Australian Centre for Disease Control

Security Sensitive Biological Agents Regulatory Scheme

SSBA – Guideline 7 –SSBAs in the natural environment

January 2026

Introduction

This guideline provides general information in regards to security sensitive biological agents (SSBAs) occurring in the natural environment. Please note that this is guidance material only, and is provided to assist in understanding the SSBA Regulatory Scheme.

SSBAs in the natural environment

Inadvertent possession of SSBAs, found naturally in the environment, is not intended to be reportable under the SSBA Regulatory Scheme. This includes the biological sources of toxins; for example, *Ricinis communis* (castor bean) which produces ricin or *Abrus precatorius* (rosary pea) which produces abrin. The exception to this is *Clostridium botulinum,* which produces botulinum toxin. *Clostridium botulinum* is listed as a Tier 2 SSBA.

Some SSBAs may be present naturally in the environment. For example:

- SSBAs infecting animals in the wild;
- *C. botulinum* and *Bacillus anthracis* may be found in soil; and
- Ricin and abrin are found in the seeds of certain plants.

Further information on toxins can be found in the guideline prepared by the Australian Federal Police – *Toxin Levels in Environmental and Clinical Samples*. You can request a copy of this guideline by emailing ssba@cdc.gov.au.

Inadvertent possession of an SSBA occurring naturally in the environment

The **inadvertent** possession of an SSBA that occurs naturally in the environment, such as in soil, water, animals or plants, will not be considered by the Australian Centre for Disease Control (CDC) as 'handling' the SSBA under the *National Health Security Act 2007* (NHS Act). Owners of property in which soil, water, plants or animals naturally contain SSBAs are not required to report to the Australian CDC if there is **no intention to deliberately cultivate or transfer** an SSBA.

Examples of inadvertent possession that do not constitute 'handling' an SSBA for the purposes of the NHS Act include:

- castor bean and rosary pea plants that are found growing wild on any publicly or privately owned property, or inadvertent possession of their seeds (although any attempt to extract ricin or abrin from these plants would constitute handling);
- soil samples that are found to contain *C. botulinum* or *B. anthracis,* including soil remaining on the property from which the contaminated soil was taken. However, any isolates of *C.botulinum* or *B. anthracis*, such as culture plates, broths or stored stocks, are considered to be SSBAs and must be reported to the Australian CDC and handled according to the appropriate SSBA Standards;
- the natural occurrence of *C. botulinum* or *B. anthracis* in wild or farmed animals on any publicly or privately owned property. The deliberate infection of an animal with an SSBA is considered handling and must be reported to the Australian CDC.

Information about the handling, treatment and disposal of animals infected with an SSBA is covered *Guideline 3 – Handling a Person or Animal, or Sample from a Person or Animal, Affected by an SSBA*.

Note: The owner of the infected animals must comply with any other national, state or territory legislation pertaining to animal pathogens.

Deliberate propagation or extraction of SSBAs from natural sources

The deliberate propagation of material containing an SSBA, or deliberate extraction of an SSBA from natural sources, is considered 'handling' as defined in the NHS Act and must be reported to the Australian CDC. Cultivation of plants, animals or micro-organisms for the purpose of producing, growing or multiplying an SSBA is also considered as handling.

Under certain circumstances, the deliberate transfer of a natural material known or suspected of containing an SSBA would also fall under the definition of handling an SSBA.

Examples of deliberate propagation or extraction that would constitute handling of an SSBA for the purposes of the NHS Act include, but are not limited to:

- cultivation of castor bean or rosary pea plants, or the collection of seeds from these plants growing in the wild, for the purposes of producing a toxin that is an SSBA;
- any attempt to extract toxin from castor beans or rosary peas;
- any attempt to isolate *B. anthracis* or *C. botulinum* from soil samples;
- the deliberate inoculation of animals or media with samples obtained from natural sources and containing SSBAs or suspected SSBAs, with the intent of propagating the organism;
- the transfer of animal carcasses known to be infected with an SSBA other than to a site for post mortem examination, burial or destruction.

Examples of deliberate propagation that would not constitute handling of an SSBA include:

- cultivation of castor bean or rosary pea plants for research purposes not related to toxin production.
- cultivation of rosary pea plants or collection of rosary pea seeds for artistic or cultural purposes.

If you are unsure if the agent would be considered an SSBA, please contact the SSBA Regulatory Scheme at ssba@cdc.gov.au.