



# New Zealand National Herbarium Network

## Standard for shipping of dried herbarium specimens

Version 1

Endorsed: 25 July 2008

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### 1. Purpose of standard

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This standard describes the procedure and packaging requirements for the transfer of herbarium specimens within New Zealand and internationally. This has been developed to minimise the risk of damage to specimens and prevent loss of material during shipment of specimens.

The shipment of specimens is required to meet obligations of the reciprocal programme of specimen exchange and loans that operates between herbaria within New Zealand and around the world.

Note that the following regulations are relevant to the transfer of specimens

- Trade in Endangered Species Act 1989 (covering the Convention on International Trade in Endangered Species of Wild Fauna and Flora)
- Antiquities Act 1975
- Biosecurity Act 1993
- Hazardous Substances and New Organisms Act 1996
- Postal and Courier Regulations

#### Definitions

*Lending Institute:* the organisation sending specimens on temporary loan

*Receiving institute:* the organisation to which specimens are being sent

*Initial acknowledgement:* an acknowledgement sent to the **Lending institute** to inform them that the shipment has arrived, but the contents have not been verified. This is not common practice internationally and therefore intended only to be used for shipments within New Zealand.

*Full Acknowledgement:* an acknowledgement sent to the **Lending institute** to inform them that the shipment has arrived and the contents have been checked and the inventory verified

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## 2. Procedures

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This section outlines the procedures. It is organised following the general process for a loan or exchange which is

- Requesting material
- Shipment of material
- Receipt of shipment
- Return of shipment (loans only).

Within each of these sections information is subdivided into general requirements that apply to all shipments, and requirements specific for shipping specimens within New Zealand or internationally.

### 2.1. Requesting Material

#### *General*

- No general requirements.

#### *New Zealand*

- No specific requirements.

#### *International*

- When a request is made, the **Receiving Institute** should provide appropriate documentation to be included (by the **Lending Institute**) with the shipment so as to facilitate passage of loan returns and exchange into New Zealand. (*Recommendation*)

### 2.2. Shipment of Material

#### *General*

- Include documentation as outlined in Table 1
- Send separate notification of shipment to the **Receiving Institute**.
- Package and label consignments of specimens following instructions below.
- If consignment is lost, seek advise from the MAF Supervisor.

#### *New Zealand*

- If no **Initial Acknowledgement** is received within 10 working days after shipment, contact **Receiving Institute**.

#### *International*

- Additional documentation may be required when shipping internationally, for example CITES certificates and importation permit (see Table 1).

Table 1: Documentation requirements

	New Zealand	International		
		Exchange	from N.Z. herbarium	to N.Z. herbarium
Description of consignment and inventory	Required	Required	Required	Required
Return label			Required	
Copy of importation approvals			Required	Required
Copy of transfer approval	Required		Required	Required
CITES certificate		Required if specimens include CITES taxa	Required if specimens include CITES taxa	Required if specimens include CITES taxa
Antiquities certificate			Required if specimen is covered by Antiquities Act	Desirable
Instructions for sending material			Recommended	

### 2.3. Receipt of Shipment

#### *General*

- Record receipt of consignment as specified in Containment Manual for the Facility.
- Freeze consignment for a minimum of 48 hours at  $-18^{\circ}\text{C}$  or lower.
- Check content of consignment and acknowledge receipt and contents by email or letter, as specified by **Lending Institute**. (**Full Acknowledgement**)
- Dispose of any “risk packaging” material as a potential Biohazard. Risk packaging include shredded paper and organic based "chips".
- If consignment is damaged, the response will depend on the level of damage to the shipment
  - If damage is minor (no potential for loss of material): inform **Lending Institute**.
  - If damage is major (potential loss of material): place material in freezer and seek advice from the MAF supervisor, then contact **Lending Institute**.

#### *New Zealand*

- Acknowledge arrival of parcel by email as soon as possible on arrival of the consignment (**Initial Acknowledgement**) – this will be based only on the loan reference number on the outside of the consignment. Following freezing of the consignment, the contents can be verified and a **Full Acknowledgement** sent.

#### *International*

- No additional requirements

### 2.4. Return of Shipment

#### *General*

- Requirements as per **Receipt of Specimens**

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### 3. Packaging

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The following multi-layer specification is to prevent loss of material from the parcel and to prevent damage to the specimens through vibration, crushing, or condensation.

#### Multi-layer specification

- Specimens to be wrapped in paper to form small bundles (Fig1: i, ii, v), or placed inside small boxes (Fig1 iv)  
If boxes are used, additional packing should be placed in the box to prevent the specimens moving freely within the box.
  - Two or three of these small bundles to be aggregated and wrapped within bubble wrap (Fig1: iii). Note this bubble wrap should not be completely sealed, to prevent the potential for condensation pooling.
  - Bubble wrapped specimens (Fig1: iii) to be placed into crush proof box with corrugated cardboard or similar (Fig1: 1, 2, 7), foam or similar (Fig1: 4, 6) and additional packing material (Fig1: 2) placed above and below the bundles.
    - Additional packing material to be placed on top and bottom of box to fill void.  
To contain loose material this may be placed within a plastic bag. This packing material may consist of
      - Polystyrene
      - Closed cell foam
      - Chips
    - Crush-proof boxes are to be constructed from one of the following materials
      - A single corrugated cardboard box, placed inside a larger single corrugated cardboard box (Fig1: a)
      - Double corrugated cardboard (Fig1: b) (preferred option)
      - Single corrugated cardboard boxes, lined with additional corrugated cardboard (Fig1: c)
  - Documentation to be placed at the top of the box
  - Box to be wrapped with stout paper or similar material
- Note that use of plastic should be avoided to prevent condensation damage to specimens**
- Box to be labelled

In all instances packing should be firm to prevent movement of material, but should not be too tight as to damage the specimens.

