

ORGANOPONIC GARDENS AND NATIONAL IMPACT OF URBAN AGRICULTURE IN CUBA

In 2018 the [National Program of Urban and Suburban Agriculture](#) launched by the Government of Cuba in 2009 to support the experiences of urban gardens developed throughout the country since the 1980s, continues to be implemented with great success.

The Program associates a wide range of actors in the shared objective of producing organic food to meet the demand of the population, using agro-ecological technologies, animal traction, renewable energies and adopting a territorial sustainability approach of productive inputs, natural resources and producers know how.



Today it is one of the 7 Important Programs of the Ministry of Agriculture of Cuba. In terms of results, it is estimated that 60% of the fresh food produced annually in the country comes from this production system.

The great impact is based on two innovative aspects that make the Cuban experience an international point of reference. The first innovative aspect is *organopony*, a method to cultivate in poor soils improved with organic materials. The second is the complex extraordinary system created at the national level to support the agriculture practices implemented in all the provinces and cities of the country.

The innovation of the organoponic gardens

As the [FAO website highlights...](#) "Organopónico is a Cuban invention. The term was coined to distinguish this system that uses an organic substrate, obtained from crop residues, household wastes and animal manure, from other intensive, high-yielding horticulture production systems. With the onset of the *período especial*, organoponic gardens proved to be ideal for growing crops on poor soils in small urban spaces. The soil quality is gradually improved through the incorporation of organic matter; as organic content increases, so do the levels of soil nutrients and moisture. Organopónico technology can be applied on building sites, vacant lots and roadsides, and arranged in terraces on sloping land. Soil can be tailored, using specific mixtures, to specific crops. If the soil is affected by nematodes or fungi, the entire substrate can be replaced. If necessary, the gardens can be disassembled and relocated. With drip irrigation, regular addition of compost and good horticultural practices, such as the use of well-adapted varieties, mixed cropping, crop rotation and integrated pest management, the raised beds can produce vegetables all year round, and achieve yields of up to 20 Kg per sq m."



The website of the Program presents the [technical manual for organoponics, intensive gardens and semi-protected organopony](#) and other technical materials on this innovative cultivation methodology that FAO is also promoting at an international level.

The national system implemented by the Program

The second innovative aspect is the complex and extraordinary system implemented at national level in order to support the practices of urban gardens that operate throughout the country allowing them to achieve impact results.

The system is characterized by its high level of decentralization, to respond to the food demand of the territory, valorizing its resources in the production of seeds, organic fertilizers, bioproducts for the control of pests, and animal feed. The productive structures, which include organic gardens, intensive gardens and parcels of protected crops, are managed by *Basic Communities of Cooperative Production, Agricultural Production Cooperatives and Credit and Services Cooperatives*. Each structure can specialize in one or more crops, favoring diversification.

In each Province and Municipality, the local administration participates authorizing the use of public soils and points of commercialization, favoring the sale at low prices of the products to the public services (schools, hospitals, social services), organizing the support of all local structures such as the Municipal Veterinary Clinics, Animal Training Centers for animal traction, Animal Feeding Farms, among others.

At the national level, the activities are coordinated by the National Urban and Suburban Agriculture Group, created in the framework of the Ministry of Agriculture with the participation of six other Ministries and 16 scientific institutions. The National Group assures to the local producers the technical assistance of [subprograms specialized in livestock, agricultural and service activities](#) and the [necessary productive inputs](#) through the Network of Seed Farms, the Network of Centers of organic fertilizers, the Network of nursery gardens, among others services.

In urban gardens chemical products are not used and to control pests and diseases farmers receive training to analyze the phytosanitary problems and respond by eliminating or reducing the cause instead of attacking the symptoms: for example, improving drainage to treat fungal problems. Biopesticides and biological control agents supplied by the Entomophage and Entomopathogenic Reproduction Centers of the Ministry of Agriculture associated with the Program, are also used.

To improve the substrate of the gardens and maintain high levels of performance, the Program promotes the production of compost, green fertilizers, vermicompost, bio-fertilizers, liquid fertilizers. It also connects farmers with livestock production units, and other sources of organic matter, such as urban and agricultural waste, and waste from agro-industry. A relevant aspect is that the initiatives for the production and use of organic fertilizers are at the same time strategic for the sustainability of the territories: recycling local waste the high costs of its final disposal are transformed into a high profitability investment.

Another relevant aspect of the agro-ecological approach adopted is the investment in the local production of quality seeds. In



addition to raising the performance of intensive productions by 30% and saving the high costs of imported seeds, the Municipal Farms rescue the local species and varieties, preserving the biodiversity of the country's territories.

Many countries requested technical assistance from Cuba to implement national systems of urban agriculture, organoponic gardens, to use technologies for the production of organic fertilizers and the conservation of seeds. The [Instituto de Investigaciones Fundamentales en Agricultura Tropical \(INIFAT\)](#) has also created a Master of three years *in Urban and Suburban Agriculture*, which has attracted students from Europe and Japan, among other countries.

To know more

[Program website](#)

[Urban Agriculture Program in Ecured.cu website](#)

[Greenercities – FAO](#)

[Presentation by INIFAT 2014](#)

[Cultivo en organopónico in Ecured.cu](#)

[Article in Granma.cu](#)

[Article in Granma.cu](#)

[Articles in radiohc.cu](#)

[Articles in radiohc.cu](#)

[Article in Bohemia.cu](#)

[Video in Youtube](#)

[Video in Youtube](#)

[Agroecology in Cuba in Youtube](#)

[Organopónico Vivero Alamar in Stories.Coop](#)

[Article in ecovida2015.blogspot.com](#)

[Manual técnico para organopónicos in FAO website](#)

[Urban agriculture in FAO website](#)

[Urban Agriculture in Ruaf Foundation website](#)

[Manual Cultivos Organoponicos – Inces.gob.ve](#)

