



# Clean Agriculture Newsletter No.17

## Clean Agriculture Development Project

Published in August 2021



This project is a technical cooperation for five years (2017-2022) funded by JICA, targeting four Pilot Provinces (Vientiane Capital, Luang Phabang, Xayabouly and Xieng Khouang). It aims at promoting clean agriculture, namely Organic Agriculture and Good Agricultural Practice (GAP) based on market needs in the Pilot Provinces.

### Recent Topics of project activity

#### 1. Conducting On the Job Training (OJT) on making and using “baking soda” as a fungicide and “amino acid liquid fertilizer” as an organic fertilizer

OJT on making and using “baking soda” as a fungicide and “amino acid liquid fertilizer” as an organic fertilizer was conducted for the staff from Clean Agriculture Standard Center (CASC) that is a main counterpart agency in the agricultural fields of the CASC on August 5th (Thu), 2021.

The full-blown rainy season has come in Laos. In case of high temperature and humidity in wet or cloudy weather, the spread of the disease caused by the proliferation of bacteria and fungi is concerned. The foliar application of “baking soda” at the surface of the plant expects a high destruction effect of adherent bacteria or fungi by alkalizing them quickly.

Photosynthesis works less well in wet and cloudy weather because of reduced sunlight. As a result, the conversion of nitrogen within the plant (from nitrous acid to ammonium to amide to amino acid to protein) is hampered. The foliar application or watering into the soil of “amino acid liquid fertilizer” make the conversion of nitrogen shorter (only amino acid flow to proteins) and the nitrogen component is absorbed easily.



(Picture) CASC staff are learning how to use “Amino-acid liquid fertilizer” as an organic fertilizer

Cultivation techniques learned under this OJT will be transferred to the Organic Agriculture (OA) group via the OJT from CASC. An OA technical manual will be prepared and distributed on CASC’s YouTube channel.



(Picture) CASC staff are spraying the tomato leaf with “amino acid liquid fertilizer”

#### 2. Conducting OJT on how to construct a greenhouse (GH)

OJT on how to construct a GH was conducted on August 18th (Thu) by collaborating with CASC, Provincial Agriculture and Forestry Office (PAFO) in Vientiane Capital, and relevant District Agriculture and Forestry Offices (DAFO) in Vientiane Capital that are counterpart agencies of the Project.



(Picture) Mr. Sangvan, CASC staff (center left) and Mr. Kankeo, deputy head of PAFO in Vientiane capital (center right)

The farmer trained at the time was Mr. Sida Phomdouangsy from the OA group in Xiengda village. Mr. Sida is one of 25 farmers selected by “survey on selection of farmers who participate in GH supporting program” presented in the newsletter No.13 issued in March 2021 (He is one of the target farmers receiving some materials from the Project). Construction was delayed as construction materials could not be transported due to COVID-19 lockdown at Vientiane Capital. However, the OJT has been successfully completed. The Project has continually tackled production problems in the rainy season.

How to construct a GH at the time will be summarized in an OA technical manual and distributed on CASC’s YouTube channel. Please check it.



(Picture) 4th person from the left is Mr. Sida Phomdouangsy

### 3. Conducting nitrate concentration test for OA products

The Nitrate content of agricultural products is an indication of the quality of agricultural products. One of the reasons for the increase in nitrate content is over-fertilization. Agricultural products with a high concentration of nitrate make bitterness and harshness more pronounced and tend to lower the sugar and vitamin C content. The project conducted the nitrate concentration test for agricultural products from the OA market on July 28th in Vientiane capital, July 31st in Xieng Khuang, and August 18th in Luang phabang separately. Provincial and District staff conducted the test by using simple measuring device to measure nitrate by inserting a probe into agricultural product as a sample.

For example, 15 samples of 9 types of agricultural products, including scallion, pumpkin, tomato, choy sum, chinese cabbage, avocado, pear, pitaya, and oyster mushroom were tested in



(Picture) Nitrate concentration test in Xieng Khuang

Xieng Khuang. All samples were evaluated using a simple measuring device as a level of nitrate safety. The test atmosphere in each province will be distributed through Facebook. Please check it.

### Voice from OA fields

The opinions of key stakeholders in promoting organic agriculture in the target provinces were presented. In this issue, we focus on Paek Organic Cooperative in Agriculture (POCA) in Xieng Khuang Province.

25 farmers in 5 villages started organic agriculture in Paek District in 2009. Since then, organic agriculture has been widely recognized by society and the number of members has increased each year. In 2018, the group changed its name to an agricultural cooperative. The members are 165 households spread out over 30 villages so far.

There are many customers in the OA market, which opens 2 days a week and some restaurants in the district have served organic agricultural products purchased from the POCA.



(picture) provincial staff, leader of the POCA, and 2 District staff from the left

The introduction of a greenhouse supported by the project enables many types of crops to be cultivated. The economic situation of each member is totally different. Certain members have sufficient funds to set up a greenhouse without external support. However, the others do not have enough funds to produce enough vegetables to provide an OA market on regular basis. Provincial and District staff have always supported POCA activities, such as seeking an OA market and following up with the members after training. POCA has plans going forward, including 1) increasing membership, 2) opening a new OA market, and 3) selling agricultural products to other provinces.

