

Supplementary Material

No vegetative and fecundity fitness cost associated with acetyl-coenzyme A carboxylase non-target-site resistance in a black-grass (*Alopecurus myosuroides* Huds) population

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Supplementary Figures

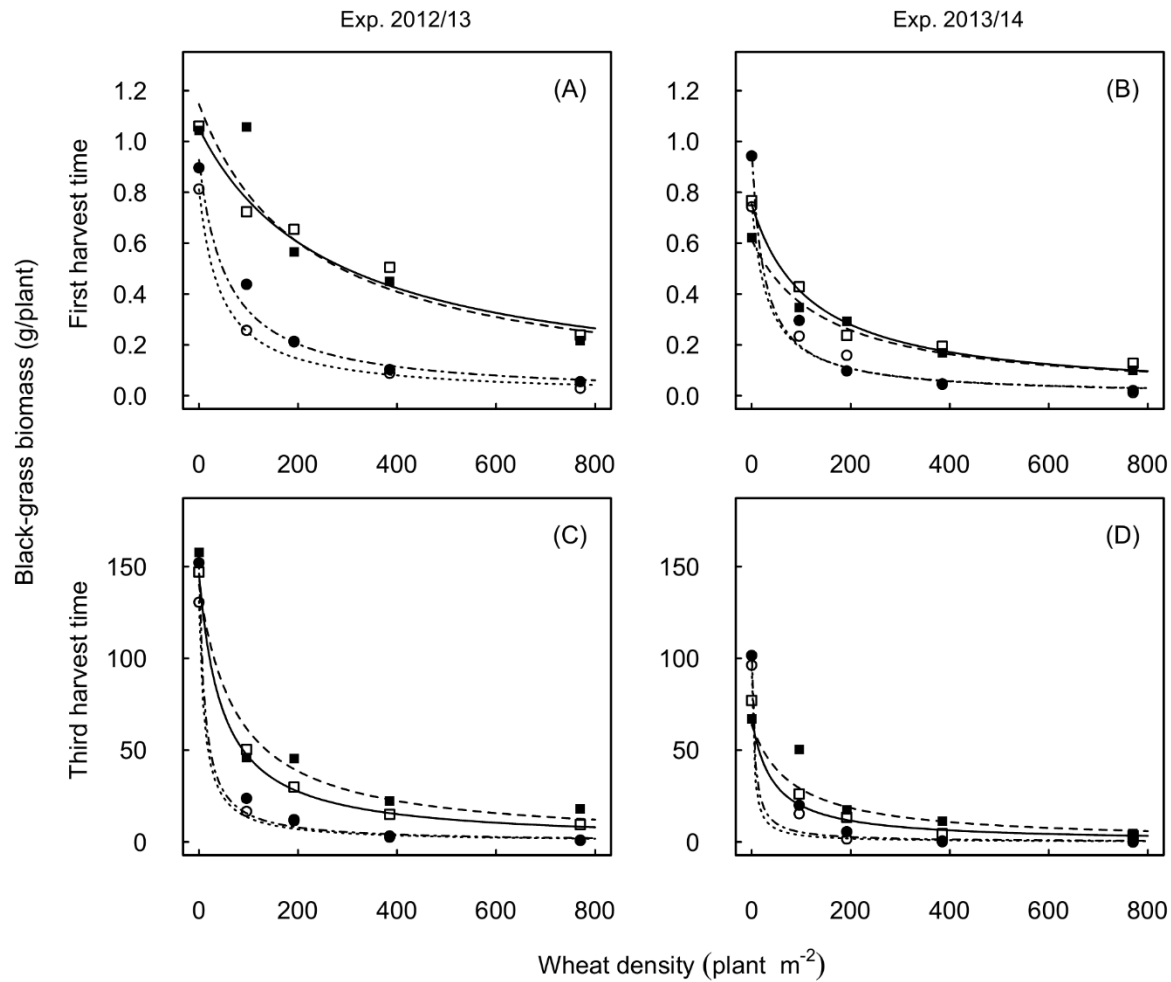


Figure S1 Biomass production of herbicide-susceptible (S, open markers) and resistant (R, closed markers) black-grass sub-populations in response to increasing density and two different growth stages of winter wheat (2-leaf stage (GS-I); squares and 3-4 leaf stage (GS-II); circles) in glasshouse experiments 2012/13 (A and C) and 2013/14 (B and D). Data of first harvest time (A and B) and third harvest time (C and D) are presented. Estimated parameters are presented in Tables 1 (Experiment 2012/13) and 2 (Experiment 2013/14). The S and R sub-populations were selected within a NTSR population using a plant cloning technique.

