stakeholders in the long term," says Markus Arbenz, Executive Director, IFOAM.

PGS IFOAM

Organic.
Our experts trust it.

Our experts know the qualities of organically farmed produce.

Tasty.

Healthy.

Nutritious.

Long-lasting.

Pesticide-free.

Hormone-free.

No genetic modification.

Whether it's a meal for a family or a dish for customers, organically farmed and processed ingredients are the choice that you can trust as well.

Find out more about us and our standards.
Visit www.noa.org.na

Namibian Organic Association

How do you know it is organic?
Watch out for these marks for food that you can trust:

Namibian Organic

Choose these products if you want produce approved by the Namibia Organic Association.

Namibian Organic in Conversion

Choose the products if you want to support a farmer converting to organic faming methods.

Namibia represented at international level

Manjo Smith

IFOAM - The Federation of Organic Agricultural Movements, is the international umbrella movement that both leads and unites the organic sector around the world. It is the organisation that sets the international standards, policies, definitions and positions around the multi-functionality of organic agriculture through consultation with its members that represent a wide spectrum of the sector in the majority of the countries around the world.

Manjo Smith, Chairperson of the Namibian Organic Association, is an IFOAM World Board Member for the tenure 2012 to 2014. “It is a privilege to serve the local and international organic community for the advancement of organic agriculture. It is significant to be part of a dynamic and knowledgeable team that shares their passion and work together across continents within a very diverse and complex sector.

Stephen Barrow, a NOA Board Member, serves on the IFOAM Standards Committee, which leads standards development internationally. “We have a wonderful opportunity to help with the development of internationally accepted standards which make allowances for regional differences and acknowledges traditional agricultural methods within the global organic movement.”

The formal organic movement began in Versailles, France on November 5th, 1972 when at the invitation of Roland Chevriot of “Nature et Progrès” in France, Lady Eve Balfour, a founder of the UK Soil Association in the UK, Kjell Arman from the Swedish Biodynamic Association, Pauline Raphaely from the Soil Association of South Africa, and Jerome Goldstein from the Rodale Institute held a meeting and formed the International Federation of Organic Agricultural Movements (IFOAM).

IFOAM actively participates in international agricultural and environmental negotiations with the United Nations and multilateral institutions to further the interests of the organic agricultural movement worldwide.

IFOAM is working towards the integration of organic principles specifically in international regulatory systems and policies, which will benefit and encourage the development of organic markets worldwide.

IFOAM has observer status or is otherwise accredited by the following international institutions:

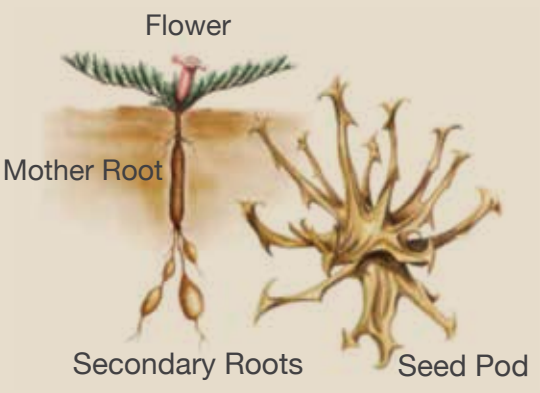
- The Food and Agriculture Organization of the United Nations (FAO)
- United Nations Conference on Trade and Development (UNCTAD)
- Codex Alimentarius Commission (FAO and WHO)
- World Trade Organization (WTO)
- United Nations Environment Program (UNEP)
- The Organization for Economic Cooperation and Development (OECD)
- International Labor Organization of the United Nations (ILO)

www.ifoam.org

IFOAM
INTERNATIONAL FEDERATION OF ORGANIC AGRICULTURE MOVEMENTS

Greenspot's PGS Organic Assessment.

Wild Harvesting – Devil's Claw



Devil's Claw has been traditionally used in Africa for hundreds of years. It is only around at the turn of the 20th century that it's healing properties were discovered by western medicine. Today, Devil's Claw is one of the most researched plants and is widely used to support the treatment of joint inflammation, stiffness, arthritis and rheumatism.

EcoSo Products

EcoSo Dynamics cc trades with the raw material of Devil's Claw and sells tea and tablets for human consumption, tablets for dogs and powder for horses. All products are made of pure plant material consisting of the dried secondary root of the plant. EcoSo's products are available at most pharmacies and health shops in Windhoek.

Business supports Community Development

EcoSo Dynamics cc has signed long term contracts with 22 conservancies, supporting training and providing financing for equipment to harvesters. To date, EcoSo Dynamics cc sources from over 2000 trained and registered harvesters who are frequently monitored on sustainable harvesting. The beneficiaries are mainly the San in the Tsumkwe and Caprivi Regions. The annual harvesting season is from March to October and to ensure sustainability of the Devil's Claw, harvesting and trading is strictly controlled by the Ministry of Environment & Tourism.

New Processing Facility

In order to be competitive and in line with rules and regulations internationally, EcoSo Dynamics cc is in the process of obtaining HACCP (Hazard Analysis and Critical Control Points) certification.

