

Phytosanitary procedures
Procédures phytosanitaires

EPPO guidelines on the development of a Code of conduct on horticulture and invasive alien plants

Specific scope

This standard describes guidelines for the development of a Code of conduct on horticulture and invasive alien plants.

Specific approval

First approved in 2009–09.

Introduction

Invasive alien plants, both terrestrial and aquatic, are recognized worldwide as one of the major threats to biodiversity. In addition to altering the environment, invasive alien plants can have various adverse economic and social impacts, e.g. the reduction or loss of land value, reduction in the yield or quality of crops, damage to infrastructure and to human and animal health. The control and management of invasive alien plants cost EPPO countries millions of euros every year.

Numerous alien plants that have been, and are still being, introduced to Europe from other continents are beneficial and have not caused any problems. It is estimated that less than 1% of introduced species become invasive. Among those plants that have become invasive, almost 80% were introduced into Europe for horticultural, agricultural and forestry use. These voluntary introductions were made before the problem of invasive alien plants was identified. Invasive alien plants may escape from cultivation, on their own by ‘crossing the garden fence’ (e.g. *Cortaderia selloana* produces millions of seeds that can be spread by the wind over many kilometres), and through human activities, such as dumping of aquatic plants in rivers or inappropriate disposal of garden waste. The number of invasive alien plants may increase due to changing climate, land use change, the greater mobility of human populations, and the expansion and globalization of trade.

Code of conduct as a management measure

National Plant Protection Organizations (NPPOs) may have a responsibility for managing invasive alien plants or they may

have links to other authorities responsible for this issue. They may use a range of measures to address the problem.

Procedures are in place to perform Pest Risk Analyses for invasive alien plants posing a threat (EPPO, 2007). If a Pest Risk Analysis concludes that a plant poses an unacceptable risk, a decision has to be made whether to regulate the plant.

Regulations may be considered and a Code of conduct can prove an effective alternative or complementary approach. The Horticultural Code of Conduct initiative in the UK, as well as ‘Garden Wise’ in Washington State, and ‘Don’t plant a pest’ in California are examples of voluntary Codes of conduct (see Appendix 1 for references).

These Guidelines provide guidance to establish the ‘Code of conduct’ mentioned in the EPPO Standard PM 3/67 *Guidelines for the management for invasive alien plants or potentially invasive alien plants which are intended for import or have been intentionally imported*. A more detailed version of this Code of conduct has been published by the Council of Europe and is available at: http://www.coe.int/t/dg4/cultureheritage/conventions/bern/T-PVS/sc28_inftpvs02_en.pdf.

Audience and aims

These Guidelines are addressed to NPPOs to assist discussions with the horticultural industry in order to encourage them to develop and adopt a Code of conduct. The horticultural industry includes importers, traders, nurseries (including aquatic plant producers), garden centres, aquarists, landscape architects and managers of public or private areas (e.g. parks and recreational areas, erosion prevention areas).

A Code of conduct is voluntary: its aim is to enlist the cooperation of the horticultural industry and associated professionals to adopt good practices in (a) raising awareness of this topic among professionals, (b) preventing the spread of invasive alien species already present in Europe, and (c) preventing the introduction of possible new invasive alien plants into Europe.

The horticultural industry is likely to benefit from following a Code of conduct by presenting an 'environmentally friendly' image to the public, and may also benefit economically by selling non-invasive plants as substitutes.

How to develop and apply a Code of conduct

Preliminary steps

The national or regional conditions (climate, habitats, etc.) and the organization of trade and government in the area for which it will apply should be taken into account when developing a Code of conduct.

The establishment and implementation of a Code of conduct may be achieved through cooperation between NPPOs, the horticultural industry and conservation organizations. Successful implementation of a Code of conduct depends on the level of involvement and the level of participation of all those involved in the chain (from producer to user). It is essential that stakeholders agree which invasive alien plants are a threat and should no longer be traded, or alternatively agree to provide advice on the proper use of the species.

Some options for establishing a Code of conduct include:

- an agreement between the horticulture industry and the government by means of a covenant
- a voluntary approach by the horticulture industry endorsed by the government
- an initiative to include a Code of conduct into an existing industry programme.

Implementation

It is important that NPPOs promote Code of conduct initiatives within the industry and encourage public awareness.

NPPOs or other organisations should ensure that a Code of conduct is effectively implemented. A Code of conduct should be adapted to local circumstances. It could be implemented in different ways such as:

- governmental control and enforcement
- a certification framework (e.g. ISO)
- controls within the horticultural industry (e.g. control from the retailer to the producer)
- an arrangement with the NPPO in which the Code of conduct is overseen by bodies other than governmental organisations.

