

**Comment on *Quarantine and Biosecurity Review*
Future Farm Industries CRC**

April 2008



The Future Farm Industries CRC (FFI CRC) and its predecessor the CRC for Plant-Based Management of Dryland Salinity (CRC Salinity) have a special interest in minimising weed risk to natural ecosystems, resulting from the introduction of new perennial plants with the potential to transform the profitability and sustainability of Australian agriculture. To support this we need:

- A well resourced barrier weed risk assessment (WRA) system to screen the introduction of potentially useful exotic species. This system should:
 - Retain the current precautionary principles
 - Operate flexibly to include all potential sources of information
 - Be further developed to include the promised ‘Tier 3’ elements
- Adoption of a national approach to weed risk management that includes processes to accommodate plants not covered by a barrier quarantine system (already present but unassessed species and native plants moved to new agro-ecological zones)

The Future Farm Industries CRC is a research organisation focused on developing new and adaptable farming systems for Australia by creating new land-use systems which will make agriculture more productive, adaptable to climate variability and change, sustainable and diverse. To achieve this, significant research effort is focused on perennial plants because their deep-root systems have superior adaptation to variability in water supply and they can prevent water table rise or lower water tables in low-lying, saline areas. The suite of perennial plant options currently available in Australia are unlikely to fulfil all the needs of a changing Australian agricultural landscape, and so researchers are seeking and developing new species from both within and beyond Australia’s borders. For this reason our submission to the review

of Quarantine and Biosecurity is primarily focused on the import risk analyses for plant species new Australia.

The FFI CRC is strongly supportive of the need to have a well-resourced weed risk assessment process and of the underlying principles of current import risk analysis of plant species proposed for importation into Australia. Researchers in the FFI CRC have successfully collaborated with Biosecurity Australia (BA) staff to assess key species of interest for weed risk. For example, through this collaboration, the CRC was able to successfully present a case for permitting two varieties of a previously prohibited species (*Bituminaria bituminosa*). Early experimental results show that the effort in preparing this case was well founded, as the species is showing significant benefits and potential for integration into a profitable, perennial-based agricultural system. This collaborative effort with BA benefited both parties, and the outcome was a very thorough assessment using scientific literature and data from international collaborators that may otherwise have been difficult for BA assessors to locate.

The import risk analyses process as it stands has been demonstrably effective in maintaining Australia's allowable level of protection (ALOP) for new exotic plant species. However, there are inadequacies in managing the fate of species that fall into the current "further evaluate" category due to lack of information or a score of 1-6 on the weed risk assessment. Species in this category are effectively prohibited for importation until more information is gathered, and yet there is no established process or mechanism to do this. The original inclusion of a provision in the assessment process for a "third tier" was recognition that there would be circumstances that required another form of evaluation. The CRC has successfully gained permission to do further analysis of some species on a case-by-case basis, under strict quarantine conditions in a glasshouse, and we would encourage continued collaboration and flexibility to do this. However, there remains some question on the validity of glasshouse experiments compared to field-based experiments for some information types, and so future development or collaboration on acceptable field-based experimental protocols would be welcomed. Collection of this biophysical data requires flexibility to accommodate a range of plant types, growth requirements (e.g. specific rhizobia for legumes), and variability in existing knowledge base, whilst still operating under ALOP of low but not zero risk.

The WRA process also lacks the flexibility for the inclusion of Australian data in assessing weed risk for species that have already been grown in a limited number of experimental sites, but are now unassessed by BA due to the removal of whole genera from the Permitted Seeds List. We believe the inclusion of this data adds value and credibility to the assessment process, and should not be excluded on the basis that the system assumes the species has not yet been grown in Australia.

Biosecurity Australia and WAQIS assess weed risk using the same protocol, but we have identified a lack of consistency in the outcomes for some species. For example several species in the genus *Lotus*, are not permitted entry to Australia following a WRA by BA, but are permitted by WAQIS. While it is recognised that a federal assessment over-rides a state assessment, consistency between state and federal boundaries would decrease confusion for importers and the public.

There are also inadequacies in quarantine and biosecurity measures for species native to Australia, and species already present and naturalised without having undergone a weed risk assessment i.e. post-border. There is clear potential for Australian species to cause damage if they were to move or be moved beyond endemic or naturalised ranges. Drivers for such shifts might result from responses to climate change, increased popularity in horticulture or agriculture, or increased tourism etc. In recognition of this deficiency in formal arrangements, the FFI CRC has developed an internal weed risk management strategy where all species under investigation in the CRC's research programs that have not been assessed for weed risk by BA, are assessed for weed risk using a protocol developed by the CRC. Appropriate measures to reduce risk of spread from experimental sites are also under development.


In summary, the ability to work collaboratively with BA staff when completing weed risk assessments is a strength of the current system, and continued efforts to maintain clear communication between proponents and assessors is encouraged. We believe the lack of a clear pathway for achieving an outcome for the "further evaluate" species suggests there is room for improvement to meet the needs of importers, such as researchers looking to create sustainable, profitable agricultural systems that can adapt to changing climatic conditions. We also believe that increased flexibility in

data sources used in the assessments for the limited number of species that have been grown in Australia previously would enhance the validity of the outcomes. Post-border, the implied assumption that native species are not potential weeds is invalid, and further biosecurity measures that consider impacts beyond endemic ranges would further protect Australia from new weed incursions.

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