



# Center for Agribusiness and Rural Development **NEWSLETTER**

Volume 8, Issue 2, 2013

## IN COLLABORATION WITH PUM NETHERLANDS SENIOR EXPERTS



On April 3-12, 2013, PUM expert Mr. Gijsbert Kroon was invited to Armenia by the CARD Foundation to advise fruit and flower growers on advanced growing techniques and solutions to identified problems.

Visits were paid to greenhouses and fruit tree orchards in Ararat marz and in Meghri region.

Mr. Kroon visited two orchards with draft rootstock trees in Ararat marz, where consultancy was provided on combating bacterial cancer of some tree varieties.

He also consulted several greenhouses growing Carnations and Alstroemerias.



Beginning May, 2013, PUM expert Mr. Rob van Mechelen was hosted in Armenia to advise greenhouse growers on advanced growing techniques on substrates and hydroponics systems.



New interesting techniques combating nematodes and weeds were taught to the growers.

Mr. Kroon's visit to Meghri region was organized in the scope of "Markets for Meghri" (M4M) project, funded by the Swiss Development Cooperation (SDC). The main objective of the M4M project is to contribute to poverty reduction in the region by developing the horticultural sector. As a horticulture specialist, Mr. Kroon visited four communities of the region for evaluating the current situation of the sector and making suggestions for future development.



Together with two agronomists from M4M project, Mr. Kroon visited pomegranate, fig and persimmon orchards in the Nrnadzor, Alvank, Karchevan and Meghri communities.

Areas for improvement in fruit trees' design, pruning, irrigation, fertilization and pest management processes were identified during the trip. Mr. Kroon provided consultancy on the problems detected in the cultivation of trees in each orchard.

The CARD team will follow the recommendations to improvement of orchard and greenhouse management techniques provided by Mr. Kroon.

Furthermore, Mr. Kroon will advise on new varieties of pomegranate, persimmon and fig trees for better results in Meghri region.

### **PUM** Netherlands senior experts

During the first week of the mission, Mr. Mechelen visited about dozen of greenhouses to provide on-site advisory services as well as to learn about local greenhouse cultivation techniques and technologies.

In the second week of the mission, two one-day trainings were organized for farmers interested on the topic of the "Modern hydroponics systems and their application in Armenia".

More than 25 farmers, industry professionals and agricultural university students attended the trainings. Most of the attendees were interested in application of the presented modern cultivation technologies in their greenhouses.

On the last days of the mission, two greenhouses were visited and water samples were taken for evaluation to determine possibilities to install the hydroponics systems in near future.

The water sample analysis will be done both in Armenia and in the Netherlands to compare the results.



Within the framework of the Cow Milk project, four types of feed additives and feed starters have been tested at six local farms. The trial products Maxcare Dairy Dry, Maxcare Dairy Lactation, Vita Pens Start, and Sprayfo Blue, produced by the Dutch company Trouw Nutrition, are designed for improving productivity, weight gain, fertility, and health conditions of dairy cattle.

The introduction of the products in the Armenian market was made possible through PUM support. PUM Experts Robert Back and Wim de Jong introduced Trouw Nutrition company to CARD experts in late 2011 during the business link trip to the Netherlands organized by PUM.

During the trial implementation process, CARD Rural Development team conducted monthly visits to participate in cow milking process, measure weight gain among calves, and collect data for evaluation of the trial project.

The trials have shown that cows fed by Maxcare Dairy Lactation have increased their productivity by 34%, while the cows in control groups (fed by old rations) by 17%. However, such rapid increases in milk yields in both groups are mainly due to the change in grass quality during May. Within the first three months of the trial, when the grass quality remained the same, the increase in the testing groups has been 12% on average and 3% in the control groups.

The milk replacer (Sprayfo Blue) is significantly cheaper than the cow milk, yet it contains all the essential nutrients for calves. The trials have shown that calves fed by Sprayfo Blue are generally the same weight as their peers. Thus, from the economical point of view, milk replacer has shown its worthiness by providing farmers with opportunity to make extra income by selling cow milk.

The trials of Vita Pens Start have shown good results in few aspects. The calves fed by Vita Pens Start gain weight faster i.e the calves in the trial group gained 110 kg of weight in average at the age of 100 days, while control group gained 75 kg of weight. On the other hand, the use of Vita Pens Start eliminates the after-weaning stress. The transition of feeding rations from milk to concentrate feeds is very stressful for calves and it leads to weight loss, animal stress and health problems. Usually it takes around a month for calves to recover and start gain weight again. None of the calves in the testing group has shown symptoms of after-weaning stress.



The trials of Maxcare Dairy Dry were monitored mainly by collecting feedback from the project beneficiaries. Feeding cows by Maxcare Dairy Dry during the two months dry period is very cheap, yet it helps to maintain good health conditions and greatly facilitates the calving.



Within the PUM-supported business link trip, CARD specialist Arman Ohanyan visited also Barenbrug - Dutch seed producing company.

In the framework of Cow Milk project's other component entitled "Hay and Forage Seeds Application", three types of hay and forage seeds are being tested in eight different sites all over Armenia.

The seeds were cultivated from April 26<sup>th</sup> to May 7<sup>th</sup> depending on weather conditions in different regions. The total cultivation area covered 33.4 ha, of which 12.8 Alfa-Alfa, 10.3 ha Milkway, and 10.3 ha Milkway Dry.

The project team conducted the first monitoring visit to the trial farms to check, measure, and evaluate the germination rate of seeds in mid-May.

The Alfa – Alfa and both mixture seeds have shown good germination characteristics in various soils, weather conditions, and irrigation conditions. The germination of the trial seeds have been fast and dense. Both the project team and beneficiary farmers are satisfied with the results so far.

The project team will continue to monitor the performance of the hay and forage seeds at the beneficiary farms on monthly bases and will collect data about emergence, productivity, nutritional content, etc. of the seeds and by comparing it with the local varieties be able to evaluate the expedience for introducing the seeds in the Armenian market.

