

Supplementary Materials

Comparison of modelling strategies to estimate phenotypic values from unmanned aerial vehicle with spectral and temporal vegetation indexes

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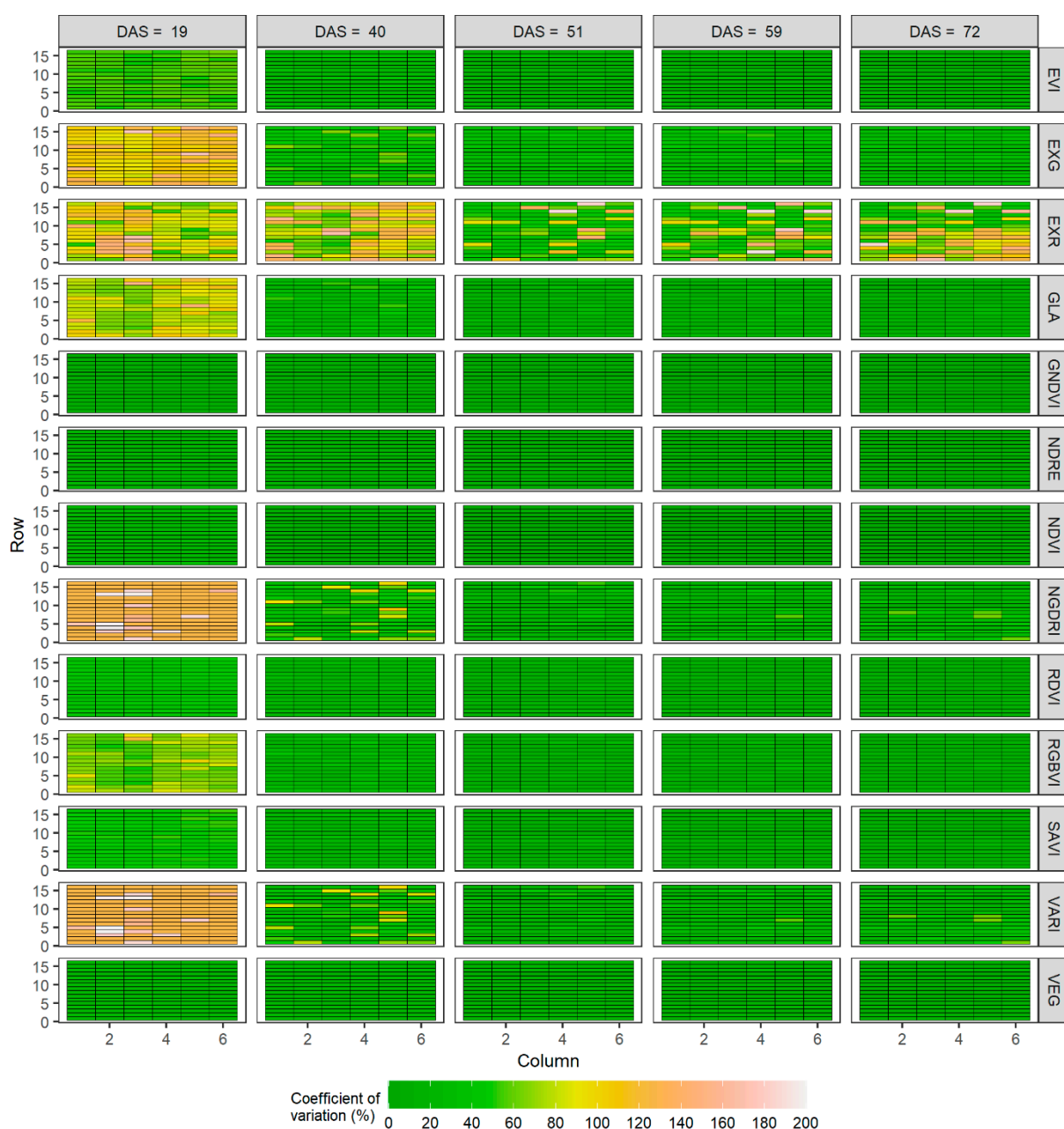


