

Good practices for the agroecological transition in family horticultural production systems in Uruguay

THE INNOVA-ECOVIDA PROJECT EXPERIENCE



Index

04	INTRODUCTION
05	GOOD HORTICULTURAL PRACTICES IMPLEMENTED IN THE INNOVA-ECOVIDA PROJECT
05	GOOD SOIL MANAGEMENT PRACTICES
06	PLOT SYSTEMATIZATION
07	CROP ROTATIONS
09	COVER CROPS AND GREEN MANURES
10	USE OF MULCH OR SOIL COVER
11	APPLICATION OF ORGANIC AMENDMENTS AND BIOFERTILIZERS
13	GOOD WATER MANAGEMENT PRACTICES
14	WATER AVAILABLE IN QUANTITY AND QUALITY
15	EFFICIENT IRRIGATION SYSTEMS
15	DRAINAGE AND RUNOFF MANAGEMENT
16	GOOD PRACTICES FOR CROP PROTECTION AND HEALTH
17	USE OF ADAPTED GENETIC MATERIALS
18	PEST AND DISEASE MONITORING
18	USE OF BIOPREPARATIONS AND BIOLOGICAL CONTROL INPUTS
20	USE OF PHEROMONE TRAPS (CONFUSION) SEXUAL) AND CHROMATIC BANDS
21	SOLARIZATION OF GROWING AREAS
22	USE OF PROTECTIVE BARRIERS (PLANT WINDBREAKS) AND LIVING FENCES
24	DIVERSIFICATION, STRENGTHENING OF FUNCTIONAL BIODIVERSITY, AND CROP COMBINATION
25	GOOD FARM MANAGEMENT AND PLANNING PRACTICES
26	BASIC FIELD RECORDS
27	ANALYSIS OF RECORDS FOR FARM PLANNING AND DECISION-MAKING
28	FINAL COMMENTS
29	BIBLIOGRAPHIC REFERENCES

INTRODUCTION

The National Commission for Rural Development (CNFR), within the framework of its work with family farming and the strengthening of organizations within Uruguay's Rural Development System, has promoted and managed the INNOVA-ECOVIDA project as a strategy aimed at strengthening the scaling up of agroecological transition processes in family horticultural systems located in the country's main production regions.

This publication aims to systematize and disseminate the set of **good horticultural practices (GHP)** that were promoted for implementation and participatory monitoring within a co-innovation process. Its purpose is not to present definitive solutions, but rather to provide concrete tools, criteria, guidelines, and lessons learned that support the on-farm decision-making processes of horticultural families.

What is meant by good horticultural practices for the agroecological transition?

Good horticultural practices (GHP) for the agroecological transition refer to a set of management practices that have been previously validated through national research in conjunction with family farming organizations. These practices aim to optimize the biological processes operating within horticultural production systems through the efficient and sustainable use of available resources: soil, water, biodiversity, crops, and human labor. GHP are not a closed technological package, nor are they viewed as a rigid formula to be applied. Rather, they are tools available for implementation in the redesign of production systems, whenever and under whatever circumstances are deemed appropriate.

To simplify and classify GHP, four categories have been defined:

- ✓ Good soil management practices.
- ✓ Good water management practices.
- ✓ Good crop protection and health practices.
- ✓ Good farm management and planning practices.

The greatest impact of GHP is achieved when they are applied in an integrated manner, as many of them complement each other, synergizing and enhancing their positive effects.

The incorporation of these practices is supported by co-innovation as the project's central methodology. Co-innovation is a farm-level technical assistance approach that recognizes production systems as complex systems and promotes change processes built jointly between technical advisors and farming families, establishing a specific roadmap tailored to the reality of each family and its production system.

The Faculty of Agronomy of the University of the Republic (FAGRO/UDELAR), through the faculty of the Horticulture Unit, has been a key collaborating partner in the project's development, providing methodological support for the implementation of the co-innovation approach, as well as participating in the selection, monitoring, and evaluation of the main impacts and results of GHP implementation on the participating family farms.



