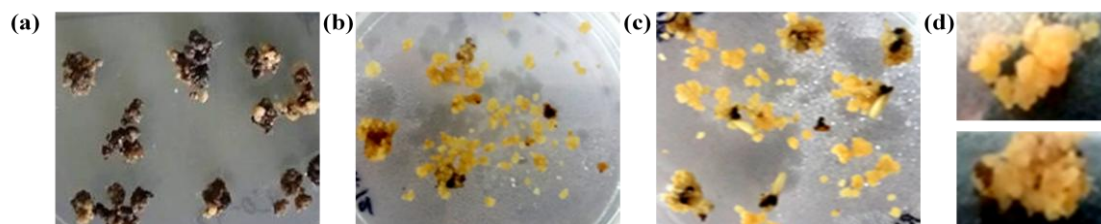




Supplementary Figure S1. Different types of calli developing on a Callus Induction Media plate. The callus labelled with red arrow-head is non-embryogenic, the one with yellow arrowhead is browned calli producing polyphenols under stress, the one with blue arrowhead is unhealthy or poorly developed callus and the one with green arrowhead is healthy, off-white and friable callus that is suitable to be considered for transformation or regeneration.



Supplementary Figure S2. Selection and regeneration of positively transformed HR-12 calli. (a) Screening of hygromycin sensitive calli on selection media containing 50 µg/ml Hygromycin. (b) Hygromycin resistant microcalli in first dark phase of regeneration. (c) Proliferating Hygromycin resistant calli after 15 days of incubation in light phase of regeneration. (d) Resistant calli after 30 days of light incubation, when its growth becomes static with no appearance of greening or shoot primordia. The upper panel shows a callus that continues to look healthy but with static growth and the lower panel shows a callus that starts appearing necrotic.

Supplementary Table S1. Summary of percentage (%) efficiency of tissue-culture mediated transformation of calli before regeneration.

	CO-39	HR-12
Total no. of calli transformed	80	60
GUS (staining) +	54	37
GUS+ calli tested for <i>gus</i> (PCR)	15	15
GUS+/ <i>gus</i> (PCR) + calli	15	15
Transformation efficiency(%)	68	63

Supplementary Table S2. List of primers used in the study.

Sl. No.	Name of Primers	Sequence (5' → 3')
1	<i>GUS</i> FP	CAGCAAGCGCACTTACAGG
2	<i>GUS</i> RP	GTACCTTCTCTGCCGTTTCC
3	<i>GFP</i> FP	CACTGGAGTTGTCCCAATTC
4	<i>GFP</i> RP	GTGTCTTGTAGTTCCCGTC
5	<i>HPT</i> FP	GACGTAACTGATATTGAAG
6	<i>HPT</i> RP	GCTTGGGTAGAATAGGTAAG