The processing plant of EcoSo Dynamics cc is situated on Farm Otjekongo in the Okahandja district, some 350 km north of Windhoek with a staff complement of 17 Namibians.

Sustainable and Ethical Sourcing

Over 2.7 mil hectares of harvesting areas are certified organic by Ecocert SA.

During the 2012 harvesting season, EcoSo Dynamics cc purchased a total of 289 tons of raw material of which 66 tons were organic. 148 tons were sourced from suppliers producing sustainably harvested Devil's Claw. An amount of over N$ 4,000,000.00 was paid directly to harvesters for the purchase of Devil's Claw. A further N$ 600,000.00 was paid in the form of service fees to community structures.

The majority of raw material is exported to Europe.

For further information please send an e-mail to **dero@mweb.com.na.**

www.ecoso.net

Community Based Rangeland and Livestock Management

Sustainable Wealth Creation in the Northern Communal Areas of Namibia

Livestock - enemy or friend for Namibia's grasslands?

Through the 1990s, the communal areas of Namibia experienced significant economic growth through the development and official recognition of communal conservancies that helped rural people to harness benefits from wildlife and tourism. While the spectacular landscapes and wild populations of game flourished under the protection of indigenous communities, it soon became clear that in most rural areas, grazing for livestock and game was deteriorating. Similar deterioration was found on freehold land where bush encroachment and loss of perennial grasses steadily decreased the carrying capacity per hectare of land. While the production and export of healthy free-range beef and mutton contributes the third largest amount of income to the GDP and is the largest employer in the country, the national domestic livestock herd is in decline, with numbers south of the veterinary cordon fence now 50% of what they were in the 1950s.

In response, research and teaching institution and national programmes such as SARDEP (Southern African Rangeland Development Programme), as well as individual farmers experimented with rangeland and livestock management approaches to help improve the productivity of grasslands and with that, the productivity of the livestock sector. Most of these approaches were based on reducing animal numbers in order to prevent or at least reduce overgrazing. The lower stocking rates in some cases led to higher production per animal, but not to the overall increase in production of both forage and kilogram of meat produced per hectare.

The principles of sound rangeland management in the wild

By looking at the ecological process and the growth form of perennial grasses, ecologists realised that perennial grasses benefit from being grazed as their growth points receive more sunlight to be converted into forage through photosynthesis. In addition, the hoof action of large herds plays an important role in breaking soil capping, ensuring that more rainfall enters and stays in the soil for longer. This, combined with concentrated dung and urine from large herds of herbivores, improves soil fertility and increases production. Scientists and land managers who study the symbiotic relationship between animals and the forage they eat, understand that wild grazers prefer to be bunched into a close group to protect themselves against predators such as lion, hyena, jackal etc. They not only eat, but trample down plant material before they move on to fresh pasture. The soil cover they leave behind provides protection against wind and water erosion and prevents extremes in day and night temperatures.

Observing the vast herds of wild herbivores on unfenced land, researchers realised another vital aspect that keeps rangelands healthy; after a short period of relatively heavy animal impact (trampling, grazing and fertilising), animals move on to find fresh forage and water. It was noted that herds in many cases do not return before the grass sward has fully regrown. This provides sufficient time for the plants to replenish their root reserves from which new leaves can grow at the beginning of the growing season and after being grazed.

The principles of sound rangeland management with livestock

This same pattern of grazing was also utilised by pre-colonial livestock owners throughout Africa. Large herds of animals were herded to new pastures every day and livestock were moved from one cattle post to another in search of good grazing, ensuring sound management of the resource base. This good management practice has however been replaced with one where animals are permanently settled at a water point and animals are left to move wherever they want. This practice results in large losses to predators, theft and a declining resource base in the communal areas of present day Namibia.

In most cases, it is no longer possible to return to these old ways, but it is possible to mimic them once farmers and herders know how a grass plant and the soil surface need to be treated in order to flourish and prosper. Farmers need to ensure that basic management is in place during the growing and non-growing season to ensure that the productivity of the land is restored. Most people do not realise that both over-rest and overgrazing result in decreased productivity of the land and that farmers need to be aware of what their management is doing above and below the ground.

The challenge facing farmers is how to enhance all of the positive effects on perennial grasses and soil that concentrated animals bring whilst only needing to strategically manage animal numbers based on the amount of rain and fodder available to animals. In addition, most Namibian cultural traditions value high livestock numbers as a form of wealth, status and ancestral reverence. Consequently, previous approaches that centered on reducing animal numbers without changing management were technically flawed and socially unacceptable, resulting in failure to reverse land degradation in all dry climates of the world.

Herding to a grazing plan

The Namibian NGO, Integrated Rural Development and Nature Conservation (IRDNC), recognised the powerful connection between indigenous tradition and the insights of modern rangeland science. In 2001, they introduced communal farmers from conservancies in the Kunene region to the concepts and principles of holistic planned grazing through exchange visits to highly successful farmers in the SADC region. Following these trips, traditional authorities, farmers and herders, sat together with

support organisations such as the Ministry of Agriculture, Water and Forestry's (MAWF) Directorate of Extension and Engineering Services (DEES).

