



QUANG PHU AGRICULTURE FORESTRY AND FISHERY COOPERATIVE

Pioneer in organic agricultural production

Quang Phu Organic Agriculture Forestry and Fishery Cooperative is located in Phu Thuan village, Quang Phu commune, Krong No district, Dak Nong province. As one of the pioneers in organic agricultural production, since its establishment in 2020, the Cooperative has firmly grasped the production process and supplied many high quality and safe agricultural products to the market, contributing to improving the ecological environment.

Since 5 years ago, Ms. Nguyen Thi Mai - Director of the Cooperative has spent days working hard to plant trees on the 10 ha cultivated land of the Cooperative which is full of rocks. Since the establishment of the Cooperative, Ms. Mai's biggest concern is creating jobs for local workers, enhancing knowledge and improving the lives of local people, especially ethnic minorities and women. She also educated local people that protecting the environment is protecting their home. The dense layers of volcanic rock are gradually flattened to grow fruit trees. Currently, with an area of more than 30 hectares, Quang Phu Cooperative not only grows vegetables, onions and garlic but also grows fruit trees such as oranges, tangerines, milkweed, avocados, etc., which are certified organic. The Cooperative has successfully and sustainably exploited the natural resources, soil and climate of the potential Nam Kar area full of volcanic rock.

Quang Phu Organic Agriculture Forestry and Fishery Cooperative builds a sustainable farming



TỔ CHỨC SẢN XUẤT
HTX sản xuất nông lâm nghiệp hữu cơ Quảng Phú

model in harmony with nature, without using chemicals. To protect the environment, the Cooperative adheres to the following principles: chemical fertilizers, herbicides, pesticides, genetically modified varieties are not allowed. During the farming process, the cooperative completely uses microbial organic fertilizers and medicines made from garlic, ginger, chili, lemongrass, cinnamon, and angelica... to take care of the plants. In order to enhance sweetness for the fruits, the Cooperative uses fermented papaya and bananas to fertilize the trees. According to Cooperative members, microbial organic fertilizers and herbal medicines on plants make relatively slow impact, but in return, this method ensures the safety of agricultural products, limits environmental pollution, and the soil gradually regains its nutrients.



The Cooperative welcomes the European Union Delegation in April 2022

In terms of natural agriculture, the Cooperative grows pinto peanut, so it does not compete for light with the main crop, maintains good coverage, and limits weed growth. This is an important factor to help the organisms in the soil develop and make the soil more porous, protecting the environment. The discarded grass will create a clean source of manure, facilitate the growth of vegetation. Water is pumped from the well and filtered before watering the plants according to food safety standards. Orange products are produced in accordance with the requirements of the National Standard on Organic Agriculture TCVN 11041 -2:2017.

In addition, the Cooperative's products have also achieved the 4-star OCOP certificate of Dak Nong province.



*The Cooperative welcomes the European Union
Delegation in April 2022*

Participating the Eco-Fair Project from the first days with the dedicated guidance of expert Tran Minh Chien on enhancing management capacity, improving production processes, and building brands and market connections, Quang Phu Cooperative has made significant progress in production and business.

In 2020, the Cooperative supplied 70 tons of fruits and 80 tons of vegetables of all kinds to the market. The price of organic agricultural products of the Cooperative is 2-3 times higher than that of products produced by conventional processes, helping Cooperative members improve economic efficiency. The Cooperative's products have been present in 40 supermarkets in Hanoi, Ho Chi Minh City, Buon Ma Thuot (Dak Lak) and consumed by supermarkets at a stable price.

Currently, the Cooperative is continuing to improve the process towards PGS organic certification recognized by IFOAM. The Cooperative will send products to participate in fairs sponsored by the Eco-Fair Project, including: "ECO-GREEN VIETNAM EXPO 2022 in Bulgaria and Greece to promote Vietnam - EU Trade; "BIOFACH INTO ORGANIC" in Germany, the International Food Industry Fair "SIAL PARIS" in France.

