

A lush garden scene with a light blue building, trees, and various plants. The scene is filled with greenery, including tall grasses, a large bush, and several trees. The building is partially visible on the left side, with a window and a dark pipe. The overall atmosphere is bright and natural.

POM

THE PROGRAMME FOR DIVERSITY
OF CULTIVATED PLANTS



Photo: Bildarkivet/Bohusläns museum

Why should we conserve cultivated plants?

Humans have been cultivating plants and developing garden and agricultural systems for more than 10 000 years. Several species have gradually been adapted to meet people's needs. They have become domesticated. When plants became so called cultivated plants, they lost the characteristics which made them specially adapted to their natural environment. With the help of humans they have instead developed other characteristics. They have contributed to people being able to live in permanent settlements, sustain a larger population and develop art, craft and technical skills. Most of the plants cultivated today have their origins in other countries or regions. Sweden's climate places special requirements on our cultivated plants. They need to be very hardy to survive the cold winters and short, often cool summers. Species and varieties which are adapted to our climate are, generally speaking, a result of a long period of cultivation and selection. Current changes to the world's climate will place new demands on climate adaptation and resilience to pests. Therefore, the genetic diversity of our cultivated plants is an important heritage to maintain.



What is CBM?

The Swedish Biodiversity Centre, CBM, was established 1994 and is a national collaborating unit with the Swedish Agricultural University and Uppsala University as principle leading institutions. CBM's mandate is to initiate and stimulate research on both domesticated and wild biodiversity, as well to work with education and information dissemination. Conserving biodiversity is considered by many to be one of the most important issues for our future.

What is POM?

To insure the long-term survival and sustainable use of our cultivated plant resources, a national programme for cultivated plant diversity, abbreviated POM has been established. POM is intended to improve the co-ordination and management of cultivated plants. The programme was initiated 1998 by the Ministry of Agriculture in consultation with authorities, organisations, the private sector and non-profit organisations active on the issues. The Swedish Biodiversity Centre, CBM has had the responsibility to co-ordinate POM's various activities since 2000. If you have questions concerning the programme or cultivated plants, please contact POM's co-ordinators or project leaders, or visit the website www.pom.info for the most current information.

POM is intended to be an adaptive tool for creating an intelligent and sustainable way to conserve and utilise the plant riches of Sweden. Each of us, be it as researchers, plant breeders, growers or consumers, has a large and shared responsibility in the preservation of these resources and keeping the Swedish cultivated heritage alive.

We are surveying until 2011

POM's nation wide survey has been rolling for six years now. We have two years left to finish the work! The task is to find, collect and conserve unique plants of interest that can be of value for Sweden in the future. The high diversity of garden plants continues to be the main focus, but we are also searching after park and landscape plants. POM not only intends to save the plants for the future but also the history and knowledge surrounding them. Perhaps you have a decorative plant or a fruit tree in cultivation or another old plant that has been saved for its special properties? Contact CBM or write to one of the calls for plants. You can find all the contact information on the back of this brochure.



POM's area of activities

- Collection of plants, description of these and various conservation methods
- Increasing the use of cultivated plants through cultivation and plant breeding
- Research on species relationship and genetic variation, development of new crops and how we can best conserve these plants for the future
- Education and information dissemination, and
- International collaboration

THE CALL FOR BULBS AND CORMS



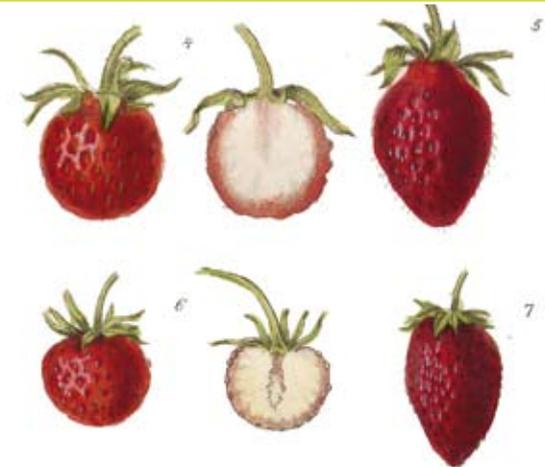
THE CALL FOR PERENNIALS



THE CALL FOR ASPARAGUS PLANTS



THE CALL FOR FRUITS AND BERRIES



THE CALL FOR TREES AND BUSHES



THE CALL FOR ROSES



The memories of childhood, uniquely Swedish tastes

We remember the gooseberries, currants, strawberries, wild strawberries and raspberries of our childhood. These are the flavours of the rich variety of berries that we are searching for to conserve. The goal is that those who come after us will be able to enjoy the same tasty berries.