IRDNC and MAWF facilitated a process that encouraged livestock owners around one water point to combine their animals into one large herd during the day and to let the animals graze under their watch at a different place every day, bringing them back to the kraals at night to prevent them from wondering around in scattered formation.

Farmers soon saw the benefits of this approach in terms of increased grass production, better animal condition and drastically decreased livestock losses to predators and stock theft. Production losses from disease and injury were also reduced where trained herders accompanied their animals all day, every day.

Organic agriculture

When it comes to organic livestock production in rangeland-based systems, it is not about animal husbandry only. Being uniquely able to convert high cellulose plant material into animal produce, ruminants are simultaneously "gardeners of their own food". Animals, the plants they eat and the soil in which these grow, are irrevocably linked and interdependent. None of them can be in a healthy state without the others also flourishing. Therefore, the sound management of rangelands, soils included, needs as much attention as the well-being of the animals, which is typically required in organic production systems.

Improving the growing conditions for perennial grasses by using a readily available resource such as livestock, not only improves the forage base for animals, but also enhances a number of ecological services, such as mineral cycling and binding carbon into the soil. Because indigenous livestock is more adapted to the low levels of some minerals in most of the soils in Namibia, such as phosphate, they are ideally suited to lead the way towards organic production. However, in order to satisfy modern market demands, the quality of meat and milk can be improved through a balanced combination and steady availability of nutritional components. High animal density and planned grazing provides a more even level of nutrition and higher production of animals.

Piloting an innovation

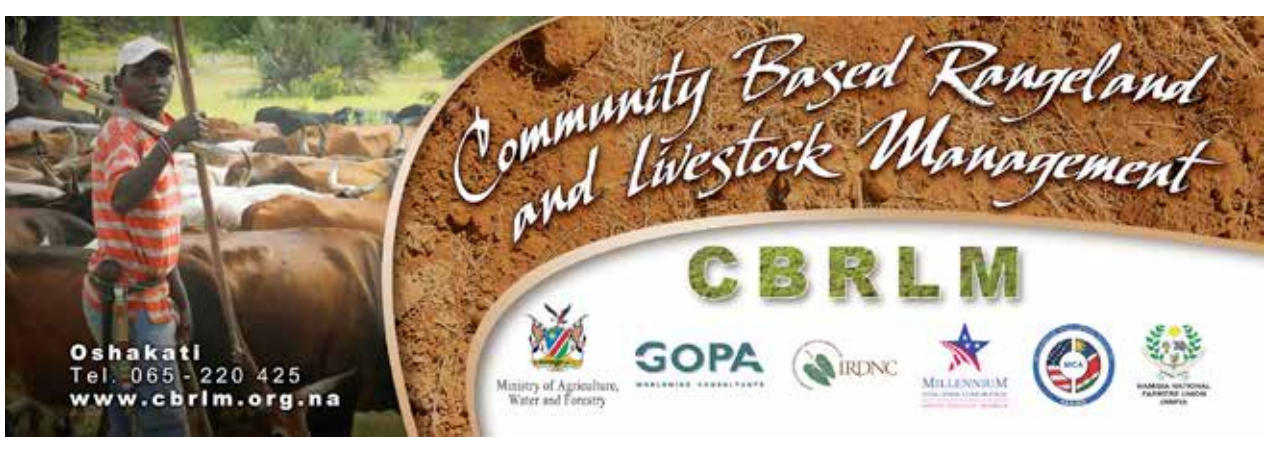
The positive response of grasslands, animals and people in the small scale experiment in the Kunene region convinced not only the livestock owners to carry on herding to a grazing plan, but gained national and international attention.

As part of its bi-lateral agreement with the United States of America, the National Planning Commission (NPC) of the government of The Republic of Namibia launched a pilot project called Community Based Rangeland and Livestock Management (CBRLM) in 2010. The initiative is funded by the Millennium Challenge Corporation (MCC) and implemented by their Namibian counterpart the Millennium Challenge Account Namibia (MCA-N) under the auspices of the MAWF. The four-year contract was tendered internationally by MCA-N and the implementation of a Community Based Rangeland and Livestock Management (CBRLM) pilot project was awarded to GOPA. The focal area of the pilot includes designated rangeland intervention areas (RIAs) in Kunene, Omusati, Oshana, Oshikoto, Ohangwena and Kavango regions. The target is to have 50 grazing areas actively practising CBRLM by the end of 2013.

Mainstreaming CBRLM

Although it is conceptualised as a pilot project, CBRLM has already shown sufficient advantages that warrant planning for mainstreaming of the successful aspects of the programme. By investing in practical local management capacity, CBRLM enhances the resilience, self-reliance, peace and stability of Namibia's rural areas. This programme has the potential to make a significant contribution to the local, regional, national and international economies and can influence more innovative policies in Africa as well as other dry countries of the world.

Contact CBRLM for further information on 065 220425, visit www.cbrlm.org.na or e-mail Wiebke Volkmann on wiebke@mweb.com.na



desert hills !Nara oil Products

In 2007, desert hills farming & cooking was founded by Volker & Stefanie Huemmer. The objective being to find ways to produce unique products for the endemic Namibian !Nara seeds.