Good Horticultural Practices Implemented in the INNOVA-ECOVIDA Project

Good soil management practices

Soil management is a central element in agroecological transition processes in horticultural systems, as the stability of the production system largely depends on its physical, chemical, and biological conditions.

Soil is understood as a living system, whose functionality is determined by its structure, organic matter content, biological activity, and nutrient dynamics. Good soil management practices are aimed at conserving and improving these properties, prioritizing preventive strategies against degradation and erosion, as well as the possibilities for their restoration with medium- and long-term impact.

Tools such as soil profile analysis, conventional physicochemical analyses, and soil biological activity analyses are highly recommended when diagnosing the situation in the main crop plots. These tools allow for the identification of organic matter levels, acidity (pH), potential nutrient deficiencies and imbalances, and other indicators of soil health, enabling appropriate action.

Plot systematization

Systematizing the property into management plots allows for the organization of production tasks, optimizes land use, and improves water management. This is a key practice for preventing erosion, waterlogging, and compaction. Considering slopes, drainage, access, and field orientation in an integrated manner also facilitates the implementation of horticultural crop rotations and cover crops.

When systematizing a plot of land, it is necessary to plan the network of main and secondary roads, as well as the orientation and length of furrows and beds, taking into account natural drainage and the topography of the site.

Main roads should allow efficient access to all areas of the plot without interfering with production activities. It is recommended that they be located preferably along watersheds and kept covered with vegetation, incorporating ditches or channels that facilitate the drainage of excess water from the fields. These roads must have adequate dimensions and strength to allow the passage of vehicles and machinery year-round.

Secondary roads are defined from the main roads and their main function is to direct excess water away from the production areas. To achieve this, the fields must be lowered and designed with slopes that direct runoff towards natural drainage channels, preventing water from passing from one plot to another.

Regarding the orientation and length of the furrows and beds, it is recommended to orient them towards the gentlest slope of the terrain, aiming for slopes of around 1 to 2%, and limiting their length to no more than 50 meters. This reduces the speed of the water as it leaves the plot, thus decreasing the risk of erosion. The soil removed during the lowering of secondary roads can be used for filling and leveling the crop plots, when necessary.



