

**DECLARATION FORM ON NOTHING TO DECLARE OR NOTHING NEW TO DECLARE FOR
USE IN THE INFORMATION EXCHANGE**

| Measure | Nothing to declare | Nothing new to declare |
|-----------------|--------------------------|-------------------------------------|
| A, part 1 | <input type="checkbox"/> | <input type="checkbox"/> |
| A, part 2 (i) | <input type="checkbox"/> | <input type="checkbox"/> |
| A, part 2 (ii) | <input type="checkbox"/> | <input type="checkbox"/> |
| A, part 2 (iii) | <input type="checkbox"/> | <input type="checkbox"/> |
| B (i) | <input type="checkbox"/> | <input type="checkbox"/> |
| B (ii) | <input type="checkbox"/> | <input type="checkbox"/> |
| C | <input type="checkbox"/> | <input type="checkbox"/> |
| D | <input type="checkbox"/> | <input type="checkbox"/> |
| E | <input type="checkbox"/> | <input type="checkbox"/> |
| F | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| G | <input type="checkbox"/> | <input type="checkbox"/> |

(Please mark the appropriate box(es) for each measure, with a tick.)

Date: [2 June 2006](#)

State Party to the Convention: [Australia](#)

Exchange of data on research centres and laboratories¹

Australia's submission regarding questions 1-7 of Form A, part 1 is at **Attachment 1.1 to 1.4**, below.

1. Name(s) of facility² _____
2. Responsible public or private organization or company _____

3. Location and postal address _____

4. Source(s) of financing of the reported activity, including indication if the activity is wholly or partly financed by the Ministry of Defence

5. Number of maximum containment units³ within the research centre and/or laboratory, with an indication of their respective size (m²)

6. If no maximum containment unit, indicate highest level of protection

7. Scope and general description of activities, including type(s) of micro-organisms and/or toxins as appropriate

¹The containment units which are fixed patient treatment modules, integrated with laboratories, should be identified separately.
²For facilities with maximum containment units participating in the national biological defence research and development programme, please fill in name of facility and mark "Declared in accordance with Form A, part 2 (iii)".
³In accordance with the 1983 WHO Laboratory Biosafety Manual, or equivalent

Exchange of data on research centres and laboratories

Background Information

Australia has three maximum containment units which meet the criteria for a “maximum containment laboratory” as specified in the 1983 WHO Laboratory Biosafety Manual.

They are:

- The Australian Animal Health Laboratory (**Attachment 1.2**)
- The National High Security Quarantine Laboratory (**Attachment 1.3**)
- The Queensland Health Scientific Services Virology Laboratory (**Attachment 1.4**)

Data on these facilities relating to questions 1 to 7 of Form A, Part 1 are provided below.

The National High Security Laboratory (NHSQL) operates under the auspices of the Victorian Infectious Diseases Reference Laboratory (VIDRL) in Melbourne. Additional maximum containment laboratory facilities are being established at VIDRL that will boost capability for responding to a terrorist attack involving bioagents. In addition, some Australian hospitals and university departments have lower level containment units where diagnostic and research work is conducted.

During April 2006, Australian Government agencies hosted briefing sessions for laboratory stakeholders on laboratory biosecurity. The briefing sessions were intended to raise awareness of issues surrounding security for laboratories handling high-risk pathogens and to facilitate communication between stakeholders and government on regulatory models that are being proposed to address gaps in Australia's current regulation on the storage, sale and handling of hazardous biological material. Two reports were provided: the ‘Laboratories Risk Context Statement’, which was developed following an Australian Security Intelligence Organisation (ASIO) sectoral threat assessment on Australian laboratories holding high-risk human pathogens. The Risk Context Statement is intended to be used by individual laboratory owners and operators to assist in identification of local risks taking into account of operational and environmental circumstances. In addition, the draft report of the ‘Council of Australian Governments’ (COAG) Review of Hazardous Biological Material’ which considers the security of biological agents that could be used as bioterrorist weapons against humans, animals and plants was provided for industry consultation.

The CSL facility declared in previous years does not meet PC4 requirements.

Exchange of data on research centres and laboratories**1. Name of facility**

Australian Animal Health Laboratory

2. Responsible public or private organisation/ company

Commonwealth Scientific and Industrial Research Organisation (Federal Government) and the Department of Agriculture, Fisheries and Forestry (Federal Government). Note: Australia has a two-tiered system of Government, with the Federal Government and, to a lesser extent, the six respective State Governments all involved in the formulation and implementation of Government policy.

3. Location and postal address

| Location | Postal address |
|---|--|
| 5 Port Arlington Road Geelong, Victoria AUSTRALIA | PO Bag 24 Geelong VIC 3220 AUSTRALIA |

4. Source(s) of financing of the reported activity, including indication if the activity is wholly or partly financed by the Ministry of Defence

This facility receives no funding from the Australian Government Department of Defence. The AAHL is funded by the Australian Government, via CSIRO and the Department of Agriculture, Fisheries and Forestry. It is also funded by industry organisations and commercial companies.

5. Number of maximum containment units within the research centre and/or laboratory, with an indication of their respective size (m2)

One maximum containment system and enclosure. Total floor space 11,000m², comprising three main parts: a large-animal accommodation area, total floor area about 3,500 m² made up of 29 rooms – each of these with a floor area of about 24 m² – and with a service area, incinerator, and autopsy area.

A laboratory complex of total floor area about 3,500 m² made up of three functional laboratory suites – each of these with a floor area of about 1,100 m² – and each comprised of six laboratories and four attached small-animal rooms. The laboratory suites are for diagnosis, pathology and virology. There are attached service areas.

A common support area for glass washing, tissue culture, laundry and other services.

6. If no maximum containment unit, indicate highest level of protection

N/A

Exchange of data on research centres and laboratories

7. Scope and general description of activities, including type(s) of micro-organisms and/or toxins as appropriate.

The AAHL plays a vital role in maintaining Australia's capability to quickly diagnose exotic (foreign) and emerging animal diseases. This is achieved through ongoing research programs to develop the most sensitive, accurate and timely diagnostic tests, which are critical to the success of any eradication campaign in the event of a disease outbreak.

AAHL also undertakes research to develop new diagnostic tests, vaccines and treatments for endemic animal diseases of national importance. Major diseases of livestock, aquaculture animals, and wildlife, are studied. AAHL includes a high-biocontainment facility, to safely fulfil its major role of diagnosing emergency animal disease outbreaks.

The laboratory is a World Animal Health Organisation reference laboratory for avian influenza, Newcastle disease, bluetongue disease, and epizootic haematopoietic necrosis virus (EHNV). The AAHL is also an OIE Collaborating Centre for New and Emerging Diseases, a WHO Collaborating Centre for Severe Acute Respiratory Syndrome (SARS), and a national reference laboratory for rabies and brucella.

Exchange of data on research centres and laboratories**1. Name of facility**

National High Security Quarantine Laboratory

2. Responsible public or private organisation/company:

Department of Health and Ageing (Commonwealth Government), Department of Human Services (State government).

3. Location and postal address:

| Location | Postal address |
|--|--|
| Victorian Infectious Diseases Reference Laboratory 10 Wreckyn Street North Melbourne Victoria AUSTRALIA | National High Security Quarantine Laboratory c/o VIDRL Locked Bag 815 Carlton South VIC 3053 AUSTRALIA |

4. Source(s) of financing, of the reported activity, including indication if the activity is wholly or partly financed by the Ministry of Defence

This facility receives no funding from the Australian Government Department of Defence. It receives funding from Commonwealth and State Departments of Health.

5. Number of maximum containment units within the research centre and/or laboratory, with an indication of their respective size (m²)

One high security laboratory, containing two portable isolation units. Total area 90m².

6. If no maximum containment unit, indicate highest level of protection

N/A

7. Scope and general description of activities, including type(s) of micro-organism and/or toxins as appropriate

The diagnosis of possible imported cases of viral haemorrhagic fever or other quarantinable viral diseases such as yellow fever. Development of laboratory tests and protocols for exotic respiratory viral diseases, including SARS. See, also, background information at Attachment 1.1.

Exchange of data on research centres and laboratories**1. Name of facility**

Queensland Health Scientific Services.

2. Responsible public or private organisation/company:

Queensland Department of Health (State Government).

3. Location and postal address:

| Location | Postal address |
|--|---|
| 39 Kessels Road Coopers Plains Queensland AUSTRALIA | PO Box 594 Archerfield QLD 4108 AUSTRALIA |

4. Source(s) of financing, of the reported activity, including indication if the activity is wholly or partly financed by the Ministry of Defence

This facility receives no funding from the Australian Government Department of Defence. It receives funding from Commonwealth and State Departments of Health.

5. Number of maximum containment units within the research centre and/or laboratory, with an indication of their respective size (m²)

Two. Total area 150m².

If no maximum containment unit, indicate highest level of protection

N/A.