In the coming time, the Board of Management of the Cooperative develops a stable development plan for concentrated fruit tree area of about 45 hectares in the Cooperative as well as cooperating with other Cooperatives in the region to connect the planting area, at the same time promoting the application of science and technology to production, building brands for the products in domestic and international markets.



*The Cooperative is sharing Eco-Fair philosophy with
visitors*



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visitors*

PROJECT: "PROMOTION OF SUPPLY AND DEMAND OF ECO-FAIR AGRI-FOOD PROCESSING PRODUCTS IN VIETNAM"

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SEPON ORGANIC RICE

Reaching new heights

Over 48 years of development, Quang Tri Trading Corporation (SEPON) has made remarkable progress, expanded its production and business lines, and actively contributed to international economic integration and sustainable development.

“Business for the poor” is the motto embraced by SEPON for years. SEPON always aims to improve product quality, innovate production technology, and protect the environment, which are considered the pioneering factors for international integration. During its development, SEPON has created a sustainable connection between four parties: businesses, people, authorities and scientists to constantly create valuable agricultural products, contributing to make well-known agricultural brands in domestic and international markets.

SEPON development is associated with agriculture and rural development: Widely develop effective agricultural models on the basis of technology transfer, supply of seeds, feed, fertilizers, and off-take of agricultural products for farmers; participate in the restoration and development of specialized crop growing areas in the localities, promote the brand of local specialty agricultural products to domestic and international markets. SEPON develops material

areas for agricultural crops, aiming at safe production, improving productivity and quality of agricultural products.

Since its establishment, SEPON has received many noble awards and certificates of merit from the Party and State, including “Enterprise for Farmers” (2016), National Quality Silver award (for its rubber products) awarded by the Ministry of Science and Technology (2017), 3rd Class Independent Medal, Emulation Flag of the Government (2018), Vietnam Gold Star award for 3 times, Certificates of Merit from many ministries and sectors such as the Minister of Agriculture and Rural Development, Ministry of Industry and Trade, Ministry of Public Security (2018), etc.



*SEPON Group received the 3rd
Vietnam Gold Star Award in 2021*



In addition to organic rice, SEPON produces **other clean agricultural products** such as Sepon Quang Tri Green Tea, Cam Lo Peanut, Hai Lang Ginger Tea, Red Brown Rice Tea, Chives, Dragon Blood Rice, Quang Tri Pepper, and Instant Camellia Tea, etc.

Not only focusing on production and business development, SEPON has been actively contributing to charity and community development programs towards local economic, social and environmental goals such as: “Fund for children” to support orphans in Quang Tri province; “Join hands for new rural development in Lia, Huong Hoa”; “Computers and Tet gifts to poor and well-educated children”; “New Year's Eve with Mother” to pay tribute to Vietnamese heroic mothers living in Quang Tri...

Determining the importance and benefits of **achieving international certification and sustainable production** to businesses, consumers and environment, the project “Promotion of supply and demand of eco-fair agri-food processing products in Vietnam” (Eco-Fair Project) has accompanied **SEPON RICE**

Processing Factory towards organic products.

From May 2021, within the framework of the Project, Vietnam Rural Industries Research and Development Institute (VIRI) has advised and supported SEPON to self-assess compliance levels, identify room for improvement and develop improvement plan, prepare to implement the registration process for organic certification according to EU organic standards and organic certification according to USDA organic standards. Besides, the Project has also designed some packaging samples for the Company's rice products in a sustainable way.



The packages are designed by the Eco-Fair project in a sustainable way

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XUAN TRUONG RICE NOODLE

A mix of tradition and modernity

Xuan Truong Rice Noodle Cooperative is located in Thu Duong village, Nam Duong commune, Luc Ngan district, Bac Giang. With the goal of continuing, promoting the traditional value of rice noodles and bringing products closer to domestic consumers, Xuan Truong Rice Noodle Cooperative was established in 2009. With a team of enthusiastic and passionate members, who hand in hand built “Xuan Truong Rice Noodle” together to become a high quality prestigious brand and trusted and favored by Vietnamese market as well as export market.