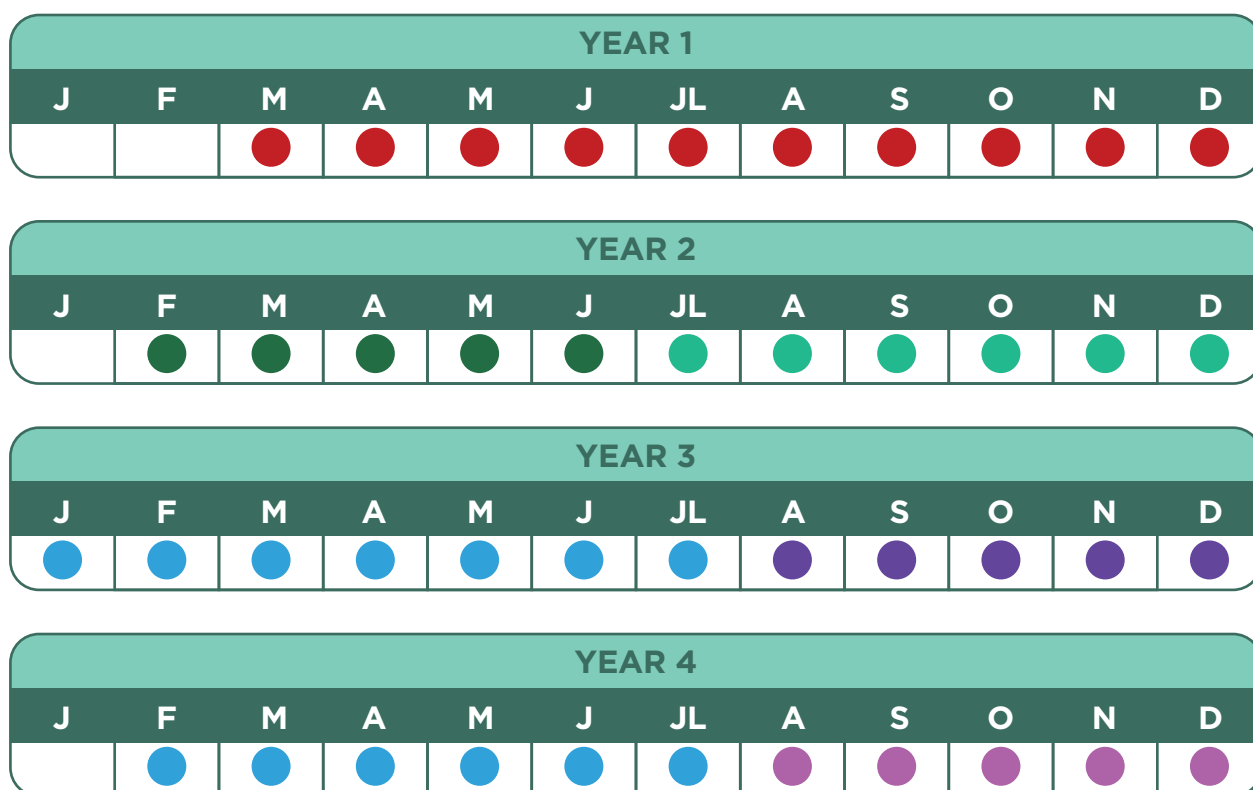
Crop rotations

Planning crop rotations refers to designing the succession of crops in the same horticultural plot over time. This practice is key to maintaining soil fertility and the biological regulation of the production system.

Alternating crops from different botanical families, with varying root structures and nutritional requirements, helps improve soil structure, balance nutrient uptake, and reduce pest and disease pressure by disrupting their biological cycles. Likewise, rotations allow for a more even distribution of produce throughout the year and a more efficient management of the system's labor demands.

When designing rotations, it is essential to consider incorporating green manures or multi-species pastures, including species with biological nitrogen fixation capacity, such as legumes, which contribute to balanced soil fertility and improved soil structure.

When planning rotations, it is recommended to avoid overly complex schemes that hinder implementation by farming families. Regarding the repetition of crops or botanical families, INIA (2025) suggests maintaining a minimum interval of three years before repeating a crop or botanical family in the same plot.



Références :

● Strawberry ● Cucurbits 1 ● Cucurbits 2 ● Green manure ● Eggplant ● Watermelon

Cover crops and green manures

The incorporation of cover crops and green manures plays a fundamental role in soil protection and the addition of organic matter. These practices promote biological activity, reduce soil erosion by keeping it covered, improve water infiltration and retention, reduce compaction, and help to revitalize the nutrient cycle.

Cover crops serve to keep the soil covered during periods without horticultural crops, reducing water and wind erosion, decreasing moisture loss, and moderating temperature variations. They also help limit weed growth by competing for light, water, and nutrients.



Green manures are incorporated into the soil to provide organic matter and nutrients, stimulate biological activity, and improve soil structure. The inclusion of legume species with biological nitrogen fixation capacity promotes a more balanced nutrient balance in the system.

The selection of species and mixtures used for cover crops and green manures should consider the soil and climate conditions of the farm, the time of establishment, the duration of the cycle, and their integration into the crop rotation. According to INIA (2025), the selected species should meet certain characteristics:

- ✓ Rapid establishment and good soil cover
- ✓ Drought resistance and/or low fertility
- ✓ High biomass production

- ✓ Ease of incorporation or cutting
- ✓ Slow-decomposing residue

The most commonly used plant families as green manures are grasses, legumes, and cruciferous plants.