7. Scope and general description of activities, including type(s) of micro-organism and/or toxins as appropriate

The maximum containment facilities service a state government public health virology laboratory which has both a diagnostic and a research function. The laboratory is a WHO Centre for Arbovirus Reference and Research. The maximum containment facilities are used for the development and performance of diagnostic tests on patients with suspected exotic or endemic viral illness requiring such containment facilities, such as Hendra virus or exotic haemorrhagic fever viruses. The laboratory currently has no other PC4 pathogens but has introduced the SARS coronavirus into this facility for diagnostic purposes. The laboratory intends to introduce reagents useful for the diagnosis of a number of exotic viral diseases including Ebola, Lassa, Junin, Rift Valley fevers and Hantavirus among others. These reagents will consist of either inactivated diagnostic reagents, cloned viral subunits or live virus.

National biological defence research and development programme Declaration

Is there a national programme to conduct biological defence research and development within the territory of the State Party, under its jurisdiction or control anywhere? Activities of such a programme would include prophylaxis, studies on pathogenicity and virulence, diagnostic techniques, aerobiology, detection, treatment, toxinology, physical protection, decontamination and other related research.

Yes. Australia has a science and technology program in defence against biological agents, which occurs in the Defence Science and Technology Organisation (DSTO), Department of Defence, as detailed below (see Form A, Part 2(ii)).

If the answer is Yes, complete Form A, part 2 (ii) which will provide a description of the programme.

National biological defence research and development programme**Description**

1. State the objectives and funding of the programme and summarize the principal research and development activities conducted in the programme. Areas to be addressed shall include: prophylaxis, studies on pathogenicity and virulence, diagnostic techniques, aerobiology, detection, treatment, toxinology, physical protection, decontamination and other related research.

The objective of the program is to provide the Australian Government with an appropriate understanding of the issues pertinent to protection against biological weapons. The program also assists in the provision of a defensive capability for the Australian Defence Force (ADF) and contributes to Defence support to the civil power in the management of biological threats to the community. The program enhances the ability of the ADF to operate in parts of the world where biological weapons might be used. It also enhances Australia's ability to contribute to biological arms control verification. The principal research activities are concerned with the detection and analysis of biological species that have been identified as potential biological warfare agents and development of medical countermeasures to those agents. The program also covers toxins that are considered threats in terms of both the Biological and Chemical Weapons Conventions.

2. State the total funding for the programme and its source.

The program is funded solely by the Australian Department of Defence, with an allocation for the current financial year (July 2005-June 2006) of approximately \$2 020 000.

3. Are aspects of this programme conducted under contract with industry, academic institutions, or in other non-defence facilities?

Yes. Work is contracted to non-defence facilities.

4. If yes, what proportion of the total funds for the programme is expended in these contracted or other facilities?

For the Financial Year (2005-2006), the following payments were made;

- \$80 000 to James Cook University
- \$15 000 CSIRO
- \$30 000 to the Cooperative Research Centre (CRC) for Diagnostics.
- \$15 000 to CSIRO Australian Animal Health Laboratories part of the Cooperative Research Centre (CRC) for Biosecurity

5. Summarize the objectives and research areas of the programme performed by contractors and in other facilities with the funds identified under paragraph 4.

The James Cook University of Technology funding is to support a post doctoral fellow to undertake investigations into the causative organism of the disease Q-Fever.

In a collaborative research project, DSTO and CSIRO are examining the neutralizing capacity of mesophase nanomaterials to bind the plant toxin ricin.

The program includes an association with the CRC - Diagnostics, that aims to produce high affinity reagents that can be used in the treatment or detection of biological agents. This interaction is through the funding of two PhD students, one located at the Commonwealth Scientific and Industrial Research Organisation (CSIRO) - Health Science and Nutrition, Parkville, Victoria, and the other at LaTrobe, University, Bundoora, Victoria.

The funding to CSIRO Australian Animal Health Laboratories supports a DSTO employee undertaking doctoral studies in developing detection methods for uncharacterised viruses.

6. Provide a diagram of the organizational structure of the programme and the reporting relationships (include individual facilities participating in the programme).

The organisational structure is as follows. There is a single active research cell operating within the Department of Defence within the hierarchy represented below.



7. Provide a declaration in accordance with Form A, part 2 (iii) for each facility, both governmental and non-governmental, which has a substantial proportion of its resources devoted to the national biological defence research and development programme, within the territory of the reporting State, or under its jurisdiction or control anywhere.

See Form A, Part 2(iii) and the associated attachment (**Attachment 2**) for Australia's response.

National biological defence research and development programme

Facilities

Complete a form for each facility declared in accordance with paragraph 7 in Form A, part 2 (ii).

Australia’s submission of Form A, Part 2 (iii) is at **Attachment 2**.

In shared facilities, provide the following information for the biological defence research and development portion only.

1. What is the name of the facility?
2. Where is it located (include both address and geographical location)?
3. Floor area of laboratory areas by containment level:
 - BL2 _____ (sqM)
 - BL3 _____ (sqM)
 - BL4 _____ (sqM)
 - Total laboratory floor area _____ (sqM)
4. The organizational structure of each facility.
 - (I) Total number of personnel _____
 - (ii) Division of personnel:
 - Military _____
 - Civilian _____
 - (iii) Division of personnel by category:
 - Scientists _____
 - Engineers _____
 - Technicians _____
 - Administration and support staff _____
 - (iv) List the scientific disciplines represented in the scientific/ engineering staff.
 - (v) Are contractor staff working in the facility? If so, provide an approximate number.

(vi) What is (are) the source(s) of funding for the work conducted in the facility, including indication if activity is wholly or partly financed by the Ministry of Defence?

(vii) What are the funding levels for the following programme areas:

Research

Development

Test and evaluation

(viii) Briefly describe the publication policy of the facility:

(ix) Provide a list of publicly-available papers and reports resulting from the work during the previous 12 months. (To include authors, titles and full references.)

5. Briefly describe the biological defence work carried out at the facility, including type(s) of micro-organisms* and/or toxins studied, as well as outdoor studies of biological aerosols.

*Including viruses and prions.

National biological defence research and development programme**Facilities**

Australia has one facility that meets the criteria of paragraph 7 in Form A, part 2 (ii).

1. Name

Human Protection and Performance Division, DSTO

2. Location

| Location | Postal address |
|--|---|
| 506 Lorimer Street Fishermans Bend Victoria AUSTRALIA | Platforms Sciences Laboratory (PSL) 506 Lorimer Street Fishermans Bend Victoria AUSTRALIA |

| | | |
|----------------------|-----|-------------------|
| 3. Floor Area | BL2 | 150 square metres |
| | BL3 | 60 |
| | BL4 | nil |

4. Personnel

- (i) Total of 21 staff years effort for the combined biological defence and arms control programs, with contributions from 30 personnel.
- (ii) All are civilian.
- (iii) 29 scientists, 1 technician, nil engineers, shared administrative and support staff.
- (iv) Biochemistry, molecular biology, microbiology, immunology, chemistry, pharmacology.
- (v) Yes—there are two PhD students working as contractors on this program at the facility.
- (vi) Wholly financed by the Department of Defence.
- (vii) Research funded at ca. \$2 020 000 per annum.
- (viii) Publication in scientific journals is encouraged, and staff are expected to maintain their professional status by such publication.
- (ix) The publications are listed at **Attachment 4** (see Form C).

5. Description of Biological Defence Work

Various types of work are undertaken, as outlined in the following sections:

(1) Detection of biological entities recognised as potential biological warfare agents

Immunological and gene based techniques for rapid identification of BW agents are being investigated.

Recombinant and colostrum derived antibodies, and combinatorial peptides are being produced to a number of BW agents, including *B. pseudomallei*, *Bacillus anthracis*, anthrax toxins and ricin. Platforms for the amplification of antibody avidity, such as dendrimers and self-assembling gels, are also being investigated. Binding inhibition and cytotoxicity assays are being developed to assess the usefulness of potential therapeutic agents such as antibodies, peptides and aptamers.

PCR assays for the rapid detection of potential BW agents. Current research focuses on the evaluation of diagnostic tools that enable rapid detection of microbial antibiotic resistance and genetically manipulated bacteria.

(2) Physical methods for rapid detection of bio-aerosols

Methods of particle characterisation for provision of rapid warning of a bio-aerosol are being assessed.

(3) Treatment/Toxicology

Cultured human lung cells are being developed as a test bed for examining potential therapeutic compounds against toxin agents. Compounds for treatment of ricin intoxication are currently being examined.

A program for the development of DNA vaccines against selected agents is being pursued.

(4) Detection of biological toxins using physico-chemical methods

Studies on detection of biological material using mass spectrometry and other physico-chemical methods are being conducted to determine their utility for field detection of biological toxins and BWC verification procedures. This work has included the analysis of ricin and crude extracts of ricin by MALDI and FT-ICR mass spectrometry.

