

Questions and answers about plant pests, soil and other growing media:

Why has VKM done this risk assessment?

This assessment was carried out on behalf of the Norwegian Food Safety Authority and the Environment Agency. The purpose was to assess risks to Norwegian plant health from the import of plants with soil or other growing media from Europe (in practice the "growth lump" that sits around the root). Import of growth media can bring with it plant pests that can harm agriculture and natural ecosystems in Norway. VKM was asked to identify which growth media and plant types pose the greatest likelihood of introducing alien species, and how effective different risk-reducing measures are in preventing such introduction.

What is "soil and other growing media"?

Soil and other growing media are materials used to grow plants. Soil is natural mineral soil from the ground. Natural mineral soil is little used in commercial plant production, but other growing media include organic materials such as peat, compost and coconut fibers that provide nutrients to the plants. In this context, it is about the "lump" that sits around the root in the pot.

What are you afraid we can get in?

VKM is concerned that the import of plants with soil or other growing media from Europe can bring various plant pests to Norway. Some organisms can survive the transport and establish themselves in Norway, where they can do serious damage to crops and natural vegetation. These pests can include fungi, bacteria, nematodes and insects.

Why is it a problem- what damage can plant pests do?

Plant pests can do significant damage to Norwegian agriculture. They can reduce crops and lead to economic loss, damage forests, trees and shrubs, and increase the costs of pest control, including increased use of pesticides. The introduction of new plant pests can also lead to a loss of biodiversity. Negative effects of plant pests can be costly, long-lasting and require continuous monitoring and control measures to prevent spread and minimize damage.

Do we know plant pests that have been introduced with growth media?

Yes, we know some plant pests that have been introduced with growth media. An example is *Trichodorus hellalae*, a nematode that was introduced with hybrid yew (*Taxus media* "Hilli") from the Netherlands. This nematode led to extensive needle loss on plants in Oslo. *Paratrichodorus pachydermus* is another nematode that was introduced with English yew (*Taxus baccata*) in Bergen, also this imported from the Netherlands. A monitoring program conducted by NINA over the past 10 years has shown that large amounts of alien species are coming in with the import of plants with soil and growing media.

How much plants do we import?

Norway imports significant amounts of living plants every year. In recent years (2014-2022), import volumes have varied, with the highest volumes imported from the Netherlands, Germany, Denmark and Sweden. The Netherlands is by far the largest supplier of living plants to Norway, with almost half of the total volume (213,455 tons, 48.3 percent of total imports). The Norwegian import includes various types of plants, such as ornamental plants, perennials and fruit trees, with soil or other growing media. The large import volumes increase the risk of introducing plant pests to Norway, as soil and growing media can contain harmful organisms that can damage Norwegian plant health and ecosystems.

What is the “worst case” scenario?

In the worst case, the introduction of plant pests can lead to large economic losses in agriculture, damage to forestry and horticulture, and significant costs for control and control. Such introduction can also lead to a loss of biodiversity and damage to natural ecosystems.

Are there “worst growths”?

Yes, trees and shrubs with a long production time that are grown outdoors and imported with large soil lumps, as well as plants grown in natural soil, are most likely to bring new plant pests to Norway.

Does Norwegian legislation protect against plant pests that can follow the import of plants with growth media?

We have been asked to identify possible measures, and have, among other things, looked at the regulations. VKM risk assesses, and then it is up to the Norwegian Food Safety Authority and the Environment Agency to decide how to handle the risk.

Current Norwegian legislation contributes to reducing the likelihood that plant pests will follow the import of plants with growth media, but today's regulations are not sufficient. Today, the reception control of imported plants is largely based on visual inspection. This is often insufficient to detect many plant pests that can be small and hidden. Plants infected with various fungal diseases, viruses, nematodes and bacteria can also be symptom-free at inspection, making it difficult to detect these pests by visual inspection.

This is VKM's assessment, how to take them further, is up to others to answer.

This text has been translated with the help of Copilot. Apologies for any mistakes.