Rice noodles is a specialty, a famous cultural feature for being made from the best rice, Bao Thai Hong rice, with pure water in the mountains of Luc Ngan (Bac Giang). The delicious Bao Thai Hong grains are combined with other products of heaven and earth such as black sesame, gourd, moringa, etc. to make Xuan Truong noodle product which is a sophisticated mix of tradition and modernity. Although the production process is still traditional, but the application of modern technology ensures strict compliance with regulations on food hygiene and safety. The products still retain the taste and nutrition without using preservatives.



Not only providing typical noodle products characterized by white color, the Cooperative also mixes seasonal vegetables and fruits to create beautiful, delicious, and nutritious five-color noodles. Xuan Truong five-colored rice noodles (vegetable noodles) is a special type of noodle produced using its own process, coated twice with water, dried twice in the sun, completely handmade without using colorants, bleach, or preservatives. Xuan Truong Rice Noodle products have received 4-star OCOP certification from Bac Giang province.



Currently, Xuan Truong noodles are sold in domestic supermarkets, retail chains such as Vinmart, BigC, clean food store chains and have become a favorite dish of many families. In addition, Xuan Truong branded noodles are also exported to China, Russia, Korea, etc.



When participating in the project “Promotion of supply and demand of eco-fair agri-food processing products in Vietnam” (Eco-Fair Project), the Cooperative has received great support and advice from experts on Resources Efficiency and Cleaner Production.

Experts from VNCP (co-implementer of the Eco-Fair Project) have advised and supported the Cooperative to implement a quick assessment of RECP and proposed to apply solutions to save input resources at the Cooperative such as: Recovering boiler exhaust fumes to provide heat for drying ovens to optimize and reduce production costs, investing in boilers using coal, firewood and locally available fuel to generate heat. Using industrial

water filtration systems with low investment cost, no waste water rather than a periodic backwash water or RO filtration systems for demanding market. Recovering materials, semi-products spilled on roads and floors at the end of every working day, inspecting and checking and limiting materials and products falling. The solutions given by experts help the Cooperative save input materials, improve production environment, and move towards cleaner production.

With the spirit of constant learning and renovation, Xuan Truong Rice Noodle’s goal in the coming time is to improve the quality and brand of products in a sustainable way, aiming to conquer domestic and international markets./.



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Thu Duong village, Nam Duong commune, Luc Ngan district, Bac Giang province**

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GREEN NUT

Clean products for consumers' health

With the desire to bring clean, nutritious and healthy products to Vietnamese consumers, in 2018, The Organic Green Nut Joint Stock Company was officially established is currently based at 877 Phuc Dien, Xuan Phuong, Tu Liem, Hanoi. Its main products include tofu, fresh bean curd, bean milk, tofu, etc. all branded “Hometown tofu”.

Not just a business, Green Nut embraces a mission to preserve and develop Vietnamese agricultural products, especially non-GMO soybean materials, the planting area of which is gradually shrinking due to competition with imported GMO soybeans. Therefore, **100% of Green Nut's products are processed from non-GMO agricultural materials** grown in provinces such as Thai Nguyen, Bac Giang, Bac Ninh, Nghe An, and Yen Bai.



Some products with brand “Hometown tofu”

Green Nut products ensure cleanness from planting to processing. Manufacturing process is strictly supervised, ensuring transparency from farm to table. Soybeans products are manufactured based on the values of traditional products - no preservatives, no flavorings, no chemical additives, thereby winning not only Hanoian but also reaching out to the others provinces through clean food stores, supermarkets and convenience stores in Bac Ninh, Thanh Hoa, Thai Nguyen, Nghe An. The “Hometown tofu”-branded product was awarded the Capital Women’s Innovative Product Award 2021.

