**Table 1: Factors to consider regarding the technical feasibility of EPP eradication**[[1]](#footnote-1)

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| **Technical feasibility of eradication criteria** | **Factors to be considered** *Note: not all factors listed may be relevant to the EPP or Incident and/or there may be additional factors to consider* | ***Supports* or is an *impediment* to successful eradication or is *unknown*** |
| 1. Aspects of the species biology that influence the ability to eradicate the EPP
 |
| * 1. Ability of the EPP to establish and spread
 | * Range of climate/environmental conditions EPP can survive/reproduce in
* Extent of natural (e.g. wind, rain, invertebrate vectors) and human assisted (e.g. people, equipment, machinery) pathways of spread
* Broad versus narrow host range (including alternate/weed hosts)
* Reproduction rate, infectivity/virulence
* Lifecycle/ability to rapidly reproduce/generate offspring, ability to infect at low inoculum load
 | e.g. supports successful eradication |
| * 1. Ability of the EPP to persist in the environment
 | * Persistence in soil, water, plant debris, vectors
* Dormant stage, latency period and/or asymptomatic infections
 |  |
| 1. The current circumstances of the Incident that influence the ability to eradicate the EPP
 |
| * 1. Suitability of current circumstances to establishment and spread
 | * Current EPP prevalence/inoculum load
* Likely time from introduction to initial detection
* Current extent of EPP distribution
* Suitability of climate/environmental conditions in the affected area to establishment and spread
* EPP likely to be present and persisting in soil, water, plant debris
* Extent of host distribution (how wide and densely distributed) in the affected area (including alternate/weed hosts)
* Presence and distribution of natural vectors in the affected area
 |  |
| * 1. Ability of quarantine and other measures to contain the EPP
 | * Infected Premises quarantined
* Pathways and risk mitigation measures known or can be determined
* Quarantine areas can be determined and implemented
 |  |
| 1. The ability to accurately diagnose the EPP
 | * Reliability of diagnostic method/protocol
* Sensitivity of diagnostic method/protocol (can detect EPP at low levels)
* Resolution of taxonomy
* Availability of diagnostic equipment/expertise
 |  |
| 1. The ability to find all sites in which the EPP may be present
 | * Detectability of the EPP (e.g. symptoms can be visualised or a variant form of an established pest can be easily differentiated)
* Reliability of surveillance methodology
* Sensitivity of surveillance methodology (e.g. detect at low expression/prevalence)
* Extent of host range (wide versus narrow host range)
* Extent of host distribution (density/abundance and how widely distributed)
* Ability to find and identify hosts
* Affected areas accessible
* Ability to successfully conduct trace-back and trace-forward investigations
* Pathways of movement/spread can be identified
* Ability to model natural spread pathways (e.g. wind, water, vector distribution)
 |  |
| 1. The presence of an effective control method that will remove or destroy all EPPs present
 |
| * 1. An effective control method is available/accessible
 | * Method effective at destroying/removing EPP
* Chemicals, traps etc available and accessible
* Control method has been used elsewhere to successfully eradicate
* Availability of resistant crop varieties
* Ability of EPP to rapidly develop resistance to chemicals/control
* Effectiveness of control method at low prevalence levels
 |  |
| * 1. Control method can be implemented to remove the EPP at a faster rate than it can propagate/spread
 | * Extent of infestation
* Extent of distribution and accessibility of hosts (including alternate/weed hosts
* Reproduction rate/virulence/infectivity
* Persistence of EPP in plant debris, soil and water
* Control effective during dormancy
* Limitations to timely manual removal of affected hosts
 |  |
| * 1. Whether there are control methods commonly employed for endemic pests and diseases, that may limit the establishment, spread and/or impact of the EPP
 | * Chemicals or cultural controls commonly in use in the affected area are likely to be effective at suppressing or controlling the EPP
* Extent to which establishment, spread and/or impact of the EPP may be limited through common use of control methods for endemic pests and diseases
 |  |
| 1. The likelihood of repeated introductions
 | * Ability to identify pathway of entry into Australia or out of a defined area of containment within Australia
* Whether likely pathway is regulated or non-regulated (e.g. entry through natural means)
* Effectiveness of controls in place to mitigate re-entry
 |  |
| 1. The recommended response strategy is acceptable to stakeholders and the general public
 | * Direct impacts on industry
* Flow on effects to allied /downstream industries
* Impacts on health, community and lifestyle (e.g. cultural and social impacts, amenity and landscape impacts) and public acceptability of control methods
* Environmental, non-target impacts
* Stakeholder consultation and support
 |  |
| 1. Any legislative impediments to undertaking an emergency response
 | * Impediments to use of control methods e.g. environmental impacts
* Ability to effectively apply legislation
* Ability to access properties/land
 |  |
| 1. The resources e.g. chemicals, personnel etc. required to undertake an emergency response are accessible or available
 | * Chemicals/traps etc. available
* Permits can be obtained
* Expertise available
* Work health and safety impediments
* Logistical impediments (e.g. sufficient personnel available/accessible)
 |  |

1. The *Technical feasibility of eradication criteria* are also available within Part 1 of PLANTPLAN. [↑](#footnote-ref-1)