Main elements to be included in a Code of conduct

The following elements may be included in a Code of conduct:

Awareness

1. Be aware of species to which the Code of conduct applies

Alien species which may be invasive in your area and which you are (or intend to be) growing or trading should be identified (national lists should be consulted, as well as the EPPO prioritization table and other references as provided in Appendix 1).

When introducing new plant species, it should be ensured that the species does not have the potential to become invasive. Whether the species has already shown invasive behaviour elsewhere in the world should be checked, e.g. by consulting the Global Compendium of Weeds (Randall, 2002).

2. Identify exactly what you are growing and trading: ensure that material introduced into cultivation is correctly named

Misidentifications of horticultural plants occur. Available literature should be checked to ensure a correct identification, in particular for those cases where confusion with invasive alien species relevant for your area can occur.

3. Be aware of regulations, guidelines and recommendations concerning invasive alien plants

National and international regulations, guidelines and recommendations on importation, trade, and release and escape of invasive alien plants should be followed (see references provided in Appendix 1).

Collaboration

4. Encourage other stakeholders in the supply chain to commit to this Code of conduct

The code and your commitment to the code should be promoted to other professionals.

Action

5. Avoid further spread of invasive alien plants

If information is received that a plant species represents a threat, locally or nationally, you should voluntarily destroy existing stocks and no longer make them available for purchase, or at least you should provide advice on proper use and disposal.

6. Make substitutes for invasive alien plants available

Substitutes for invasive alien plants should be suggested and offered. These may be native species or other alien, but non-invasive species (see references in Appendix 1).

7. Be careful how you get rid of plant waste: disposal of unwanted stock of plants and waste containing plant material

Recommendations for the safe and effective disposal of waste and packaging materials should be followed and advice provided

to prevent the spread of terrestrial and aquatic plants (EPPO, 2006).

8. Follow good production practices to avoid unintentional introduction and spread

Good practice should be followed in order to avoid the unintentional introduction and spread of invasive alien plants in a nursery through newly imported plants. In particular, care should be taken in the use of soil and growing media, the use of machinery, tools and equipment, employee activities at the nursery, packaging and containers, and the production of aquatic plants. Staff should be appropriately trained in preventing the spread of invasive alien species (including botany and regulation).

Communication

9. Apply good practices for labelling

All species on sale should be clearly and accurately labelled with the correct scientific name, (genus, species) and, where appropriate, variety or cultivar, as well as the common name in order to avoid confusion. For all invasive or potentially invasive alien plants that are traded, details of their origin, invasive behaviour, habitats at risk from invasion, as well as management techniques if helpful should be provided. Examples are provided in Appendix 2.

10. Engage in publicity and outreach activities

The commitment of the horticultural industry to a Code of conduct gives an 'ecological friendly' image to consumers and to the general public. Positive actions on invasive alien plants should be promoted, brochures, leaflets and posters should be provided presenting the risks posed by invasive alien plants to your customers, and explaining what they can do to manage this problem. References are provided in Appendix 1.

Appendix 1 - References

For any additional information, a longer version of this Code of conduct has been published by the Council of Europe and is available at: http://www.coe.int/t/dg4/cultureheritage/Conventions/Bern/GoE_IAS/7953-E_%20Code%20on%20Horticulture-%20rev_JB.pdf.

The references are classified according to the points presented in the guidelines on the development of a Code of conduct on horticulture and invasive alien plants. The list of references is only indicative rather than exhaustive. All websites were consulted in April 2009.

Introduction

EPPO (2007) Decision-support scheme for quarantine pests. EPPO Standard PM 5/3 (3). <http://archives.eppo.org/EPPOStandards/pr.htm>.

EPPO (2006) EPPO Standard PM 3/67 Guidelines for the management of invasive alien plants or potentially invasive alien

plants which are intended for import or have been intentionally imported. *Bulletin OEPP/EPPO Bulletin* 36, 417–418.

1. Identification of species to which the Code of conduct applies

EPPO Website: <http://www.eppo.org/>.

Weber E (2003) Invasive plant species of the world. A reference guide to environmental weeds. CABI Publishing, Wallingford (GB).

Randall RP (2002) A global compendium of weeds. Shannon Books, Melbourne, Victoria (AU). 905 p. <http://www.hear.org/gcw/>.

3. Be aware of regulations, guidelines and recommendations concerning invasive alien plants

CBD obligations concerning imports that affect the horticultural industry

CBD (2002) Convention on Biological Diversity. COP Decision VI/23 (2002) Alien species that threaten ecosystems, habitats or species to which is annexed 'Guiding principles for the prevention, introduction and mitigation of impacts of alien species that threaten ecosystems, habitats or species' <http://www.cbd.int>.

