

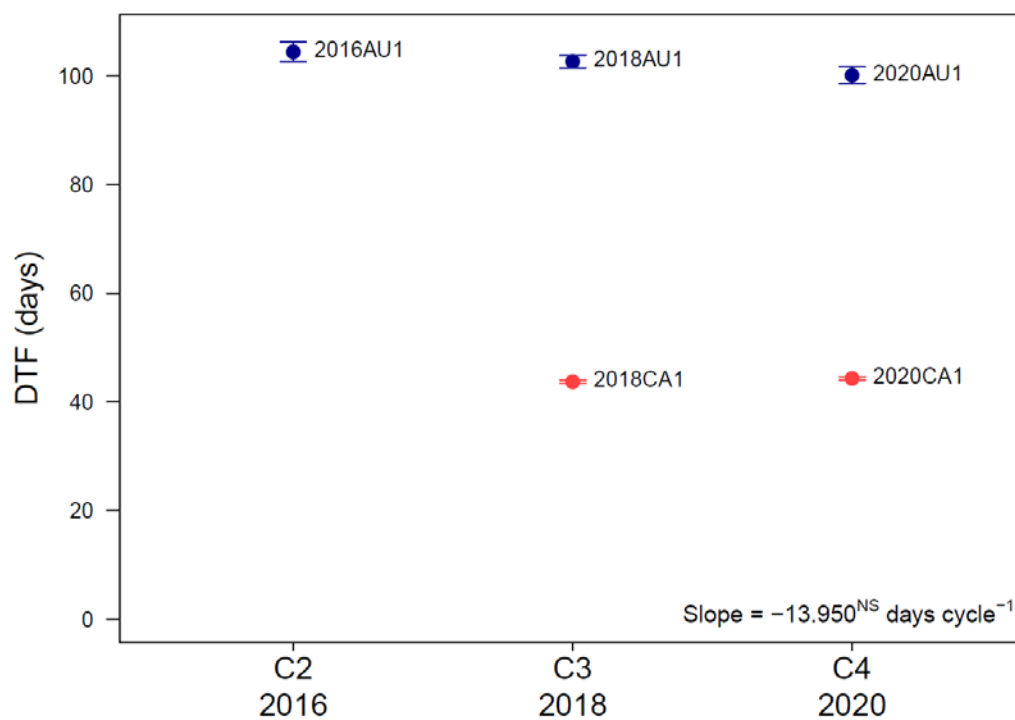
## Rapid and stable global genetic gain in crop breeding: MDPI Plants

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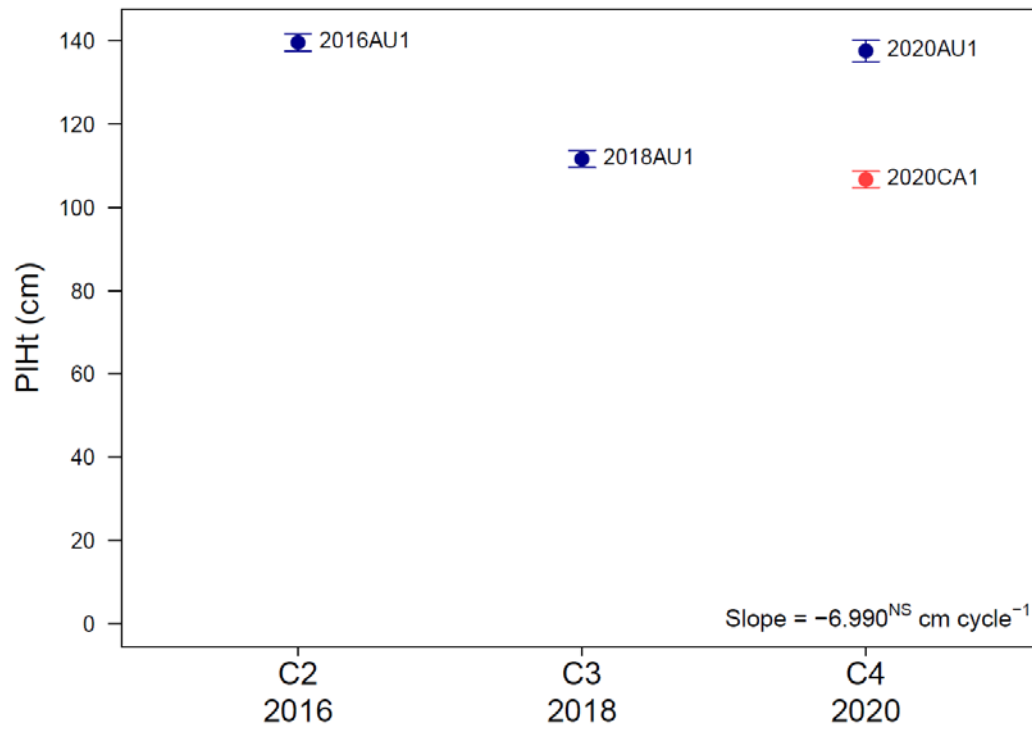
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**Online Resource S8.** Environmental trends in site predicted means for traits  $\pm$  standard error across field trials in Australia and Canada in cycle 2 (C2 2016), cycle 3 (C3 2018) and cycle 4 (C4 2020) from the optimum multiplicative mixed model with factor analytic modelling of the genotype by environment effects (see Table 3). Traits include (a) days to 50% flower (DTF), (b) plant height (PlHt, cm), (c) seed oil (Oil, %), (d) protein in meal (ProM, %), (e) seed glucosinolates (GSL,  $\mu\text{mole g}^{-1}$  seed), (f) oleic acid (OL, %), (g) Phoma (blackleg) resistance score (BL, units from 1-9), and (h) weight of 100 seeds (SW100, g). For description of trial codes, see Table 1. The slope of the linear regression of predicted site mean GY across cycles was not significant (NS) or significant at  $P < 0.05$  (\*).

