

LSOP Title	DNA extraction (quick and dirty)
LSOP No.	LSOP08
Version	1.1
Location	UQ Node/Centre-wide
Policy/Procedure	<u>UQ- Equipment</u>
Link	<u>UQ -waste</u>
	<u>OGTR</u>
Risk	
Assessments	
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1.0 Scope

This protocol outlines the procedures for completing DNA extraction on leaf tissue.

2.0 Definitions

RT – Room Temperature

PCR – Polymerase Chain Reaction



TRIS - Trisaminomethane



NaCl - Sodium Chloride



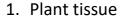
EDTA – Ethylenediaminetetraacetic acid



SDS - Sodium Dodecyl Sulfate

NB: can also be known as SLS or Sodium Laurel Sulfate

3.0 Materials and Equipment





- 2. Extraction Buffer (see appendix)
- 3. Centrifuge



4. Isopropanol

LABORATORY STANDARD OPERATING PROCEDURE (LSOP)

ARC COE for Plant Success in Nature and Agriculture: DNA extraction (quick and dirty)



- 5. Ethanol
- 6. Water
- 7. Eppendorf tubes
- 8. Pipette (& Pipette Tips)

4.0 Prescribed Actions

1. Harvest 1 leaf per plant

NB: can be stored in -20°C for months



- 2. Add 200 μ L of Extraction Buffer (see appendix) to your sample and grind (e.g. using a tip or tooth pick)
- 3. Spin at 10 min at full-speed and RT



- 4. Take 150 μL of the supernatant and mix with 150 μL isopropanol
- 5. Incubate for 10 min at RT

NB: here you can also take a break and put samples in the fridge

6. Spin 10 min at full-speed and RT



- 7. Discard supernatant and wash with 70% ethanol (v/v)
- 8. Dry pellet and resuspend in 80 μL water
- 9. Take 2 μ L for a PCR reaction (you may have to dilute if the sample is too concentrated)

5.0 Appendix

Extraction Buffer (EB):



200 mM TRIS (pH 7.5)



250 mM NaCl



25 mM EDTA (pH 8.0)



0.5% SDS