

Draft appendix for criteria document

The following questions are based on the "Evaluation criteria for assessment of candidate species for inclusion on the National Pest Plant Accord", and are to guide the Technical Advisory Group (TAG) when assessing species proposed for inclusion on the National Pest Plant Accord list (NPPA list).

Why are species added to the NPPA?

Inclusion on the NPPA list is one way of managing the spread of invasive plants. It is an effective tool for managing the spread of invasive plants through the formal and informal horticultural trade.

Inclusion of a species on the NPPA list does not impose obligations on landholders or agencies to manage NPPA species, nor does it manage natural spread of plants. Therefore inclusion on the NPPA is most appropriate for species which have a relatively limited distribution in both cultivation and in the wild, and where the main means of spread for the species is deliberate. It is ineffective for managing species where the main means of spread is natural, especially those that are widespread.

There are costs associated with including species on the National Pest Plant Accord. Direct costs include publishing information on the website and booklet, training people in how to identify the plant, and inspections by regional councils. Indirect costs may include disposal of existing stock and future lost sales. In general, the more species included on the NPPA, the greater the administration cost for running the NPPA. The costs usually outweigh the benefits of inclusion for some types of species, including those that are absent from New Zealand, are unlikely to be spread in the horticultural trade or are widespread.

Note that a consideration of the cost-benefit ratio for including species on the NPPA is the responsibility of the Steering Group and not the TAG. However the TAG should include any information that they find on cost-benefit in their assessment.

Is the plant species present in NZ?

The NPPA focuses on species that are present in New Zealand. There is some potential benefit to including species that are not known to be in New Zealand on the NPPA list, but the priority of the NPPA is species already known to be present here. Species not known to be present can be recommended for Unwanted Organism status to MAF if technically justified but are not usually assessed as part of the NPPA process.

Has the plant species formed self-sustaining populations in New Zealand?

If the answer to this question is yes, state where the plant is known to have established and what the evidence is for this., e.g. maps, descriptions of habitats/sites where established.

Refer to section 2.1 of the evaluation criteria report for further information.

What potential does the species have to establish self-sustaining populations in NZ?

If the plant is not known to have formed self-sustaining populations in New Zealand, evidence is required to demonstrate that it has the potential to do so. This evidence is most likely to be based on its distribution and behavior overseas, in particular its in areas with similar habitats and climates to New Zealand, such as south-eastern Australia or upland areas in Hawaii. Information demonstrating weedy behaviour or occurrence as an alien is particularly relevant. Also useful is information on its ability to produce viable seeds or other propagules under New Zealand conditions.

Does the plant have the potential to cause adverse impacts?

What evidence is there that the plant is having, or has the potential to have, adverse impacts? This evidence may include information on the types of environments it grows in or the growth habit of the plant, as well as reports on impacts from New Zealand or overseas. Include comments on the types of values or sectors that are affected, for example conservation values, human health, pastoral farming, as well as the degree of impact.

Degree of impact can be difficult to measure and demonstrate, but information on the ability of the plant to form large colonies or populations may be useful.

Refer to section 2.2 of the evaluation criteria report for further information.

Results from weed risk assessment (WRA) tools.

There are various weed risk assessment tools available that give a numerical score for weeds. The Australian WRA, adapted for New Zealand (Williams 1996), can be used for all kinds of species and it considers economic, environmental and human health impacts, so this score should be obtained if possible. Where scores from other tools are available, for example the aquatic weed risk assessment tool (Champion and Clayton 2000) or the DOC weediness scores (Owen 1997), these should also be included.

Note that the Australian WRA model was developed as a screening tool for proposed new plant imports, and the scores cannot be used to place plants in order of invasiveness. Nor was it designed to prioritise established pests for management. There has been no scoring tool developed specifically for prioritising species for inclusion on the NPPA list. Therefore while scores from risk assessment tools give a useful indication of a plant's potential invasiveness, they cannot be used in isolation for prioritising a species for inclusion on the NPPA list.

Refer to section 3.1 of the evaluation criteria report for further information.

Is the plant species being deliberately distributed in New Zealand?

What evidence is there that the species has been, is, or has the potential to be, deliberately distributed through commercial or private avenues.

Include the number of listings that the species has in sources such as:

- Gaddum "The Plant Finder" (<http://www.plantfinder.co.nz/>) - listing to species and cultivar level
- NZ Nursery register online version (<http://www.nursery.net.nz/industry.asp>) – gives some indication of the number of growers growing a particular genus (useful only for those species where there are only a few species in the genus that are traded)
- NZ Nursery register printed copies (these registers go back some years and give historical information on genera that have been traded)
- Trade Me listings
- NZ nursery web sites

Other supporting information may include references in garden books, overseas information, personal observations and general comments on its potential appeal or value as a cultivated plant. Casual sale or distribution by amateurs should be considered.

