

Biosecurity - National Organochlorine Residue Management program

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Management of the biosecurity risk

Organochlorine (OC) contamination in food poses a risk to human health and market access for Australian produced animal food commodities. OC contamination is primarily an environmental problem associated with broad acre and point source contamination from legitimate OC use in the past.

The National Organochlorine Residue Management (NORM) Program had its origins in an OC property management programme which commenced in 1987 when Australia had major trade problems over OC residue detections in exported beef. NORM was developed by key beef stakeholders in 1995. The Australian prevalence rate for OC residues above maximum residue limit (MRL) was 0.41% in 1986. By 1996 the prevalence rate nationally was 0.03%. The last detection of an OC residue above MRL was in 2008.

The NORM program is jointly funded by the beef industry and state/territory governments. The objective of NORM is to minimise the risk of cattle with OC residues greater than the Australian MRL being slaughtered for human consumption. This is achieved by:

- continuing to support effective property management plans (PMPs) for all identified OC affected properties
- facilitating property risk assessments for producers seeking to update their NORM PIC statuses
- ensuring zero non-compliant samples for OC residues in beef for both domestic and export markets under the NRS Random Monitoring Programme.

This procedure will detail New South Wales (NSW) Department of Primary Industries (DPI), an office within the NSW Department of Industry, and Local Land Services (LLS) role in the NORM program in order to prevent, eliminate and minimise biosecurity risks posed by OC. This procedure provides operational support to achieve the outcomes of the NSW DPI policy on chemically affected food producing animals, animal food commodities and stock food, in relation to OC contamination.

Scope

The NORM program only applies to cattle. The program has evolved considerably since its inception and the emphasis has moved from identifying new OC contaminated properties to one of ensuring compliance with PMPs. This procedure therefore accepts the premise that all OC contaminated properties in NSW have been identified and recorded as such on National Livestock Identification System (NLIS). The NORM Program is based on the document entitled Program Principles and Guidelines (NORM), Fourth edition, 2012 (due for revision 2017). For more details of the NORM program, contact the State Residue Coordinator who will use the up to date version of the above mentioned Program Principle and Guidelines (NORM) as reference. This procedure contains an abbreviated version of the detail covered in Guidelines relevant to NSW at the time of writing.

The *Biosecurity Act 2015* (the Act) promotes biosecurity as a shared responsibility between government, industry and communities. This procedure is a State Priority for NSW and should be read in conjunction with the Chemically Affected Food Producing Animals, Animal Food Commodities and Stock Food Policy. The procedure applies to NSW DPI and LLS in their role as authorised officers under the Act when responding to issues related to the NORM program.

Biosecurity legislation summary

Under the Act, OC levels exceeding the Australian MRL in animal food commodities is a biosecurity event (section 39 (1)) with animals and their products becoming chemically affected (section 13 (2)).

Mandatory measures for chemicals in food producing animals and animal food commodities are detailed in clauses 41 and 42 of the Biosecurity Regulation 2017. These measures detail the obligation for reporting of test results for residues exceeding MRL, including organochlorines, in animal food commodities and the obligation of vendors of cattle to notify a purchaser if an animal is chemically affected.

Vendors of cattle have a general biosecurity duty to declare if in the past six months, the animal has been on a property listed on the extended residue program (ERP)/NLIS database or placed under any restrictions because of chemical residues.

The collection, use and disclosure of information in accordance with this procedure, including any internal or external discussion or distribution of information, must be in compliance with the *Privacy and Personal Information Protection Act 1998* or be exempted by the operation of section 387 of the Act.

Section 387 (2) of the Act provides authority for the disclosure of information about a person, without the consent of the person: to a public sector agency, or to any other person, but only if the disclosure is reasonably necessary for the purpose of exercising a biosecurity risk function.

Work Health and Safety

The *Work Health and Safety Act 2011* places an obligation on the agency (NSW DPI and LLS) as a person conducting a business or undertaking and workers to provide a safe and healthy workplace. Safe Work Method Statements that support activities included in this procedure must be used in identifying, assessing and controlling risks.

NSW DPI and LLS will work together to create a safe and supportive work environment when undertaking any activities for this procedure.