Applying Resource Efficiency and Cleaner Production (RECP) helps the company to significantly reduce production costs. Participating in the Project “Promotion of supply and demand of eco-fair agri-food processing products in Vietnam” (Eco-Fair Project), funded by the European Union - Switch Asia program, since October, 2021, Green Nut has received



great support from experts of Vietnam Cleaner Production Center Co., Ltd. (VNCPC), who visited Green Nut's production facilities to make survey and assessment to help optimize production costs. After receiving advice from experts, Green Nut gradually made certain improvements such as: rewinding the zinc wire, installing additional equipment to save electricity and water. Then, in November and December 2021, the company's monthly water bill was reduced by 30%, and the electricity bill was reduced by about 2.5%/month.

With the considerable support from the Project, we have been implementing energy efficiency solutions, which bring practical impacts to our company in saving production costs, protecting environment. We would like to express our sincere thanks and hope to receive further support to become more popularized among consumers, as well as to better serve customers", shared Ms. Do Thi Ngoc Tram - General Director of Green Nut.



Some products of Green Nut

Website: greennut.vn

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3T CAO PHONG AGRICULTURAL COOPERATIVE

Accompany the Eco Fair project to increase the value of agricultural products

3T Cao Phong Agricultural Cooperative (or 3T Farm) was established on August 10, 2018 and is based at 91, Zone 1, Cao Phong town, Cao Phong district, Hoa Binh province. Currently, the Cooperative has 25 members with 29.5 hectares of arable land, growing different varieties of oranges, including: CS1 (yellow heart oranges), Xa Doai, Canh, V2.

The Cooperative has been certified Vietgap (Vietnamese Good Agricultural Practices), in which, two thirds of the planting area uses organic agricultural materials such as vermicompost to increase the plant disease resistance after harvest and help increase the productivity. The Cooperative does not use herbicides to protect consumer health and prevent soil and water pollution.



The Cooperative welcomes the European Union Delegation in April 2022

Cao Phong Orange is a famous orange brand in the whole country, which has been granted a geographical indication of “Cao Phong Oranges”

since 2014. In recent years, it is facing many challenges, the planting area is seriously reduced. At 3T Farm Cooperative, including orange trees in the “strong” period (9 years) or sapling (under 4 years) have also suffered yellow leaves diseases and severe yield decline (up to 50% for 9 year garden).



The diseases orange orchard affect to the productivity

The project “Promotion of supply and demand of eco-fair agri-food processing products in Vietnam” (Eco-Fair Project) provides solutions and in-depth technical support for land reclamation and rehabilitate the growth capacity of 3T Cooperative orange orchards, then expand to all orange orchards in Cao Phong,



CCS experts and officials take soil samples at orange orchards

contributing to maintaining the production and quality of local specialty oranges and increasing livelihood of local people.

In addition, at present, oranges are still mainly as fresh fruit, only a small part is preliminarily processed and refrigerated after harvest. This leads to a high rate of spoilage during harvesting and transportation. The need for deep processing of value-added products from oranges also motivates 3T Farm to participate in the Eco - Fair project.

Experts of the Eco-Fair Project have surveyed, sampled, analyzed and evaluated the soil of the orange planting area, thereby offering solutions and specific instructions to protect orange trees from pathogens and balancing nutrients in the soil, enabling healthy growth of trees. Thanks to the advice of the Eco-Fair project's experts, orange trees in areas applied solutions to prevent pathogens and soil improvement solutions have shown positive signs. For example, the percentage of dry branches per tree is substantially reduced, and the plant-parasitic nematode density in the soil is reduced by 50%. In addition, 70% of trees grew greener, over 90% of the plants developed new root hair,

and there were no signs of parasitic nematodes on these roots..

Regarding deep processing, the project's food technology expert also advises on processing fresh oranges with unqualified sizes and appearances into concentrated orange juice products. The Cooperative has successfully experimented to process high-value concentrated orange juice products, in order to make the most of the unqualified fresh fruits to sell at high prices, in which 300 kg of fresh oranges can be processed into 5 kg of concentrated orange juice.

Dried orange tea products combined with cinnamon and lemongrass, concentrated orange juice are supported by project experts in eco-oriented packaging design, using materials that are environmentally friendly, sustainable, reusable or have a long shelf life.