The !Nara seeds are wild-harvested in an 8000-year old tradition by the Topnaar # Aonin people who live along the Kuiseb River in Western Namib. The seeds are fairly traded and generate an important cash income to some 300 rural Topnaar who are mainly small stock farmers.

The company desert hills is located on a plot in the Swakop River valley just 20km outside of Swakopmund. We take great pride in producing our uniquely Namibian !Nara products and following our philosophy of building a sustainable business which embraces fairness, caring, natural and healthy principles.

The !Nara seeds are cold-pressed in a spiral press without the use of solvents, chemicals or any additives. This technique allows the !Nara oil to retain its valuable healthy vitamins, pigments and flavours.

BODYfoodNAMIBIA

In the natural cosmetic !Nara oil BODYfoodNAMIBIA range, we utilise the high levels of Omega-6-fatty acids contained in the !Nara oil and combine these with a range of natural products (shea butter, lanolin, beeswax, cocoa butter, jojoba, aloe vera, chamomile, pomegranate and vitamin E) and a variety of pure essential plant oils to create a product range which has wonderfully fragrant replenishing properties. This !Nara oil cosmetic range includes the following: a hand & body cream, face cream, after shave balm (for men), bath salts, skin peeling, massage oil, body & bath oil and sun cream.

desert hills Deli Foods

Volker is inspired by the !Nara oils healthy culinary possibilities and has created a wholesome range of food oils, pesto's, sauces and antipasti. To create these products, crushed organic espresso beans are used to enhance the nutty flavour or organic vanilla pods are used to enhance the fruity flavour of the oil; these are best used for game meat, pasta, fish and/or seafood.

desert hills Farm Stall and Bistro

By early 2012 we had established a wide range of deli products and natural cosmetics and wanted to build a more personal relationship with our clients. The natural progression was to open our now popular Farm Stall and Bistro. This is open to the public every Saturday from 11h00 until 16h00, visitors are invited to try our latest products, join us for a healthy meal or a snack and to view our range of food and beauty products.

The farm stall is stocked with all the !Nara products as well as fresh vegetables grown along the Swakop River valley, such as freshly baked bread, whole wheat crisps, marula biscuits, gourmet vinegars, chillies, mustards and health teas even home-made ice creams and much more.

Volker provides a delicious buffet style brunch, which includes tea and coffee with freshly baked cake from the farm deli kitchen. These can all be savoured sitting under palm trees with a glass of wine or a fresh fruit juice while enjoying the warm desert vistas which surround our beautiful Farm Stall and Bistro.

For further information or bookings please contact us on the following:

Stefanie & Volker Huemmer
Tel: 081 129 0375
E-mail: huemmer@iway.na
Website:www.nara.com.na

Also find selected !Nara products in Windhoek at Superspar in Maerua Mall or Mewiliko in the Craft Centre or in Swakopmund at Kubatsirana, Tutungeni or Art Africa's shops.

WINDHOEK HAS IT'S VERY OWN WEEKLY GREEN MARKET / BIO MARKT!

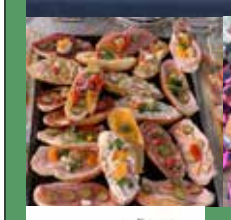
FRESHLY PICKED ORGANICALLY GROWN VEGETABLES
- partly certified by NOA

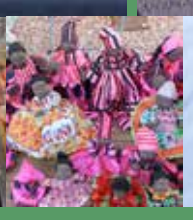
DAIRY PRODUCTS, MEAT PRODUCTS, HOME BAKED BREAD AND BISCUITS, HONEY, JAMS AND JUICES, EGGS, HERBS, CHUTNEYS ETC.
- made without artificial chemicals or colourants

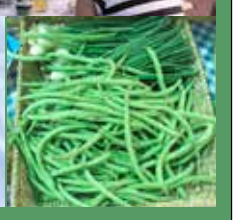
CRAFTS, HAND MADE FROM NATURAL MATERIALS
- such as cotton, wool, seeds, leather, wire, wood etc.

POT PLANTS AND FLOWERS
- in season

The pulse of the Green Market is the Market Café with its delicious cakes, quiches and 'Brötchen' with tasty toppings. Where else can you still get a mug of coffee for N$ 6.00? Every week a different school or welfare organisation takes turns to host the popular Café in order to raise funds for their social projects.







Green Market
Bio - Markt

When? Every Saturday 8h00 to 12h00
- except Easter Saturday and between Christmas and the first 2 weeks of the new year

Where? Klein Windhoek, 3 Uhland Street

Parking: Ample guarded parking
- on the Stephanus Church premises, and off-street parking in Uhland St. and Berg St.

Entry is free!

For further details and registration of stalls call the Market Coordinator: Heidi Herbert at Tel: 061 - 223 959 or Cell: 081 205 7240

FAQ about Organic Agriculture

Why is organic food sometimes more expensive than conventional food?

Production costs for organic foods are higher because of greater labour inputs per unit of output. Greater diversity of enterprises means economies of scale cannot be achieved. Organic food supply is also limited compared with demand.