Figure S1. Spatial distribution of coefficient of variation of vegetation indexes of each plot of the wheat trial at different dates (represented by days after sowing, DAS) before flowering

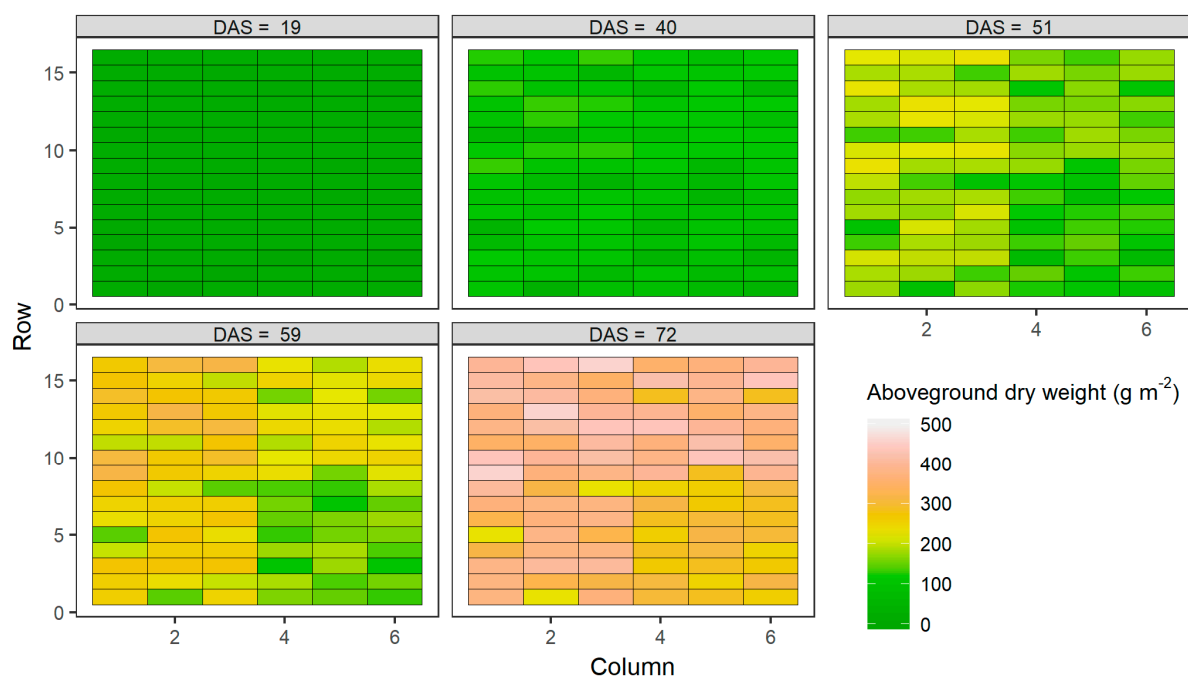


Figure S2. Spatial distribution of the aboveground dry weight of the wheat trial at different dates (represented by days after sowing, DAS) before flowering

