

**Which recurrent selection scheme to improve
mixtures of crop species?
Theoretical expectations**

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**SUPPLEMENTAL MATERIAL
FIGURE S1**

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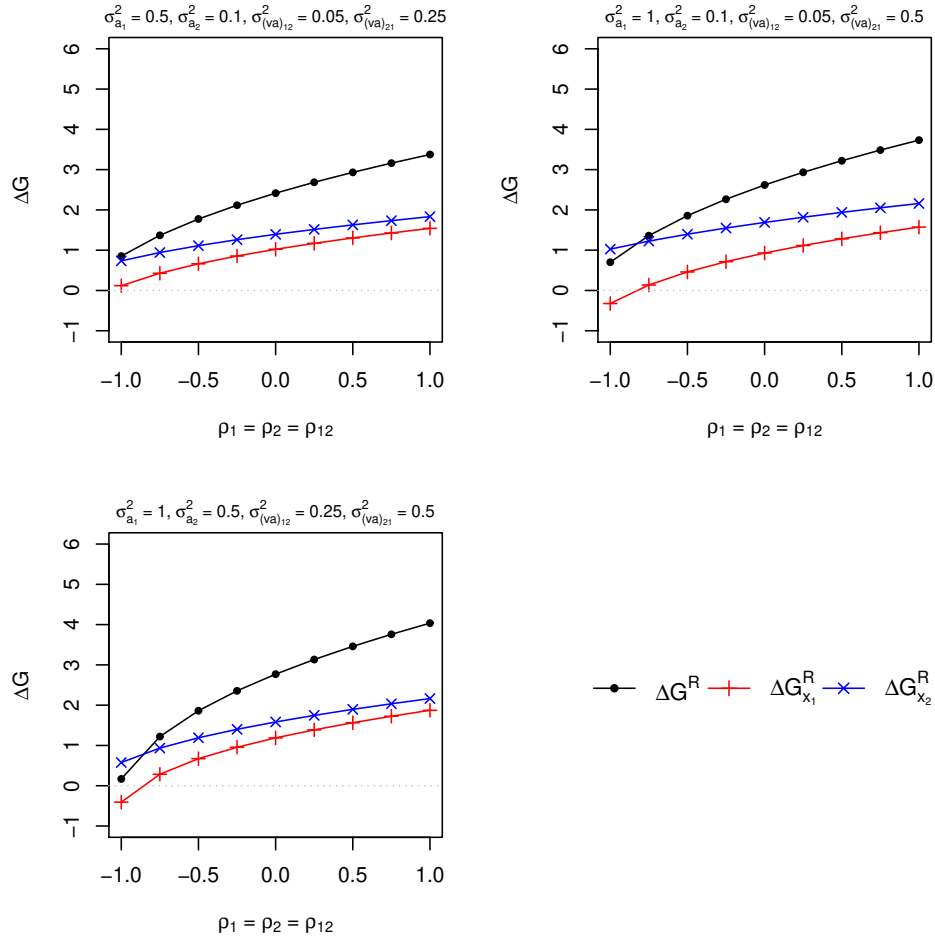


Figure S1 Responses to selection of the mixture performance of two species (ΔG^R) and of species contributions to the mixture performance ($\Delta G_{x_1}^R$ and $\Delta G_{x_2}^R$) after recombination of selected candidates expected from one cycle of recurrent selection for Reciprocal Mixture Ability between the two species. The selection criterion was the observed performance of the mixture of a pair of progeny families (half-sib or topcross progeny families) of candidates from the two species (SRMA). The variance of direct effect was set equal to 1 in the two species. $\sigma_{a_1}^2$ and $\sigma_{a_2}^2$ are the variances of associate effects in species 1 and 2, respectively. $\sigma_{(va)_{12}}^2$ and $\sigma_{(va)_{21}}^2$ are the variances of direct \times associate interactions in the variances of the contributions of species 1 and 2, respectively. See Figure 4 (main text) for the meaning of ρ_1 , ρ_2 and ρ_{12} .