Prices of organic foods include not only the cost of the food production itself, but also a range of other factors that are not captured in the price of conventional food, such as:

- Environmental enhancement and protection, avoiding future expenses to mitigate pollution, for example, higher prices of organic cash crops compensate for low financial returns of rotational periods that are necessary to build soil fertility;
- Higher standards of animal welfare;
- Avoidance of health risks to farmers due to inappropriate handling of pesticides, avoiding future medical expenses;
- Supporting rural development through generating additional farm employment and ensuring a fair and sufficient income to producers.

Non-certified organic food

In many developing countries, there are agricultural systems that fully meet the requirements of organic agriculture but which are not certified. Non-certified organic agriculture refers to organic agricultural practices by intent and not by default. This excludes non-sustainable systems which do not use synthetic inputs but which degrade soils due to a lack of soil building practices. It is difficult to quantify the extent of these agricultural systems, as they exist outside the certification and formal market systems. The produce of these systems is usually consumed by households or sold locally at urban and village markets at the same price as their conventional counterparts. Although the uncertified produce does not benefit from price premiums, some cases have been documented where non-certified organic agriculture increases productivity of the total farm agro-ecosystem and saves on purchasing external inputs. In developed countries, non-certified organic food is often sold directly to consumers through local community support programmes such as box schemes, farmers' markets and at the farm gate. These allow the producer to know exactly what the consumer wants, while the consumer knows where the produce comes from and in the case of box schemes, saves on transport costs through delivery of produce to their homes. In developed countries, non-certified organic produce usually carries a higher price than its conventional counterpart in accordance with the specific consumer willingness to pay.

What are the environmental benefits of organic agriculture?

Sustainability over the long term

Many changes observed in the environment are long term, occurring slowly over time. Organic agriculture considers the medium- and long-term effect of agricultural interventions on the agro-ecosystem. It aims to produce food while establishing an ecological balance to prevent problems with pests and soil fertility. Organic agriculture takes a proactive approach as opposed to treating problems after they emerge.

Soil

Soil building practices such as crop rotations, inter-cropping, symbiotic associations, cover crops, organic fertilisers and minimum tillage are central to organic practices. These encourage soil fauna and flora, improving soil formation and structure and creating more stable systems. In turn, nutrient and energy cycling is increased and the retentive abilities of the soil for nutrients and water are enhanced, compensating for the non-use of mineral fertilisers. Such management techniques also play an important role in soil erosion control. The length of time that the soil is exposed to erosive forces is decreased, soil biodiversity is increased and nutrient losses are reduced, helping to maintain and enhance soil productivity. Farm-derived renewable resources usually compensate crop export of nutrients but it is sometimes necessary to supplement organic soils with potassium, phosphate, calcium, magnesium and trace elements from external sources.

Water

In many agricultural areas, groundwater pollution from synthetic fertilisers and pesticides is a major problem. Because the use of these is prohibited in organic agriculture, they are replaced with:

- organic fertilisers such as compost, animal manure, green manure;
- the use of greater biodiversity in terms of species cultivated and permanent vegetation; and,
- enhancing soil structure and water infiltration. Well managed organic systems with better nutrient retentive abilities greatly reduce the risk of groundwater pollution. In some areas where pollution is a real problem, conversion-to-organic agriculture is encouraged in countries like France and Germany as a restorative measure.

Air

Organic agriculture decreases the use of non-renewable energy,reducing our dependency on agrochemicals. Typically, agrochemicals require high quantities of fossil fuel. It also mitigates the greenhouse effect and slows down global warming because organic practice sequesters carbon in the soil. Many of the practices implemented in organic agriculture such as minimum tillage, returning crop residues to the soil, the use of cover crops and rotations and the greater integration of nitrogen-fixing legumes, increases the return of carbon to the soil, raising productivity and encouraging carbon storage.

Biodiversity

Organic farmers encourage and protect biodiversity at all levels. At the gene level, traditional and adapted seeds and breeds are preferred for their greater resistance to disease and their resilience to climatic stress. At the species level, diverse combinations of plants and animals optimise nutrient and energy cycling for agricultural production. At the ecosystem level, the maintenance of natural areas within and around organic fields and absence of chemical inputs creates suitable habitats for wildlife. The frequent use of under-utilised species as rotation crops to build soil fertility reduces the erosion of agro-biodiversity, creating a healthier gene pool - the basis for future adaptation. The provision of structures providing food and shelter, and the lack of pesticide use, attracts new or re-colonising species - both permanent and migratory - to the organic area, including wild flora and fauna and organisms beneficial to the organic system such as pollinators and pest predators.

Genetically Modified Organisms

The use of GMOs within organic systems is not permitted during any stage of organic food production, processing or handling. Because the potential impact of GMOs to both the environment and health is not entirely understood, organic agriculture takes the precautionary approach and chooses to encourage natural biodiversity. The organic label therefore provides an assurance that GMOs have not been used intentionally in the production and processing of organic products. This is something that cannot be guaranteed in conventional products, as labeling the presence of GMOs in food products has not yet come into force in most countries.