Perhaps your grandmother has planted a peach pit, which today has grown into a fruit-bearing tree? If so, have you realised that it may be a new peach variety? We northerners enjoy southern fruits, but few of them can survive our climate. Tips about hardy varieties of peaches, apricots, grapes, almonds and quince are thus very valuable.

Older varieties of apple, pear, plum and cherries are abundant in Swedish gardens. Even though many varieties are already under conservation, new unique and cultivation-worthy local varieties are still being discovered, such as plums and cherries on their own roots. In the past it was common to dig up the shoots and spread them around the countryside. To conserve shoots of local varieties is an important good deed for our cultural heritage.



Photo: Inger Hjalmarsson

From bird cherry to lilac

Do you know the story of the lilac in your garden, when it was planted and where it came from? Maybe you know of an ancient tree that was planted by your great grandfather? Does any of your plants originate from a trip made by your grandmother sometime in the early 1900's? If this is the case, join the Call for Trees and Bushes!

During late 1800 and early 1900 there was a wealth of species and cultivars of trees and bushes in Swedish gardens. Aberrant forms and colours were particularly popular. Many of these are no longer sold by nurseries, but may still be around in parks or even in your garden.

We are currently looking for older and unusual cultivars of deutzia, golden bells (Forsythia), ornamental currant, mock orange (Philadelphus), spiraea and lilac as well as trees having a certain growth form or leaf colour. Exotic species of conifer such as Austrian pine and swamp cypress, among others, are also of interest to us. If you are aware of any unusual trees or bushes planted pre-1940, do get in touch with our call.



Photo: Katarina Wedelsback-Bladh

From castles to cottage gardens

The Call for Bulbs and Corms is searching all across Sweden for older varieties of crocuses, dahlias, lilies, pearl hyacinths, snowdrops and tulips. We want to find and document bulbs and corms that have been cultivated for at least 65 years, i.e. since before 1940.

Bulbs and corms have been grown in Sweden since the Middle Ages, and the first to arrive were likely daffodils and snowdrops. It was mainly castles, manors, large estates and botanical gardens that began to grow bulbs during the 1600's. Not until the 1800's did the general public start to grow them as ornamentals. We have established this from the tips we have received. Naturalised bulbs, left on their own, are commonly seen to spread with the years. They are mainly found on larger estates and associated parks but also near abandoned crofts.

Because Sweden is a large country we expect to find regional differences in the species and varieties of bulbs and corms. While tulips are often reported from the south region, letters from the northern parts frequently tell about fire lilies.



Photo: Karin Persson

Swedish perennial traditions

Peonies, daisies, violets and irises are examples of plants that we are searching for in our perennial call. The Call for Perennials began 2003 and is a nation-wide survey of ornamental perennials cultivated in Sweden prior to 1940. Before the second world war there was a multitude of species and varieties in cultivation and hundreds of varieties of e.g. Chinese peony, German iris and garden phlox available for sale. The perennials were spread by the nurseries and garden centres but also through friends, families and neighbours who exchanged and divided plants. Plants were both bred in Sweden and imported from abroad. Many of these old perennials are at risk of disappearing when old gardens are redone. It is difficult to replace the old varieties as most of them have not been available for sale for quite some time.

It is important to preserve perennials. The fact that they have survived this long demonstrates how well adapted they are to our climate. Additionally, there are many traditions, stories and local names associated with these plants. In the letters we have received to the Call for Perennials, we are told of a daylily planted in the 1930's to bring luck to a new built house, a garden phlox given away as a home warming gift in the 1920's and a cottage peony passed down the generations since the 1840's.



Photo: Linnea Oskarsson

The roses, a chapter of their own

Swedes seem to have a special relationship with roses. That is why POM has had a special project working with cultural roses since 2005. To be recognized, the rose must have a documented history from before 1950. POM is inventorying in cooperation with the Swedish Rose Society and many local and regional interest groups. Over one hundred trained surveyors form the foundation of the rose inventory and are active across all of Sweden.

