

Climate change in combination with opening borders in world trade – increasing threat to plant health in northern regions

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To this day climatic conditions have prevented the establishment of permanent populations of many disease and pest species in northern areas. Winters have been stable, rather cold without extremely warm periods. However climate is predicted to change in the future. In Nordic countries atmospheric CO₂ is assumed to increase, thermal growing season is prolonging and winters will be milder, but spring frosts and damages caused by waterlogging will rise. Although climate change brings many advances in horticultural production by giving possibilities for cultivation of new species and cultivars and by increasing yields, it will also increase the risk of immigration and overwintering of novel plant pests and diseases. New weeds may find new habitats and may restrict the natural flora and act as hosts for current and new pests. Thereby climate change will affect to whole cropping system and may cause new complex interactions between plants, pests and diseases.

Growth of global trade, travel and other exchange of plants have also increased the risk of spread of new plant pests and diseases to new areas especially inside the EU. All plant need certificate of plant healthiness and the shipments will be inspected by authorities when plant material arrives EU from other parts of the world. However plants are allowed to sell and transfer quite freely inside the EU. All plant shipments are not inspected and the true amount of harmful pests and diseases may be much higher than detected. In addition there may be variation on the inspection practices between EU countries. Fortunately diagnostic methods have been developed and identification of pests and pathogens is nowadays more reliable.

A national strategy of invasive alien species has been drafted since the beginning of 2008 in Finland. Invasive alien species are living organisms, animals, micro-organisms and plants, which spread by human action intentionally or unintentionally. Unintentional action means that species may be carried along for example with sawn timber, packing material or ships ballast water. The strategy of invasive alien species has been built by The Finnish Ministry of Agriculture and Forestry and over 100 Finnish authorities and scientific experts. Working group defined 157 harmful alien species which may cause environmental, economic or other damage in Finland. The majority, over 100 alien species are agricultural, horticultural and forestry species. The strategy will include proposals for legislation, for research needs and for concrete actions. The goal is by 2020 to create a system to control detrimental effects caused by alien species and also to prevent the arrival of alien species to Finland.