(5) Strengthening the Biological Weapons Convention (BWC)

A BWC Regional Workshop, co-hosted by Australia and Indonesia, was convened to help BWC States Parties in South East Asia become better engaged with the Geneva-based three-year program of work as a means to reduce the possibility of bioterrorism in the region, or the inadvertent assistance by states in the region to biological weapons programs being developed elsewhere.

**Background information on outbreaks of reportable
infectious diseases**

In 2005, Australia had no outbreaks of infectious diseases and similar occurrences caused by toxins that deviate from the normal pattern. For this reason, we report the information requested in Form B(i) with respect to diseases of humans (see **Attachment 3.1**), animals (see **Attachment 3.2**) and plants (see **Attachment 3.3**), but make no formal report regarding the information requested in Form B(ii). We provide, however, information relevant to Form B(ii) regarding animal plant diseases in Attachments 3.2 and 3.3, respectively.

Background information on outbreaks of reportable infectious diseases

In accordance with the requirements agreed at the Third Review Conference, a summary table of notifiable diseases for Australia for the years 1999 to 2005 is attached as Form B (i).

(A) Human diseases

The Australian Government Department of Health and Ageing has overall responsibility for national disease surveillance. The Department's Office of Health Protection routinely receives diagnostic data from key medical laboratories throughout Australia.

Each Australian State and Territory has legislation which requires doctors, hospitals and/or laboratories to report the occurrence of certain diseases, known as "notifiable diseases". Under the auspices of the Communicable Diseases Network of Australia (the Network), the State and Territory health authorities provide data on an agreed set of notifiable diseases to the Australian Government Department of Health and Ageing. The data are collated by the Department and published quarterly in the *Communicable Diseases Intelligence* and updated three times per week on the Department's website (www.health.gov.au/cda). *Communicable Diseases Intelligence* is sent to the World Health Organization and to approximately 1,100 health professionals and researchers both nationally and internationally as well as published on the Department website.

The Network meets fortnightly by teleconference. It provides a forum for information exchange on communicable disease activity in Australia and New Zealand and enables Federal and State health authorities to cooperate in taking prompt action to control outbreaks.

No. of cases of Nationally Notifiable Communicable Diseases in Humans, 1999 – 2005

| Disease | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005* |
|-------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|
| AIDS | 206 | 261 | 208 | 225 | 222 | 160 | NA |
| HIV | 714 | 755 | 765 | 848 | 861 | 886 | NA |
| Anthrax | NN | NN | 0 | 0 | 0 | 0 | 0 |
| Barmah Forest virus infection | 639 | 646 | 1,145 | 869 | 1,369 | 1,106 | 1,327 |
| Botulism | 1 | 2 | 2 | 0 | 1 | 1 | 3 |
| Brucellosis | 54 | 29 | 20 | 40 | 20 | 39 | 41 |
| Campylobacteriosis | 12,377 | 13,683 | 16,549 | 15,106 | 15,357 | 15,584 | 16,475 |
| Congenital Rubella | 1 | 0 | 0 | 1 | 3 | 1 | 1 |
| Congenital Syphilis | 3 | 5 | 21 | 18 | 13 | 12 | 14 |
| Chancroid | 1 | 0 | 0 | NN | NN | NN | NN |
| Chlamydial infection | 14,090 | 16,989 | 20,623 | 24,507 | 30,436 | 36,222 | 41,256 |
| Cholera | 3 | 2 | 4 | 5 | 1 | 5 | 3 |
| Cryptosporidiosis | 841 | 1,152 | 1,639 | 3,301 | 1,224 | 1,684 | 3,205 |

CONFIDENCE BUILDING MEASURE B(i)

[Form B(i) continued]

| Disease | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005* |
|----------------------------------|--------|--------|--------|--------|--------|--------|--------|
| Dengue | 120 | 198 | 141 | 168 | 860 | 351 | 218 |
| Diphtheria | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| Donovanosis | 17 | 22 | 32 | 17 | 16 | 10 | 13 |
| Flavivirus NEC | 62 | 67 | 89 | 72 | 60 | 61 | 29 |
| Gonococcal infection | 5,603 | 5,899 | 6,311 | 6,296 | 6,793 | 7,193 | 7,980 |
| Haemolytic uraemic syndrome | 22 | 17 | 3 | 12 | 15 | 16 | 20 |
| Haemophilus influenzae type b | 41 | 27 | 20 | 30 | 19 | 15 | 18 |
| Hepatitis (NEC) | | 1 | 3 | | | | 1 |
| Hepatitis A | 1,558 | 817 | 553 | 392 | 431 | 319 | 322 |
| Hepatitis B (incident) | 309 | 414 | 424 | 383 | 346 | 281 | 248 |
| Hepatitis B (unspecified) | 6,843 | 7,790 | 8,078 | 6,481 | 5,823 | 5,819 | 7,181 |
| Hepatitis C (incident) | 451 | 548 | 712 | 451 | 519 | 450 | 363 |
| Hepatitis C (unspecified) | 19,831 | 19,784 | 19,585 | 14,806 | 13,718 | 12,862 | 14,519 |
| Hepatitis D | 20 | 28 | 20 | 21 | 27 | 28 | 30 |
| Hepatitis E | 10 | 12 | 14 | 13 | 12 | 28 | 31 |
| Hydatid infection | 3 | 4 | NN | NN | NN | NN | NN |
| Influenza (laboratory confirmed) | 73 | 105 | 1,308 | 3,671 | 3,483 | 2,133 | 4,577 |
| Japanese encephalitis | 1 | 0 | 0 | 0 | 1 | 1 | 0 |
| Kunjin virus | 2 | 4 | 5 | 0 | 18 | 12 | 2 |
| Legionellosis | 250 | 472 | 312 | 316 | 333 | 311 | 327 |
| Leprosy | 8 | 4 | 10 | 6 | 5 | 7 | 8 |
| Leptospirosis | 320 | 255 | 250 | 159 | 127 | 177 | 128 |
| Listeriosis | 63 | 67 | 65 | 62 | 69 | 67 | 54 |
| Malaria | 716 | 969 | 736 | 475 | 595 | 558 | 822 |
| Measles | 237 | 110 | 141 | 32 | 93 | 45 | 11 |
| Meningococcal infection | 587 | 628 | 686 | 687 | 558 | 405 | 396 |
| Mumps | 183 | 213 | 117 | 67 | 77 | 102 | 240 |
| Murray Valley encephalitis | 0 | 16 | 6 | 2 | 0 | 1 | 2 |
| Ornithosis | 81 | 102 | 138 | 199 | 199 | 236 | 162 |
| Pertussis | 4,359 | 5,997 | 9,590 | 5,462 | 5,095 | 8,752 | 11,262 |
| Pneumococcal disease (invasive) | NN | NN | 1,779 | 2,466 | 2,237 | 2,377 | 1,693 |
| Q fever | 516 | 574 | 694 | 762 | 562 | 463 | 352 |
| Ross River virus infection | 4,376 | 4,227 | 3,235 | 1,452 | 3,848 | 4,210 | 2,531 |
| Rubella | 371 | 322 | 265 | 257 | 54 | 31 | 31 |
| Salmonellosis (NEC) | 7,013 | 6,217 | 7,123 | 7,794 | 7,007 | 7,834 | 8,439 |
| Shigellosis | 533 | 491 | 573 | 504 | 443 | 522 | 733 |

CONFIDENCE BUILDING MEASURE B(i)

[Form B(i) continued]

| Disease | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005* |
|---------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|
| SLTEC/VTEC | 52 | 43 | 46 | 58 | 51 | 48 | 87 |
| Syphilis - Infectious | 195 | 177 | 251 | 359 | 453 | 615 | 596 |
| Syphilis - duration more than 2 years | 1,499 | 1,602 | 1,135 | 1,084 | 1,204 | 1,578 | 1,565 |
| Tetanus | 2 | 8 | 3 | 4 | 4 | 5 | 1 |
| Tuberculosis | 1,363 | 1,036 | 940 | 1,037 | 928 | 1,060 | 883 |
| Typhoid | 63 | 57 | 79 | 69 | 51 | 76 | 53 |
| Yersiniosis (NEC) | 7 | 6 | 1 | NN | NN | NN | NN |

NA - not available

NN - not nationally notifiable in that year

NEC - Not Elsewhere Classified

* 2005 provisional figures only

Information relevant to Measure B(ii) – no formal declaration necessary, as explained on Form B(i)

Background information on outbreaks of reportable infectious diseases

(B) Animal disease

The Australian Government Department of Agriculture, Fisheries and Forestry is responsible for national coordination on animal health matters and for providing reports on Australia's animal health status, including a joint annual return to the Office International des Epizooties (OIE), the Food and Agriculture Organization (FAO) and the World Health Organization.

The following sections contain information on significant animal disease events/issues in 2005. Australia publishes quarterly reports⁴ and annual reports⁵ on animal health incidents and status, as well as providing emergency, monthly, quarterly and annual reports to the World Organisation for Animal Health (OIE)⁶.