Many of the roses have been lovingly cultivated over long periods of time in older gardens. Sometimes they have been spread to neighbours, friends and relatives, some to whole villages or widely around a district. In some cases they have survived in old abandoned gardens or as naturalised plants in a cultural landscape or roadside. Today many of them are threatened.

Such roses have both a rich cultural history to tell and a valuable genetic diversity to protect. They are long-lived, often undemanding and easy to grow.



Rose findings

So far, we have mostly found shrub roses and less commonly climbing roses or upright growing plants. We rarely find remontant roses. Most of the inventoried roses are species and varieties that belong to one of the following groups:

- Gallica
- Damascena
- Alba
- Centifolia
- Centifolia Muscosa
- Francofurtana
- Bourbon
- Rubiginosa
- Spinosissima
- Foetida
- Rugosa

Photo: Henrik Morin

The Call for Asparagus – not just asparagus

Many useful plants return faithfully year after year. In our Call for Asparagus we are looking for perennial vegetables that can be vegetatively divided and that we know with certainty are older than from 1950. In the garden literature from the mid 1800's, several of these are treated as "asparagus plants". The reason for this seems to be that they were all "blanched" by various cultivation techniques, i.e. the plants were protected from exposure to sunlight. The asparagus was cultivated in raised beds and the shoots harvested underneath the soil. Rhubarb, hop shoots, and seakale were kept under dark conditions to keep them delicate and tender and not bitter. The cardoon, a close relative of the artichoke, was forced with minimal light reaching the leaves, and so is also included in the asparagus group, as is garden angelica. We are also interested to know if you have artichoke, onion species, horseradish or herbal and medicinal plants.

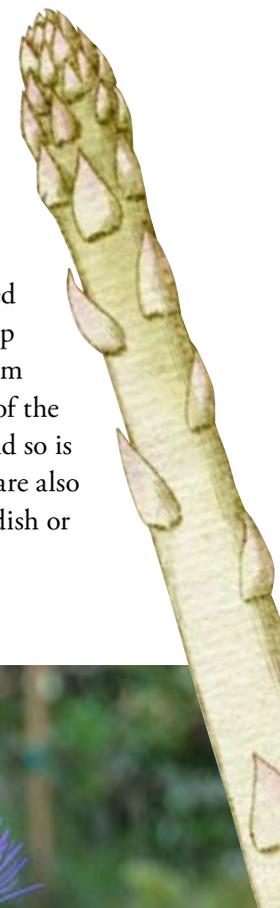


Photo: Eva Jansson

Come and show!

Many of us have nameless plants in our garden. Perhaps it has been in the family for generations, perhaps it was found at an abandoned property. But for some reason it is still under cultivation: a plentiful flowering or harvest, refreshing leaves, hardiness, an unusual appearance perhaps. And if the history of the plant is known then we in POM are very interested to hear about this plant.

Why not write a postcard or a letter to us? You will find the address to POM at the end of this brochure. Or get in touch with one of the over 500 surveyors who have completed our training courses and now are searching for plants in their home areas. You will find their contact information on our website www.pom.info.

We also arrange Come and Show Days in several places around the country each year, where you can come and show your plant. Occasionally POM's experts are able to identify them by name and they can certainly tell you if it is something unique and exciting. Perhaps we will collect it as a valuable addition to Sweden's national genebank. Visit our website to find the next Come and Show Day close to you.

Participants of POM

- The botanical gardens
- The Swedish Biodiversity Centre (CBM)
- Formas
- Open air museums
- The Swedish National Organisation of Leisure Gardening Societies (FOR)
- The Association of Swedish Growers (GRO)
- Non-profit garden groups
- The Board of Agriculture
- The Nordic Genetic Resource Centre NordGen
- The Swedish National Heritage Board
- Sida
- The Swedish University of Agricultural Sciences
- Plant breeding companies



Photos: Linnea Oskarsson

Selection for the national genebank

All plant material collected under the various POM projects is selected on the basis of a number of criteria. It can be a matter of physical characteristics which make them especially desirable for cultivation or otherwise unique, or a cultural or background story that merits that it is collected for evaluation. All collected plants are placed for the first few years in temporary storage where they are compared with other varieties and evaluated. Here we try to screen out the unique and eliminate duplicates. To accomplish this we use both physical characteristics and genetic analysis. Modern DNA techniques provide effective tools to see if two very similar type of plants are the same or different. The national genebank of the future will house the most valuable cultivated diversity.

