

Weed Recording Standards in NSW

Accurate and consistent recording of field data is the first step in any good weed management program. Therefore, the Australian Weeds Committee has endorsed a minimum set of core attributes for recording distribution and spread of Weeds of National Significance (WoNS). These core attributes were developed in consultation with all states and territories.

NSW Department of Primary Industries (DPI) will be adopting, with some modifications, the WoNS core attributes as its recording standard for all notifiable weeds in NSW. (Copies of WoNS attributes are available from the Bureau of Rural Sciences www.brs.gov.au).

The Noxious Weeds Act 1993 requires Local Control Authorities (LCAs) to keep records of and report to NSW DPI on, among other things, the presence and distribution of noxious weeds in the local area. To assist LCAs in the reporting process NSW DPI has developed a minimum standard for recording noxious weeds. These standards should be taken into account when selecting weed recording software.

NSW Department of Primary Industries Weed Recording Standards

1. **Weed Name:** This should be set in 4 fields
 - I. Genus
 - II. Species
 - III. Variety or Subspecies
 - IV. Accepted common name as per declaration
2. **Weed Control Class:** eg CC1, CC2 etc
3. **Datum Used:** AGD 94 is the preferred standard.
4. **Geographical Location of Infestation:** This should be set in 2 fields. Decimal degrees is the preferred option. (Conversion programs are available on the internet.) Readings to be taken from centre of infestation.
 - I. Latitude (northing)
 - II. Longitude (easting)
5. **Date:** Date infestation discovered or date of inspection
6. **Size of Infestation:** To be recorded in hectares. Note: $1\text{m}^2 = 0.0001\text{ ha}$.
7. **Number of Plants in Infestation:** If weed is notifiable then all plants should be counted where possible.
8. **Degree of Infestation:** Recorded as a degree of infestation in no more than 5 classes – class 1 being the lowest level of infestation; class 5 the highest.
9. **Weed Status:** This should be set in 2 fields.
 - I. **Stage of development of plant:** To be recorded as: - Seedling, Juvenile, Non-flowering, Fruiting, Flowering, Seeded. The most advanced stage to be used.
 - II. **History of infestation:** To be recorded as: N = New Infestation or R(#) = Repeat infestations (#) = number of times area has re-infestation.
10. **Land Use:** The Australian Land Use Mapping Classification (ALUM) is to be used. (appendix 2)
11. **Land Tenure: Examples of tenure:-** Federal, State or Local government, RLP Board, Forestry, Private, etc.
12. **Source of Infestation: Example of sources:-** Header, Grain, Fodder, Stock, Unknown, Other (please list)
13. **Total Area Infested in LCA:** This figure should be derived from all infestation reports.
14. **Total number of properties infested in LCA:** This figure should be derived from all property inspection reports.

LCA Weed Recording Standards

Participants at a workshop held in April 1998, which included staff from NSW Agriculture, National Parks and Wildlife and noxious weeds inspectors and general managers from various LCAs throughout NSW, developed a more detailed set of weed recording standards. Recognising that the needs of local control authorities may differ, the following weed recording standards were considered suitable for the majority of local authorities. There has been some changes to these standards to accommodate recent amendments to the Noxious Weeds Act.

The workshop resolved that any weed recording software selected by LCAs should be flexible enough to record, store and process all or as much as possible of the following.

Property Records

- i. Name of occupier
- ii. Name and address of owner
- iii. Property details - name, assessment number, lot DP, road, area (size), parish etc.