Family	Species used	Characteristics
Grasses	Oats, Sorghum, Corn, Foxtail Mulch, Rye, Ryegrass, and Wheat	• High biomass production. • Lower quality than legumes • High C:N ratio (slow N mineralization)
Legumes	Clovers, Beans, Vetch, Lupins, and Crotalaria.	• Biological nitrogen fixation • Lower biomass production • Rapid degradation (bare soil)
Cruciferous Plants	Turnips, Mustards, and Radishes.	• Soil pest control (nematodes, fungi, and weeds) • Improved soil structure

Green manures are applied as pure or mixed species, which can be beneficial when combined to create synergistic associations based on their characteristics.

At the end of the green manure growing season, it can be left as mulch or incorporated into the soil, depending on the planting objectives, soil conditions, climate, species, and available management tools.



Use of mulch or soil cover:

The use of plant cover, crop residues, or other organic or inorganic materials as mulch protects the soil surface from the impact of heavy rains, reduces evaporation, moderates temperature, and decreases weed emergence. This practice also contributes to increasing the soil's organic matter content when the mulch used is of plant origin.

Mulch can be composed of crop residues, green manure remnants, stubble, straw, or other organic materials available on the property, as well as paper or nylon commercially available in the country for this purpose. Its use reduces the direct impact of rainfall on the soil, decreasing erosion and surface sealing, while also helping to conserve moisture and moderate temperature variations.

A continuous surface cover of 8 to 10 cm on the soil limits the emergence and development of weeds by reducing the amount of light available at the soil surface, thus reducing the need for mechanical interventions that disturb the soil.



If using straw, hay bales, or other plant debris, it is essential to ensure that the material is weed-free. If using nylon mulch, proper waste management is necessary, taking it to a collection or disposal center that is part of the management plans defined by the relevant authorities (MGAP, 2014).



Application of Organic Amendments and Biofertilizers

Organic amendments include materials of animal and plant origin, such as compost, stabilized manure, and composted organic waste.

The main objective of incorporating organic amendments is to increase the soil's organic matter content, improve its physical, chemical, and biological properties, and promote the functioning of the system's biological processes.



From a physical standpoint, incorporating organic amendments helps improve soil structure, increasing aggregation, porosity, and water infiltration and retention capacity. Chemically, it increases cation exchange capacity and improves nutrient availability and balance. Biologically, it provides substrate and energy for the soil microbiota, stimulating microbial activity and mineralization processes.

The organic amendments with the greatest potential for use in horticulture are compost, vermi-compost, and stabilized animal manure.

For their use, it is essential that these materials are properly stabilized to avoid health risks, phytotoxicity, and nutrient loss. Furthermore, when storing them, it is important not to place them in the highest points of the terrain, taking into account the direction of leachate runoff so that it can be collected. The impermeability of the soil in the storage area must also be considered to prevent possible groundwater contamination.

Biofertilizers, on the other hand, are products resulting from the decomposition of organic matter dissolved in water by the action of microorganisms. These resulting products can have high contents of macro- and micronutrients that are rapidly absorbed by plants, whether applied foliarly or through fertigation, depending on the case. When applied to the soil, they also increase microbial activity.

The most commonly used biofertilizers and biopreparations in Uruguayan horticulture are bokashi, native efficient microorganisms (NEM), bostol, and super-magro.





Good water management practices

Water is a strategic resource in horticultural systems, both for its direct impact on crop productivity and for its relationship with soil conservation and system stability. Within the framework of agroecological transitions, water management is geared towards maximizing efficiency in its use, reducing losses, and preventing negative impacts such as erosion, waterlogging, pollution, and soil degradation.

It is understood that prioritizing integrated water management is essential, taking into account availability, quality, application methods, and farm design. This approach prioritizes the use of safe water sources of adequate quality for irrigation, considering both agronomic and sanitary aspects, especially for fresh-market vegetable production. To achieve this, it is crucial to understand and monitor the quality of the water used for crop irrigation through laboratory analysis.

Protecting water sources through soil management practices is also vital. These practices include runoff control and maintaining vegetation cover to reduce contamination from sediments, nutrients, and pathogens, as well as preventing animals from entering surface water sources.

