

## ECOLOGY

# Developing edible landscapes

**E**ntering a beautiful garden gives us a sense of peace. Have you ever thought of creating an ornamental garden using common vegetables and fruit trees? Landscaping has been with us from the dawn of history. Hence, this whole industry has thrived and become a very popular art form.

**Augustine Doronila, from Australia, reports on an innovative project to address malnutrition, literacy, poverty and sustainable development in the Philippines.**

The University of the Philippines and the Department of Agriculture has been working collaboratively since 2009 to pioneer the introduction and development of 'Edible Landscaping' (EL) in the Philippines. This is an emerging concept

of vegetable growing and other nutritious plants. Building upon the traditional ways of growing vegetables in our back gardens, in EL, the element of design is given importance in order to create an attractive landscape. It was introduced by the late Dr Leonido Naranja, who was one of the pioneers of Edible Landscaping in the Philippines.

### Putting vegetables on centre stage

In conventional landscaping flowering plants take centre stage while in edible landscaping vegetables and fruit trees are the plants of choice. What is the difference between traditional gardening and edible landscaping? We mainly grow vegetables hidden away in our back gardens but in edible landscaping our front gardens can

also become the prime areas in which to plant vegetables and other beneficial trees and shrubs.

Edible Landscaping uses the principles of design such as line, form, colour in order to design a garden. The edible plants used provide the softscapes therefore utilizing vegetables, fruit trees and herbs. Ground covers are necessary in landscaping. An example is mexican sweet potato, which lends itself beautifully for this purpose because of the many coloured varieties of foliage. The hardscapes instead are the non-plant elements such as trellises, screens, huts, water features and so on.

One of the aims of Edible Landscaping is to produce safe and nutritious fruits and vegetables with minimal use of chemical fertilizer and pesticides. EL practitioners are encouraged to use natural methods to control pests.

### Involving schools

With the creation of EL demonstration sites at the Agripark and in the Department of Agriculture grounds, the expo was attended by groups of school teachers and also interested individuals. This resulted in many participants using EL in their school gardens. One of the first schools to try it out was the Makiling primary school. In an interview a teacher, Jinky Dumaraos said that 'the garden created the opportunity for students from primary to secondary school to experience wonder, awe and to awaken their curiosity. We saw how EL was beneficial in giving the students a sense of beauty, function and food production. The EL garden enhanced the beauty of our school. We can therefore plant, tend and care for, and harvest our vegetables and fruits. The children also learned the value of eating vegetables!'

Headteacher, Mrs Lorna Angeles, highlighted that the students can learn how to plant with art. She liked the fact that it was an innovative way to teach students about farming. She was also proud that they were pioneers in introducing EL into the school curriculum.

### Developing the project

As the pilot project proved to be very successful, a larger scale project was put into place in the province of



Laguna with five primary schools and one secondary.

The harvest after this first year was quite abundant with the project producing 1,400 kg of assorted vegetables including: spinach, bitter melon, mexican sweet potatoes, tomatoes, pumpkin, radish, jute leaves, winged beans, lima beans, pak choy and chili leaves!

In one of the primary schools in the town of Pila, Mr Bembol Samia, one of the teachers liked it because: 'students who are going to become farmers are also educated in other ways of farming livelihood. Many of the school children showed their enthusiasm and happiness in being able to participate in this programme. The children willingly and happily ate their school grown vegetables, which resulted in increased weight and height of the hundreds of participating school children.'

Other positive spin offs were the creation of thirty vegetarian recipes and over one hundred lesson plans integrating such concepts and practices as: organic agriculture, nutrition, climate change, edible landscaping and solid waste management.

Owing to its success, the programme has been expanded to cover fifteen more primary schools and three secondary schools in the pilot five towns and city.

### A holistic programme

I was fortunate to meet two of the professors, Dr Blesilda Calub and Dr Leila Africa together with several of the primary school teachers at the recent International Conference of the Society of Human Ecology in November 2017. They presented their study in a session called 'Communities in transition: nutritional security and sustainability'. Their study was entitled 'A participatory action research on school and community based food and nutrition programme for literacy, poverty reduction and sustainable development'.

I was very impressed not only about the interesting and well designed, study but also of their enthusiasm and conviction in their presentation. Dr Africa told me how deeply satisfying it was to implement a scientific project, which created community gardens based on EL that had a wider impact. During the conference presentation, one could see the joy among the teachers and parents in seeing that they were protagonists in an empowering and capacity-building, grass-roots programme. The project had improved the students' nutrition and sparked their interest in learning particularly about agriculture. Moreover, the project improved children's lives and created livelihoods for their families. 🍃

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