In the coming time, the Eco-Fair project will accompany the Cooperative to support sustainable oranges farming, develop new processed products from oranges and further implement nutrition solutions, contributing to increasing the value of local agricultural products.



*The Cooperative welcomes the European Union
Delegation in April, 2022*



*Pilot area for the plant-parasitic nematode
control method*

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BAN LUONG COOPERATIVE

The journey of closed loop agriculture production

In 2020, giving up the position of director assistant in a consulting firm and a comfortable life in Hanoi, Ms. Ngo Thi Thanh Tam and her husband determined to return to their hometown - Bac Kan - a poor mountainous province in the Northeast to pursue their passion of clean agriculture and established Ban Luong Cooperative, based in Ban Luong Hamlet, My Thanh Commune, Bach Thong District, Bac Kan Province.



Starting from natural raising of chickens, Ban Luong Cooperative successfully applied IMO and cinnamon to improve the chicken's immune system and health. This idea got the third prize at the Rural Youth Creative Startup Project Contest 2020 organized by the Central Committee of the Ho Chi Minh Communist Youth Union.

The main objective that the Cooperative pursues is to make a closed-loop material cycle, with the least amount of waste in the production process. Ban Luong Cooperative finds that having access to the Project: Promotion of supply and demand of Eco-fair agri-food processing products in Vietnam (Eco-Fair Project) is a timely approach to help define their own vision and mission, thereby contributing to the sustainable development of the local community as well as the Cooperative itself.



The Eco-Fair project has provided the Cooperative with technical solutions to make the most of indigenous microorganisms, local biodiversity, and waste materials to be recycled as input materials in another production process, thereby reducing input energy costs, without polluting land, water and air.



An expert from the Center for Creativity and Sustainable Study and Consultancy (CCS), one of the implementing units of the Eco-Fair project, discussed and worked with the Cooperative to find a solution to use galangal residues - the solid waste with a large amount from processing of galangal, as a substrate source for black soldier fly (BSF) larvae- which have potential to be utilised as livestock feed, easy to raise without causing harm to people and environmental.





In addition, the project also supported Ban Luong to build a model of closed agricultural production with the transferring new agricultural technologies from CCS, especially application of biochar as a carrier in the livestock and poultry biodegradable pad, soil improvement and composting for organic farming.

This solution not only contributes to significantly reduce amount of solid waste from galangal residues into environment, but also create a high protein food for chickens at the Cooperative's farm. Mixing 1 ton of galangal residues with pig manure and other by-products as the substrates produce about 100-120 kg of BSF larvae as food for chickens at farm... In addition, BSF excrement is a source of nutrient-rich fertilizer for plants, which is used for growing vegetables on the farm. The average

yield of vegetables harvested on the soil improved by biochar and organic fertilizer is 2 kg/m² which partly increases the income of the Cooperative.

The positive results at Cooperation are the evidence of the correctness of the circular agricultural economic model.



In the coming time, the Eco-fair project continues with the Cooperative to apply volumetric biomass gasification (VCBG), which is invented by CCS, to produce biochar and heat poultry. Besides that, application of a hybrid greenhouse solar dryer for deep processing will produce added value for Cooperative. CCS will work with Cooperative to transfer and replicate these technologies to other facilities in Bac Kan province.

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TOTA COMPANY

SUSTAINABLE AGRICULTURAL PRODUCTION IN DAK NONG PROVINCE

Born and raised in Hanoi, Mr. Le Ngoc Anh worked for a long time in Vung Tau and Ho Chi Minh City, but he fell in love with the sunny mountain climbs and cool winds of Central Vietnam, so this is where he decided to settle and build his company.