The OIE agreed that, from 1 January 2005, Lists A and B will be combined into a single list of notifiable terrestrial animal diseases, together with amended reporting obligations. Australia's status for OIE-listed diseases for 2005 is shown in the table that follows.

Status for OIE-listed diseases

| Disease | Status | Date of last occurrence/notes |
|---|-----------------|---|
| Multiple species diseases | | |
| Anthrax | Present | Limited distribution |
| Aujeszky's disease | Free | Never occurred |
| Bluetongue | Viruses present | Restricted to specific areas (northern part of the country); sentinel program |
| Echinococcosis / hydatidosis | Present | |
| Foot-and-mouth disease | Free | 1872 |
| Heartwater | Free | Never occurred |
| Leptospirosis | Present | |
| New World screw-worm fly (<i>Cochliomyia hominivorax</i>) | Free | Never occurred |
| Old World screw-worm fly (<i>Chrysomya bezziana</i>) | Free | Never occurred |
| Paratuberculosis | Present | National control/management programs |
| Q fever | Present | |
| Rabies | Free | 1867 |
| Rift Valley fever | Free | Never occurred |
| Rinderpest | Free | 1923 |

⁴ <http://www.animalhealthaustralia.com.au/status/ahia.cfm>

⁵ <http://www.animalhealthaustralia.com.au/status/ahsq.cfm>

⁶ http://www.oie.int/eng/info/en_infoan.htm

Attachment 3. 2 (continued)

Information relevant to Measure B(ii) – no formal declaration necessary, as explained on Form B(i)

| Disease | Status | Date of last occurrence/notes |
|--|---------------|---|
| Trichinellosis | Not reported | <i>Trichinella spiralis</i> not present; <i>T. pseudospiralis</i> present in wildlife |
| Vesicular stomatitis | Free | Never occurred |
| Cattle diseases | | |
| Bovine anaplasmosis | Present | |
| Bovine babesiosis | Present | |
| Bovine brucellosis | Free | Australia declared freedom in 1989 |
| Bovine cysticercosis | Present | |
| Bovine genital campylobacteriosis | Present | |
| Bovine spongiform encephalopathy | Free | Never occurred; National Transmissible Spongiform Encephalopathy Freedom Assurance Program includes surveillance |
| Bovine tuberculosis | Free | Australia declared freedom in 1997; because of the nature of the disease, sporadic residual cases may occur (the last case was in 2002) |
| Contagious bovine pleuropneumonia | Free | 1967; Australia declared freedom in 1973 |
| Dermatophilosis | Present | |
| Enzootic bovine leukosis | Present | Voluntary accreditation and testing programs in place; very low prevalence |
| Haemorrhagic septicaemia | Free | Never occurred; strains of <i>Pasteurella multocida</i> present, but not the 6b or 6e strains that cause haemorrhagic septicaemia |
| Infectious bovine rhinotracheitis / infectious pustular vulvovaginitis | Present | |
| Lumpy skin disease | Free | Never occurred |
| Malignant catarrhal fever | Present | |
| Theileriosis | Free | Nonpathogenic <i>Theileria buffeli</i> only; <i>T. parva</i> and <i>T. annulata</i> not present |
| Trichomonosis | Present | |
| Trypanosomosis (tsetse-borne) | Free | Never occurred |
| Sheep and goat diseases | | |
| Caprine and ovine brucellosis (excluding <i>Brucella ovis</i>) | Free | Never occurred |
| Caprine arthritis / encephalitis | Present | |
| Contagious agalactia | Not reported | <i>Mycoplasma agalactiae</i> has been isolated, but Australian strains do not produce agalactia in sheep |
| Contagious caprine pleuropneumonia | Free | Never occurred |
| Enzootic abortion of ewes (ovine chlamydiosis) | Not reported | Never occurred |

Attachment 3. 2 (continued)

Information relevant to Measure B(ii) – no formal declaration necessary, as explained on Form B(i)

| Disease | Status | Date of last occurrence/notes |
|--|----------------------|--|
| Maedi–visna | Free | Never occurred |
| Nairobi sheep disease | Free | Never occurred |
| Ovine epididymitis (<i>Brucella ovis</i>) | Present | Voluntary accreditation schemes in all states |
| Ovine pulmonary adenomatosis | Free | Never occurred |
| Peste des petits ruminants | Free | Never occurred |
| Salmonellosis (<i>Salmonella abortusovis</i>) | Free | Never occurred; <i>S. abortusovis</i> was isolated in 1994 from two children, but surveillance has shown no evidence of infection in sheep |
| Sheep pox and goat pox | Free | Never occurred |
| Scrapie | Free | 1952 |
| Equine diseases | | |
| African horse sickness | Free | Never occurred |
| Contagious equine metritis | Free | 1980 |
| Dourine | Free | Never occurred |
| Epizootic lymphangitis | Free | Never occurred |
| Equine encephalomyelitis (Eastern and Western) | Free | Never occurred |
| Equine infectious anaemia | Present | Limited distribution/sporadic occurrence |
| Equine influenza | Free | Never occurred |
| Equine piroplasmiasis | Free | Last reported in 1976 |
| Equine rhinopneumonitis | Present | |
| Equine viral arteritis | Serological evidence | |
| Glanders | Free | 1891 |
| Horse mange | Free | Never occurred |
| Horse pox | Free | Never occurred |
| Japanese encephalitis | Serological evidence | Detected annually in Torres Strait and on Cape York in 1998 and 2004; not detected in Cape York sentinel program in 2005 |
| Surra (<i>Trypanosoma evansi</i>) | Free | Never occurred |
| Venezuelan equine encephalomyelitis | Free | Never occurred |
| Swine diseases | | |
| African swine fever | Free | Never occurred |
| Atrophic rhinitis of swine | Present | |
| Classical swine fever | Free | 1962 |
| Enterovirus encephalomyelitis | Free | Never occurred |
| Porcine brucellosis | Serological evidence | Occurs in feral pigs in northern Australia |
| Porcine cysticercosis | Free | Never occurred |

Attachment 3. 2 (continued)

Information relevant to Measure B(ii) – no formal declaration necessary, as explained on Form B(i)

| Disease | Status | Date of last occurrence/notes |
|---|-------------------------|--|
| Porcine reproductive and respiratory syndrome | Free | Never occurred |
| Swine vesicular disease | Free | Never occurred |
| Transmissible gastroenteritis | Free | Never occurred |
| Avian diseases | | |
| Avian chlamydiosis | Present | |
| Avian infectious bronchitis | Present | |
| Avian infectious laryngotracheitis | Present | |
| Avian mycoplasmosis (<i>M. gallisepticum</i>) | Present | |
| Avian tuberculosis | Present | |
| Duck virus enteritis | Free | Never occurred |
| Duck virus hepatitis | Free | Never occurred |
| Fowl cholera | Present | |
| Fowl pox | Present | |
| Fowl typhoid | Free | Last reported in 1952 |
| Highly pathogenic avian influenza | Free | 1997 |
| Infectious bursal disease (Gumboro disease) | Present | Infectious bursal disease occurs in a mild form; Gumboro disease does not occur |
| Marek's disease | Present | |
| Newcastle disease | Viruses present | Sporadic outbreaks occur; last reported 2002 |
| Pullorum disease | Present | |
| Lagomorph diseases | | |
| Myxomatosis | Present | |
| Rabbit haemorrhagic disease | Present | Used as a biological control agent for wild rabbits |
| Tularaemia | Free | Never occurred |
| Bee diseases | | |
| Acariosis of bees | Free | Never occurred |
| American foulbrood | Present | |
| European foulbrood | Present | |
| Varroosis | Not reported | <i>Varroa jacobsoni</i> last reported in 1997 in the Torres Strait; does not occur on mainland Australia nor Tasmania. |
| Other diseases | | |
| Leishmaniosis | Atypical organism found | A new <i>Leishmania</i> species has been isolated from skin lesions in a group of captive red kangaroos. Occasionally, cases of leishmaniosis are reported in imported dogs. |

Comments on selected OIE-listed diseases

Bluetongue

Bluetongue viruses capable of causing disease are only found in parts of the far north of the Northern Territory and Western Australia. Relatively nonpathogenic strains (types 1 and 21) are found on the east coast in Queensland and northern New South Wales. There is little overlap between the distribution of vectors of bluetongue virus and major sheep populations, because the climate conditions that favour sheep production are not conducive to the vectors.

In 2005, transmission of bluetongue viruses was observed in the endemic areas of far northern Australia and coastal Queensland and New South Wales, but the prevalence was much lower than usual. There was minimal evidence of bluetongue activity in sentinel herds in Western Australia. In the Northern Territory, there was limited evidence of transmission in coastal herds, and serotypes 1, 20 and 21 were identified. There was no apparent evidence of movement of more pathogenic viruses out of the far northern 'high risk' zone of the Northern Territory. However, there was evidence of the incursion of at least one new virus serotype into Australia. There was serological evidence of infection with serotype 16 and possibly serotype 6 on islands in Torres Strait and at the tip of Cape York. These serotypes have not been detected before in Queensland. In New South Wales, transmission was detected in isolated areas. However, there was no evidence of bluetongue viruses near major sheep populations in any state. All regions in southern Australia and most pastoral regions in eastern Australia remain free from bluetongue virus.