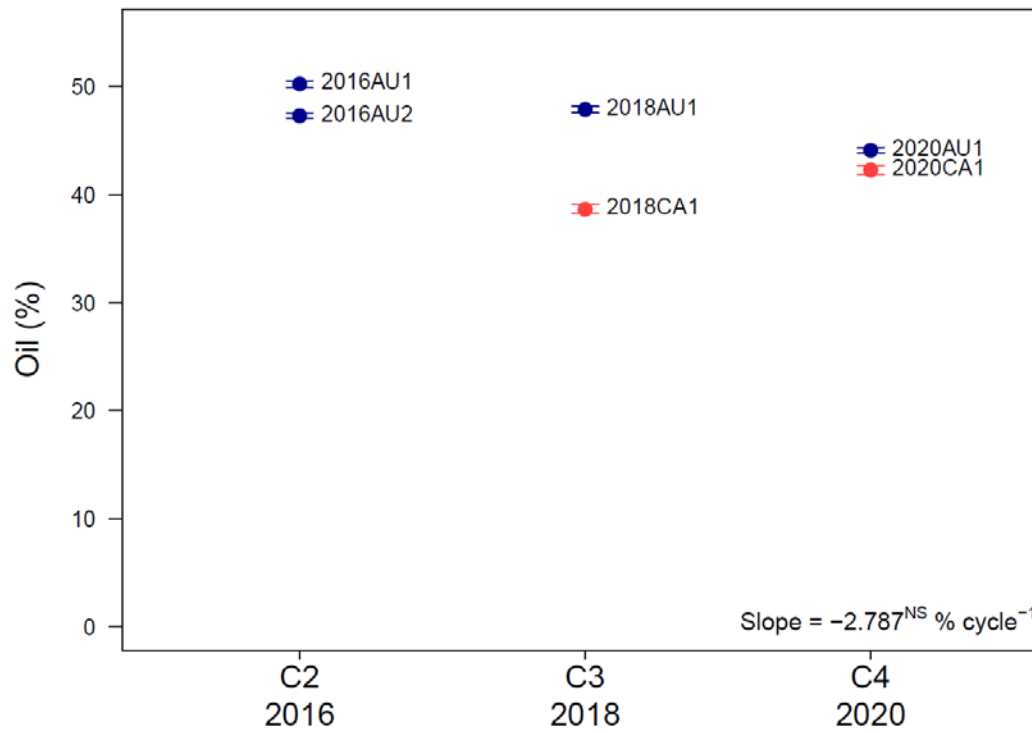
(a)