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National Organochlorine Residue Management program procedure

1. Roles and Responsibilities

1.1 NSW Department of Primary Industries

- the NSW DPI State Residue Coordinator (SRC) interprets the NORM Guidelines as they apply to specific Property Identification Codes (PICs) in association with the relevant District Veterinarian
- the NSW DPI SRC manages PIC risk category assessments, the PIC residue database, copies of individual NORM PIC files and files which are archived
- updated information includes property ownership changes, subdivision of properties and amendments of property statuses
- prior to any action to initiate NORM status changes, the NSW DPI SRC reviews the current property status on NLIS and PIC OC residue database and the PIC records file. PIC status changes will normally require soil and/or tissue testing for OC residues to determine if the risk has changed over time
- NSW DPI SRC confirms to the relevant Local Land Services (LLS) veterinarian any changes made to the ERP/NLIS via email with a confirmatory screenshot of its new status
- NSW DPI SRC advises the Livestock Production Assurance (LPA) / Ausmeat of any status changes, so that the requirement to audit and/or audit frequency may also be adjusted
- in applying an R status to a PIC, the audit frequency will also be applied by the NSW DPI SRC. Generally PICs are audited for PMP compliance every three to five years, depending on risk
See Work Instruction - NLIS ERP status application INT17/42027
- NSW DPI SRC sends copy of all new and updated signed PMPs to LPA.

1.2 Local Land Services

- LLS veterinarian provides all new owners of R status PICs with a copy of [Primefact 316](#).
- LLS veterinarian visits all new owners of R status PICs to discuss the requirement for compliance with a PMP to minimise the risk of OC contamination to the food chain.
- LLS veterinarian request new owners to sign a PMP as per [Primefact 316](#). The newly signed PMP may be a copy of the previous owner's PMP or may be varied after discussion with the SRC:
 - a copy of the newly signed PMP is uploaded into Livestock Health Management System (LHMS) and a copy is sent to the SRC, within 30 days of change of ownership. If a new owner refuses to sign a PMP, the DV must advise the owner that their PIC will be assigned a T-status and testing will be undertaken at the owner's expense on cattle from that PIC sent to slaughter
 - notify the SRC of the refusal and request them to apply a T status.
- LLS veterinarian collect samples as per the [Primefact 320](#) – “Testing soils for residues of persistent chemicals” from contaminated sites for soil testing of a PIC which is considered to warrant a possible status change from R to C
- LLS veterinarian enters all NORM PIC visits, NORM status changes and/or investigation results into LHMS- see Appendix Two for details
- LLS veterinarian maintains in LHMS up to date NORM PIC files containing information of site contamination levels, location maps, laboratory reports, PMP
- provide producers with current information and advice for managing residue issues, including assisting producers in fulfilling any Corrective Action Requests post audit and providing them with a copy of [Primefact 316](#) – “Management of organochlorine and related residues”
- investigate any breaches detected at processing or during an audit by Livestock Production Assurance as per the NSW DPI chemical trace back investigation procedure.

2. Property Risk and Testing Requirements

There are 3 commonly used Risk statuses for properties viz C, R and T.

C means 'no known risk' and cattle from such PICs are only subject to random testing of tissue samples at abattoirs under the routine NRS Random Monitoring Program.

R means Resolved. The R status is applied to PICs where OC contamination is present but a PMP has been implemented to minimise the risk of OC residues >MRL in grazing animals. Properties are independently audited for PMP compliance. Cattle from such PICs are only subject to random testing of tissue samples at abattoirs under the routine NRS Random Monitoring Programme.

T (T1-T4). T status PICs mean that cattle from these sites must be tested at the abattoir. The nature of the testing is determined by whichever T status code a particular PIC has been assigned. T1 is the lowest risk status with T4 being the highest. NSW has few T status PICs remaining. Most of these PICs either have no grazing cattle or the land has been developed for housing or other uses. T statuses can be applied to land where new owners of contaminated properties refuse to agree to or sign a PMP.

3. Property Management Plan

To avoid financial penalties at processing, a written PMP is required for all properties which are considered to have the potential to produce cattle with OC residues above Australian MRLs. This may include:

- properties that have, in the past, produced non-compliant cattle, or
- properties where there is land previously treated with organochlorines and there are significant residues in the soil and the owner/manager has indicated a future intent to graze food producing animals on the property.