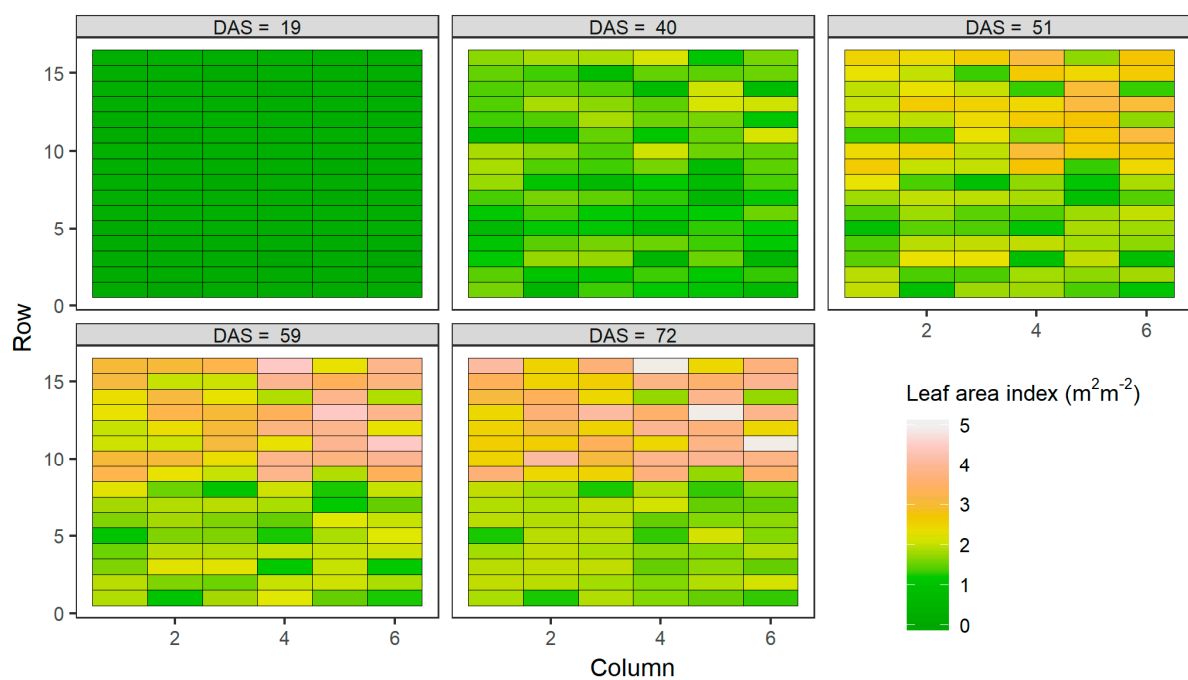


Figure S3. Spatial distribution of the leaf area index of the wheat trial at different dates (represented by days after sowing, DAS) before flowering