Newcastle Disease

Australia experienced sporadic outbreaks of Newcastle disease (ND) from 1998 to 2002. These were caused by viruses that have mutated to virulence from endemic avirulent strains. As well as destruction of infected poultry flocks, response measures have included ND vaccination, enhanced surveillance and improved biosecurity. The poultry industry and government have implemented long-term disease control strategies to improve the management of ND in Australia.

Anthrax

Anthrax is a notifiable animal disease subject to compulsory government controls including quarantine, disposal of carcasses, and vaccination. It is present in well-defined areas in the northern and northeastern districts of Victoria and central New South Wales. In these areas, anthrax has a low prevalence, and occurs only sporadically. Occasional outbreaks have occurred in other States. South Australia last recorded an outbreak in 1914, and Tasmania in 1933; these States are now considered anthrax free. Anthrax was diagnosed in Queensland in 1993 and 2002, and in Western Australia in 1994. The disease has never been reported in the Northern Territory. During 2005, there were 8 reported incidents of anthrax in New South Wales and 1 in Victoria.

Information relevant to Measure B(ii) – no formal declaration necessary, as explained on Form B(i)

Background information on outbreaks of reportable infectious diseases

(C) Plant diseases

The Australian Government Department of Agriculture, Fisheries and Forestry, through the Office of the Chief Plant Protection Officer, is the peak organisation that gathers information on pests and diseases of plants. The Department is notified of exotic incursions through State Government agricultural, forestry and natural resource agencies. It also provides national leadership in responding to incursions of exotic pests and diseases of plants.

New plant pests and diseases recorded in Australia for 2005

| Common Name | Scientific Name | Pest Type | Detected | Status |
|--|--|------------------|-----------------|----------------|
| Calibrachoa mottle virus (CbMV) | <i>Incertas sedis</i> <i>Calibrachoa mottle virus</i> | Virus | NSW | Pending |
| Lupin phoma root rot Leaf blight of lupin | <i>Phoma schneiderae</i> | Fungi | VIC | Pending |
| Scotch broom rust | <i>Uromyces pisi-sativi</i> | Fungi | SA | Not eradicable |
| Willow sawfly | <i>Nematus oligospilus</i> | Invertebrate | ACT | Not eradicable |

Information on outbreaks of infectious diseases and similar occurrences, that seem to deviate from the normal pattern

As noted on Form B(i), Australia had no outbreaks of infectious diseases and similar occurrences caused by toxins that deviate from the normal pattern. However, Form B(i) and Attachments 3.1 and 3.2 provide information relevant to that requested below.

1. Time of cognizance of the outbreak
2. Location and approximate area affected
3. Type of disease/intoxication
4. Suspected source of disease/
intoxication
5. Possible causative agent(s)
6. Main characteristics of systems
7. Detailed symptoms, when applicable
 - respiratory
 - circulatory
 - neurological/behavioural
 - intestinal
 - dermatological
 - nephrological
 - other
8. Deviation(s) from the normal pattern as regards
 - type
 - development
 - place of occurrence
 - time of occurrence
 - symptoms
 - virulence pattern

- drug resistance pattern
 - agent(s) difficult to diagnose
 - presence of unusual vectors
 - other
9. Approximate number of primary cases
10. Approximate number of total cases
11. Number of deaths
12. Development of the outbreak
13. Measures taken

Encouragement of publication of results and promotion of use of knowledge

At the Third Review Conference it was agreed that States parties continue to implement the following:

"Encouragement of publication of results of biological research directly related to the Convention, in scientific journals generally available to States parties, as well as promotion of use for permitted purposes of knowledge gained in this research."

Australia's submission of Confidence Building Measure C is at **Attachments 4.1 and 4.2**. Information relating to "Modality 2", below, is provided with respect to (A) The Australian Animal Health Laboratory (see Attachment 4.1), and (B) Defence Science and Technology Organisation (see Attachment 4.2).

In relation to Modality 2, the Australian Government (Department of Prime Minister and Cabinet) funded a workshop in November 2005 to explore various issues regarding the 'dual use' nature of the biological sciences, including the publication of research. Workshop participants included ethicists, scientists, and government policy advisors with an interest in countering the threat posed by biological weapons. It is anticipated that output from this workshop, including exploration of policy options, will be finalised in 2006.

Modalities

The Third Review Conference agreed on the following:

1. It is recommended that basic research in biosciences, and particularly that directly related to the Convention should generally be unclassified and that applied research to the extent possible, without infringing on national and commercial interests, should also be unclassified.
2. States parties are encouraged to provide information on their policy as regards publication of results of biological research, indicating, *inter alia*, their policies as regards publication of results of research carried out in research centres and laboratories subject to exchange of information under item A and publication of research on outbreaks of diseases covered by item B, and to provide information on relevant scientific journals and other relevant scientific publications generally available to States parties.
3. The Third Review Conference discussed the question of cooperation and assistance as regards the safe handling of biological material covered by the Convention. It concluded that other international forums were engaged in this field and expressed its support for efforts aimed at enhancing such cooperation.

Encouragement of publication of results and promotion of use of knowledge**(A) The Australian Animal Health Laboratory (AAHL)**

AAHL's policy is to encourage the publication of research results. The following were published by staff at AAHL during 2005.

Book Chapters

Dale CJ, Ramshaw IA, Ranasinghe C, Thomson S, De Rose R, Pamungkas J, Boyle DB, Kent SJ. 2005. Prime boost strategies in DNA vaccines. Lowrie, DB, Whalen, R. (eds). DNA vaccines: methods and protocols Humana Press, Totowa, New Jersey, USA.

Heine HG, Trinidad L, Selleck PW. 2005. Influenza virus type A and subtype H5 specific real-time reverse transcription (RRT)-PCR for detection of H5N1 isolates: technical report. Heine, HG, Trinidad, L, Selleck, PW. Influenza virus type A and subtype H5 specific real-time reverse transcription (RRT)-PCR for detection of H5N1 isolates: technical report Australian Biosecurity CRC, St Lucia, Qld.

Meehan G. 2005. Recombinant expression of Rabies virus proteins to facilitate improved virus-specific antibody detection systems. Meehan, G. Recombinant expression of Rabies virus proteins to facilitate improved virus-specific antibody detection systems The Author, Geelong, Vic. Pp. 141 leaves.

Patz JA, Confalonieri EC, Amerasinghe FP, Chua KB, Daszak P, Hyatt AD, Molyneux D, Thomson M, Yameogo L, Lazaro MM, Vasconcelos P, Rubio-Palis Y, Campbell-Lendrum D, Jaenisch T, Mahamat H, Mutero C, Walter-Toews D, Whiteman C. 2005. Human health: ecosystem regulation of infectious diseases. Hassan, R, Scholes, R, Ash, N. (eds). Ecosystems and human well-being: current state and trends volume 1 Island Press, Washington, USA. Pp. 391-415.

Rood JI, Stewart DJ, Vaughan JA, Dewhurst FE . 2005. Genus II Dichelobacter Dewhurst, Paster, La Fontaine and Rood 1990, 430vp. Garrity, GM, Brenner, DJ, Krieg, NR, Staley, JT. (eds). Bergey's manual of systematic bacteriology volume 2 The Proteobacteria Part B The Gammaproteobacteria Springer, Michigan, MI. Pp. 126-129.

Conference Proceedings

Abraham G. 2005. New requirements for emerging diseases: Avian influenza. 10th International Biosafety Workshop Detail and practical applications of standards for veterinary biosafety level 3 laboratories including animal holding facilities. National Veterinary Institute, Uppsala, Sweden. The Workshop, Uppsala, Sweden.

Aguilar HC, Mungall BA, Negrete O, Matreyek KA, Choi D, Levroney E, Lee BH. 2005. In vivo production of Nipah and Hendra viral-like particles via genetic immunization results in high titer neutralizing antibodies. American Society of Virology Conference. Pennsylvania State University, University Park, PA. USA. The Conference, University Park, PA. USA.

Allen JG, Retallick MAS, Kowalski M, Colegate SM, Doran TJ, Michalski WP. 2005. A study of the bioequivalence of corynetoxins and tunicamycins: the effect of these toxins on the viability and morphology of rat hepatocytes in tissue culture. 7th International Symposium on Poisonous Plants (ISOPP7). Eccles Conference Center, Utah State University, Logan, Utah, USA. The Symposium, Logan, Utah, USA.

