

## Supplementary tables

**Supplementary Table 1.** Effect of different concentrations of 2,4-D on Callus Induction Frequency (CIF), Callus Fresh Weight (CFW), texture, colour and embryogenic potential

| 2,4-D concentration (mg/L) | CIF (%) | CFW (g) | Mean  | SEM    | Texture      | Color        | Embryogenic potential |
|----------------------------|---------|---------|-------|--------|--------------|--------------|-----------------------|
| 0 (control)                | 0       | 0.0000  | 0     | 0      | N/A          | N/A          | N/A                   |
|                            |         | 0.0000  |       |        | N/A          | N/A          | N/A                   |
|                            |         | 0.0000  |       |        | N/A          | N/A          | N/A                   |
| 1                          | 33.33   | 0.1987  | 0.203 | 0.0152 | compact      | Pale yellow  | Low potential         |
|                            |         | 0.2312  |       |        | compact      | black        | N/A                   |
|                            |         | 0.1789  |       |        | compact      | Pale yellow  | Low potential         |
| 2                          | 66.67   | 0.2265  | 0.281 | 0.0609 | semi-friable | creamy       | potential             |
|                            |         | 0.3921  |       |        | friable      | black        | N/A                   |
|                            |         | 0.2132  |       |        | compact      | Pale yellow  | Low potential         |
| 3                          | 83.33   | 0.3982  | 0.554 | 0.057  | friable      | creamy-white | High potential        |
|                            |         | 0.4411  |       |        | friable      | white        | potential             |
|                            |         | 0.5231  |       |        | friable      | creamy-white | High potential        |
| 4                          | 83.33   | 0.3321  | 0.383 | 0.0263 | friable      | brownish     | Low potential         |
|                            |         | 0.5192  |       |        | compact      | white        | potential             |
|                            |         | 0.2989  |       |        | friable      | creamy-white | High potential        |

Data are presented as mean  $\pm$  SEM from three replicates. N/A: Not available.

**Supplementary Table 2.** Callus Induction Frequency (CIF), Callus Fresh Weight (CFW) and total CFW from different 2,4-D concentrations (3 and 4 mg/L) used as callus sources

| Callus source | CIF (%)  | CFW (g) | CFW total | subculture | For regeneration treatments 9experiment 2) |             |
|---------------|----------|---------|-----------|------------|--|-------------|
| 2,4-D 3 mg/   | 83.33333 | 0.3982  | 1.3624    | 9.892      | callus source                              | biomass (g) |
|               |          | 0.4411  |           |            | 2,4-D 3 m/L                                | 7.5         |
|               |          | 0.5231  |           |            | 2,4-D 4 mg/L                               | 7.5         |
| 2,4-D 4 mg/L  | 83.33333 | 0.3321  | 1.3624    | 8.915      |  |             |
|               |          | 0.5192  |           |            |  |             |
|               |          | 0.2989  |           |            |  |             |

Subculture was carried out at  $\pm 3$  weeks. The selected callus biomass from each treatment was subsequently used for regeneration treatments (NAA and BAP combinations) in experiment 2.  $\pm 3$  weeks.