LSOP Title	Soil screening of primary transformants (only for BASTA resistance)
LSOP No.	LSOP29
Version	1.1
Location	UQ Node/Centre-wide
Policy/Procedure Link	*UQ- Equipment* *UQ -waste* *OGTR*
Risk Assessments	
Approved by	*Milos Tanurdzic*
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1.0 Scope

This procedure covers the soil screening of primary transformants (only for BASTA resistance) based on the floral dipping of Arabidopsis based on the Zhang et al., 2006 short version method

This LSOP does not cover floral dipping of other species.

2.0 Definitions

Cotyledons – embryonic leaf

3.0 Materials and Equipment

1. Spray bottle
2. BASTA or glufosinate ammonium
3. Clear plastic film

4.0 Prescribed Actions

1. Spread non-sterile seed onto moistened soil under normal condition

2. Cover the soil and tray with a clear plastic film until the germinated seedlings develop four to six leaves
3. Initiate the herbicide spraying when the cotyledons are visible, normally around 8-10 d after sowing.

4. Spray the seedlings two times per week with a diluted solution of 250 mg L-1 herbicide (BASTA or glufosinate ammonium).

   NB: True transformants will develop, while non-transformants will become chlorotic and eventually die after 3-4 weeks of herbicide treatment.

5.0 Monitoring and Review

This LSOP 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

Read the full protocol before starting with this short version (the side notes are useful)

https://www.nature.com/articles/nprot.2006.97