The PMP must be easily auditable to facilitate the efficient operation of field activities and audits under the program. The PMP itself may vary from a simple statement regarding the need for an owner to adequately fence off localised 'hot spots', to a detailed food producing animals grazing and management program for properties with broad acre contamination (see Appendix 1 for examples of PMPs and [Primefact 316](#)).

For properties with broad acre contamination, an essential element of the PMP is a requirement that the producer maintain an adequate grazing history of the food producing animals grazing contaminated paddocks. This should be complemented by a reliable, auditable animal identification system (such as the use and recording of NLIS devices or numbered tags for all cattle on the property).

- DV enters visit to LHMS as advisory event and attaches a copy of the new PMP to the event (Appendix 2)

4. Property owner requests removal from NORM program

Some R status properties have been on the NORM database for decades. Depending on the extent and type of original contamination, PIC owners may wish to have their contamination risk reviewed by NSW DPI/LLS, with a view to having their PIC status changed from R to C (Clear):

- PIC already has an R status. The property is audited regularly for PMP compliance
- LLS veterinarian informs owner that any soil and/or tissue testing in the attempted move to a C status is at the owner's expense
- LLS veterinarian reviews PIC file and the likelihood that with the passage of time, residue levels may be below levels considered non violative
- LLS veterinarian discusses with SRC possible actions to test whether a status change is warranted
- LLS veterinarian visits the contaminate sites on the PIC and tests soil as per [Primefact 320](#)

- as the NORM program is largely based on tissue OC levels, it may be decided to undertake tissue biopsies in a sample of cattle exclusively grazing the contaminated site/s for a period of not less than six weeks
- SRC will review test results, in consultation with LLS veterinarian and decide if NORM PIC status should be changed from R to C or whether PIC status is to remain at R
- LLS veterinarian enters visit in LHMS as a diagnostic event (Appendix 2).

5. Definitions and acronyms

DPI	NSW Department of Primary Industries
LHMS	Livestock Health Management System
LLS	Local Land Services
LPA	Livestock Production Assurance
NORM	National Organochlorine Residue Management
NSW	New South Wales
OC	Organochlorine
PIC	Property Identification Code
PMP	Property Management Plan
SRC	State Residue Coordinator

6. Documentation

National Organochlorine Residue Management Program Principles and Guidelines
 Policy- Chemically affected food-producing animals, animal food commodities and stock food
 Policy - Biosecurity collection, use and disclosure of information
 Policy - Records Management (IND-I-177)
 Policy - Information Security (IND-I-197)
 Policy - Classified Information (IND-I-196)
 Policy -Government Information (Public Access) (IND-I-178)
 Procedure - Biosecurity collection, use and disclosure of information
 Procedure- chemical trace back
[Primefact 320 Testing soils for residues of persistent chemicals](#)
[Primefact 316 Management of organochlorine and related residues](#)
 Work Instruction - NLIS ERP status application INT17/42027

7. Records

LHMS NORM visits and related documents created at visits (see appendix 2 for details on entry) - maintained by LLS

State residue excel NORM database on RM8 (INT17/40281) - maintained by SRC

8. Revision History

Version	Date issued	Notes	By
1	01/07/2017	New procedure developed in response to the <i>Biosecurity Act 2015</i> .	Animal Biosecurity and Welfare

9. Contact

Biosecurity NSW – General Enquires
 1800 808 095
biosecurity@dpi.nsw.gov.au

Appendix 1: Examples of property management plans

Example of an OC Property Management Plan - Grazing Management

This Property Management Plan was prepared by M & J Brown of RMB 357 Old Coast Road, Potatoville, NSW 2987 in consultation with James Smith, District Veterinarian, North Coast Local Land Services.

Property address: RMB 357 Old Coast Road, Potatoville, NSW 2987.

PIC/Tailtag No: NK98765

Chemical detection: On 14 June 1995 a steer was found to have a bodyfat Heptachlor Epoxide level of 0.24 mg/kg when tested at the Springrove Abattoir. The Maximum Residue Limit for Heptachlor in fat is 0.20 mg/kg.

