"A Greener Agriculture for a Bluer Baltic Sea - Visions for Nutrient Management"

The conference „A Greener Agriculture for a Bluer Baltic Sea – Visions for Nutrient Managment“ , co-organised by members of CIEC, took place in Helsinki from 26-28 August 2013 and was.

Within the framework of the conference, the conference members visited the Bosgård Farm, an ecological farm keeping Charolais cattle for meat production. The farm is situated in the Pikku-Pernajalahti Nature Reserve and classified as „Europe’s High Nature Value Farmland“ (Figure 1).

Figure 1 Charolais cattle on a pasture of Bosgård Farm near Porvoo

The forest belonging to the farm is also used economically. In contrast to the clearcut method common in most of Finland, this farm practices continuous cover forestry, which allows to always retain a large number of niches and habitats for many wild animals and rare bird species.

Figure 2 Historical farm building at Bosgård Farm

The farm has opened doors for visitors who may take part in guided nature walks, musical events, educational talks or cooking classes in the historical farm buildings (Figure 2).

Figure 3 Cristian Hera, Honorary President of CIEC

Among the audience of the two-day conference was Honorary President of CIEC, Prof. Cristian Hera from Bucharest, Romania (Figure 3), who listened together with the other 250 participants to speakers from politics, science and practical farming presenting their analyses, perspectives and future visions for agriculture in the Baltic countries. Even in 2013, i.e. 6 years after implementation of the Baltic Sea Action Plan, eutrophication is still the main problem of the Baltic Sea, and agriculture the main source of diffuse nutrient inputs. During the time period of 2008-2010, a reduction of total P inputs by 10% and total N inputs by 9% was achieved. Until 2021, however, a further reduction by 24% for P and 46% for N is aimed at. EU offers a number of legal instruments to promote an environmentally friendly and sustainable agriculture such as the Nitrate Directive, the Water Framework Directive and the whole set of marine legislation. Based on these, a number of funding programmes have been set up. The main topics to focus on at EU level are soil protection and spatial management (e.g. buffer strips) for so-called „low intensity"-farms, and the advancement of precision farming equipment, which is now largely available and quite cost effective, for „high intensity" farms. Besides individual measures on farm level and the promotion of innovative ideas, scientists emphasize the need for systematic changes in food production. This includes a more efficient recycling of nutrients, reduction of nutrient losses associated with fertilization, breeding and selection of more nutrient efficient crop varieties and the reduction of meat, egg and dairy consumption. The challenge for the future is seen in feeding a world population of around 9 Billion people in 2050 while keeping the waste of resources at bay. An important prerequisite for this will be the development of a global strategy for the sustainable use of mineral and organic fertilizers, which can put an end to the current waste of nutrients worldwide.

In three parallel sessions named „Making the most of manure", „Closing nutrient cycles" and „Slow the flow to the sea", speakers and participants discussed environmentally friendly techniques on farm level and recommendations for politics and society. The session „Closing nutrient cycles" allowed speakers to present their results from a number of research projects which were funded in the frame of the EU Baltic Sea Region Programme. For example, Silvia Haneklaus (senior scientist at the JKI Braunschweig and Secretary General of CIEC) (Figure 4) reported on a crucial management strategy for the efficient and loss-minimizing use of fertilizer nutrients which takes into account the spatial variation of soil nutrient supply: site-specific fertilization. Her focus was on the sustainable use of organic farmyard manures, which was investigated in the EU-project „Baltic Manure".

Figure 4 Silvia Haneklaus discussing site-specific fertilization

JKI-scientist Judith Schick (Figure 5) gave a lecture on nutrient recycling from organic wastes such as manure, sewage sludge and meat and bone meal. She demonstrated the existing potential of these materials and stressed that the use of low-polluting recycling fertilizers should be supported more strongly by politics and legislation. Schick

Figure 5 Judith Schick talking about nutrient recycling from organic wastes

recommended to speed up the process of establishing limit values for Cd and other environmentally relevant heavy metals in the EU fertilizer regulation, to introduce mandatory mixing of recycled P with rock phosphates for the fertilizer industry, to impose charges or taxes on Cd and U in mineral P fertilizers (which has been done in Sweden for a couple of years with great success) and to further support the development and improvment of P recovery technologies.

Figure 6 Ewald Schnug describes his impressions from the conference

The conference ended with a plenary discussion and some personal statements. Ewald Schnug (Figure 6), head of the JKI-Institute for Crop and Soil Science and President of CIEC described his impressions from the conference, emphasizing that the aspect of sustainability should always be kept in mind. As he put it, „we have it all: knowledge, skills, technology, solutions and the will to act – what we lack is some pressure from politics“. There was broad agreement that it was about time to take action for all countries, but that this must be a joint and coordinated action shared by all Baltic countries together.

A conference report will be available soon on the following websites:

www.balticcompass.org

www.balticdeal.eu

www.balticmanure.eu

Photographs for figures 1-6 by Ewald Schnug