Weed Records

- i. Weed names - common and botanical
- ii. Size of infestation, hectares for common weeds, number of plants for notifiable weeds
- iii. Degree of infestation - a scale with not more than five steps including nil infestation
- iv. Location
- v. Land use
- vi. Weed growth stage and history of infestations on the site (notifiable weeds)
- vii. Source of infestation (notifiable weeds)

Inspection Details

- i. Inspection date and time
- ii. Inspection number
- iii. Name of Inspector
- iv. Inspection with or without occupier
- v. Full or part inspection
- vi. Initial or re-inspection
- vii. Telephone calls
- viii. Re-inspection date
- ix. Inspectors comments

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Property Weed Control Records

- i. Weeds controlled
- ii. Method - herbicide, mechanical, cultural or biological
- iii. Herbicide used, rate, adjuvant, application method and water source
- iv. Success or effectiveness

Regulatory History

- i. Previous inspections - linked through inspection numbers
- ii. Weed control notices served
- iii. Penalty notices issued
- iv. Prosecutions and results

LCA Land Weed Control Records

- i. Weeds controlled
- ii. Date
- iii. Location
- iv. Type of herbicide used
- v. Volume of herbicide used

Reporting

- i. Total area infested within LCA
- ii. Percentage of properties with a given weed in LCA
- iii. Number of properties per size of infestation, e.g. number of properties with < 1Ha, 1Ha, 5Ha, 10Ha, etc. of a given weed
- iv. Number and percentage of properties inspected

v. Re-inspection schedules

The following is a list of forms, reports and system requirements, which the workshop participants regarded as desirable for weed recording software to be capable of generating.

Standard Recording Forms

- Letter of notification of entry for inspections
- Property inspection report – must comply with NSW DPI requirements
- Nil infestation letter
- Section 18 notice and accompanying letter with reinspection and expiry date
- Section 18A prior notice of Section 18 notice
- Emergency weed control notice
- Property reinspection report
- Section 20 notice and accompanying letter
- Letters for (S.E.I.N.S) and/or prosecution
- Notice / work record spraying form
- Section 43 record of entry (for section 20)
- Account for section 20 work – to be tailored for individual councils
- Private works form – to be tailored for individual councils
- Notifiable weed form – must comply with NSW DPI requirements (see appendix 1)

Reports

- Property report
- Inspectors periodic reports – from / to date format
- Weed infestation – from / to date format, must comply with NSW DPI requirements
- Reinspection program (scheduler / diary)

System requirements

- Ability to link to a GIS system
- Ability to link to a variety of external programs and mainframe computers
- Ability to store GPS data in decimal degrees
- Reinspection scheduling

A sample database which may be used to meet NSW DPI's minimum standards

Infestation ID	Text	15 characters
Description:	Essential: A unique identifier to be used. No duplicates allowed.	
Required:	True: ie need a record	
Infestation History	Text	15
Description:	Essential if infestation has been recorded previously. Use the initial infestation ID in this field.	
Required:	False: ie record not required	
Genus	Text	50
Description:	Essential: Plant genus eg. <i>Chrysanthemoides</i>	
Required:	True	
Species	Text	50
Description:	Essential: Plant species eg. <i>monilifera</i>	
Required:	True	
Spp or Var	Text	50
Description:	Essential: Plant sub species or variety eg. ssp. <i>rotundata</i>	
Required:	False	
Local Common Name	Text	50
Description:	Desirable: Accepted common name for the area. Eg Bitou bush	
Required:	False	
Date Discovered	Date/Time (dd-mmm-yyyy)	8
Description:	Essential: Date infestation discovered	
Required:	True	

Size of Infestation

Decimal Places:

Description:

Required:

Number (Long)

4

Essential: Area to be recorded in hectares. 0.0001ha = 1sq metre

True

Number of plants

Description:

Required:

Number (Integer)

Essential: notifiable weeds. Desirable: for all other weeds

False

Degree of Infestation

Description:

Required:

Text 50

Desirable: Degree of infestation from sparse to complete cover. No more than 5 classes to be used.

False

Development stage of Plant

Description:

Required:

Text 50

Essential: notifiable weeds. Desirable: for all other weeds

False

Source of Infestation

Description:

Required:

Text 50

Desirable: Mainly for new infestations. Eg Header, seed or feed.

False

Identification/ Verification

Description:

Required:

Text 50

Essential: All new weed outbreaks. Desirable: For other weeds.