Encouragement of publication of results and promotion of use of knowledge

Anderton NA, Cao Y, Darcy CP, Ford ME, Greenwood JS, Knill A, Michalewicz A, Stewart PL, Wilson SL, Colegate SM. 2005. Effects on bodyweight of rats and sheep due to exposure to tunicamycins: implications for annual ryegrass toxicity. 7th International Symposium on Poisonous Plants (ISOPP7). Eccles Conference Center, Utah State University, Logan, Utah, USA. The symposium, Logan, Utah, USA.

Asif M, Kimpton WG, Lowenthal JW, Bean AGD. 2005. Pathological consequences of inflammatory cytokines during IBV infection. International Cytokine Society Conference. Seoul, Korea. The Conference, Seoul, Korea.

Aslani MR, Colegate SM, Pascoe I, Kowalski M, Michalewicz A, Retallick MAS. 2005. Acute bovine liver disease: Hepatocytotoxicity of cynosurus echinatus-related dreschlera biseptata. 7th International Symposium on Poisonous Plants (ISOPP7). Eccles Conference Center, Logan, Utah, USA. The symposium, Logan, Utah, USA.

Bannantine JP, Sreevatsan S, Tizard MLV, Michalski WP, Berger S, Griffin JFT, Paustain ML. 2005. Production and characterization of monoclonal antibodies, aptamers and single chain antibodies to M. avium subsp. paratuberculosis. 8th International colloquium on paratuberculosis. Copenhagen, Denmark. The colloquium, Copenhagen, denmark.

Barrett J, Lunt RA, Rodwell B, Rupprecht C, Field H, Smith G, Young P. 2005. Australian Bat Lyssavirus: observations of natural and experimental infection in bats. Wildlife health in a shrinking world: ecology, management and conservation Wildlife Disease Association International Conference. Cairns, QLD. The Conference, Cairns, QLD.

Bingham J. 2005. The response of little ravens (*Corvus Mellori*) to West Nile Virus (New York strain) challenge. Australian Biosecurity CRC for emerging infectious disease national workshop. Joondalup Resort, Perth. Australian Biosecurity CRC, Joondalup, Perth.

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Bowden TR, Babiuk SL, Anderson MP, Parkyn GR, Kitching RP, Copps JS, Boyle DB. 2005. A quantitative study of sheeppox virus tropism and shedding in experimentally infected sheep. 3rd Australian Virology Group Meeting. Continental Hotel, Cowes, Phillip Island, Vic. The Meeting, Cowes, Phillip Island, Vic.

Encouragement of publication of results and promotion of use of knowledge

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Conlan J, Gleeson L, Wilks C, Khounsy S. 2005. Development of a rapid diagnostic assay for Classical Swine Fever Virus. 3rd Australian Virology Group Meeting. Continental Hotel, Cowes, Phillip Island, Vic. The Meeting, Cowes, Phillip Island, Vic.

Corbeil S, Arzul I. 2005. Development of a *Bonamia* spp. real time PCR assay and molecular characterisation of the Australian *Bonamia* isolate. 3rd Microcell working group meeting. Virginia Institute of Marine Sciences, Gloucester Point, Virginia, USA. The Institute, Gloucester Point, Virginia, USA.

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Encouragement of publication of results and promotion of use of knowledge

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Encouragement of publication of results and promotion of use of knowledge

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Sheedy SA, Rood J, Moore RJ. 2005. Live vectored delivery of therapeutic and prophylactic proteins to the gut of chickens. Avian gut function health and disease 28th Poultry Science Symposium. Ramada Plaza Hotel, Bristol, UK. World's Poultry Science Association UK Branch, Bristol, UK.

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Encouragement of publication of results and promotion of use of knowledge

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Encouragement of publication of results and promotion of use of knowledge

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Encouragement of publication of results and promotion of use of knowledge

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Encouragement of publication of results and promotion of use of knowledge**(B) Human Protection and Performance Division, Defence Science Technology Organisation (DSTO)**

The policy of the Defence Science and Technology Organisation is to publish results of a general scientific value in the open literature. Information that is more specialised and relevant particularly to defence is published in laboratory reports, which are unclassified and available to the public, unless they contain information that might prejudice the security of Australia or information that is commercial-in-confidence. It is envisaged that all results of the biological research will be either unclassified or “commercial-in-confidence”.

The Defence Health Service Branch (DHSB) encourages the publication of scientific reviews of the literature in the biological defence area. Over the past 12 months, several articles have been published or accepted for publishing in the Australian and international scientific literature. These include:

Nagata LP, Hu WG, Masri SA, Rayner GA, Schmaltz FL, Das D, Wu J, Long MC, Chan C, Proll D, Jager S, Jebailey L, Suresh MR, Wong JP. Related Articles, (2005) Efficacy of DNA vaccination against western equine encephalitis virus infection. *Vaccine*. 2005 Mar 18;23(17-18):2280-3

Dawson RM. (2005) Characterization of the binding of cholera toxin to ganglioside GM1 immobilized onto microtitre plates. *J Appl Toxicol*. 2005 Jan-Feb;25(1):30-8.

Alison K. Pickering and Malcolm R. Alderton (2005). Assessment of Neutralising Activity of Colostrum-Derived, Polyclonal, Bovine Antibodies: Use of the J774A.1 Anthrax Lethal Toxin Cytotoxicity Assay. DSTO-TR-1832

Mark T. Dertbaugh, Cynthia A. Rossi, Brian M. Paddle, Martha Hale, Michael Poretski and Malcolm R. Alderton (2005) Monoclonal Antibodies to Ricin: *In Vitro* Inhibition of Toxicity and Utility as Diagnostic Reagents. *Hybridoma* 2005 24(5): 236-243

Chun-Qiang Liu and Cindy Browning (2005) Development of a Manual Threshold Immunoassay for *Bacillus anthracis* Spores. DSTO-TR-1795.

Mathews, R.J., and Webb, J.M. (2005) 'Codes of Conduct for Scientists: Considerations during a BWC Regional Workshop and Subsequent Reflections'. Working Paper presented to the BWC Meeting of States Parties, Geneva, Document No. BWC/MSP/2005/MX/WP.35 (24 June 2005)

Mathews, R.J. (2005) Proceedings of the Biological Weapons Convention Regional Workshop: co-hosted by the Governments of Australia and Indonesia: 21-25 February 2005', Edited by Dr R J Mathews, (University of Melbourne: 2005) (ISBN 0 9757717 1X) (332 pages).

Active promotion of contacts

Australia’s submissions with respect to the information sought under Form D (Part 1a-g) and Form D (Part 2) are at **Attachments 5.1** and **5.2**, respectively.

1. Planned international conferences, symposia, seminars, and other similar forums for exchange

For each such event, the following information should be provided:

- a. name of the conference, etc.
- b. arranging organization(s), etc.
- c. time
- d. place
- e. main subject(s) for the conference, etc.
.....
- f. conditions for participation
- g. point of contact for further information, registration, etc.
.....
.....

2. Information regarding other opportunities

.....
.....
.....

Active promotion of contacts

Australia welcomes *bona fide* professional contact with other researchers in matters directly related to the Biological Weapons Convention. Contact should be made with the facility described in Form A, part 2 (iii).

1. Planned international conferences, symposia, seminars, and other similar fora in which Australia participated in 2005

- a. The Technical Cooperation Program (TTCP) CBD Group, Technical Panel 4 - Medical countermeasures against biological agents.
- b. DTRA, Washington DC.
- c. November 2005
- d. United States
- e. TTCP Biological Defence programs, collaborative research, advances in biotechnology
- f. Membership of TTCP CBD Group
- g. Dr Peter Gray, Human Protection & Performance Division, 506 Lorimer Street, Fishermans Bend, Melbourne 3207, Australia. Phone (03) 9626 8482, Fax (03) 9626 8410.

- a. The Technical Cooperation Program (TTCP) CBD Group, Technical Panel 10 - Detection of Biological Agents.
- b. Defence Research Establishment, Suffield.
- c. November 2005
- d. Canada
- e. TTCP Biological Defence programs, collaborative research, advances in biotechnology
- f. Membership of TTCP CBD Group
- g. Dr Ralph Leslie, Human Protection & Performance Division, 506 Lorimer Street, Fishermans Bend, Melbourne 3207, Australia. Phone (03) 9626 8478, Fax (03) 9626 8410.