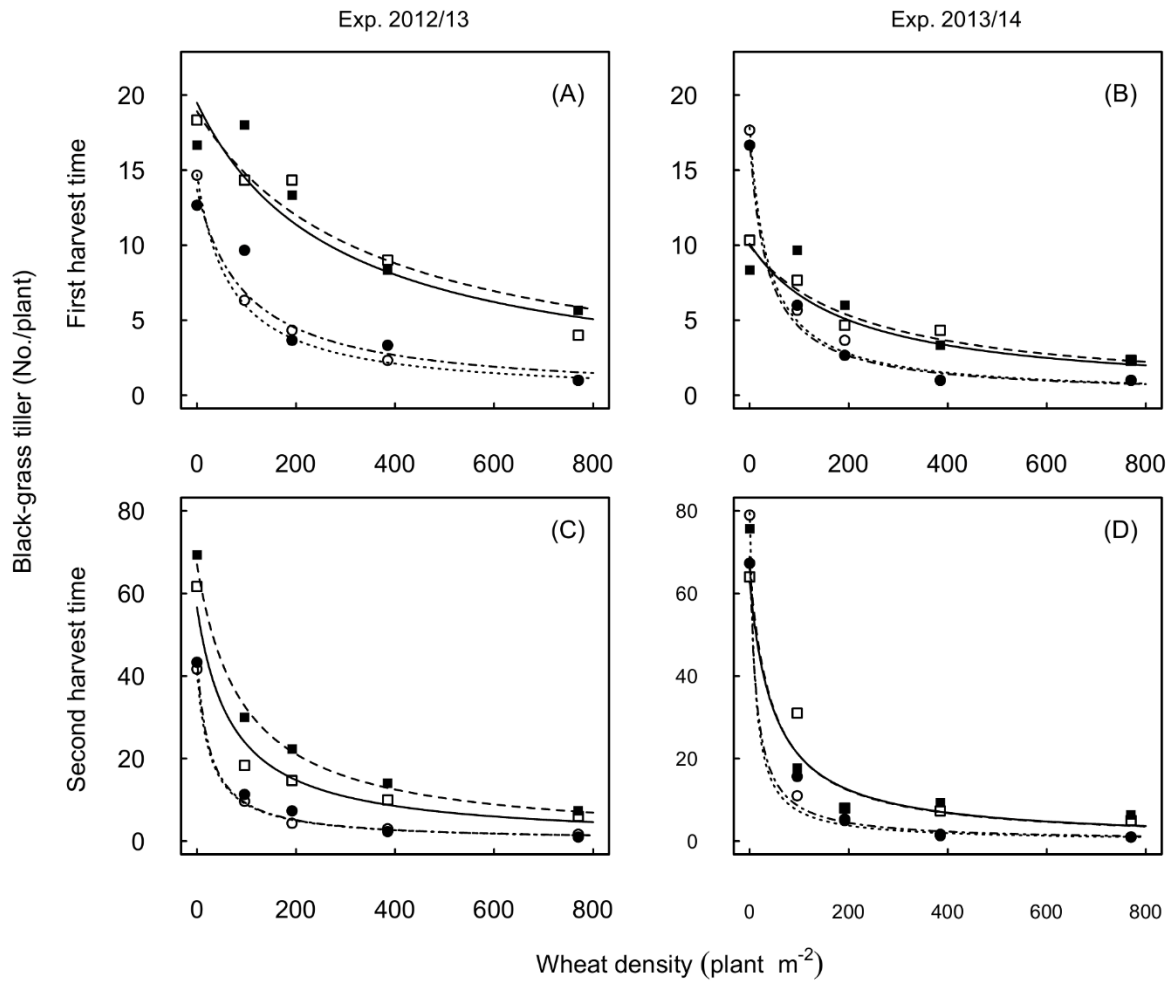


Figure S2 Tiller production of herbicide-susceptible (S, open markers) and resistant (R, closed markers) black-grass sub-populations in response to increasing density and two different growth stages of winter wheat (2-leaf stage (GS-I); squares and 3-4 leaf stage (GS-II); circles) in glasshouse experiments 2012/13 (A and C) and 2013/14 (B and D). Data of first harvest time (A and B) and second harvest time (C and D) are presented. Estimated parameters are presented in Tables 1 (Experiment 2012/13) and 2 (Experiment 2013/14). The S and R sub-populations were selected within a NTSR population using a plant cloning technique.