Ecological services

The impact of organic agriculture on natural resources favours interactions within the agro-ecosystem that are vital for both agricultural production and nature conservation. Ecological services derived include soil forming and conditioning, soil stabilisation, waste recycling, carbon sequestration, nutrients cycling, predation, pollination and habitats. By opting for organic products, the consumer through his/her purchasing power, promotes a less polluting agricultural system. The hidden costs of agriculture to the environment in terms of natural resource degradation are reduced.

Can organic farmers produce enough food for everybody?

Food security

Food security is not only a question of the ability to produce food, but also of the ability to access food. Global food production is more than enough to feed the global population; the problem is getting it to the people who need it. In marginalised areas, organic farmers can increase food production by managing local resources without having to rely on external inputs or food distribution systems over which they have little control and/or access. Although organic management of natural resources can substitute external agricultural inputs, land tenure remains a main constraint to the labour investments needed for organic agriculture. Organic farms grow a variety of crops and livestock in order to optimise competition for nutrients and space between species. This results in a smaller chance of low production or yield failure in all of these simultaneously. It can also have an impact on local food security and resilience. In rain-fed systems, organic agriculture has demonstrated that it can outperform conventional agricultural systems under environmental stress conditions. Under the right circumstances, the market returns from organic agriculture can contribute to local food security.

Organic agriculture and yields

The performance of organic agriculture on production depends on the previous agricultural management system practiced. An over-simplification of the impact of conversion-to-organic agriculture on yields indicates that:

- In industrial countries, organic systems decrease yields; the range depends on the intensity of external input use before conversion;
- In the so-called Green Revolution areas (irrigated lands), conversion to organic agriculture usually leads to almost identical yields; and,
- In traditional rain-fed agriculture (with low external inputs), organic agriculture has the potential to increase yields.

In fact, many multiple cropping systems, such as those developed by small holders and subsistence farmers, show higher yields in terms of total harvest per unit area. Results will vary depending on management skills and ecological knowledge, but this can be expected to improve as human capital assets increase. However, it is important to have a good land tenure system because an individual is not likely to invest in improving the land if his/her future there is not secure.

What's the difference between "natural" and "organic" foods?

Organic agriculture is based upon a systematic approach and standards that can be verified and are recognised internationally. Natural foods, on the other hand, have no legal definition or recognition and are not based on a systematic approach. While natural products may generally be minimally processed, there are no requirements to provide proof, leaving open the possibility for fraud and misuse of the term.

How do organic farmers fertilise crops and control pests, diseases, and weeds?

Organic farmers build healthy soil. Organic matter in soil contributes to good soil structure and water retention capacity. Organic farmers increase organic matter in soil through the use of cover crops, compost and biologically based soil amendments, producing healthy disease and insect resistant plants. Organic agriculture emphasises good plant nutrition, which is key to the prevention of plant diseases. Organic farmers use cover crops and sophisticated crop rotations to improve ecological relationships in the field. Weeds are controlled through crop rotation, mulching, cover crops, hand weeding and mechanical methods such as flame weeding and other methods. Organic farmers also rely on diverse populations of soil organisms, beneficial insects and birds to keep pests under control.

Why are synthetic fertilisers not permitted in organic agriculture?

The use of synthetic fertilisers is not allowed in organic agriculture because the substitution of natural, renewable resources for plant nutrition with non-renewable petrochemicals is not sustainable, disrupts natural cycles, pollutes the environment through runoff and leaves toxic residues in the soil. These are just a few of the negative implications of synthetic fertilisers.

Organic farmers use legumes peas, beans and other plants that naturally fix and enrich nitrogen in the soil. The application of synthetically produced phosphorous, another important plant nutrient, is also not allowed in organic agriculture. Because organic farm management creates a healthy soil structure, fungi called mycorrhiza enable plants to utilise phosphorus in the soil.

Farms that use chemically intensive farming methods have largely abandoned traditional and natural methods of nutrient recycling, resulting in the degradation of the soil and increasing the susceptibility of plants to pests and diseases.

The production of synthetic fertilisers uses large amounts of energy, which mostly comes from the burning of fossil fuels, increasing our dependency on external energy inputs.

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The Indoor Composter makes composting easy by turning all your food waste into organic soil conditioner.

Bokashi can also be used:

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- To control odours
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compost activator

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Enhanced levels of phototropic non-sulphur bacteria (PNSB) have powerful detoxifying anti-oxidant properties that help speed up the composting process and reduce the loss of important nutrients through oxidation.

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2. The black plastic dome absorbs the rays of the sun. The heat causes circulation of air that improves the evaporation of the liquid content of the excrement and speeds up the drying process of the solid matter.
3. The toilet pan with divided urinal that leads to soak-away, reduces the liquid contents can therefore dry more quickly.
4. Urinal outlet soak-away pipes.
5. Durable non-corrosive black plastic tank forms a closed system. Natural elements like rain do not influence the efficiency of the facility.

