

## **Dominica – A Sustainable and Organic Nation?**

With its rich green forests, natural flowing water and fertile land Dominica is an oasis in a world of increasing urbanisation, industrialisation and general disregard for nature which has caused a 33% decrease in the worlds ecosystems within the past 30 years. The effects of climate change, mass deforestation, loss of biodiversity and extinction of wildlife are being felt globally. Living amongst this lush and abundant landscape we are largely secluded from many the harsh realities of environmental destruction that are now prevalent in many other areas of the world. However we are not exempt and have no reason to become complacent. Our indigenous species such as the Sisserou Parrot & Crapaud are under threat, rivers are running dry due to deforestation and an increasing amount of pollutive agro-chemicals are being used on an everyday basis without consideration for the harmful effects on our selves, our children and our land and we all have our part to play in a more sustainable use of our planets natural resources.

One of the major contributing factors to both our local and global environmental problems is in our current agricultural practices where chemical fertilisers and pesticides are being used indiscriminately without proper knowledge of their more sinister side effects. A nation such as Dominica with its wonderful biodiversity and natural soil fertility could easily be at the forefront of organic food production yet we continue to lag behind many other Caribbean islands and have yet to implement even national guidelines – the bare minimum considering the need to meet international standards before we are able to export organic produce around the world. At present organic farmers are having to put their crops alongside conventional produce for shipping and are unable to profit from the increased price paid for organic produce because the certification required is too expensive and not wholeheartedly supported by their government.

Pesticides and chemical fertilisers have only been in widespread use for the past 50 years and we have very little idea of the long-term effects of using them. Many have already been withdrawn after discovering the danger that they pose to human and environmental health. The main reason for using chemicals on crops was to increase yields by fertilising and protecting them from harmful bacteria or invasive creatures. However in the time since they have been in use overall yields worldwide have not increased and plants are still highly vulnerable to pest attacks. In the US alone pesticide use has increased tenfold yet crop losses have almost doubled. The science, which looks good in theory, is not working in practice.

We also consider the fact that every year there are an estimated 3 million acute pesticide related poisonings resulting in 220,000 deaths worldwide. A recent study found that boys exposed to the pesticide endosulfan suffer damage to their reproductive organs and hormones and yet another study has highlighted the link between herbicides and childhood asthma stating that children exposed to these chemicals before they are a year old are ten times more likely to develop the disease. In fact ‘Roughly 170 pesticides have been linked to major immune diseases such as cancer and allergies, and to infertility and problems in foetal development.

The main problem with conventional farming is that it is very short sighted and blinkered. The main objective is in feeding the plant rather than the soil and whilst this approach may yield benefits in the short term the negative side effects soon become apparent. Chemical fertilisers kill the majority of the millions of living organisms in the soil, which are necessary to maintain and promote fertility and life. We then become caught in a catch 22 situation; where we are left with dead soil that requires fertilising every year. Soil erosion has become a huge global environmental problem, which has escalated in direct correlation with the advent and spread of conventional farming and worldwide loss totals 7.5billion tons per year. We are destroying a finite resource, which is the basis of life and health. It was American President Franklin D Roosevelt who said that ‘The nation that

destroys its soil destroys itself.’ Continuing to use chemicals on our soils ensures that the only legacy we leave for future generations is a land of degraded, dead and unfertile soil.

To further add ‘insult to injury’ fertilizers such as those containing nitrates are so soluble that 2/3 are leached or washed off into rivers and streams and contaminate the water supply. In the UK alone they spend £100 million per year to remove pesticides from water. Given Dominica’s market position in providing fresh bottled water can we really afford to be spending this kind of money as more and more chemicals are used? Are we prepared to lose this key business as the rivers become more polluted and either people no longer want our water or it becomes too costly to supply?

So as we can see there are many problems associated with the use of pesticides and fertilisers yet if neither farmers, consumers or the environment are benefiting from the dramatic increase in the use of agro-chemicals then we must ask just who is? Ultimately the only beneficiaries of these poisons are the huge multi-national businesses that supply them. The people developing and marketing these products are aware of their effects yet are more concerned with profit over consequence. In the all out scramble for a quick dollar let us remember that at the end of the day money cannot be eaten.