Genetic analysis

DNA studies have helped to spread light on the genetic diversity of heritage plants. Several of the pea species which were collected have been shown to be genetically unique from any of the previously known pea varieties. Sweden's known pea diversity has instantly multiplied! Analyses have also shown that the roses 'Wraps Gunnarstorp' and 'Climbing American Beauty' are similar and perhaps even are the same variety, as are the apple varieties 'Spässerud' and 'Särsö'.

Illustration: Ingrid Henell

How do we conserve for the future?

The most valuable and unique of what is growing in our country is to be conserved for the future. The aim is to make the assortment available for everyone, whether they wish to cultivate, research or just enjoy the variation in plants. Beautiful and hardy bulb plants, perennials with cultural heritage value, plentifully flowering shrub roses and Swedish asparagus are examples of plant groups that in a few years will be preserved in a national genebank. The genebank will consist of both a central collection and a series of local collections, or clone archives, spread around the country housing duplicates of the material for added security.

This type of collection is already in place for older fruit varieties. The collections include so called mandate varieties that are varieties of Swedish origin as well as foreign varieties with a very long tradition of cultivation in the country. The clone archives will be offered host other plant groups as well, depending on their interest and expertise. Those accepting responsibility for the collections must be knowledgeable and prepared to take on the task for many years to come.



Photo: Eva Jansson

How can I get hold of these old varieties?

POM's first inventory project, the Call for Seeds, focused on collecting and documenting traditional herb and vegetable plants. All living material has now been handed over to the Nordic Genetic Resource Centre NordGen in Alnarp. The general public can request small seed samples to grow and propagate further. You can find the address to NordGen on the back of this brochure. Research material of vegetative plant types will be available in the future, at minimal cost from the national genebank. Distribution of plant material is planned to commence in 2011. There will be the possibility for nurseries to propagate and sell plants from the national genebank. This will allow unique Swedish plants to be grown in many places around the country and thus we can protect them even better.

Signe's tasty beans

Several of the varieties collected under the Call for Seeds are certainly desirable and worthy to be spread to a wider population. Taste samples are sometimes available for those who cannot wait for the opportunity to grow the seeds themselves. The restaurant Frantzén-Lindeberg in Stockholm occasionally has the bean 'Signe' and potato onion 'Åby' on the menu.

Signe Andersson lived in the early 1900's in a cottage in Åby in Ramdala, Blekinge. In her home garden she grew beans and potato onions among many other vegetables. When Signe's daughter, Johanna got married in the 1930's, starter beans and onion seeds followed along and were planted in new ground in Mommelycke. Here they have continued to grow and now Signe's grandson cultivates and cares for the heritage crops. After the growing season of 2009, the variety 'Signe' will have increased to the extent that it is possible for local restaurants to offer the tasty, yellow bean.



Photo: Eva Jansson



Photos: Lena Nygård and private



A little background and history

In 1992, the United Nations held a global environmental meeting in Rio de Janeiro. It was not only about rain forests, endangered species and overfishing. The world's long-term food production was seriously questioned. How can we still have freedom to act in one hundred years without destroying the world's biological resources? Most of the world's countries reached a binding agreement to try to solve the problems.

