

A woman with short reddish-brown hair and glasses, wearing a purple long-sleeved jacket and dark gloves, is actively pulling up a large clump of green and purple invasive plants. She is standing in a garden filled with similar vegetation. The background shows a dense thicket of trees and shrubs.

Helsinki

Instructions on combating harmful invasive alien species

Cultivators of allotment gardens,
community gardens and residents
of summer cottages

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The purpose of these instructions is to

- encourage the City's residents to stop growing harmful invasive species
- provide guidance on the appropriate waste management methods for plant waste
- inspire cultivators to help the City get rid of harmful invasive alien species.

Certain plants, categorised as harmful invasive species, have spread to Finnish nature.

These plants typically multiply quickly and spread efficiently. They have a significant number of negative impacts on the original species, for example due to competition for nutrients and light or water. Some of the harmful IS cause diseases and change habitat structures. Invasive species are governed by the national Act on Managing the Risk Caused by Alien Species (1709/2015) and the Government Decree on Invasive Alien Species of National Concern (1725/2015), which came into force on 1 January 2016, and the EU Regulation 1143/2014 on Invasive Alien Species.

Certain plants that have been popularly grown in backyards and

gardens in the past have thrived 'too' well. They can easily escape the boundaries of a garden or flowerbed into the surrounding nature. In addition to causing harm to a natural environment, they may also become a nuisance at an allotment.

More information is available at www.vieraslajit.fi/fi/content/welcome-invasive-alien-species-portal

Finland's National Strategy on Invasive Alien Species was completed in April 2012. The key idea in this strategy is that we must work together in order to prevent the harm and risks caused by invasive species to Finnish nature, to sustainable utilisation of natural resources, to businesses and to the wellbeing of society and people. The City of Helsinki has drawn up its own invasive species policy for 2015–2019. This policy was completed in 2015. It contains measures with

which the City will work to mitigate and reduce the harm caused by invasive species. **Himalayan balsam, giant hogweed, Sosnowsky's hogweed and Persian hogweed have been declared harmful invasive species within the entire EU, which is why their import, growing, selling, possession and release into the environment is prohibited.**

The Urban Environment Division has decided to stop using harmful invasive species in its own in park and street greenery projects, due to their detrimental effect. Furthermore, the City will eradicate particularly harmful plants from public spaces around the City.

Below is a list of the most common harmful invasive species that must be eradicated. More information on the species and prevention methods is available at www.vieraslajit.fi/fi/content/welcome-invasive-alien-species-portal

Hogweeds Extremely harmful

Several species of hogweed can be found in Finland, including giant hogweed (*Heracleum mantegazzianum*) and Persian hogweed (*Heracleum persicum*).

Originally brought over as a garden plant, the hogweed is a sturdy herbaceous perennial plant, whose sap causes allergic reactions when skin is exposed to sunlight. Hogweeds are biennial or perennial plants that grow 1.5–4 m tall. They have white, 15–



25 cm wide convex-shaped umbels. Hogweed seeds ripen in the autumn and fall down to the ground over the autumn and winter.

Preventing these plants from spreading requires a long-term commitment, because their root systems and seeds have long lifespans. The prevention work should be left to professionals, because the plants can cause severe burns to the skin.

Any hogweed sightings can be reported to the Urban Environment Division's Customer Services Department by calling +358 (0)9 310 22111.

Himalayan balsam Extremely harmful

(*Impatiens glandulifera*) is a large annual balsam, 100–200 cm in height, and is extremely competitive. It prefers areas that are wet or near water, and can also spread with the help of



The plant's flowers, seeds and roots must not be placed in compost, and instead should be disposed of as general waste. All other parts of these plants may be composted.

Rugosa rose **Extremely harmful**

The basic variety of the rugosa rose (*Rosa rugosa*) is a 0.5–1.5-metre bush with simple pink or white flowers. A large number of rugosa roses have been planted along roadsides. Because this species can tolerate salt, it has spread quickly to sandy seashores and the archipelago, where it covers large shore areas that used to have greater biodiversity. The rugosa rose spreads to the surrounding environment with its root sprouts, rose pomes and seeds

running water. It has spread to the environment from gardens and can quickly outgrow other plants. The Himalayan Balsam has white or pink flowers and **should be destroyed before it goes to seed**, because it can fling its seeds several metres. Mature seedpods will pop open at the slightest touch.

The Himalayan balsam can be easily removed from the ground or cut down several times during its growing season to eradicate it successfully. Even though its seeds cannot survive for more than a few years in the ground, the plant must be cut down for several consecutive years to permanently eradicate it.



that can float on water, as well as with the help of birds. The so-called basic variety of the rugosa rose grows and spreads particularly fast.

PLEASE NOTE! Several less harmful varieties of rugosa rose have been created, including compound-flowered varieties, which can be recommended as substitutes for the basic variety.

Eradicating rugosa roses takes time and effort. It is easiest to achieve while the bushes are still small. Smaller saplings can be pulled out of the ground by hand. However, removing bigger plants and their root systems requires sturdy gloves and tools.

Another method is wilting, in which all of the plant parts that are green and above ground are cut off and removed several times during the growing season, thereby killing the roots due to lack of nutrients. This prevention method also requires several years of hard work, but is the easier option and does not pose a risk of the rugosa rose accidentally spreading with the help of any root fragments. Eradicating this spe-

cies is particularly important on the coasts and in the archipelago!