When planning water use at the farm level, practices for rainwater harvesting and storage should be considered, along with the possibility of collecting and reusing water from washing and packing vegetables. Efficient irrigation systems should also be implemented, and proper wastewater management is essential.

For water collection and storage on the property, both surface water and groundwater can be used, combining the use of both to the extent possible. The choice will depend on the possibilities and characteristics of the property, and on the planning of its use according to the needs of the crops.

Water available in quantity and quality

While the availability of water for crop irrigation depends largely on the natural conditions of the environment, it is possible to carry out low-impact works that allow access to groundwater (wells), as well as the construction of rainwater collection systems using dug wells and reservoirs, always considering technical recommendations and complying with current official regulations. Once adequate water sources are available, it is possible to size and plan their use over time.

Knowledge of the quality of water used for irrigation is fundamental to ensuring crop health and product safety. This involves identifying potential sources of contamination and the presence of toxic minerals or other elements that require correction, such as "hard water" with a high concentration of carbonates that accumulate in irrigation pipes.



Efficient irrigation systems

Adopting efficient irrigation systems, such as localized irrigation, optimizes water use, reduces losses, and improves crop health.

It is recommended to use drip irrigation systems, frequently changing the drip tape and checking the pipes and connectors to prevent water loss and waterlogging at the ends of the plots or greenhouses. The topography of the land should also be considered when designing a uniform irrigation system.

Water use efficiency is based on adjusting applications to the actual needs of the crops, the climate, and soil conditions. Excessive irrigation not only implies inefficient use of the resource, but can also lead to nutrient losses through leaching, soil compaction, and health problems in crops.

Irrigation scheduling should consider the soil's water status, the crop's phenological stage, climatic conditions, and the soil's water retention capacity. In this regard, soils with higher organic matter content and good structure exhibit greater water use efficiency.



Drainage and runoff management

Proper management of slopes, drains, and drainage systems helps prevent waterlogging and soil loss, as described in the chapter on soil management practices.

Good practices for crop protection and health

To address crop protection and health from a systemic and agroecological perspective, it is necessary to prioritize the design and management of the agroecosystem over specific interventions to address isolated situations. This is achieved by applying various cultural and biological control practices in a planned and simultaneous manner, considering the promotion of biodiversity within the system as a central strategy for the self-regulation of pests and diseases and for harmonizing the energy and nutrient cycles, along with the implementation of the good soil and water management practices explained previously.

Species diversification, appropriate crop rotations in time and space, the use of cover crops, and the maintenance of soils with good structure and biological activity contribute to creating less favorable conditions for the development of crop pests and diseases. Likewise, proper farm management and efficient water management help reduce water stress, excess moisture, and soil compaction, factors that increase crop susceptibility to disease.

The following are some complementary practices that contribute to improving the health of horticultural crops in agroecological transition processes.

Use of adapted genetic materials

Choosing varieties adapted to local conditions is a fundamental tool for disease prevention. Using genetic materials with good disease resistance and stable yields reduces the need for subsequent intervention with pest or disease control agents, thus increasing the resilience of the production system.

Whenever possible, the use of locally sourced seeds should be prioritized, selected based on farm experience and exchanges between producers and technicians. It is also recommended to use seeds of varieties developed by national research institutions in their genetic improvement programs using local germplasm. In all cases, when selecting genetic material, its health performance must be considered, including resistance to major diseases, early maturity to escape pest cycles, adaptability to general environmental conditions and water scarcity, good post-harvest storage, and other attributes associated with commercial quality. It is also very important to know the health and physiological status of the propagation material (whether seed or vegetative parts) to avoid using seed contaminated with fungi or viruses, or seed that is old and of poor physiological quality.

It is always recommended to respect the production cycles and the sowing and/or transplanting dates suggested for each variety or cultivar used.



Pest and disease monitoring

Frequent observation of crop health allows for the early detection of pests, diseases, or weeds, the evaluation of their development, and the definition of timely management strategies proportionate to the level of damage, as well as the avoidance of unnecessary interventions.