Even if the negative environmental consequences of conventional farming do little to persuade us of its necessary phasing out and demise then the economic realities should certainly make us sit up and take notice. The organic market is the fastest growing food sector as consumers world-wide are demanding that their food be fresh and free from harmful chemical residues and are willing to pay the necessary costs to fulfil this need. As demand increases annually farmers around the world are realising the huge benefits of remaining or converting to organic production. Not only do they reduce their costs by not spending money on expensive chemicals they also fetch a higher price for their produce. In the Dominican Republic  $\frac{3}{4}$  of the bananas they export are now organic for which they receive up to 20% extra income.

Another related factor to consider is the impact our use of agro-chemicals has on tourism. Eco tourism is also an increasing market sector and if we are serious about gaining extra revenue from this we must be able to meet our customers expectations. Tourists are becoming more sophisticated in their destination selections and many of our foreign visitors are very conscious of environmental issues choosing to visit us on the basis of our reputation as the nature isle. Put very simply - they expect to see respect for the environment and to be able to eat natural organic foods. They do not expect to see our landscape littered with empty Gramaxone containers and fertiliser bottles and have limited access to pesticide free food. It will not make any sense to call Dominica the ‘Nature Isle’ if we have destroyed our land, polluted our waters and killed our wildlife.

The organic method of farming is shrouded in misconceptions of the amount of work involved and disbelief in its productivity. Do we forget that the majority of food in Dominica is organic – no-one fertilises the mango, coconut or paw-paw trees as they grow and provide us with huge harvests throughout the year yet the idea of producing our exported crops in an organic systems often meets resistance or ridicule. The late Mr Andrew Royer was given international awards in recognition of his pioneering efforts in this field, yet after all this time we still have not taken him and others like him seriously and really examined the case for producing the majority of our crops organically.

Organic agriculture takes what is known as an holistic approach that is it considers all elements of nature as important, valuable and having a vital role to play in maintaining balancing and harmony within the environment. Therefore the process nourishes the soil and increases it’s fertility year after year with animal and ‘green’ manures and compost. It uses a combination of companion planting, crop rotations and botanical sprays to overcome any problems of pests and bacteria when they arise, all which leave little impact on the delicate ecosystems we depend upon. There are many quick to assert that organic farming is difficult, time consuming and expensive and not suited to

large scale projects. Whilst it does take more time and effort to start an organic project with the right techniques this initial outlay can be more than recouped once it is established and a truly integrated system will generate multiple outputs. It is important that we re-examine and truly understand the true nature of organic farming before dismissing it as impractical. As the Director for the International Federation of Organic Agricultural Movements (IFOAM) states, “There is a misconception that organic farming is the same as subsistence or ‘traditional’ farming. Nothing is further from the truth. Organic farming is modern, progressive and a blueprint for sustainability” If the profession and vital role that the organic farmer plays in our food production and long term care of our land was treated with the full amount of respect it deserves maybe our young people would not be so reluctant to take it up as a career and be willing to take the time and effort required to care for and maintain the balance of nature, appreciate the true value of their land and take pride in being a custodian of the planet.

At present it can take 2-3 years to convert from conventional farming to being an organic farm ready to reach certification standards. If we are to benefit from increased revenue and keep a place in the market for agricultural exports we must think and plan ahead and make the necessary changes today to achieve this and reap both the ecological and economic benefits in the near future.

The national motto of Dominica is ‘After God the Earth’. It is time for this to become a practical reality rather than merely remaining a nice-sounding slogan. We have been blessed with many natural gifts and it would be mindful to remember that with such privileges comes huge responsibility. Our island is a special treasure that needs to be respected, celebrated and honoured. We still have the opportunity to make a huge positive difference in our environment, become a key player in international exports for organic food production and set a wonderful example to the rest of the world: Dominica – a Sustainable and Organic Nation

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Organic groups are currently running or being set up in Bellevue-Chopin, Giraudel and Morne Prosper for farmers interested in converting their farms to organic production. For more details contact the Organic Co-ordinator in the Ministry of Agriculture on 448 2401.