- a. The Technical Cooperation Program (TTCP) CBD Group, Technical Panel 11 – Integrated NBC Protective Clothing
- b. Platforms Sciences Laboratory, Melbourne.
- c. October 2005
- d. Australia
- e. TTCP programs, collaborative agreements, advances in personnel protective ensembles
- f. Membership of TTCP CBD Group
- g. Mr Steven Scanlan, Human Protection & Performance Division, 506 Lorimer Street, Fishermans Bend, Melbourne 3207, Australia. Phone (03) 9626 8473, Fax (03) 9626 8342

Active promotion of contacts

2. Information regarding other opportunities

- a. The Technical Collaboration Program (TTCP), Action Group 51 (AG51) – Rapid Diagnostics
- b. DRDC, Suffield
- c. January 2006
- d. Canada
- e. National programs, terms of reference, nature of collaboration, goals of AG51, timeframe for deliverables of AG51
- f. Membership of TTCP CBD Group
- g. Dr Matthias Dorsch, Human Protection & Performance Division, 506 Lorimer Street, Fishermans Bend, Melbourne 3207, Australia. Phone +61 (3) 9626 8006, Fax +61 (3) 9626 8410

- a. The Technical Cooperation Program (TTCP) CBD Group, Technical Panel 4 - Medical countermeasures against biological agents.
- b. DSTO, Melbourne.
- c. November 2006
- d. Australia
- e. TTCP Biological Defence programs, collaborative research, advances in biotechnology
- f. Membership of TTCP CBD Group
- g. Dr Peter Gray, Human Protection & Performance Division, 506 Lorimer Street, Fishermans Bend, Melbourne 3207, Australia. Phone (03) 9626 8482, Fax (03) 9626 8410.

- a. The Technical Cooperation Program (TTCP) CBD Group, Technical Panel 10 - Detection of Biological Agents.
- b. DSTL, Porton Down.
- c. October 2006
- d. UK
- e. TTCP Biological Defence programs, collaborative research, advances in biotechnology
- f. Membership of TTCP CBD Group
- g. Dr Ralph Leslie, Human Protection & Performance Division, 506 Lorimer Street, Fishermans Bend, Melbourne 3207, Australia. Phone (03) 9626 8478, Fax (03) 9626 8410.

Active promotion of contacts

- a. The Technical Cooperation Program (TTCP) CBD Group, Technical Panel 11 – Integrated NBC Protective Clothing
- b. DRDC, Suffield.
- c. September 2006
- d. Canada
- e. TTCP programs, collaborative agreements, advances in personnel protective ensembles
- f. Membership of TTCP CBD Group
- g. Mr Steven Scanlan, Human Protection & Performance Division, 506 Lorimer Street, Fishermans Bend, Melbourne 3207, Australia. Phone (03) 9626 8473, Fax (03) 9626 8410

- a. The Technical Collaboration Program (TTCP), Action Group 51 (AG51) – Rapid Diagnostics
- b. DSTO, Melbourne
- c. November 2006
- d. Australia
- e. National programs, terms of reference, nature of collaboration, goals of AG51, timeframe for deliverables of AG51
- f. Membership of TTCP CBD Group
- g. Dr Matthias Dorsch, Human Protection & Performance Division, 506 Lorimer Street, Fishermans Bend, Melbourne 3207, Australia. Phone +61 (3) 9626 8006, Fax +61 (3) 9626 8410

- a. The Technical Cooperation Program (TTCP) CBD Group, Technical Panel 9 - Hazard Assessment.
- b. DTRA, Salt Lake City (moved from San Diego).
- c. February 2006
- d. Canada
- e. TTCP Biological Defence programs, collaborative research, advances in biotechnology
- f. Membership of TTCP CBD Group
- g. Dr Ralph Gailis, Human Protection & Performance Division, 506 Lorimer Street, Fishermans Bend, Melbourne 3207, Australia. Phone (03) 9626 8455, Fax (03) 9626 8410.

Declaration of legislation, regulations and other measures

| Relating to | Legislation | Regulations | Other measures | Amended since last year |
|---|-------------|-------------|----------------|-------------------------|
| (a) Development, production, acquisition or retention of microbial or other biological agents, or toxins, weapons, equipment and means of delivery specified in Article I | Yes | Yes | No | No |
| (b) Exports of micro-organisms* and toxins | Yes | Yes | Yes | No |
| (b) Imports of micro-organisms* and toxins | Yes | Yes | No | No |

In addition to the above summary, an overview of key Australian Government legislation relevant to the BWC is provided below:

Background

Australia has the following Australian Government legislation, regulations and other measures to declare under this confidence-building measure. Australia has taken a range of legislative and executive measures that ensure compliance with the UN Security Council Resolution 1540 (2004).

Australia is fully committed to the work of the 1540 Committee in ensuring global implementation of this resolution. As well as WMD-dedicated legislation, there is a considerable amount of health, safety and environmental legislation that control access to hazardous biological materials. The Australian Government is reviewing all WMD and hazardous materials controls, with a view to enhancing them if necessary for counter-terrorism purposes.

Chemical Weapons (Prohibition) Act 1994 and associated regulations

The Act, administered by the Australian Safeguards and Non-Proliferation Office within the Department of Foreign Affairs and Trade, gives effect to Australia's obligations to the

Declaration of legislation, regulations and other measures

Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction. The Act controls certain chemicals which may be used as weapons, including the natural toxins ricin and saxitoxin. The Act's general purpose criterion also applies to the hostile use of any chemical, including other toxins. The Act extends to the acts of Australian citizens outside Australia. Contravention of the Act is an indictable offence.

Crimes (Biological Weapons) Act 1976

The Act, which is administered by the Attorney-General, makes it unlawful for Australians to develop, produce, stockpile or otherwise acquire or retain microbial or other biological agents or toxins whatever their origin or method of production, of types and in quantities that have no justification for prophylactic, protective or other peaceful purposes; or weapons, equipment or means of delivery designed to use such agents or toxins for hostile purposes or in armed conflict. The Act extends to the acts of Australian citizens outside Australia. Contravention of the Act is an indictable offence.

Crimes (Biological Weapons) Regulations 1980

The Regulations specify the way in which substances acquired under the Act should be stored, disposed of and analysed.

Customs Act 1901 and Customs (Prohibited Exports) Regulations

Under the Customs (Prohibited Export) Regulations the Minister for Defence controls, through a system of export licenses, the export of defence and related goods from Australia. These Regulations were amended in December 1996 to bring all export licensing requirements for defence and related goods under a single regulation - Regulation 13E. No substantial change was made to the regulations relating to the export licensing requirement for biological agents, toxins or equipment which could be used to assist a biological weapons program.

The Regulations require exporters to obtain a licence before proceeding to export certain listed items. These goods are listed in the "Defence and Strategic Goods List". Part 1 of this list includes biological agents designed or adapted to produce casualties in human beings; equipment designed or adapted for disseminating biological agents; goods designed or adapted for the detection, identification or defence against biological agents; and goods including software designed or adapted for the purposes of producing any of the previous items. Part 3 of the list includes human pathogens and toxins, animal pathogens, plant pathogens and equipment capable of being used to develop biological weapons.

Declaration of legislation, regulations and other measures***Quarantine Act 1908 and associated regulations***

The Quarantine Act 1908 is designed to prevent the introduction of serious pests and diseases affecting humans, plants and animals into Australia. Accordingly, in conjunction with the Biological Control Act (see below), it controls the import into Australia of all biological material and may prohibit the import in some circumstances.

The Australian Government has responsibility for quarantine under the Australian Constitution. Responsibility for human quarantine is administered by the Minister for Health and Ageing through the *Quarantine Act 1908* (the Act). Responsibility for plant and animal quarantine is administered by the Minister for Agriculture, Fisheries and Forestry through the Act. All biological agents require prior permission to import. Under the provisions of Section 13 of the Quarantine Act 1908, goods of biological origin, including human pathogenic micro-organisms and toxins, may only be imported into Australia if approval has been given by a Director of Quarantine (Animal/Plant or Human). In giving approval, the Director may require that the importer adhere to certain conditions or requirements, including, but not limited to, the storage, transportation, distribution and disposal of the goods, the use to which the goods may be put, and the personnel authorised to handle or use the goods.

Import conditions vary depending on the nature of the organisms, and on the risks involved. High risk organisms such as serious pathogens of humans, animals and plants which might be considered as potential biological weapons would only be permitted under the most stringent, high security conditions. Very few such imports are approved, and generally those would be for diagnostic research in preparation for emergency responses to specific serious exotic disease incursions.

Penalties for the importation of controlled goods without a permit, and for breaches of permit requirements, are severe and may include a fine, imprisonment or both.

Biological Control Act 1984 and associated regulations

This Act is administered jointly by the Bureau of Rural Sciences and the Agriculture Industry Division of the Department of Agriculture, Fisheries and Forestry within the framework of the Federal Government's quarantine policy. It provides powers additional to those of the Quarantine Act in order to regulate the release of biological agents for the control of pests, diseases and weeds. It primarily covers issues of compensation for the release of a biological control agent.

Declaration of legislation, regulations and other measures***Gene Technology Act 2000 and associated regulations***

The object of the Act is to protect the health and safety of people and the environment from risks posed by, or as a result of, gene technology by identifying those risks and managing them by regulating certain dealings with genetically modified organisms (GMOs). Dealings include manufacturing, importing or conducting experiments with GMOs and require authorisation under legislation. In addition, there are legislative provisions for accreditation of organisations, certification of facilities and extensive monitoring and enforcement powers.

