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Effect of temperature and light on seed germination of 10 species of *Eucalyptus* from North-Western NSW

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Supplementary Tables

| Table S1. Summary of the analysis of deviance for seed germination of eight seedlots of five species of <i>Eucalyptus</i> in relation to three seasons (temperature) and light (light/darkness vs dark) treatments. |
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| Source of variation | df | Deviance | Residual deviance | F | Р | |
|---------------------|----|----------|----------------------|------|---------|-----|
| Null | | | 514 | | | |
| Seedlot (SL) | 7 | 133 | 381 | 9.5 | 3.6E-08 | *** |
| Temperature | 2 | 61 | 319 | 15.2 | 3.3E-06 | *** |
| Light | 1 | 11 | 308 | 5.6 | 0.021 | * |
| SL * temperature | 14 | 136 | 172 | 4.8 | 4.4E-06 | *** |
| SL * light | 7 | 33 | 139 | 2.3 | 0.034 | * |

df: degrees of freedom; * $P \le 0.05$, *** $P \le 0.001$

Table S2. Summary of the analysis of deviance of seed germination of 13 seedlots of nine species of *Eucalyptus* in relation to the effects of two seasonal temperatures (spring and summer).

| Source of variation | df | Deviance | Residual deviance | F | Р |
|---------------------|----|----------|----------------------|------|-------------|
| Null | | | 516 | | |
| Seedlot | 12 | 59 | 457 | 26.7 | 2.2E-09 *** |
| Temperature | 1 | 203 | 254 | 7.7 | 1.6E-06 *** |
| SL * temperature | 12 | 54 | 200 | 2.0 | 0.031 * |

The effect of light was not significant and was dropped from the model.

df: degrees of freedom; * $P \le 0.05$, *** $P \le 0.001$

Table S3. Summary of analysis of deviance of seed germination of 14 seedlots of ten species of *Eucalyptus*.

| Source of variation | df | Deviance | Residual deviance | F | Р | |
|---------------------|----|----------|----------------------|-----|-----------|----|
| Null | | | 159.7 | | | |
| Seedlot (SL) | 13 | 91.7 | 68.0 | 5.4 | 1.3E-05 * | ** |

The effect of light was not significant and was dropped from the model.

df: degrees of freedom; *** $P \le 0.001$

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Table S4. Summary of analysis of deviance of seed germination after substituting each seedlot by their mean species seed weight in relation to the effect of light.

| Source of variation | df | Deviance | Residual deviance | F | Ρ | |
|---------------------|----|----------|----------------------|-----|----------|---|
| Null | | | 513.8 | | | • |
| Seed weight | 1 | 1.1 | 512.6 | 0.2 | 0.628 | |
| light | 1 | 11.2 | 501.5 | 2.3 | 0.133 | |
| temperature | 2 | 58.1 | 443.3 | 6.0 | 0.004 ** | |
| Seed weight * light | 1 | 25.7 | 417.7 | 5.3 | 0.024 * | - |

The interaction of seed weight with temperature was not significant and was dropped from the model.

df: degrees of freedom; ** $P \le 0.01$, * $P \le 0.05$

| 3 | | | | |
|------------------|-------|----------------|------------------|----|
| Species | Temp | Days | | |
| | °C | t _o | t _{1/2} | tg |
| | 15/05 | 12 | 20 | 26 |
| E. albens | 25/15 | 5 | 6 | 8 |
| | 35/25 | 3 | 5 | 7 |
| | 15/05 | 14 | 20 | 25 |
| E. blakelyi | 25/15 | 4 | 5 | 6 |
| | 35/25 | 3 | 5 | 6 |
| | 15/05 | 16 | 22 | 27 |
| E. camaldulensis | 25/15 | 4 | 6 | 7 |
| | 35/25 | 3 | 4 | 5 |
| | 15/05 | 13 | 20 | 26 |
| E. chloroclada | 25/15 | 4 | 6 | 7 |
| | 35/25 | 3 | 4 | 5 |
| | 15/05 | 10 | 15 | 21 |
| E. melanophloia | 25/15 | 5 | 6 | 7 |
| | 35/25 | 3 | 5 | 6 |
| | 15/05 | 16 | 21 | 27 |
| E. melliodora | 25/15 | 5 | 7 | 9 |
| | 35/25 | 4 | 5 | 6 |
| | 15/05 | 15 | 19 | 24 |
| E. pilligaensis | 25/15 | 5 | 6 | 7 |
| | 35/25 | 6 | 7 | 8 |
| | 15/05 | 13 | 19 | 23 |
| E. populnea | 25/15 | 4 | 5 | 7 |
| | 35/25 | 3 | 4 | 5 |
| | 15/05 | 19 | 23 | 30 |
| E. sideroxylon | 25/15 | 4 | 5 | 7 |
| | 35/25 | 4 | 5 | 6 |
| | | | | |

Table S5. Time to germination (days) of nine species in relation to three temperatures (Temp) under light/dark conditions expressed as time to first germination, t_0 , time to 50% germination, $t_{1/2}$, and time to last germination, t_g