Source of chemical: Investigations have shown that the area used for potato growing in the late 1970s is contaminated with Heptachlor (see attached property map – 'Hill' & 'Spring' Paddocks).

The GPS coordinates for the corners of these paddock are marked on the attached property map.

OC Property Management Plan Requirements:

Cattle Management:

- (1) All weaned cattle on the holding will be permanently identified with individual ear tags within 30 days (by dd/mm/yy).
- (1) All calves will be identified with individual ear tags by weaning. A record of the identity of the Dam (or Mob) will be recorded in the record book with the calf IDs.
- (2) Warning Signs supplied through the NORM Program will be placed on or adjacent to any gates leading into 'Hill' and 'Spring' paddocks by dd/mm/yy and maintained at these locations.
- (3) Steers, and unjoined heifers and dry cows will not be sold for a period of at least 6 months of last grazing 'Hill' and/or 'Spring' paddocks.

When sold they must be either:

- at least one condition score higher, or
- the same condition score but at least 20% heavier (weigh-band or scales)

than when they were last removed from these paddocks.

- (4) Calves born to cows that have grazed the 'Hill' and/or 'Spring' paddocks at any time in the 6 months prior to calving will not be sold until they have grazed other paddocks for a minimum of 6 months after weaning.
- (5) Unweaned calves grazed with their dams in 'Hill' and/or 'Spring' paddocks will not be sold until they have grazed other paddocks for a minimum of 9 months after weaning.
- (6) The 'Hill' and/or 'Spring' paddock fences will be kept food producing animals proof. Any cattle that gain accidental access will be recorded as ineligible for sale until they have grazed clean areas for the required period (see (4), (5), and (6) above).

Pasture Management:

- (7) Pastures in the 'Hill' and 'Spring' paddocks will not be grazed shorter than 7.5 cm and will not be grazed when wet muddy conditions exist. Food producing animals will not be fed hay or grain off the ground in these paddocks.
- (8) Hay may be cut from the 'Hill' and 'Spring' paddocks but the cutting height will not be less than 7.5cm from the ground, and the inclusion of any soil in the baled hay must be kept to a minimum.

Record Keeping:

- (9) Grazing records will be kept in a record book for all cattle grazing the 'Hill' paddock and the 'Spring' paddock.

These records will show:

- the ear tags of the cattle which entered either of the residue affected paddocks,
 - the date that they entered these areas,
 - the date that they were removed,
 - the pasture height at the time of entry and removal, and
 - the body-weight (scales or weight band) and/or condition-score of each animal on entry to and exit from the residue affected area.
- (10) Individual cattle must be assessed for eligibility for slaughter, according to the above requirements, before leaving the property, and a record kept of the outcome of this assessment in the record book. The date of sale, and the bodyweight and/or condition score of each animal at the time of sale shall also be recorded.
 - (11) Records will be kept of all cattle gaining accidental access to the 'Hill' and 'Spring' paddocks (see 7 above), including the animal IDs, the bodyweight or condition score of each animal at removal, the date found, and the likely period spent in the 'Back Paddock'.
 - (12) If hay is cut from the 'Hill' or 'Spring' paddocks, the date and cutting height must be recorded on each occasion.

Other Requirements:

- 14) All farm workers, or persons responsible for food producing animals' management, will be advised of the requirements of this OC Property Management Plan. The dates of this advice will be recorded in the record book, and copies of this advice retained if the advice was written.

- 15) A copy of this plan will be provided to any future purchaser or lessee of the land to which it applies and to any person agisting cattle on that land prior to them placing food producing animals on that land.

- 16) This plan will be audited by DPI or its nominated auditors, at a frequency which is set by DPI. A copy of this plan will be provided to the auditors.

This plan aims to ensure that food producing animals, managed in accordance with the plan, will meet Australian residue standards. It is based on currently available information regarding the residue status of the land, and food producing animals. It does not provide a guarantee that all food producing animals managed in accordance with this plan will meet current or future residue standards.

Signed:
Owner/Manager	District Veterinarian
Name:
Date:



The **National Organochlorine Residue Management (NORM) Program** has been developed and funded by the cattle industry in Australia. The objective of this program is to progressively reduce the percentage of cattle found to have OC residue levels at slaughter which exceed the Australian Maximum Residue Limits. Thorough investigation of residue detections, development of effective OC PMPs, monitoring residue levels in cattle from risk properties, and regular auditing, are essential components of the NORM Program.