Large-leaved lupine **Harmful**

In June, the large-leaved lupine (*Lupinus polyphyllus* Lindl.) turns the roadsides into an ocean of blue, red, white and purple flowers. It can no longer be completely stopped from spreading, but there are good grounds for trying to slow it down. Lupines threaten the original plants and insects of meadows and fields. In addition to this, they fix the nitrogen in the air, causing eutrophication of the soil. These fast growing species thrive in rich soil, pushing out meadow plants and the insects that live on them.

The perennial lupine has a vertical rhizome, and luckily it does not spread vegetatively with runners. If an area only has a few lupines, it pays to make the effort to dig them up with their roots. Large areas covered by lupines can be shrunk by cutting down the plants before they bloom. The resulting plant waste must always be cleared away in or-

der to avoid excessive soil eutrophication. The eradication work must be continued for several years, because the seeds collected in the soil can germinate and produce new lupines even after a long while.

Knotweeds

Harmful

Japanese knotweed (*Reynoutria japonica*), giant knotweed (*Reynoutria sachalinensis*) and their hybrid variety, Bohemian knotweed (*Reynoutria x bohemica*), have been popular garden perennials, because they are big and hardy, grow fast and spread easily. However, these same characteristics have made them very challenging and harmful weeds. Large knotweeds can easily take over a garden and the surrounding nature, killing off all other species.

All Asian knotweeds are large, 2–3 metres in size, and grow vertically. Their root systems are perennial, but the parts that grow above ground are annual.

Asian knotweeds typically multiply vegetatively in Finland and elsewhere in Europe. With its roots, the plant quickly forms thick and vast growths. Their thick rhizomes can grow by one metre every year, becoming up to 20 metres long and reaching as deep as two metres. The plant can even grow through asphalt. Therefore, even a fragile piece of root or branch can quickly produce new growth, which is why knotweeds can spread to new areas extremely easily with garden waste or soil, for example.

Eradicating knotweeds takes time and effort. It is easier while the plants are still small. The smaller seedlings can be pulled out of the soil with bare hands, but larger plants require sturdy gloves and tools. First, the growth is cut down with pruning shears, a clearing saw or a similar tool, to allow access to the roots. In order for the plant to be eradicated, all of its roots must be removed from the soil. A large growth requires the roots to be dug up with machines and the soil to be



removed from the site. Large knotweed growths in public green areas can be reported to the Urban Environment Division's Customer Services by calling +358 (0)9 310 22111. Soil that contains knotweed roots must be carefully disposed of. It must not be placed in compost or used elsewhere.

Goldenrods

Harmful

Goldenrods are herbaceous perennial plants that can grow to a height of over two metres. They have no branches below the flowers, which are yellow.

The most common of goldenrods is the large Canada goldenrod (*Solidago canadensis*), while the even taller late goldenrod (*Solidago altissima*) and giant goldenrod (*Solidago gigantea* ssp. *serotina*) are rarer. Some grass-leaved goldenrods (*Solidago graminifolia*) and hybrid goldenrods developed for gardens have also been spotted in Finland.

Fast growing goldenrods can thrive in a variety of habitats, such as next to roads and rail lines, fallow land, edges of forests and near bodies of water, robbing space from our native plants.

Goldenrods reproduce with seeds and vegetatively from pieces of roots. Goldenrods produce lots of seeds: a single shoot can produce more than 10,000 seeds equipped with flying hairs. These plants also have a very long lifespan. Goldenrods can easily be spread by accident. Their seeds end up in nature with garden waste, soil or water.

It can become extremely difficult to manage goldenrods, because their seeds can be carried for long distances by the wind.

Preventing extensive growth takes effort, because the plants' roots are strong. These plants have been successfully eradicated by cutting them down in both spring and autumn for several years in a row.

Handle your garden waste right – do not allow invasive species to spread by accident

Garden waste must not be discarded in nature, even though it is biodegradable. The seeds, roots, root fragments and stalks contained in the waste will remain alive and can spread to new locations. Many of the harmful invasive species have spread from gardens by hitching a ride in a wheelbarrow. Streams and ditches can also carry seeds long distances.

Waste disposal

The seeds of harmful species and other plant parts that are capable of multiplying should be carefully disposed of. In particular, **flowers, seeds or root fragments must not be placed in the compost.**

Small amounts of ‘hazardous waste’ from invasive species can be placed in general waste bins.

Parts that cannot multiply, such as stems and leaves, may be composted.

Get a group of people together and clear away invasive species!

For example, allotment cultivators can eradicate invasive species from their own allotments and the shared areas. If the eradication work is done in cooperation with the City, the Urban Environment Division will arrange for the removal of the resulting waste

If your group would like to take part in combating invasive species, contact

- the Urban Environment Division’s voluntary work coordinator, tel. +358 (0)9 310 39652, email puistokummit@hel.fi
- the Urban Environment Division’s Customer Services Department, www.hel.fi/kaupunkiymparisto/en/feedback/, or tel. +358 (0)9 310 22111.

We wish to thank you in advance for taking part in combating invasive species!

