



# Sample guidelines for scientific testing of wood products

*This guide will help you collect test samples of various wood products and to perform due diligence in order to prevent illegal timber trade.*

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## Introduction

Illegal logging is a significant global issue that affects forests, wildlife, and indigenous communities. To combat this problem, many countries have established laws and regulations to control the import, export or trade of illegally sourced timber and wood products such as:

- ⇒ EU Deforestation Regulation
- ⇒ UK Timber Regulation and UK Environment Act
- ⇒ US Lacey Act
- ⇒ Australian Illegal Logging Prohibition Act
- ⇒ New Zealand Forests (Legal Harvest Assurance) Amendment Bill

One way to support compliance with these laws is through due diligence, which involves verifying the origin and species of the wood before it enters the supply chain.

Scientific testing is one way to support due diligence and verify the origin and species. This document offers guidance for collecting test samples of various wood products from factories and warehouses to perform due diligence and prevent illegal timber trade.

Collecting test samples, preparing them correctly, and conducting accurate testing can help businesses and auditors confirm the origin and species of wood products, demonstrating compliance with relevant laws and regulations.

This document provides a guide on how to sample wood products for testing.



## Sampling Methods

Providing a representative sample of a wood product for testing is critical to be able to draw conclusions from the testing process.

In a supply chain, there might be tens to thousands of cubic meters of product in circulation.

Conducting a scientific test on one or two products will only give an indication of what is present in those products sampled.

- ⇒ Samples can be taken randomly from an entire lot.
- Or
- ⇒ Stratified sampling involves dividing the lot and selecting samples from each based on predetermined criteria.

It is vital to select samples that represent the entire lot and avoid potential bias. Factors to consider when choosing samples include:

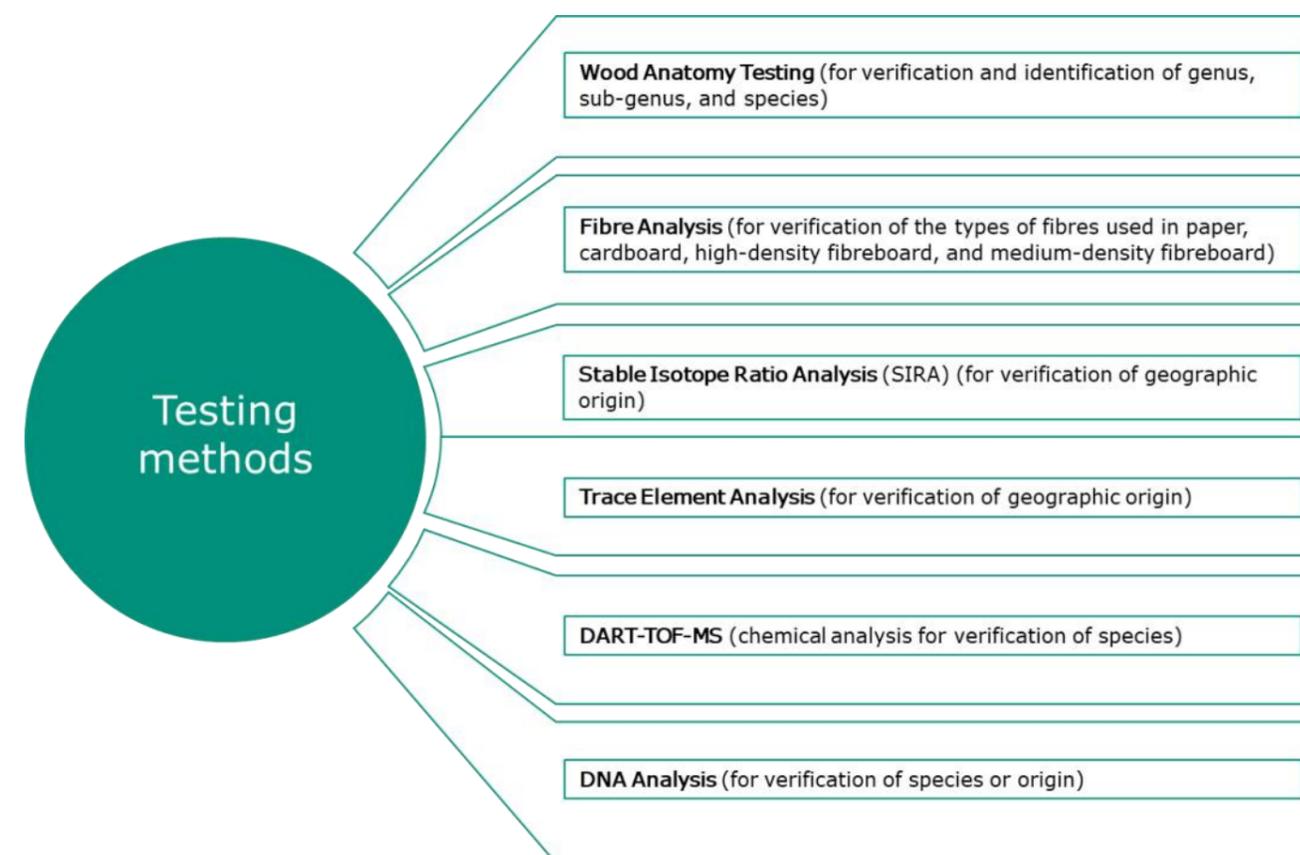
- ⇒ the wood product's size, shape and density.
- ⇒ as well as avoiding samples with visible defects or anomalies.

