

LSOP Title	DNA extraction (quick and dirty)
LSOP No.	LSOP08
Version	1.1
Location	UQ Node/Centre-wide
Policy/Procedure Link	<a href="#">UQ- Equipment</a> <a href="#">UQ -waste</a> <a href="#">OGTR</a>
Risk Assessments	
Approved by	<i>Francois Barbier</i>
Date Approved	14/09/2021
Date Effective	03/06/2021
Next Review Date	03/06/2022
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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

1. Plant tissue

2. Extraction Buffer (see appendix)

3. Centrifuge

4. Isopropanol





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 µL 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 µL for a PCR reaction (you may have to dilute if the sample is too concentrated)

#### 5.0 Monitoring and Review

*This CSOP will be reviewed annually, or as may be otherwise required because of changes to ARC requirements or changes to institutional policy and procedure.*

#### 6.0 Appendix

##### Extraction Buffer (EB):



200 mM TRIS (pH 7.5)



250 mM NaCl



25 mM EDTA (pH 8.0)



0.5% SDS

**LABORATORY STANDARD OPERATING PROCEDURE (LSOP)**

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