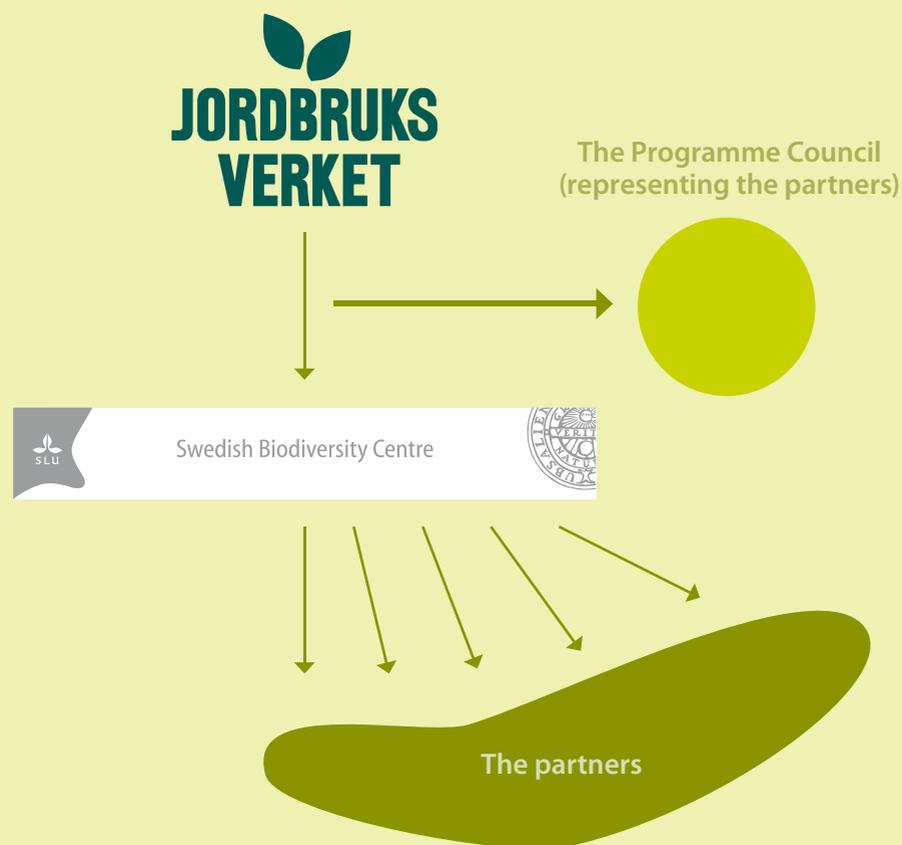
The Convention on biologic diversity (CBD) declares that all plants and animals, their genes, and the ecosystems they live in are to be conserved. Since we can not predict the needs of the future, this basically means that all life is to be conserved. It was decided that developing nations are to partake of the benefits that result when their biological diversity is utilised by other nations. Sweden ratified the Convention in 1993 and 191 nations have also ratified.

As a result of the convention, the UN's Food and Agriculture Organisation (FAO) investigated the current situation for the world's cultural plants. It was found that in many countries, the protection of cultivated plants is very poor, that there was not enough well functioning genebanks in the world, and that much more needed to be done within education, research and plant breeding. As a result, an ambitious plan was created to deal with these problems. A fundamental part of the plan is the creation of national programmes for domesticated diversity, which proclaim the goals and strategies of each nation to conserve and sustainably utilise their cultivated biodiversity.

FAO regularly follows up the progress. Economically strong countries have had an easier time than economically struggling countries to implement their national programmes. In the spring of 2003, POM organised a conference on European national programmes. It revealed that we have much to learn from one another, despite differences in economic constraints.

How can POM contribute?

Conservation of biodiversity, living heritage sites, benefits to the environment, improved food security, increased interest in gardening, increased cultural and garden tourism.



This is how POM is organized

The competent national authority responsible for POM is the Board of Agriculture (Jordbruksverket). The programme is being coordinated by the Swedish Biodiversity Centre (CBM) to which the associated 'Programme Council' – with partner representation – assists in guidance and strategic planning. Partners include national authorities, the Swedish University of Agricultural Sciences, NordGen, the plant breeding sector, some NGOs, botanical gardens, grower's associations, open-air museums, and many others.

Contact information POM

CBM, Box 57, 230 53 Alnarp,
Sweden

Eva Jansson, e-mail:
eva.jansson@cbm.slu.se

Jens Weibull, e-mail:
jens.weibull@cbm.slu.se

**Board of Agriculture
Agneta Börjesson, e-mail:**
agneta.borjesson@sjv.se

**More information about POM
can be found on-line at
[www.pom.info/english/
index.htm](http://www.pom.info/english/index.htm)**

Plant groups

Perennials
perennuppropet@pom.info

Roses
rosuppropet@pom.info

Bulbs and corms
lokochnoluppropet@pom.info

Fruits and berries
fruktochbaruppropet@pom.info

Trees and bushes
tradochbuskuppropet@pom.info

Asparagus plants
sparrisuppropet@pom.info

**NordGen conserves Nordic seed
of agriculture and garden plants:**
www.nordgen.org/ngb