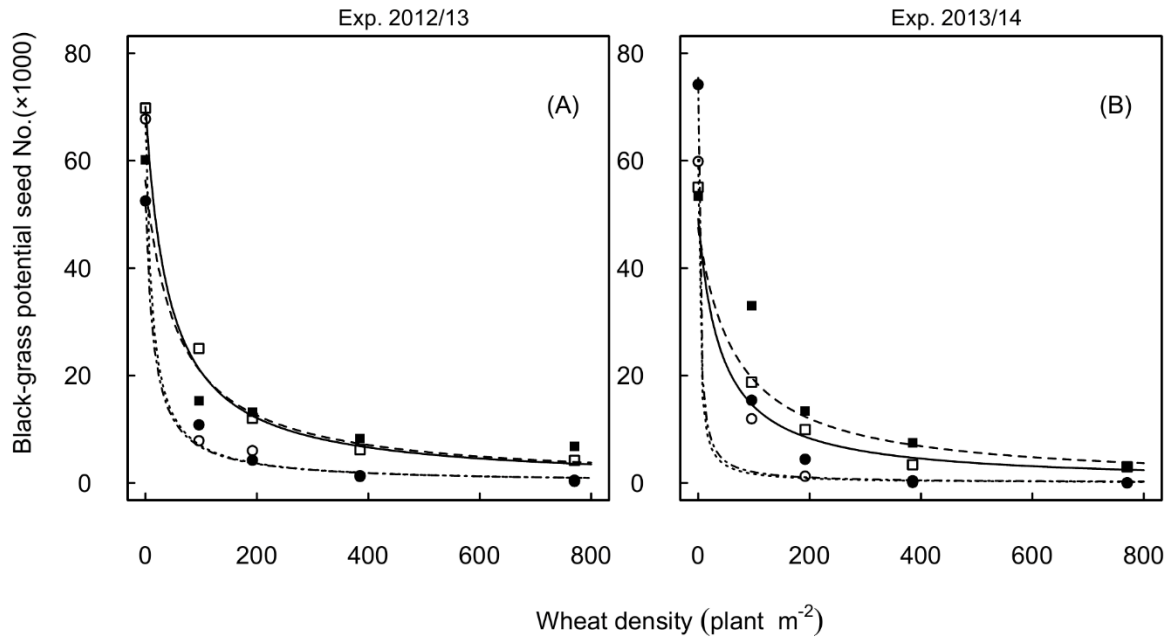


Figure S3 Potential seed production of herbicide-susceptible (S, open markers) and resistant (R, closed markers) black-grass sub-populations in response to increasing density and two different growth stages of winter wheat (2-leaf stage (GS-I); squares and 3-4 leaf stage (GS-II); circles) in glasshouse experiments 2012/13 (A) and 2013/14 (B). Estimated parameters are presented in Tables 1 (Experiment 2012/13) and 2 (Experiment 2013/14). The S and R sub-populations were selected within a NTSR population using a plant cloning technique.

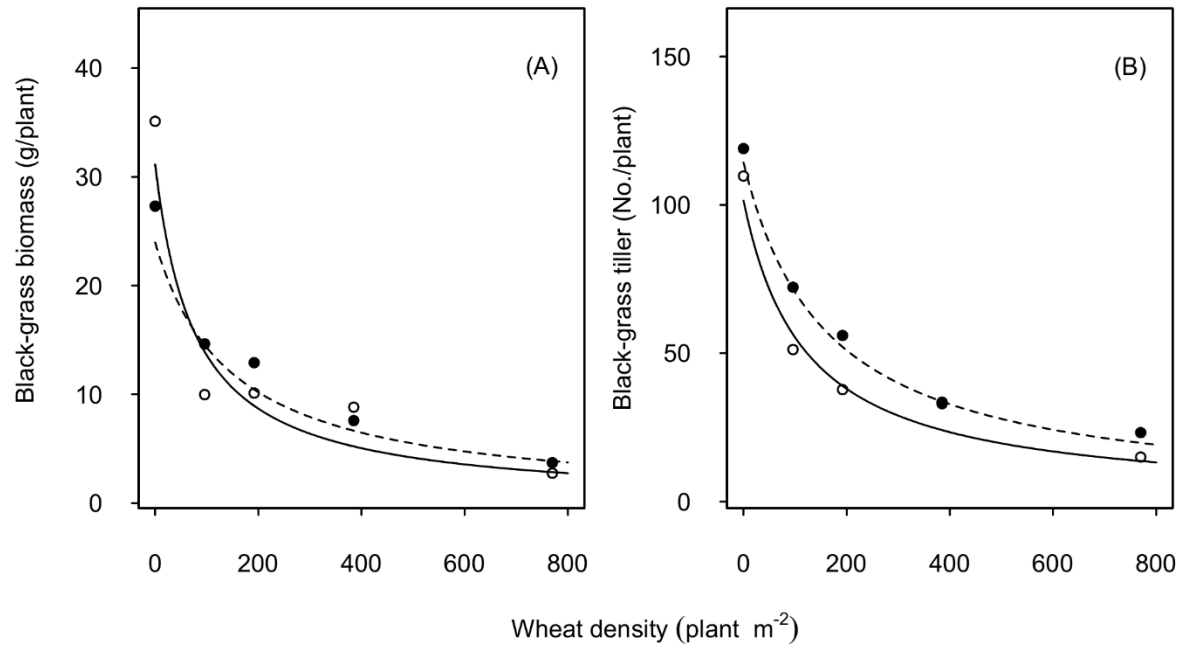


Figure S4 Biomass (A) and tiller (B) production of herbicide-susceptible (S, open markers) and resistant (R, closed markers) black-grass sub-populations in response to increasing density of winter wheat in field experiment. Estimated parameters are presented in Table 3. The S and R sub-populations were selected within a NTSR population using a plant cloning technique.