Grey water recycle

Grey water recycle is not a new phenomenon and has been in use in the United States and Australia for many years. Grey water is wastewater generated from domestic activities such as dish washing, laundry and bathing. Grey water comprises 50-80% of residential wastewater generated from all of the house's sanitation equipment except for the toilets. Grey water gets its name from its cloudy appearance and from its status as being neither fresh (white water from groundwater or potable water), nor polluted (sewage).

Enzymes vs Microbial Products

Enzymes vs Microbial Products Commercial enzyme preparations contain a very low concentration of active enzymes when compared to those produced by our microbial products in a biological treatment plant. The enzymes used in such preparations are generally those which are produced by fungi. Thus these 'commercial' enzymes will not work optimally.

Natural Products

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- Laundry liquid
- Laundry softener
- Herbal Sanitiser
- All Purpose cleaner

- Shampoo
- Conditioner
- Shower Gel
- Bar Soap
- Liquid hand soap

Green Power Solar Systems

1. Have an average return on investment of approximately 4 years for a family of 4 at current electricity prices.
2. Our collectors have a life expectancy of 20 years.
3. Our systems have been independently tested by the SABS and the German equivalent DIN Certco.
4. Green Power Systems are split systems, meaning that only the solar collector and not the unsightly geyser is visible on your roof i.e. - they look good!
5. You can use your existing geysers.

Green Power Solar Systems

Manfred Förtsch: Tel: +264 81 366 6441 | P.O. Box 6915 | Ausspannplatz | Windhoek | Namibia | info@aqua-conservation.com | www.aqua-conservation.com

GMO Safety concerns based on science

What is genetically modified food?

"Genetically modified (GM) foods are derived from crops or animals that have had their DNA changed by the insertion of DNA from foreign and unrelated organisms in a way that would not happen naturally "*

What is the problem with GM foods?

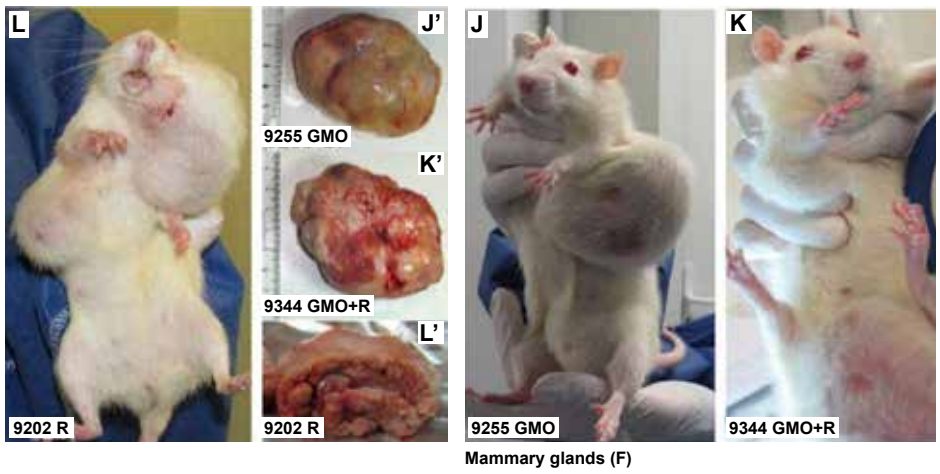
"The genetic engineering process is inherently imprecise and causes widespread disruption to the genome, which can lead to unintended effects. These can include the creation of novel toxins or allergens or altered nutrient value. A study on the GM insecticidal maize MON810 showed that its proteins were altered compared with those in the non-GM variety. Unexpected changes included the appearance of a new form of the protein zein, a known allergen that was not present in the non-GM variety"**.

GM Maize Linked to Cancer, Liver and Kidney Disease

A long term feeding study found that rats fed a diet that contains a proportion of GM maize or minute residues of Roundup, has resulted in significantly higher increases of cancers, kidney disease, liver damage and other negative health effects.

The study led by Professor Gilles-Eric Seralini and published in Food and Chemical Toxicology, has found that both GM maize and Roundup (a herbicide used in the cultivation of maize) acted as endocrine disrupters and resulted in an increase of mortality rates of between 50% and 66% amongst females compared with control animals. (Seralini et al 2012) The females that were fed either GM maize or non GM maize with minute Roundup residues, developed large mammary tumours more often than females in the control group. Except for the female that developed ovarian cancer, all the non-control females had mammary hypertrophies (enlarged mammary glands) and in some cases hyperplasia with atypia (nodules in the mammary glands).

These pictures are examples of the types of mammary gland tumours (breast cancer) that the scientists found in the rats. *(Source: Seralini et al 2012)*



Mammary glands (F)

This study was the first 2 year feeding trial conducted on rats designed to test the effects of GM over an animal's lifetime. Currently, no regulatory authority requests mandatory chronic animal feeding studies to be performed for edible GMOs.

Visit www.gmoseralini.org for more information on the health risks of GMO.

How does it affect us?

South Africans and Namibians have been eating GM maize, soya and products preserved or containing GM cottonseed oil for more than a decade without even knowing it. This is because up until 2011 there was no obligation to label GM foods in SA and provide consumers with information to make a choice. This changed in October 2011 when the South African Consumer Protection Act came into force. According to this law, all foods containing 5% or more GM content must be labeled. Despite this law, only a handful of companies are beginning to label, the majority are not. Currently, in Namibia, GMO may not be planted due to a lack of regulations, which also means that there are no labeling requirements with regards to GMO.