Recording field observations strengthens decision-making, allows for the identification of recurring patterns of behavior, and contributes to collective learning within the framework of co-innovation processes.



Weekly monitoring of crop pests and diseases is recommended, also evaluating the presence of beneficial natural enemies or biological control agents of pests that are present on the farms. This frequent monitoring becomes essential when using biological control products, in order to verify whether their application has been effective in controlling a given pest or disease.

Use of biopreparations and biological control inputs

The use of biological control strategies and products is promoted as a first-line intervention option, either preventively or when deemed necessary, as an alternative to the use of synthetic chemical products. These tools aim to reduce pest and disease pressure without negatively impacting functional biodiversity or the health of the system.

These biological control inputs, which are now widely disseminated and readily available to horticultural families, include multiple options for homemade or commercial production.

In the case of artisanal products or biopreparations, these are preparations traditionally used as pest repellents, such as herbal broths or "slurries" (garlic, nettle, chinaberry) and other preparations that use mineral salts (copper sulfate, copper oxychloride, lime) to reduce populations of insects or fungi harmful to crops. Specimens of plants that attract beneficial insects to the crops, such as calendula, or that have a repellent action, such as lavender can also be included at the tops of the flowerbeds.



Native effective microorganisms (NEMs) are another low-cost tool that is readily available in the country and can be activated on-site using a very simple device. NEMs can be applied directly to the soil along with irrigation water or as a foliar spray directly onto the crops. In both cases, they perform a protective and regulatory function that limits the proliferation of pathogens, stimulating biological activity and the natural cycling of organic matter and carbon, and soil nutrients.

More recently, new entomopathogenic microorganisms and biofungicides have been developed and marketed for pest and disease control. In recent years, the availability of these products in the country has increased significantly in both quantity and diversity. Products are now available for the control of insects such as whiteflies (*Trialeurodes vaporariorum* and *Bemisia tabaci*), nematodes, aphids, thrips (*Frankliniella* sp.), and diseases such as *Botrytis cinerea*, damping-off, and *Fusarium* sp., among others.



The use of biological control inputs must be planned, considering their mode of action, the timing of application, and their integration with other management practices to ensure effectiveness. Since these are living organisms, in addition to the application methods and timing, it is necessary to consider the transport and storage conditions of the products.

Use of pheromone traps (confusion sexual) and chromatic bands

The use of pheromone traps for mating disruption, in addition to capturing a significant number of specimens, allows for monitoring the presence and abundance of the main insect pests of crops, a key tool for making timely complementary control decisions.

Similarly, colored bands placed between rows of crops (especially in greenhouses) allow for the capture of adult insects and monitoring of pest presence. There are bands of different colors that attract different species: yellow bands attract whiteflies and aphids, light blue bands attract thrips, and black bands attract the tomato leafminer. Because they contain a sticky substance on their surface, adult insects adhere to the band and die. These colored bands can even be made by hand using colored nylon coated with used cooking oil.





Solarization of growing areas

Solarization is a very simple partial sterilization technique that reduces soil pathogen pressure (especially fungi and nematodes), also affecting the viability of seeds and the vegetative tissues of weeds present in the soil.

It consists of placing transparent nylon (polyethylene) over previously prepared beds with drip irrigation systems in place, keeping the soil moist and exposed to sunlight during December and January, the months of highest solar radiation in the Southern Hemisphere, for a period of one to two months.



The combined action of the sun and the moisture present in the soil causes the temperature in the bed to increase to up to 60°C, affecting a wide variety of microorganisms and weeds present. It is frequently used in areas where onion seedlings or long-cycle protected crops, such as tomatoes or peppers, will be planted.

A key aspect to consider is that solarization also eliminates or reduces the population of beneficial microorganisms and insects. Therefore, biological control products and MEN (manufactured herbicides) should not be applied to the soil until after the solarization treatment is complete.

