

LSOP Title	How to make GR24 treatment solutions for direct					
	pea bud applications					
LSOP No.	LSOP15					
Version	1.1					
Location	UQ Node/Centre-wide					
Policy/Procedure Link	<u>UQ- Equipment</u>					
	<u>UQ -waste</u>					
	<u>OGTR</u>					
Risk Assessments						
Approved by	Elizabeth Dun					
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Contact for Assistance	plantsuccess@uq.edu.au					

## 1.0 Scope

This procedure covers the protocol on how to make GR24 treatment solutions for direct pea bud applications which can be used in phenotypic or gene expression studies.

This LSOP does not cover how to make other hormone treatment solutions.

## 2.0 Definitions



EtOH - Ethanol

PEG - polyethylene glycol

GR24 – synthetic strigolactone analog

# 3.0 Materials and Equipment

- 1. Pipette and Pipette Tips
- 2. Tubes
- 3. PEG1450
- 4. GR24
- <u>(\*)</u>
- 5. EtOH

### LABORATORY STANDARD OPERATING PROCEDURE (LSOP)

ARC COE for Plant Success in Nature and Agriculture: How to make GR24 treatment solutions for direct pea bud applications



- 6. Acetone
- 7. Plants

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1. If using bud treatments for phenotypic experiments, make solution to give the following final concentrations: 50% EtOH, 2% PEG 1450, 0.1% acetone

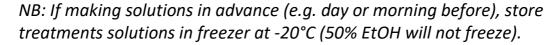
Solution	100% EtOH	MilliQ Water	8% PEG 1450 (in 50% EtOH)	1mM GR24 (in acetone)	Acetone		Total Volume
Control	375 μL	374 μL	250 μL	-	1 μL		1000 μL
1 μM GR24	375 μL	374 μL	250 μL	1 μL	-		1000 μL

## 4.0 Prescribed Actions

## Working solution preparation



- 1. Have ready 8% PEG1450 and GR24 stock solutions (see appendix) plus 100% EtOH (analytical grade), MilliQ water, acetone.
- 2. Prepare bud treatment solutions on ice, preferably on the day of the experiment.



- 3. Take to glasshouse on ice
- 4. Make enough solution to treat all buds, plus some spare.

NB: Usually, 10  $\mu$ L solution is applied to each bud.



# 5.0 Appendix

# Making Stock Solutions:





8% PEG 1450 stock:	Dissolve 4 g PEG 1450 in 50 mL 50% EtOH (made with MilliQ water)
1mM GR24:	(in acetone) dilute a stock solution down to 1mM