To determine the most suitable sample size for each specific case it is advisable to [consult](#) Preferred by Nature or a laboratory directly.

## Testing Methods

The choice of testing method depends on the wood product's type and size, along with the available resources and expertise.

Several testing methods can be used to confirm the origin and species of the wood.



## Submission Requirements

To determine the most suitable sample size for each specific case it is advisable to [consult](#) Preferred by Nature or a laboratory directly. However, see general guidelines below:

### Wood Anatomy

- ⇒ For wood anatomy, the smallest acceptable sample size should contain at least one growth ring. Ideally, the sample should ideally be 2.5cm x 7.6cm x 15cm.
- ⇒ If only a single year's growth is visible, it's unlikely that a wood anatomist can verify its declared genus or species, so ensure the wood has multiple rings (if solid wood).

### Chemical Analysis

For chemical analysis techniques like **Stable Isotope Ratio Analysis (SIRA), DART-TOF-MS, DNA analysis and Trace Element analysis**, consider the following minimum sample requirements:

**Solid Timber or Glulam** (Glue laminated timber):

- ⇒ A solid timber sample should be one consistent piece of wood. The minimum recommended weight is ideally 100g.

### Furniture

- ⇒ A furniture sample is considered as one continuous piece of timber.

For an entire furniture product, each component (or a single piece of wood/timber) is treated as a separate sample.

- ⇒ Specify which component the sample should be taken from when submitting a product for analysis. When sampling furniture, collect single samples from each component.
- ⇒ Minimum Sample Weight: Ideally, 100g of timber from the product to be analysed.

**Plywood, Oriented Strand Board (OSB), and Laminated Veneer Lumber (LVL)**

- ⇒ A sample in plywood, OSB, or LVL is considered as one veneer or piece of wood. Each veneer in a plywood or LVL product will be treated as a separate sample. Obtain ideally 100g of sample material from plywood for analysis.
- ⇒ Recommended Dimensions: 210mm x 296mm (A4) or 8.5 x 11 inches (US Letter).
- ⇒ For thin veneers, double size of the sample, making it clear to the laboratory that it's one sample.

**Engineered Flooring**

- ⇒ An engineered flooring sample is considered as one veneer/layer. Obtain ideally 100g of sample material for analysis.
- ⇒ Recommended Dimensions: Obtain a piece at least 300mm in its longest dimension.



## Required Sample Information

Assigning sample numbers and recording relevant data about samples before submitting them for analysis is good practice. Basic data to capture about a sample should be:

**Basic data to capture** about a sample should be:

- ⇒ Declared species – use the scientific name, not the trade name.
- ⇒ Declared geographic origin – the origin of where the timber was harvested.
- ⇒ Assign a sample number.

It is also **recommended to record**:

- ⇒ Supplier codes/registration numbers
- ⇒ Batch codes
- ⇒ Product codes/SKUs

## Reporting and Documentation

After completing testing, it is crucial to document and report the results accurately and thoroughly. This includes recording testing methods, test results, and any deviations or anomalies observed.

Maintaining detailed records of the sample collection, preparation, and testing methods is also essential. These records can support due diligence and identify areas for improvement in the testing process.

## Procedure

Below is an example procedure including the steps to follow, where Preferred by Nature can support you:

Steps	Details
1	Product input material (s) are identified for sampling and information gathering
2	The type and cost of the test required are identified
3	Supplier Declaration is obtained for the input material (s) identified
4	The laboratory is contacted regarding cost and timeframe
5	The company is informed of the cost and timeframe
6	A sample of input material is sent to the laboratory
7	Test results from the sample are received and interpreted
8	If the test contradicts the declaration further due diligence and risk mitigation will be required





## LIFE Legal Wood

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