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INTRODUCTION

➤ Pre-emergence herbicides in winter annual cereals often need to be combined with other weed control tactics to provide sufficient weed control efficacy over the entire growing season. In the present study, it was tested how cinmethylin and delayed drilling of winter annual cereals affected *Alopecurus myosuroides* Huds. densities and grain yields.

RESULTS

- Average densities of *A. myosuroides* in the untreated control plots ranged from 38-1,233 plants m⁻².
- Cinmethylin controlled 58-99% of *A. myosuroides* plants until 120 days after sowing. Additive and synergistic effects of cinmethylin and delayed drilling were found for all studies reducing *A. myosuroides* density by more than 90%.
- Winter wheat and winter triticale grain yields were significantly increased by the use cinmethylin combined with delayed drilling.

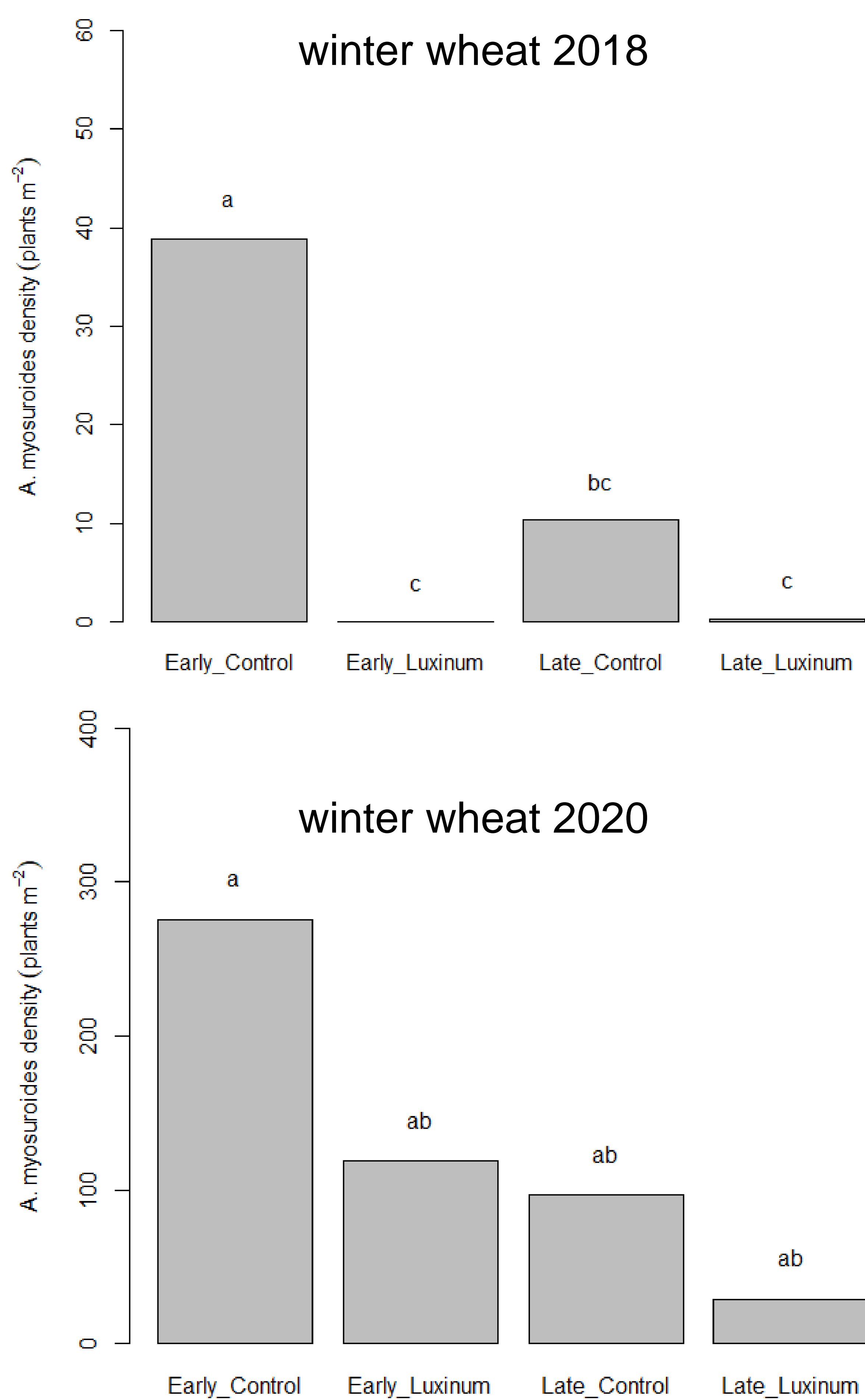


Fig. 1: Effects of delayed autumn drilling and LUXINUM® (cinmethylin) treatment on the average *Alopecurus myosuroides* density. Means with the same letter are not significantly different (Tukey HSD-test at $p \leq 0.05$).