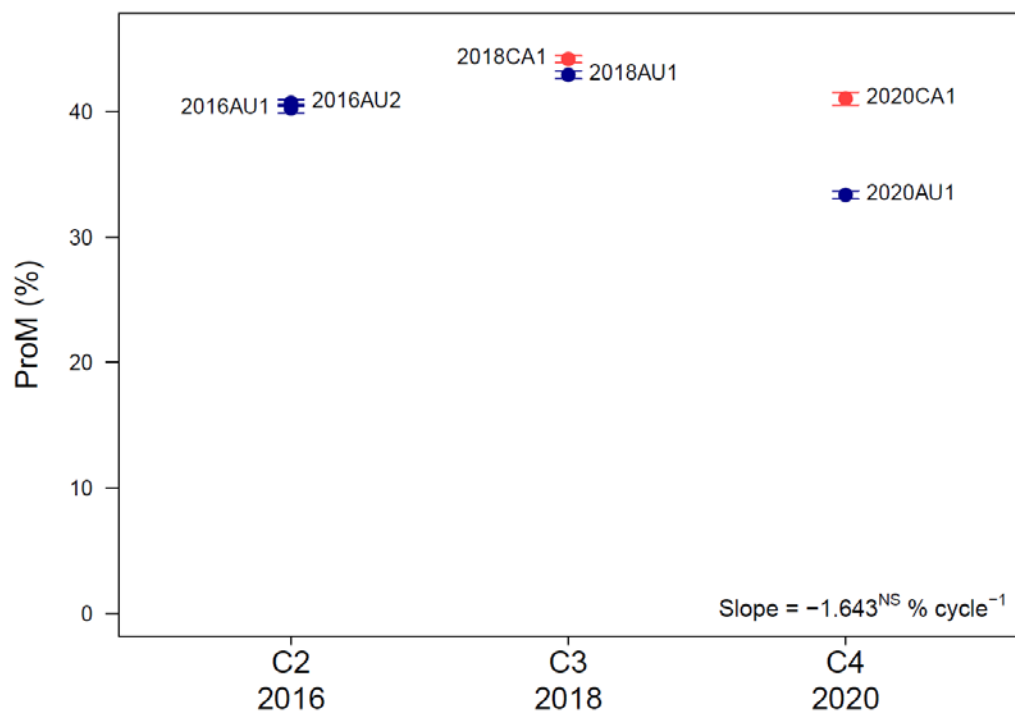
(b)



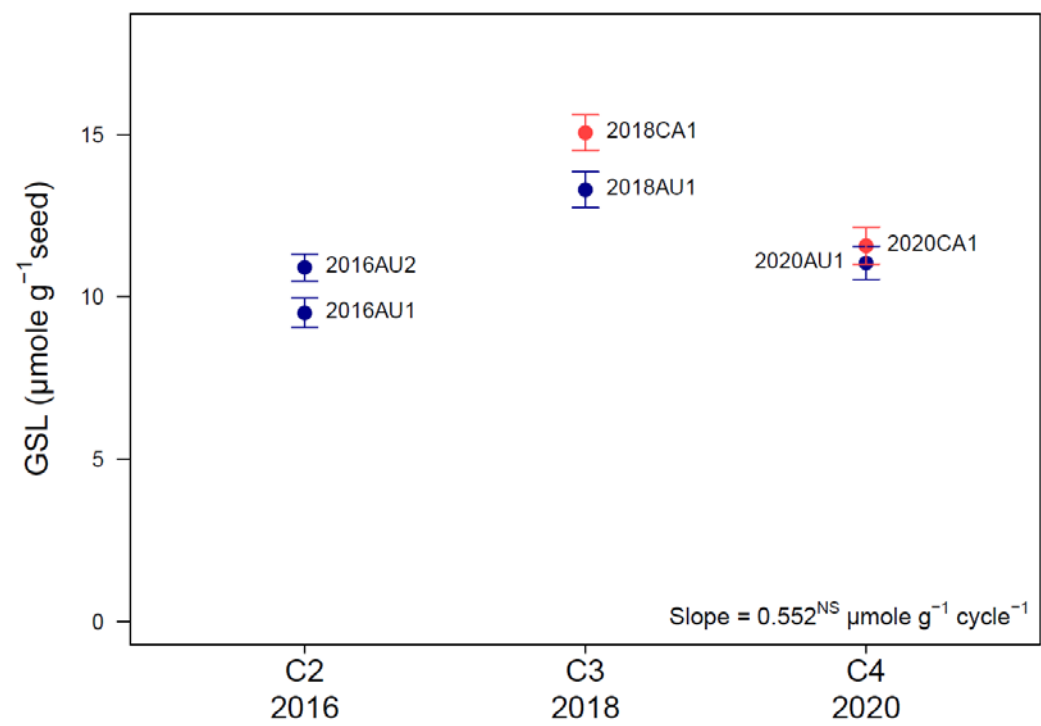
(c)