In NSW enquiries should be directed to the District Veterinarian at the Local Land Services (LLS).

Example of an OC Property Management Plan – Exclusion from source

This Property Management Plan was prepared by R & B Jones of RMB 789 Floodway Rd, Bordertown, NSW 2999 in consultation with James Smith, District Veterinarian, North Coast Local Land Services.

Property address: Sheepdip Rd, Bordertown, NSW 2999.

PIC/Tailtag No: NK981234

Chemical detection(s): On 14 June 1995 a steer was found to have a bodyfat Dieldrin level of 0.35 mg/kg when tested at the Springgrove Abattoir.

The Maximum Residue Limit for Dieldrin in fat is 0.20 mg/kg.

Source of chemical: Investigations have shown that the area adjoining the old sheep-dip in the 'Woolshed' paddock is contaminated with Dieldrin.

The GPS coordinates for the corners of the exclusion zone are marked on the attached property map.

OC Property Management Plan Requirements:

- (1) No stock, except horses, will be allowed access to the contaminated area(s) identified in the attached property plan.
- (2) Stockfeed will not be stored in the contaminated area(s) identified in the attached property plan.
- (3) The contaminated area(s) identified in the attached property plan will be securely fenced at all times.
- (4) A permanent sign will be affixed to the gateway leading to this area warning of the OC contamination.
- (5) While ever this PIC/Property is allocated a 'T' Status under the NORM Program (requiring some testing of cattle at slaughter), the National Vendor Declaration (cattle) shall be completed to indicate 'Yes' at any question regarding a Targeted Testing Listing for OCs, or the presence of any grazing restrictions because of chemical residues.
- (6) A record of the dates and description of all cattle sold should be kept in the record book, and copies of completed National Vendor Declarations (cattle) retained.
- (7) If any stock, except horses, enter the exclusion area they will be identified (individually if possible or by mob) and the District Veterinarian immediately advised. No such stock will be sold until a risk assessment has been completed and the District Veterinarian is satisfied that

they do not present a risk of unacceptable residues.

A record will be kept in the record book of any stock that enter the exclusion area, including the animal or mob IDs, date of likely entry to the exclusion area, and date of removal.

- (8) All farm workers, or persons responsible for the livestock management, will be made aware of the requirements of this OC Property Management Plan.
- (9) A record of the date and recipient of such advice shall be recorded in the record book on each occasion. If the instructions are in writing a copy of this advice should be retained for audit.
- (10) A copy of this plan will be provided to any future purchaser or lessee of the land to which it applies and to any person agisting cattle on that land prior to them placing stock on that land.
- (11) This plan will be audited by DPI or its nominated auditors, at a frequency which is set by DPI. A copy of this plan will be provided to the auditors

This plan aims to ensure that stock, managed in accordance with the plan, will meet Australian residue standards. It is based on currently available information regarding the residue status of the land, and stock. It does not provide a guarantee that all stock managed in accordance with this plan will meet current or future residue standards.

Signed:
Owner/Manager
District Veterinarian

Name:
Date:

The **National Organochlorine Residue Management (NORM) Program** has been developed and funded by the cattle industry in Australia. The objective of this program is to progressively reduce the percentage of cattle found to have OC residue levels at slaughter which exceed the Australian Maximum Residue Limits. Thorough investigation of residue detections, development of effective OC PMPs, monitoring residue levels in cattle from risk properties, and regular auditing, are essential components of the NORM Program.

In NSW enquiries should be directed to the District Veterinarian at the Local Land Services.

Appendix 2 – Livestock Health Management System entry

- A. Diagnostic event- if any samples are being collected (environmental or animal tissue) e.g. owner requests a status change.
- Select “Diagnostic event”
 - Select “residue and food safety” as program
 - Include “residue organochlorine” in the differential diagnosis
 - Enter any clinical exam, lab tests, diagnosis and advice/plan
- B. Advisory event- if advice only given and no samples collected e.g. when developing a PMP
- Select “Advisory”
 - Select “Residue and food safety” as program
 - Select “Individual” as Activity type