Therapeutic Goods Act 1989 and associated regulations

The Therapeutic Goods Administration of the Australian Government Department of Health and Ageing regulates therapeutic goods for human use under this Act. The Act covers the import and export of therapeutic goods and would include pathogenic micro-organisms where these are included in vaccines for human use.

Prior to initial supply for human use products must be entered in the Australian Register of Therapeutic Goods. Vaccines are registrable products and undergo evaluation by the Therapeutic Goods Administration prior to entry in the Register.

Weapons of Mass Destruction (Prevention of Proliferation) Act 1995 and associated regulations

The Act is administered by the Department of Defence and complements the existing barriers contained in the Customs Act 1901 and the Customs (Prohibited Exports) Regulations. It prohibits the supply or export of goods, not otherwise controlled by the Customs Act 1901, or the provision of services, in circumstances where the goods or services may be used to assist in the development, production, acquisition or stockpiling of WMD, including biological weapons or their delivery systems. The prohibitions under the legislation apply where the person involved knows or suspects the connection with a biological weapons program.

The Act applies extraterritorially as well as within Australia, covering the activities of Australian citizens or residents, as well as bodies incorporated in Australia. It provides a mechanism for exporters to obtain written guidance from the Government on the risk of a particular planned transaction contributing to a biological weapons program.

Declaration of legislation, regulations and other measures**Guidelines to prevent the inadvertent supply of biological weapons-applicable plant, equipment source cultures and expertise**

The Guidelines are a non-statutory, non-proliferation measure, developed by the Department of Foreign Affairs and Trade, to raise the awareness of industry and researchers about the risk of inadvertent involvement in the biological weapons programs of other countries. The Guidelines have been circulated to biological industry, universities, relevant professional associations and government agencies.

Declaration of past activities in offensive and/or defensive biological research and development programmes

In addition to the following information, see [Attachment 6](#) for explanation of research related to biological warfare defence in Australia.

1. Date of entry into force of the Convention for the State party.

5 October 1977

2. Past offensive biological research and development programmes:

- YES – NO

No

- Period(s) of activities

Not applicable

- Summary of the research and development activities indicating whether work was performed concerning production, test and evaluation, weaponization, stockpiling of biological agents, the destruction programme of such agents and weapons, and other related research.

Not applicable, but see [Attachment 6](#).

3. Past defensive biological research and development programmes:

- YES – NO

No

- Period(s) of activities

No, but see [Attachment 6](#).

- Summary of the research and development activities indicating whether or not work was conducted in the following areas: prophylaxis, studies on pathogenicity and virulence, diagnostic techniques, aerobiology, detection, treatment, toxinology, physical protection, decontamination, and other related research, with location if possible.

No, but see [Attachment 6](#).

Declaration of past activities in offensive and/or defensive biological research and development programmes

**EXPLANATORY STATEMENT
RESEARCH AND DEVELOPMENT PROGRAMS RELATED TO
BIOLOGICAL WARFARE AND DEFENCE IN AUSTRALIA
SINCE 1 JANUARY 1946**

Between 1946 and 1994, Australia had no R&D program specifically aimed at defence against biological and toxin weapons. However, some methods for protection against chemical warfare agents could also be used to protect against biological agents. As Australia has had a longstanding R&D program to develop protection against chemical agents, it had, though only incidentally, also been involved in the development of means capable of offering some protection from biological weapons.

The Position at the end of World War II

During World War II, Australia acquired a protective capability against chemical and biological warfare (CBW), which included the equipping of military units with protective clothing, respirators, detection apparatus and decontamination equipment. This capability was associated with the threat of chemical warfare, as almost all of the major combatants possessed chemical weapons.

Australia had no biological weapons and knew little about them. While a need for some defence against them was generally perceived, no major specific steps were taken to achieve this. The tendency was to regard chemical and biological weapons as a single category of threat, with biological weapons treated as the lesser element.

The Situation from 1945 to the 1970s

In the late 1940s and 1950s Defence committees assessed the need for defence against biological agents. The view adopted was that if biological threat arose, Defence authorities would co-opt staff from public health facilities who were trained in microbiology and biological sciences.

In this Australia received limited information on biological defence from the United States of America, the United Kingdom and Canada through the Technical Cooperation Program (TTCP). Under TTCP, there is provision for collaborative research on biological defence, but Australia never participated in that research.

During the 1960s and 1970s some research was conducted in an Australian Defence laboratory on toxins and venoms from Australian animals and plants. The research had no biological warfare focus, and was undertaken solely for the purpose of developing expertise in toxicology. The results of the research were published in scientific journals, contributing to the open scientific literature.

Declaration of past activities in offensive and/or defensive biological research and development programmes

The Situation from 1970 to 1994

During this period the policy was to maintain a watching brief on developments in biological warfare defence research so that a competency could be maintained to advise on policy and to give direction to training for the Australian Defence Force. This competency was derived from open literature and from Australia's partners under The Technical Cooperation Program (TTCP). No research on defence against toxins (or other biological warfare agents) was undertaken during this period.

Australia did, however, maintain an R&D program into chemical defence and the protective aspects of this program and some incidental common utility in biological defence.

1994 – Present

In 1994, it was recognised that Australia's knowledge of toxins as warfare agents needed to be strengthened if appropriate advice on defensive measures was to be given to the Australian Defence Force and in support of the country's arms control objectives. Consequently, the Government gave approval to commence a modest program of Research into defence against toxins as warfare agents.

It was also recognised that the Government needed advice on defence against biological weapons if it was to pursue its aims of strengthening the Biological Weapons Convention. Consequently, the policy of maintaining only a watching brief on BW defence research was modified to allow research in BW defence that did not involve pathogenic reproducing organisms. Such activities as epidemiological studies, computer simulations and studies of the detection of toxins could then be undertaken.

In 1998, government approval was given for DSTO to undertake biological defence work with reproducing organisms up to Risk Group 3, with interdepartmental oversight of all such activities. This research allows Australia to play a larger part in those TTCP Panels that deal with BW defence research and obtain access to more information held by our cooperative partners. Australia still maintains its active program into researching protective aspects of defence against chemical agents and has expanded the scope to include utility defence against biological weapons. (eg incorporation of antibacterials in carbon adsorbents)

A statement on Australia's Defence policy appeared in November 2000 in the Defence White Paper, *Defence 2000: Our Future Defence Force*. The necessity of BW defence research is contained in the statement:

“Weapons of mass destruction remain a concern for the region's strategic stability. Nuclear, chemical and biological weapons, and their chief means of delivery - ballistic missiles - are all aspects of weapons of mass destruction over which we need to remain vigilant. The trend towards proliferation of weapons of mass destruction globally will require our continued focus.”

Declaration of vaccine production facilities

CSL is the only manufacturer licensed by the Australian Government pursuant to the *Therapeutic Goods Act 1989* to produce vaccines for the protection of humans included on the Australian Register of Therapeutic Goods (ARTG). The licence requires the manufacturer to comply with principles of Good Manufacturing Practice.

1. Name of facility:

CSL Limited

2. Location (mailing address):

45 Poplar Road
Parkville Victoria 3052
Australia

3. General description of the types of diseases covered:

Vaccine products must be entered in the Australian Register of Therapeutic Goods prior to supply of the products for human use. Registered products manufactured by CSL Limited are:

Diphtheria Vaccine
Diphtheria & Tetanus Vaccine
Influenza Vaccine
Plague Vaccine
Q fever Vaccine
Tetanus Toxoid Vaccine
Triple Antigen (Diphtheria, Tetanus, Pertussis)
Cholera Vaccine
Typhoid Vaccine
*Malarial Vaccine

* CSL manufactures the Malarial Vaccine for another sponsor, for export to Papua New Guinea only.

Note that Section 3, General Description of the Types of Diseases Covered, CSL Limited sponsor the following vaccines according to the Australian Register of Therapeutic Goods (ARTG):

Cholera Vaccine
Diphtheria and Tetanus Vaccine

Declaration of vaccine production facilities

Diphtheria Vaccine
Influenza Vaccine
Meningococcal Vaccine
Tetanus Toxoid Vaccine
Triple Antigen (Diphtheria, Tetanus, Pertussis)
Diphtheria, Tetanus, Pertussis and Hepatitis B Vaccine
Typhoid Vaccine
Q Fever Vaccine
Plague Vaccine
Yellow Fever Vaccine
Japanese Encephalitis Vaccine
Rabies Vaccine

There are some other manufacturers in Australia with GMP licences to produce biological goods – this category includes, but is not limited to, vaccines. These facilities are listed in the TGA document located at: <http://www.tga.gov.au/docs/pdf/licmanuf.pdf> (currently being updated and not accessible) “Australian Manufacturers Licensed to Manufacture Therapeutic Goods” and are categorised as manufacturers of “Plasma and other biological products of human or animal origin Supply Units.” None of these manufacturers are listed on the ARTG as sponsors of vaccines (i.e. responsible for the commercial supply). CSL may use one or more of such GMP-licensed manufacturers to supply components of its vaccines.