How to avoid GMO food in Southern Africa

Tip 1: Buy organic certified products.

Tip 2: Look for "Non-GMO" labels on processed food.

Tip 3: Avoid risky ingredients including imported maize,, soybeans, canola, cottonseed and beet sugar.

Tip 4: Buy whole foods that you can cook and prepare yourself.

Visit this website for more information: http://nongmoshoppingguide.com/

Position of the Namibian Organic Association

GMOs are prohibited in organic production based on the use of the precautionary principle which is embodied in IFOAM's Principle of Care. This principle states that, "precaution and responsibility are the key concerns in management, development and technology choices in organic agriculture. Science is necessary to ensure that organic agriculture is healthy, safe and ecologically sound." *** Organic agriculture should prevent significant risks by adopting appropriate technologies and rejecting unpredictable ones, such as genetic engineering.

The Namibian Organic Association calls for the comprehensive and mandatory labeling of GMO food to give consumers the right to choose non-GMO products, as well as the development of agricultural technologies that benefits everyone in the production, processing and consumption of food.

**Robinson, C (2103) Don't look, don't find: Health hazards of genetically modified food. CAND Vital Link, Volume 20(1): 17-24.*
***http://gmoseralini.org/wp-content/uploads/2013/04/GM_Food.pdf*
****www.ifoam.org*

About the Namibian Organic Association

The Namibian Organic Association is a membership-based association of persons and corporate bodies, sharing interests regarding matters concerning the production, processing and marketing of organic products, as well as providing training in organic farming principles.

It is the objective of the Association to:

- promote the efficient production of organic produce through capacity building, training, education, extension and research;
- develop and maintain Namibian Organic Standards for organic production, processing and labeling;
- establish and maintain an organic assessment system (Participatory Guarantee System); which guarantees that the organic standards are followed by the producer and/or processor;
- protect the "organic" labeling for locally organic produced and/or processed products as owner of a registered trademark;
- assist with organised marketing of organic produce locally and internationally;
- to serve as a mouthpiece and contact point of the organic industry in Namibia and internationally; and,
- increase awareness for organic agriculture in Namibia.

Any person or corporate body interested in promoting organic agriculture in Namibia can become a member. The Namibian Organic Board comprises organic farmers and consumers and is actively looking for people that are willing to assist the Association to achieve its objectives.

Visit www.noa.org.na for NOA news and activities.

NOA also produces a regular electronic newsletter which updates members and interested parties about local and international organic matters.

Contact details:
General enquiries: info@noa.org.na
Membership: admin@noa.org.na
Tel: 081 129 5575 (Manjo Smith - Chairperson)
www.noa.org.na

GMO Baby Food Shock

The African Centre for Biosafety (ACB) in South Africa, has released results of tests conducted by an independent and accredited GM testing laboratory on 7 baby formulas and cereals.

The results reveal that Purity baby cereals contain extremely high levels of GM content, whereas Nestlé's infant formulas and cereal indicate that Nestlé's products appear to be GM free. Aspen's infant formulas also indicate GM avoidance. Shockingly, comparisons also reveal that Purity's GM baby cereals cost 250% more than non-GM cereals, exploding the myth that GM free food is an expensive and impractical luxury.

Purity's Baby Cereals

Purity's *Cream of Maize* tested positive for containing up to 56.25% GM maize; and Purity's *Baby First* tested positive for containing up to 71.47% GM maize.

Neither of these baby foods were labeled as containing products derived from genetically modified maize. This is not the first time that Purity's *Cream of Maize* cereal tested positive for GM. In 2008, consumer watchdog SAFeAGE revealed the product to contain more than 24% GM maize.

"Why has Purity not labeled its products? By failing to label, Purity has acted unethically and deprived parents of crucial information about their baby's nutrition. Adult consumers do not want to eat GM food, much less feed their babies with GM cereals, given that the safety of GM food is highly questionable," said Zakkiya Ismail, ACB's Labeling Campaign Co-ordinator.

Nestlé's infant formulas and cereal

In 2012, the ACB tested Nestlé's baby cereal *Cerelac Honey*, which contained up to 77.65% GM maize. This resulted in a huge public outcry. Now, the test results indicate a deliberate effort on the part of Nestlé to avoid the use of GMOs in its baby products containing maize and soya, as its formulas, NAN Pelargon and NAN AR Infant are both GM free. Nestlé's *Mixed Cereal*, comprising maize flour, contained extremely low levels of GM maize and GM soya that would not have triggered labeling requirements.

Curiously however, soya is not listed as an ingredient on the packaging. These results indicate that

Nestlé is not using ingredients or products derived from GMOs in their baby cereals, and considering that 72% of maize grown in South Africa is GM, Nestlé must indeed be trying to avoid it.

The traces of GM found in its cereal may well be attributable to contamination along the value chain.

Read more on: www.acbio.org.za