Eg National Herbarium of NSW

False

Identification/ Verification ID:

Description:

Required:

Text 20

Essential: All new weed outbreaks. Desirable: for all other weeds.

Eg Herbarium voucher number

False

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Appendix 1

FIELD LOCATIONS of NOTIFIABLE WEEDS

Notifiable Weed Species	Datum used	Geographical Location		Date	Weed Status		Source	Land		Number of Plants	Area	Verification		Comments Eg. Location, site description etc.
		Latitude (northing)	Longitude (easting)		Stage	History		Use	Tenure			Person or Herbarium	Voucher No.	

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Datum used: eg GDA 94, WGS 84. from map also include map sheet name; number; scale

Weed Status: **Stage:** A = Seedling; B = Rosette; C= Juvenile; D = Non-flowering; E = Fruiting; G= Flowering; H = Seeded

History: N = New Infestation; R(#) = Repeat infestation (#) = Number of times area has reinfested

Source: H = Header, G = Grain, S = Stock, U = Unknown, Other (please list)

Land: **Use: Australian Land Use Mapping Classification**

Tenure: FG = Federal government; SG = State government; LG = Local government; NP = National Park; SF = State Forest; PR = Private; DL = Land & Water; PP = Pasture Protection Board Land; OT = Other (please list)

Number of plants: Count if 100 or less; A = 101-500; B = 501-1000; C = >1000 (Count all plants if possible)

Area: 1 ha = 10,000 m² (10 m² = 0.001 ha, 100 m² = 0.01 ha)

Verification: Person or Herbarium: The name of the person or herbarium who has identified the weed. Eg National Herbarium of New South Wales

Voucher No.: The voucher number of the specimen lodged with a herbarium. Eg A. Maguire 253

Please return form soon after a notifiable weed is discovered to:

Noxious Pests Advisory Officer
 NSW Department of Primary Industries
 4 Marsden Park Road
 CALALA NSW 2340
 or
 Fax 02 67631120

Australian Land Use Mapping Classification

1. CONSERVATION AND NATURAL ENVIRONMENTS

Land used primarily for conservation purposes, based on the maintenance of the essentially natural ecosystems present.

- 1.1 Nature conservation (national parks, nature reserves or other legally protected areas)
- 1.2 Managed resource protection
- 1.3 Other minimal

2. PRODUCTION FROM RELATIVELY NATURAL ENVIRONMENTS

Land used primarily for primary production with limited change to the native vegetation.

- 2.1 Grazing natural vegetation
- 2.2 Production forestry

3. PRODUCTION FROM DRYLAND AGRICULTURE AND PLANTATIONS

Land used mainly for primary production, based on dryland farming systems.

- 3.1 Plantation forestry
- 3.2 Grazing modified
- 3.3 Cropping
- 3.4 Perennial horticulture
- 3.5 Seasonal horticulture

4. PRODUCTION FROM IRRIGATED AGRICULTURE AND PLANTATIONS

Land used mostly for primary production based on irrigated farming.

- 4.1 Irrigated plantation forestry
- 4.2 Irrigated modified pastures
- 4.3 Irrigated cropping
- 4.4 Irrigated perennial
- 4.5 Irrigated seasonal horticulture

5. INTENSIVE USES

Land subject to extensive modification, generally in association with closer residential settlement, commercial or industrial uses

- 5.1 Intensive horticulture
- 5.2 Intensive animal production
- 5.3 Manufacturing and industrial
- 5.4 Residential
- 5.5 Services (includes commercial areas, recreation areas, schools, defence and research facilities)
- 5.6 Utilities
- 5.7 Transport and communication (includes roads and railways)
- 5.8 Mining
- 5.9 Waste treatment and disposal (includes landfill sites)

6. WATER

- 6.1 Lake
- 6.2 Reservoir or dam
- 6.3 River
- 6.4 Channel/aqueduct
- 6.5 Marsh/wetland
- 6.6 Estuary/coastal waters

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