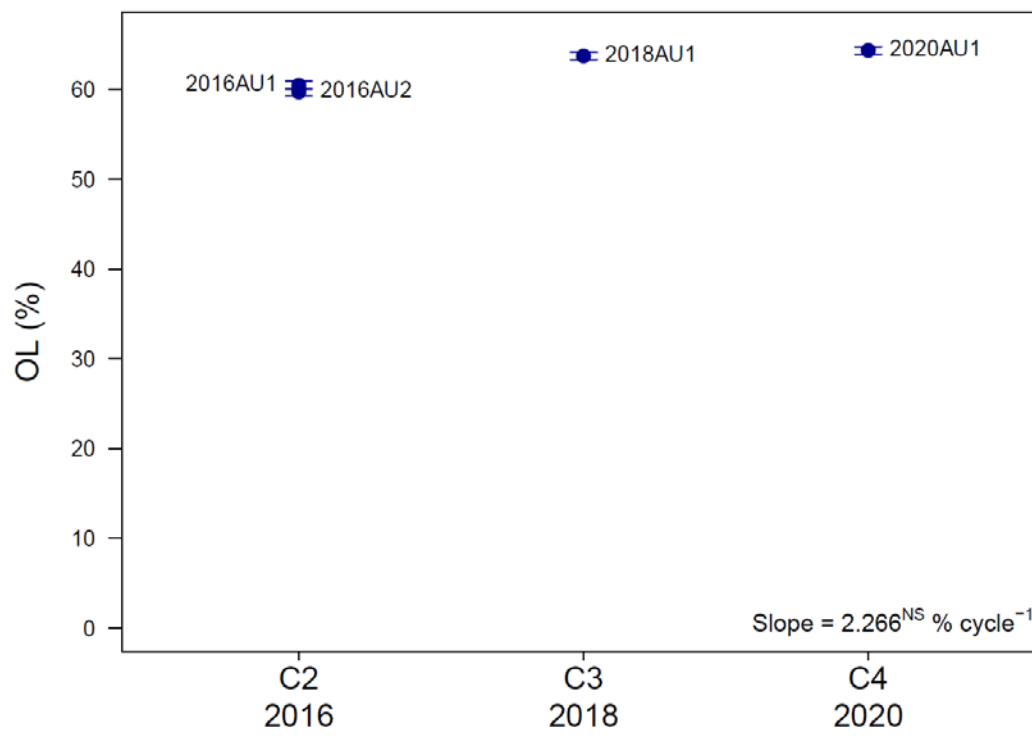
(d)



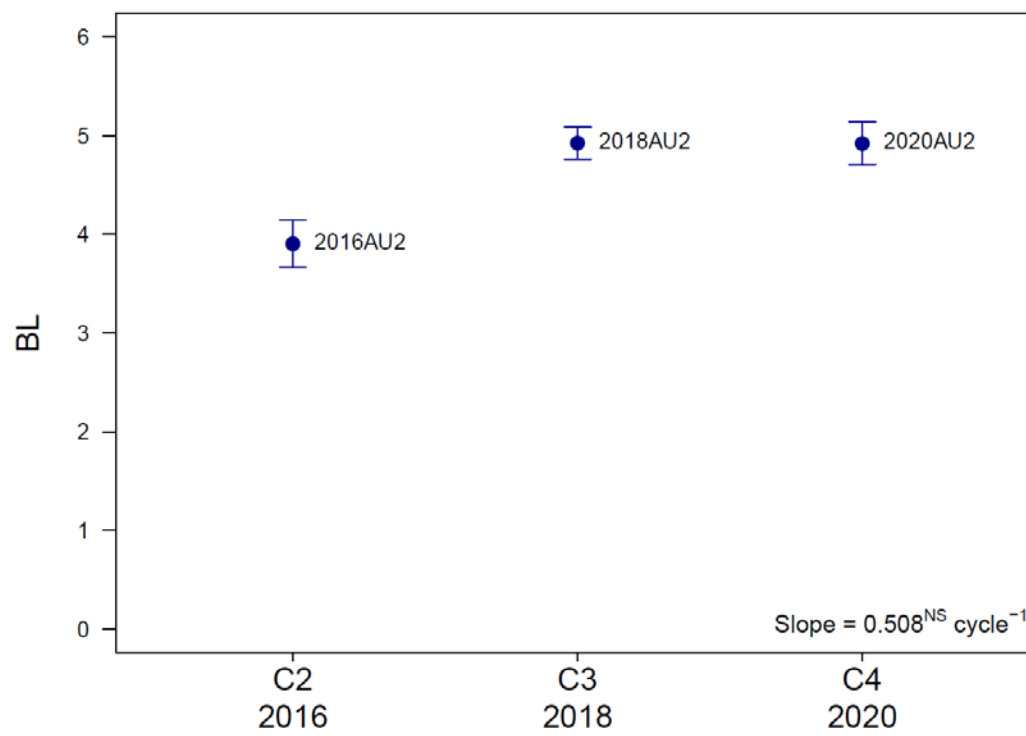
(e)



(f)



(g)



(h)