Also include information on whether there are named cultivars reported for the species in the horticultural literature or catalogues, and whether the plants that are being deliberately distributed are largely the same as the invasive form, or are a variant of some sort e.g. different flower colour, variegated, named cultivars.

Refer to section 3.2.1 of the evaluation criteria report for further information.

What are the current and potential distributions in NZ?

The current known distribution of the plant should be compared to its potential distribution in New Zealand, the latter based on climate suitability and habitat availability. Include information on which regions it currently occurs in, which other regions it is likely to occur in, and the amount of potential habitat that exists. Evidence in the form of a map showing the species' current and potential distribution in New Zealand would be particularly helpful.

Where a species is widespread, being distributed widely and already occurs in many of the areas suitable for establishment, there is less benefit to including it on the NPPA list than if it is of limited distribution and/or not currently being sold but with the potential to occur much more widely. Therefore a species of more restricted distribution both in the wild and in cultivation is likely to be considered higher priority, particularly if it has a large potential distribution.

Refer to section 3.2.2 of the evaluation criteria report for further information.

How easy is the plant species to control?

Include information on:

- What physical/ chemical/ biological methods are available for killing the plant?
- How susceptible is it to control methods?
- How practical are the control methods in the environments the plant occurs or could occur in?
- Is it easy to find among other vegetation at all growth stages?

Refer to section 3.2.3 of the evaluation criteria report for further information.

Is the plant species currently subject to any other form of management?

The NPPA places restrictions only on the deliberate sale, propagation and distribution of plants. Where there are existing management programmes, inclusion in the NPPA list may support the management objectives of those other programmes.

Include information on whether the species is subject to National Interest Priority Responses (NIPR), is a Notifiable Organism (NO) or listed in a Regional Pest Management Strategy (RPMS). Information on other control programmes, such as DOC weed-led or site-led control, or management in council parks and reserves, should also be included.

Reasons in favour of including this species in the NPPA list.

Give a summary of how this species meets the criteria for an Unwanted Organism under the Biosecurity Act and how inclusion in the NPPA list supports management objectives for the species.

Refer to section 3.2 of the evaluation criteria report for further information.

Concerns about including this species in the NPPA list.

Give a summary of points which indicate reasons a plant species may not be included on the NPPA list, or any issues that may need to be resolved before a species can be listed.

Reasons against inclusion may include:

- It is a widespread species where natural spread is much more significant than any spread through deliberate sale, propagation and distribution.
- There is insufficient evidence for the plant's potential to establish in New Zealand or to have adverse impacts
- The plant is accidentally spread but unlikely to be deliberately spread
- No known method of reproducing, and vegetative parts unlikely to be carried elsewhere
- Cultural, religious or economic impacts.

Issues that need to be resolved include:

- Regulatory impacts. The regulatory impact of including a species has to be considered against the potential benefit of including a species on the NPPA list. This is a consideration for the Steering Group; however the TAG can supply information supporting it.
- Should the species be listed on the NPPA at species level, or should the listing exclude some forms of the species? (see for example *Calluna vulgaris*, where the species is included but certain cultivars are excluded, or *Zantedeschia aethiopica*, where the species is not included, but one cultivar is)
- Whether to list the plant at the generic level (this requires all species known from New Zealand to be assessed)

- Are there significant identification issues, such as very similar species or hybrids that should or shouldn't be included.

Any evidence that may aid the Steering Group in their decision in relation to the points listed above should be included here if it is not covered elsewhere.

TAG recommendation on whether inclusion in the NPPA list meets the management objectives for this species.

Categories are:

- A. Yes high priority;
- B. Yes medium priority;
- C. Yes low priority;
- D. No – does not meet management objectives for this species.
- E. No – insufficient information or unresolved issues, e.g. identification, cultivars. May be reconsidered later if more information becomes available.

References

Champion, P.D. and Clayton, J.S. (2000). 'Border Control for potential aquatic weeds. Stage 1. Weed risk model'. *Science for Conservation* 141.

Owen, S.-J. (1997). Ecological Weeds on Conservation Land in New Zealand: A Database. January 1997 Working Draft. Department of Conservation, Wellington.

Williams, P.A. (1996). A weed risk assessment model for screening plant imports into New Zealand. Landcare Research Contract Report: LC 9596/080.