

Finnamyl Oy is located in Kokemäki, Finland. It has over 200 starch potatoes producing contract farms which are mostly located in western Finland (Satakunta region). Totally the contract farmers produce about 100 000 tons of potatoes per year. That quantity will be delivered to the starch factory during the campaign which runs from the end of August till the end of November. Finnamyl Oy employs about 25 persons directly and indirectly sub-contractors and transporters also.

During the campaign is gained 24 000 tons starch, 73 000 tons fruit juice and 14 000 tons potato fiber feed. The majority of the starch is sold to a starch modifying company, which supplies the modified starch to paper industry as a raw material.

Almost half of the starch production is sold to food industry and consumer market. About 40% of that is exported, for example to Russia. Especially organic potato starch is sold as far as Far East. Finnamyl Oy is one of the smallest potato starch manufacturers in Europe, but as an organic potato starch manufacturer it is among the top three in the world.

Adven Group is a leading energy company that provides customized energy solutions and district heating. It operates in Finland, Sweden and Estonia. Adven provides customized and cost-efficient energy solutions while minimizing the environmental impact. The products Adven provides are for example industrial steam and –cold, warm, cooling solutions, processing of secondary energy, gas and electricity. The turnover of Adven in 2014 was 150 M €. www.adven.fi.

Finnamyl Oy is investing in potato protein production in Kokemäki

Finnamyl Oy which is manufacturing potato starch is investing in potato protein production. The total investment is about 10 million €. The protein is separated from the potato fruit juice which is a by-product of starch production. The protein products will be used in the food industry as well as in the animal feed industry. The rest of the fruit juice is concentrated as a fertilizer.

Adven is providing evaporation services for Finnamyl factory

Evaporation is an important part of the new advanced production process in which part of the fruit juice (byproduct of starch production) will be refined to potato protein and feed. The investment will take the operations of the potato starch factory more towards bio-economy. That means out of the by-products are made new business and environmental emissions are significantly reduced. Adven builds an evaporation plant next to Finnamyl factory and is responsible for running it. The plant is connected to Advens' centralized remote control system located in Vantaa, Finland. This ensures the smooth operation.

In 2015 campaign the protein recovery and fruit juice concentration will replace the spreading of fruit juice on the fields.

Finnamyl Oy has been studying many years for a new kind of potato protein recovery method, latest together with the University of Copenhagen protein researchers. The new method separates proteins at a lower temperature than the existing methods. The low temperature maintains the quality of the protein much better than the traditional coagulation process. The protein with higher quality fits for special feeds and gives lots of opportunities in food applications. The results obtained with the new method show that the concentration of undesirable substances is lower than with the conventional coagulation methods. Undesirable substances are glycoalkaloids which potato is producing. They cause bitter taste and you can find them e.g. in greenish potatoes.

After protein separation the residue fruit juice is concentrated by evaporation and the concentrate is spread on the fields as fertilizer in spring before sowing. The concentrated fruit juice is also suitable for fertilization of specialty crops and there seems to be possibilities for use in greenhouses as well. The concentrated fruit juice has received the organic fertilizer approval.

The method, in part patented by University of Copenhagen, is not in use anywhere else and the University is not having any development processes of this method going on with others.

The investment totals 10,5 million €. For the investment has been awarded by the Ministry of Energy a grant of 2,49 million €. After the protein is separated the fruit juice will be concentrated by Adven Oy which is a Finnish energy sector specialist. The investment is mainly funded by the Länsi-Suomen Osuuspankki bank and as guarantors are acting Finnvera Oy and town of Kokemäki.

Investment has significant environmental impacts

With this investment the current type of spreading the fruit juice as a fertilizer on fields in the fall will end. It will be replaced by the spring fertilizing with concentrated fruit juice. The total amount will be only about 10% of the current and the traffic will be reduced significantly. Also the discomfort of the fruit juice smell which occasionally has been occurred will be reduced.

The energy comes from the heating plant owned by town of Kokemäki

Kokemäen Lämpö Oy has built a domestic fuel-based heating plant next to Finnamyyl Oy's factory. The boiler plant was running first time during 2014 campaign providing energy already for starch drying. Later it will provide energy also for protein separation plant. Bioenergy was already replacing propane.

The demand for plant protein

Finland and the whole of Europe is an underproduction area of plant protein. The development of protein production is researched extensively. Use for feed is probably the biggest at first, but also in the food sector can be seen a significant opportunity.