For extremely fragile specimens additional packing may be placed around the specimen.

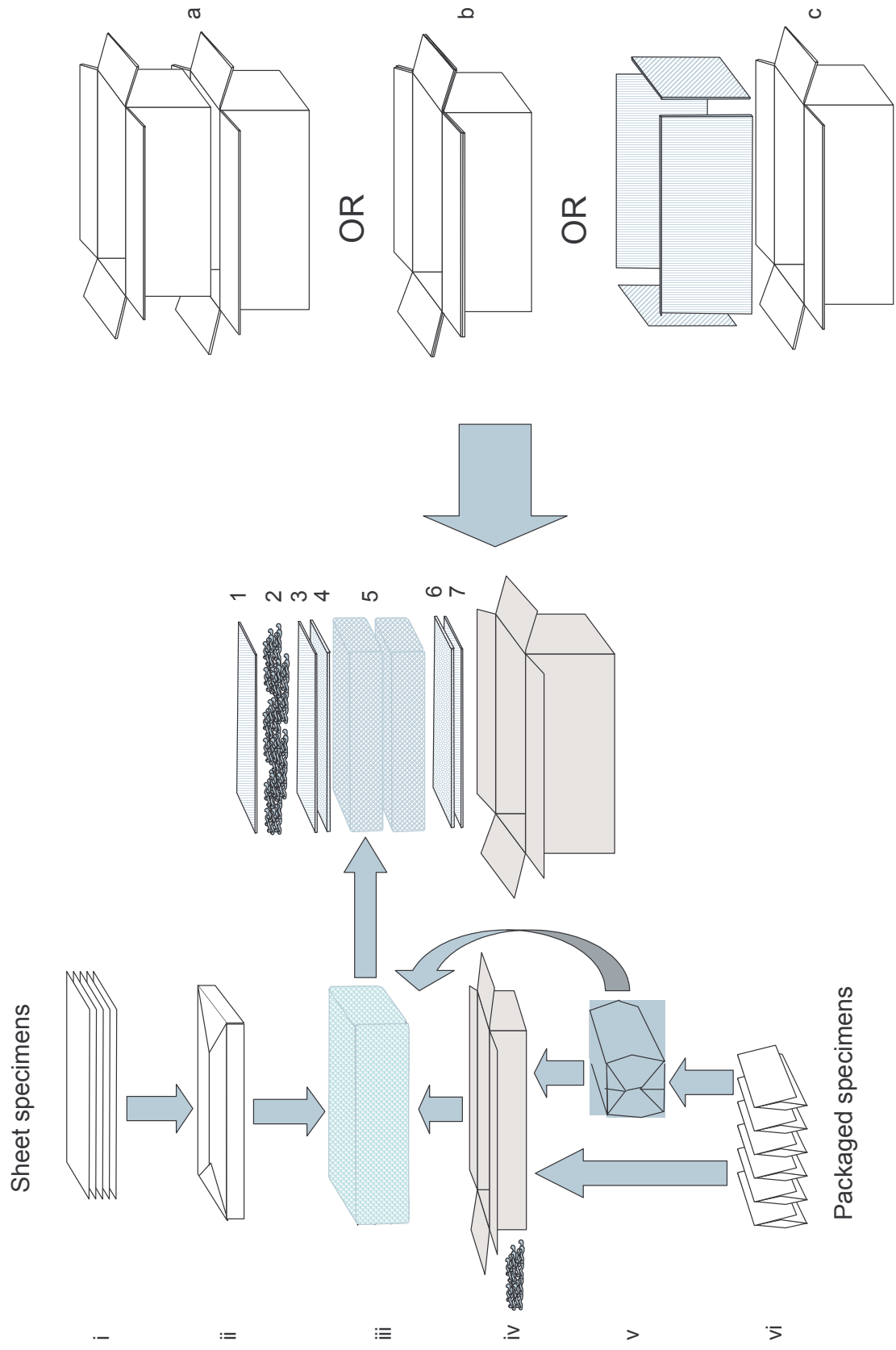


Figure 1: Diagram illustrating packaging method for herbarium specimens.

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## 4. Labelling

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Labelling on the outside of the parcel should include

- Fragile notice
- Direction for shipment (Keep upright)
- Packing/courier slip. This includes the customs declaration if international.
- Shipping label for herbarium specimens as defined here

### Shipping label

All shipping labels should include

- Biosecurity clearance approval numbers
- Reference number assigned to the loan by the **Lending Institutes**
- Full contact details for **Lending Institute**, including the Containment Facility Registration number
  - *International*: CITES registration number
- Full contact details for **Receiving Institute**
  - *Within New Zealand*: Containment Facility Registration number

It is recommend that the label also includes the following notices

- Herbarium specimens – no commercial value
- Do not irradiate

When requesting a loan, foreign herbaria may provide registration or permit numbers to be shown on the label.

For international loans, it is recommended that a label is included for the return of the specimens.

<b>HERBARIUM SPECIMENS</b> No commercial value	
<b>FRAGILE</b>	<b>DO NOT IRRADIATE</b>
<b>This consignment has Biosecurity Clearance for shipment under HSNO Approval No. XXXX.</b>	
<b>Loan Number:</b> <Loaning institutes reference number>	
<b>TO:</b>	<Herbarium Name> <Containment No> <Cites no> <Address>
	Phone: <Phone>      Fax: <Fax>
	Attn: <Contact person>
	Email: <Contact email>
<b>From:</b>	<Herbarium Name> <Containment No> <Cites no> <Address>
	Phone: <Phone>      Fax: <Fax>
	Attn: <Contact person>
	Email: <Contact email>

Figure 2: Example of shipping label