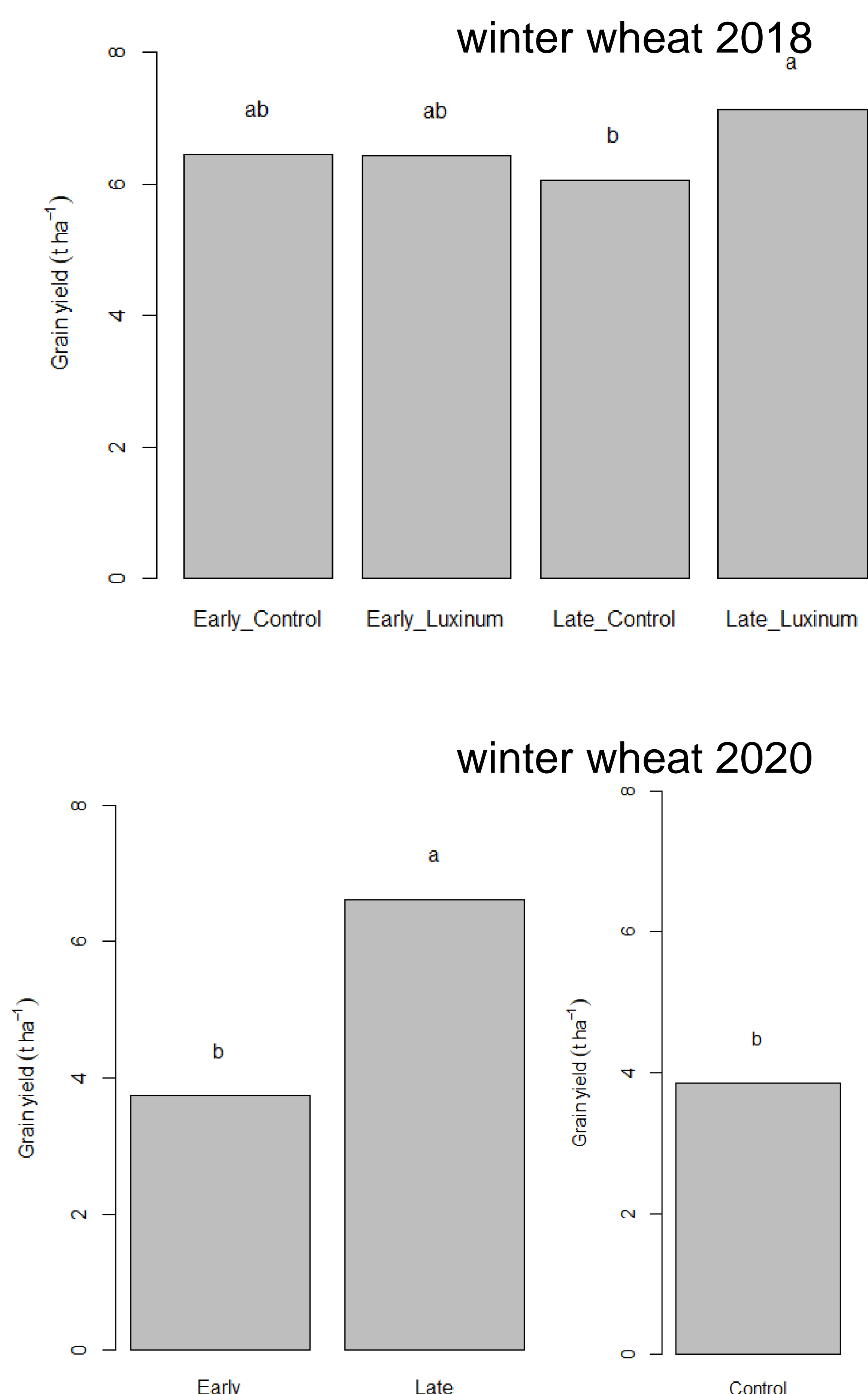


Fig. 2: Effects of delayed autumn drilling and LUXINUM® (cinmethylin) treatment on the average grain yields. Means with the same letter are not significantly different (Tukey HSD-test at $p \leq 0.05$).

EXPERIMENTS

- Four field experiments were conducted in winter wheat (2) and winter triticale (2) in Southwestern Germany from autumn 2017 until summer 2020.
- Delayed drilling and the pre-emergence herbicide cinmethylin (LUXINUM®) in the full recommended field rate of 0.66 l ha⁻¹ (500 g a.i. ha⁻¹ cinmethylin) were tested in a two-factorial randomized complete block design with three repetitions.
- Each plot had a length of 12 m and a width of 3 m

CONCLUSION

- These data underline the benefits of integrated weed management using different weed control tactics.
- Yield losses due to *A. myosuroides* competition correspond to literature data.