



# Vegetables and herbs from the Nordic region

## CROP WILD RELATIVES IN THE GENE BANK

Nordic Genetic Resource Center (NordGen) is working on conservation and use of genetic resources. Of vegetables, the genebank has 90 accessions of wild chive, 80 of wild lettuce, 70 of wild caraway, 30 of wild angelica and 20 of wild carrot. One reason for keeping crop wild relatives ex situ is to facilitate use. The material is available for breeding and research (and other user groups).

## VEGETABLE LANDRACES IN THE GENE BANK

Herbs and vegetables have been cultivated in the Nordic countries for thousands of years. What is preserved is only a small portion of the original diversity. Of landraces, there are 300 pea, 60 bean, and 50 turnip/swede accessions, and a few accessions of faba bean, caraway, angelica and others. Recently NordGen has made inventories at medieval cultural places (churches, monasteries, castles, fortresses, manors and old villages). So far we have collected more than 300 accessions from such places. These are not landraces per definition, but the material is most likely not wild, but semi-wild and naturalized from earlier (medieval) cultivation.

## MATERIAL IN THE FIELD AT NIAB INNOVATION FARM

### Caraway from Iceland

Caraway (*Carum carvi*) is used primarily as a spice in bread, cheese and aquavit. Caraway grows wild, but could also be semi-wild naturalized populations from earlier cultivations. For example the introduction of caraway to Iceland is known to have occurred in the mid-17th century by Gísli Magnússon (1621-1696) who settled in Hlíðarendi in the south of Iceland, and allegedly brought seeds from Denmark or the Netherlands. In Hlíðarendi, caraway can still be found growing in the meadows and has recently been collected and conserved as accession NGB20109 Visi Gísli.

### Salsify from Hammershus fortress ruin

Salsify (*Tragopogon porrifolius*) has been collected at the medieval fortress ruin of Hammershus in Bornholm, Denmark (accession number NGB21801). The fortress was built in the 13<sup>th</sup> and 14<sup>th</sup> century, was demolished around 1750, and is now a ruin and a tourist attraction. Salsify was most likely introduced for cultivation and has survived as a cultural relict population on the site. Inventories have identified 39 other species at the fortress that might be from earlier cultivation. The genebank has collected 14 of these, and as a back-up of an in situ conservation project that has been initiated at the location.

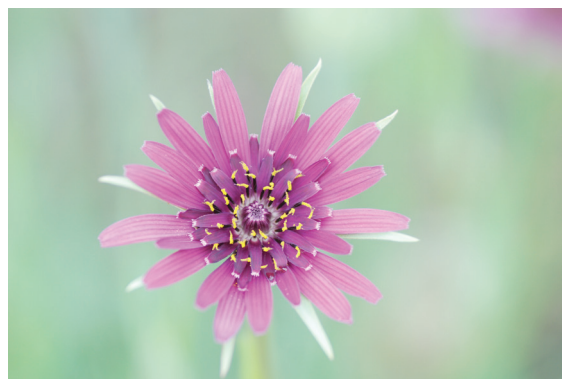


Figure 1. Salisfy (*Tragopogon porrifolius*) has been collected at the medieval fortress ruin of Hammershus on Bornholm, Denmark (accession number NGB21801).



Figure 2. Wild angelica (*Angelica archangelica*) captured at a collecting mission in southern Iceland in 2008. The accession is stored in the gene bank NordGen (NGB20092, Seljalandsfoss).

## Angelica – wild and landrace

Angelica grows wild and semi-wild in the Nordic and Arctic regions. The sagas tell that this plant was brought to new places by the Vikings. Roots, stems, seeds and leaves were used, both as food and as medicine. A local variety/landrace called 'Vossakvann' is known from Voss in western Norway. This has solid petioles which are different from other angelicas. The history is unknown, but most likely 'Vossakvann' is a result of farmers' selection during cultivation. Today, this variety is conserved by the national programme for plant genetic resources in Norway. The plants are conserved on-farm in different populations. One challenge is seed dormancy and storability. NordGen has seed collections of wild angelica, but we see big challenges in long-term conservation of angelica in seed banks.

## Wild carrot

Wild carrot is quite common in the coastal areas of Europe. The ECPGR Umbellifer working group has a project on wild carrot. The project includes characterization and evaluation studies, amongst these a study on resistance to *Alternaria dauci* (carried out by Julius Kühn-Institut in Germany).



Collecting mission at a monastery in Denmark

## WEB LINKS

NordGen: <http://www.nordgen.org/>

NordGen's database SESTO: <http://sesto.nordgen.org/sesto>



## PROJECT PARTNERS

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