# Sustainable use of plant genetic resources - Submission from Norway

The resolution 7/2013 of the 5th session of the Governing Body of the ITPGRFA invites Contracting Parties to report on activities related to sustainable use of PGRFA. Norway hereby submits information about a selection of activities.

## **Plant breeding**

Graminor AS, the only breeding company in Norway is owned by the farmers' co-operative Felleskjøpet Agri 36.7 %, The Ministry of Agriculture and Food 34 %, the Swedish company Lantmännen 15.1 %, and the farmers' co-operatives Strand Unikorn 9.4 % and Gartnerhallen 4.8 %. In Norway commercial agriculture is carried out farther north than in any other country. A short growing season with low temperatures, great variations in daylight and challenging winters give few other countries similar growing conditions to ours. Plant varieties adapted to our northern conditions are essential for efficient and profitable food production in all parts of the country. The main research and breeding programs are in barley, oats, rye and wheat. Graminor also delivers breeding services in forage grasses, potatoes, fruits and berries as set out in the Annual Agricultural Agreement between the Government and the farmers' unions. The purpose is to increase cost-efficiency and profitability in these productions. The license fees are insufficient to cover the development costs of these crops, which are essential to farming and food production in all parts of the country.

#### Public-private partnership for pre-breeding

The Nordic Public Private Partnership (PPP) for Pre-breeding was funded jointly by the Nordic countries and participating breeding companies and institutions in2011. The purpose of the PPP was to support the development of Nordic plant breeding satisfying the long-term needs of the agricultural and horticultural industries, specifically regarding adaptation to climate change; targets for environmental policies; and demands from consumers, markets, etc. The project included three crops: apple, barley and ryegrass, and the main activities of the project are to broaden and enhance the breeding populations of these crops through the use of a wider range of plant genetic material from gene banks and other sources. After a favourable evaluation in 2013, the Nordic Council of Ministers decided in June 2014 to prolong the project until 2017. Norwegian partners in the project are the Norwegian Ministry of Agriculture and Food and Graminor AS. The results of the project are highly appreciated since they are the outcome of the joint forces both across borders and among institutions. It is unlikely that a single company or single public institution would be able to invest in such projects on their own.

## **Organic plant breeding**

There are two Norwegian partners to the European project "Coordinating Organic Plant Breeding Activities for Diversity" (COBRA) <sup>2</sup>. COBRA aims to support and develop organic plant breeding and seed production with a focus on increasing the use and potential of plant material with High genetic Diversity (*Hi-D*) in cereals (wheat and barley) and grain legumes (pea and faba bean) through coordinating, linking and expanding existing breeding and research. In addition to a research institution (Bioforsk Økologisk), the other Norwegian partner, Oikos – Organic Norway, is the national movement of organic producers and consumers in Norway, thus ensuring the participation of farmers in the research process.

<sup>1</sup> http://www.nordgen.org/index.php/en/content/view/full/1907

<sup>&</sup>lt;sup>2</sup> http://www.cobra-div.eu/

#### Release of farmers' varieties

In 2010, Norway adjusted its seed regulation to be more accommodative to the approval and use of traditional varieties. E.g. the general DUS-criteria are applied in a less restrictive way and the registration fees for such varieties are reduced. While the fee for value testing and registration of ordinary varieties are 12.790 NOK, the fees for registration of conservation varieties are currently 695 NOK.<sup>3</sup> Some remaining challenges are linked to definition of "region of origin", the quantity limitation for marketing traditional varieties and the possibilities for further develop so-called conservation varieties for cereals and forages. As of August 2014, 9 conservation varieties are approved: 3 potatoes, 1 rye, 1 barley and 4 wheat varieties.

The Norwegian Genetic Resource Centre has also set up a seed bank for old potato varieties, which provides access to seed potatoes of more than 60 varieties.<sup>4</sup> These varieties are not accessible to farmers from NordGen due to plant health restrictions.

The Centre is also securing the availability of traditional cereal varieties for farmers and other users through the set-up of a 'cereal users gene bank' which can provide seed material of about 40 varieties in portions more adapted to the farmers needs than small gene bank portions. The users gene bank is managed in cooperation with the Norwegian extension service and a network of farmers.

## Access of all farmers to PGRFA in the Multilateral System

The Nordic Genetic Resource Centre (NordGen) is the gene bank maintaining germplasm of Nordic origin as well as material relevant for the Nordic region. NordGen is under common Nordic control and management. The seed material stored at NordGen is available upon request for plant breeders, plant researchers, museums and other bona fide users. Germplasm is available in small quantities for research, breeding, conservation or similar purposes.

NordGen serves the scientific community, but does also honour reasonable requests from individuals when resources permit and the requester has a serious interest in seed saving and maintaining old or rare varieties. Individuals who are primarily looking for seeds in general for gardening instead of specific plant genetic resources, are kindly asked to use other sources, such as commercial seed suppliers.<sup>5</sup>

#### More information

See also Norway's submission on Farmers' Rights.

<sup>&</sup>lt;sup>3</sup> http://www.mattilsynet.no/planter og dyrking/plantesorter/godkjenning/#gebyrer

<sup>4</sup> http://www.skogoglandskap.no/nyheter/2011/potetgenbanken

<sup>&</sup>lt;sup>5</sup> http://www.nordgen.org/index.php/en/content/view/full/1777