Use of protective barriers (plant windbreaks) and living fences

The main function of windbreaks is to protect crops and infrastructure from extreme winds by reducing their speed and mitigating the negative impacts of rain, hail, and temperature. In addition, windbreaks can provide products such as firewood, posts, stakes, fruit, and medicinal plants, increasing the diversity of the property.

When designing the windbreak, it is important to choose trees with abundant, dense foliage, flexible and wind-resistant branches, deep root systems, and rapid growth. The design can also consider the selection of various species to increase biodiversity and provide refuge for pollinators and natural enemies. When choosing these species, it is recommended to select native species such as sarandí, ceibo, matajojo, and blanquillo for poorly drained soils, and tarumán, arrayán, molle, aruera, and canelón for better-drained soils (INIA, 2025).

Both the choice of species for the windbreak and its location and orientation will depend on the objectives, since in addition to wind protection, it can also serve as shade, shelter, and food for animals on properties that combine horticulture with livestock or beekeeping.

When incorporating several species into the windbreak, it is necessary to define the number of rows to be planted and to consider selecting species of varying heights to create different strata, positioning them in such a way as to reduce competition for water and light.



Diversification, strengthening of functional biodiversity, and crop combination

The incorporation of crop associations, flowering strips, and refuge areas for natural enemies contribute to increasing the functional biodiversity of the system. This diversity favors biological regulation processes, reducing the likelihood of pest population explosions and improving the health stability of the production system, strengthening its sustainability, profitability, and resilience. Furthermore, it promotes more efficient use of natural resources, extends the production period, diversifies income, and improves soil fertility.

Refuge areas in horticultural systems are based on creating spaces or patches with a diversity of perennial plant species, which can be aromatic, medicinal, or flowering, thus conserving and increasing the biodiversity of agroecosystems. The inclusion of these areas helps to interrupt the visual and olfactory stimuli emitted by host plants, reducing the incidence of pests and increasing the presence of pollinators and natural enemies (predators and parasitoids) near crop beds and greenhouses. In addition, maintaining grassy strips helps to create habitats, refuges, and food sources for these beneficial insects.



Flower islands can be incorporated within greenhouses to increase populations of natural enemies within the protective structures. It is also necessary to consider that vegetation within greenhouses can act as a refuge for pests or even increase the development of diseases. Therefore, it is important to effectively control host weeds (such as crabgrass, redroot pigweed, etc.).

Another way to increase the diversity of the system is through the diversification of crops, species, and cultivars. In purely horticultural systems, one practice that helps increase diversity is polyculture, which consists of planting different species in the same space, either in the same bed or by intercropping crops in strips. When choosing the species to combine, it is important to consider their above-ground and root development to ensure they are complementary and not competitive.



12/24

Producto	Cantidad	Tipo de bulto
bolsas	74	Bolsas
cajones	141	Cajones
bolsas	8	Bolsas
cajones	65	Cajones
cajones	200	Cajones
cajones	140	Cajones
Restas	167	Restas
Restas	266	Restas
		Tomate
		Cebolla
		Boniato
		Ajo
planchas		
10 bolsas		
0 "		
3 cajones		
Restas		

Good farm management and planning practices

Farm management is a key component of agroecological transitions, as it allows us to understand the results of our work and, more specifically, to identify the impacts of innovative practices on production, the economy, the environment, and the quality of life of the people involved. Without this information, it becomes very difficult to objectively determine whether the innovations we implement have been positive or not.

The incorporation of good farm management and planning practices should be understood as a gradual process, adapted to the reality of each farm. Co-innovation, as the project's central methodological approach, promotes the development of management capacities through technical support, the exchange of experiences, and the valuing of local knowledge.

From the INNOVA-ECOVIDA project's perspective, management is not conceived as an isolated administrative task, but as a tool integrated into production management and built progressively, based on the needs and existing capacities of each farm.