Up until three years ago, Mr. Le Ngoc Anh had been the director of a bank in Ho Chi Minh City. In contrast to the stresses of living in a big city, he and his family had always desired to live in a way that was closer to nature. Being vegetarians, they held a great respect for the natural world and cherished the lives of animals. So, they decided to leave the city and return to the Central Highlands where they could lead a different life that was more in harmony with nature, and one that fostered “clean” agricultural practices to produce healthy and nutritious foods. It was here that Mr. Le Ngoc Anh established TOTA Science and Technology Co. Ltd, (TOTA Company), based in Nam Tien village, Ea Po commune, Cu Jut district, Dak Nong Province.



For vegetarians like himself and his family, mushrooms are an excellent alternative to animal meat. After nearly three years of research and development, TOTA company has successfully grown a diversified variety of mushrooms. These include abalone mushrooms, wood ear mushrooms, reishi mushrooms, and most recently straw mushrooms.



He built a farm to grow mushrooms as the main product. This was to provide food for his family, as well as to create a source of clean food and sustainable employment for the local people. The company's delicious mushrooms are supplied to supermarkets for consumption in cities such as Buon Ma Thuot, Vung Tau, and Ho Chi Minh City.

The CCS Center is one of the co-implementers of the project for the “Promotion of supply and demand of Eco-fair agri-food processing products in Vietnam”, (Project Eco-Fair). Under the guidance of technological experts from the CCS Center, TOTA company has successfully built a greenhouse solar dryer, which

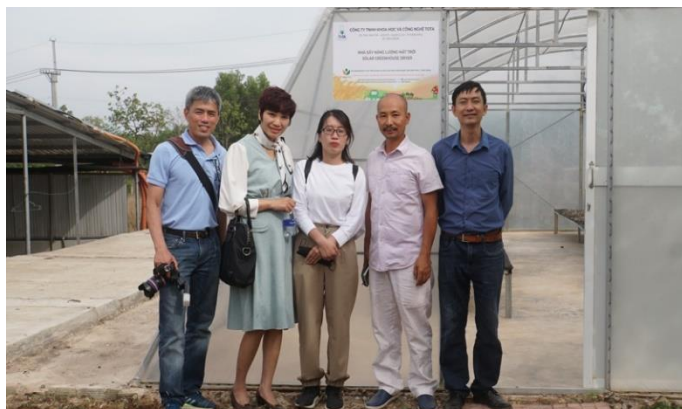
are cost efficient, hygienic, and safe. Using this drying process, the fresh mushrooms are preserved for long time use while still retaining their taste and nutritional value.



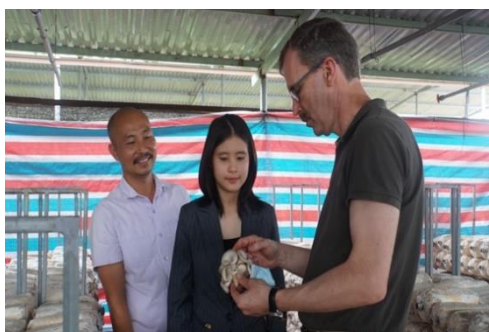
The TOTA company has worked with the technical staff of the Eco-Fair project to develop a process for composting of the mushroom residues. This process contribute to close the material cycle in the farm, while reducing the amount of solid waste discharged into the environment, and at the same time creating a rich source of organic fertilizer which is then subsequently applied to the planting area.

In addition to focusing on his mushroom products, Mr. Ngoc Anh, director of TOTA company, is always thinking about ways to improve the livelihoods and employment opportunities for his local community. Ngoc Anh's farm also grows organic vegetables and

cultivates fruit trees. His goal is to develop the area into a prosperous organic farming model and develop many valuable products from vegetables so that people in the area can see the actual effect, participate in educational visits to the farm, exchange experiences and techniques and apply them to their own gardens at home.



For the upcoming future, TOTA company is continuing to work in conjunction with the Eco-Fair project to implement a heating/drying system using biomass gasification technology which reduces emissions by no longer relying on the burning of fossil fuels to power boilers, which is the processing system currently used for their mushroom production. While creating clean/green energy, biomass gasification technology also creates a source of biochar as a by-product that is effective in retaining, and even improving nutrients within the soil.



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