CBD recommendation on the possession and trade of IAS for the horticultural industry

CBD (2006) Convention on Biological Diversity. COP 8 Decision VIII/27 (2006) Alien species that threaten ecosystems, habitats or species (Article 8(h)): further consideration of gaps and inconsistencies in the international regulatory framework. <http://www.cbd.int/decisions/cop-08.shtml?m=COP-08&id=11041&lg=0>.

Plant Health Directive 2000/29

European Union (2000) Council Directive 2000/29/EC of 8 May 2000 on protective measures against the introduction into the Community of organisms harmful to plants or plant products and against their spread within the community. *Official Journal of the European Communities* L 169, 1–112 <http://ue.eu.int>.

Habitat Directive 92/43/EEC

Habitat Directive 92/43/EEC http://ec.europa.eu/environment/nature/nature_conservation/eu_nature_legislation/habitats_directive/index_en.htm.

EPPO Recommendations

EPPO (2006) EPPO Standard PM 3/67 Guidelines for the management of invasive alien plants or potentially invasive alien plants which are intended for import or have been intentionally imported. *Bulletin OEPP/EPPO Bulletin* 36, 417–418.

EPPO Lists and documents http://www.eppo.org/QUARANTINE/ias_plants.htm.

Additional reference Shine C (2007) Invasive species in an international context: IPPC, CBD, European Strategy on Invasive Alien Species and other legal instruments. *Bulletin OEPP/EPPO Bulletin* 37, 103–113.

6. Make substitutes for invasive alien plants available

Suggestions for alternative plants in the Mediterranean area

Agence Méditerranéenne de l'Environnement, Conservatoire Botanique National Méditerranéen de Porquerolles (2003) Plantes envahissantes de la région Méditerranéenne. Agence Méditerranéenne de l'Environnement. Agence Régionale Pour l'Environnement Provence-Alpes-Côte d'Azur. 48 pp. <http://www.ame-lr.org/plantesenvahissantes/>.

Suggestions for alternative aquatic plant species for oxygenating garden ponds

Plantlife website: <http://www.plantlife.org.uk/uk/plantlife-campaigning-change-invasive-plants.html>.

Suggestions for alternative aquatic plants:

Branquart E (2008) Halte à la prolifération des plantes aquatiques invasives (quelles espèces choisir pour l'aménagement des pièces d'eau et jardins aquatiques?), SPF Santé Publique, Sécurité de la Chaîne Alimentaire et Environnement, Bruxelles.

http://ias.biodiversity.be/ias/documents/def_nl.pdf.

http://ias.biodiversity.be/ias/documents/def_fr.pdf.

7. Be careful how you get rid of plant waste: disposal of unwanted stock of plants and waste containing plant material

EPPO (2006), EPPO Standard PM 3/66 Guidelines for the management of plant health risks of biowaste of plant origin. *Bulletin OEPP/EPPO Bulletin* **38**, 4–9.

10. Engage in publicity and outreach

Examples of Codes of Conducts

DEFRA Website – 'Helping to prevent the spread of invasive non-native species' – Horticultural code of practice <http://www.defra.gov.uk/wildlife-countryside/pdf/wildlife-manage/non-native/non-nativeecop.pdf>.

'Linking Ecology & Horticulture to Prevent Plant Invasions'. Proceedings of the Workshop at the Missouri Botanical Garden, St. Louis, Missouri (US), 1–4 December 2001 <http://www.centerforplantconservation.org/invasives/home.html>.

Examples of advisory material

The Global Invasive Alien Species Programme – Posters <http://www.gisp.org/publications/Brochures/index.asp>.

Washington Invasive Plants Coalition – Garden Wise brochure <http://www.invasivespeciescoalition.org/GardenPlants/>.

California Invasive Plant Council – 'Don't Plant a Pest (California)' brochures <http://www.cal-ipc.org/shop/index.php#brochures>.

Plant Right (California) <http://www.plantright.org/>.

Ornamental Aquatic Trade Association – 'Keep your pond plants in the garden' poster <http://www.ornamentalfish.org/aquanautconservation/invasiveplants.php>.

Invasive Species in Picardie <http://www.picardie.ecologie.gouv.fr/spip.php?article222>.

Appendix 2

Fig. 1 Examples of labelling:

<p><i>Rosa rugosa</i> (Rosaceae) Rugosa rose, Hedgehog rose</p> <p>Native to Eastern Asia, invasive in Northern and Central Europe.</p> <p>Ensure it does not escape from gardens.</p> <p>Do not plant in or near dunes, where it threatens other species of plants, as well as some animals (e.g. butterflies) and modifies the habitat.</p>
<p><i>Cabomba caroliniana</i> (Cabombaceae) Fish grass, Carolina fanwort</p> <p>Native to South America, invasive in Australia and Europe where it out competes native plants.</p> <p>Only use in aquariums, do not use outdoors. Do not dispose of any aquarium wastes into ponds or watercourses.</p>