**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)