Basic field records

Making basic information available for analysis by the farming family and the field technician (expense and sales receipts, notes on the main tasks performed in the field, etc.) is the first step in estimating the results of the production system. This task, which competes with others but is of great importance, is difficult for horticulturalists, either due to a perceived lack of time (because they prioritize other tasks) or due to other inherent difficulties related to their individual abilities. In many cases, it is the women and younger members of each family who take on this important task of generating and organizing the records, either because they have better tools for it or simply out of interest.

To support record-keeping, it is recommended to use a field notebook to record the most relevant activities and to use spreadsheets (electronic or physical) to record physical and/or financial transactions (purchases and sales of inputs and products, respectively). The use of simple field notebooks, adapted to the specific circumstances of each producer, is a suitable tool for initiating these processes.

Consistency in record-keeping is more important than the level of detail, prioritizing the information considered most useful for decision-making. The systematic recording of this information facilitates the analysis of the system's operation and the identification of its strengths and limitations.



Analysis of records for farm planning and decision-making

The periodic analysis of production and economic records allows information to be transformed into useful knowledge for farm management. This analysis facilitates the evaluation of implemented practices, the identification of trends over time, and decision-making based on objective and real information.

Once the basic information is organized in field notebooks, spreadsheets, or other specific devices, it becomes possible to analyze and interpret the results achieved in terms of production, economics, or even to evaluate the results of implementing a simple practice and adjust future decisions. For example, if the reduction in the use of synthetic fertilizers affected the yields and quality of a certain product, what happened to the profit margin (did yields increase? Did quality improve? Did costs decrease? Did sales revenue from this product improve?).

In family-run horticultural systems, proper management also contributes to better work planning, optimized resource use, and increased autonomy for farming families, thus contributing to an improved quality of life.

Fecha	Producto	Cantidad	Tipo de venta	\$ Total
8/24	Cebollas	74	Bolsas	
9/24	Bonitos	141	Cajones	
9/24	Cebollas	8	Bolsas	
10/24	Bonitos	65	Cajones	
11/24	Bonitos	900	Cajones	
11/24	Maizos	140	Restas	
12/24	Maizos	167	Restas	
12/24	Maizos	266	Restas	
	Tomate		Plantas	
	Cebollas		\$200	
	Bonitos		\$200	
	Ajo		\$200	

2024 \$1270.000

Tomate - 100 plantas
Cebollas - 140 bolsas
Bonitos - 920
Maizos - 433
Restas

In this way, it becomes possible to analyze the results and, based on this analysis, make new decisions that involve modifying certain practices, maintaining them, or even expanding upon them. Thus, farm management tools and practices can act as strategic support for evaluating and modifying the actions that drive agroecological transition processes in family horticultural systems.

This process is also strengthened through collective exchanges between producers and technicians, where the recorded and analyzed information is used as a basis for joint reflection, collective learning, and the development of farm improvement strategies for agroecological transitions.

Final comments

The agroecological transition is a gradual process, built step by step. Not all practices are incorporated at the same time or in the same way on all farms. The co-innovation approach, through comprehensive and periodic technical assistance using a four-stage method (characterization, diagnosis, farm redesign, and monitoring), allows for the agreement and definition, with farming families, of a unique and specific roadmap tailored to the reality of each production system. This roadmap enables a transition to more sustainable production methods through the application of GHP.

The INNOVA-ECOVIDA project, implemented in Uruguay by the CNFR, has demonstrated that, through technical support, the exchange of experiences with the backing of national research and development centers, and the strengthening of family farming organizations, it is possible to move towards more resilient, diversified, and sustainable horticultural systems by promoting these processes within the framework of public policies aimed at family farming.

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Technical data of the publication

This publication was developed with the financial support of the European Union, as part of the FO4LA program – Farmers' Organizations as Drivers of Resilient and Inclusive Food Systems, implemented by AgriCord.

Its contents are the sole responsibility of the Inova Ecovida project, developed in Brazil and Uruguay, and do not necessarily reflect the views of the European Union and AgriCord.

Technical data sheet



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Good practices for the agroecological transition in family horticultural production systems in Uruguay

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