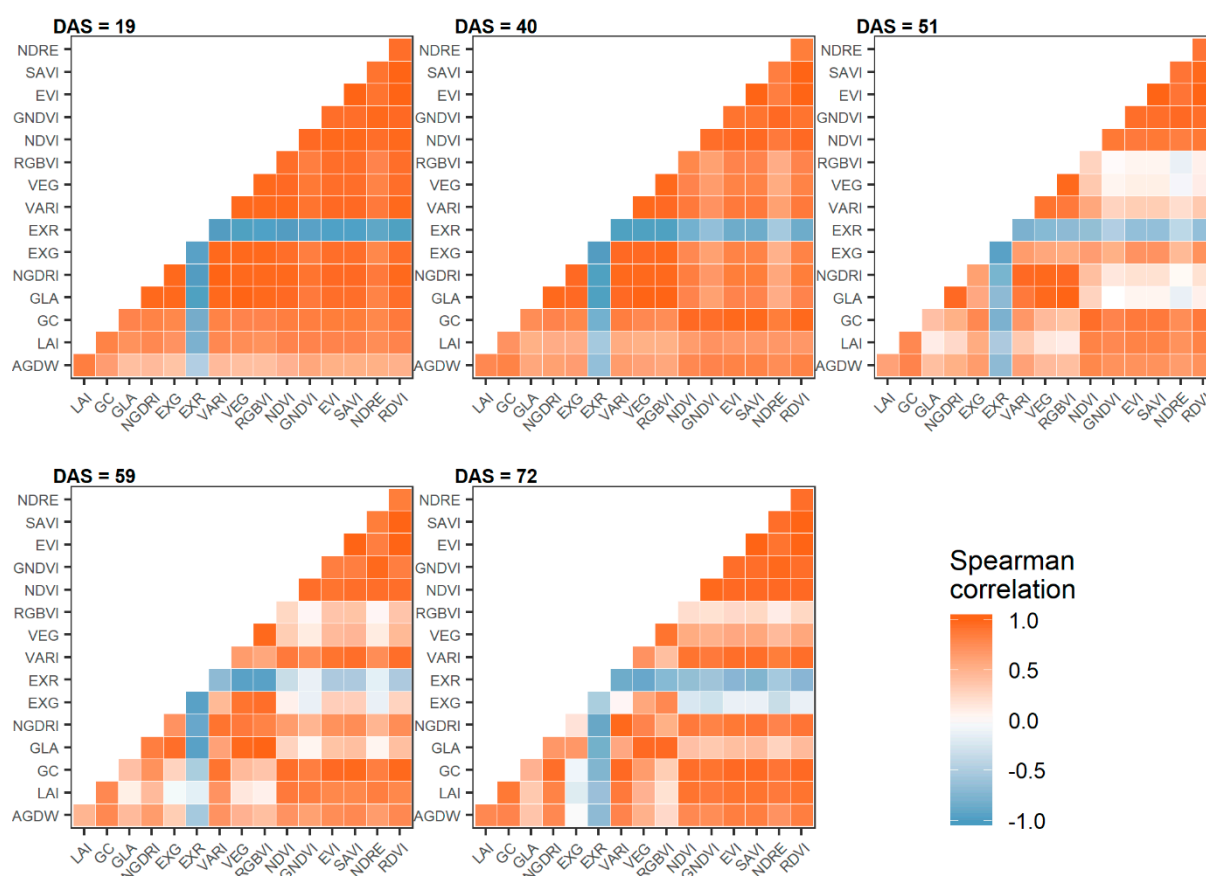


Figure S4. Spearman correlations among aboveground dry weight (AGDW), leaf area index (LAI) and vegetation indexes (VIs) of the wheat trial at each prediction date (represented by days after sowing, DAS) before flowering. The detailed information of all VIs including names, abbreviations and equations are listed in **Table 1**.

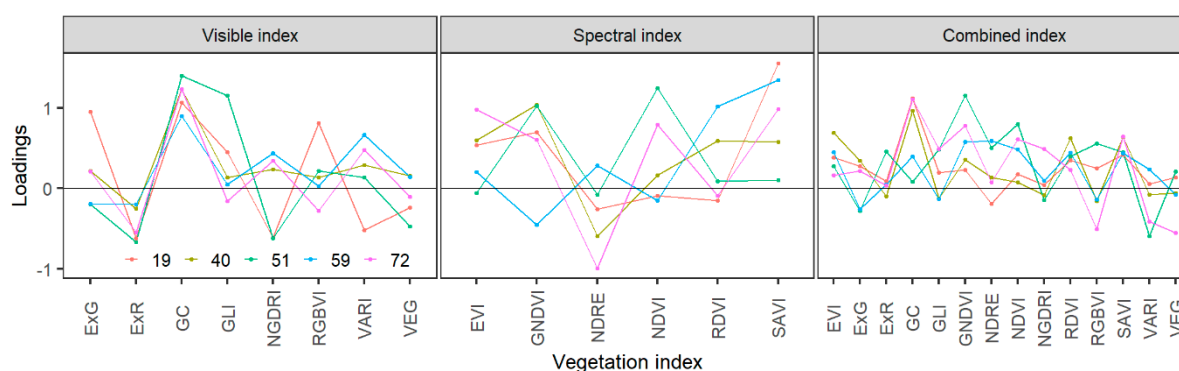


Figure S5. Loadings of vegetation indexes in PLSR models for estimating aboveground dry weight at different prediction dates (represented by days after sowing, DAS; colour lines) before flowering. Models were built using the mono-temporal datasets of the visible, spectral and combined index at each prediction date, respectively. Loadings of vegetation indexes are their contributions to the model.

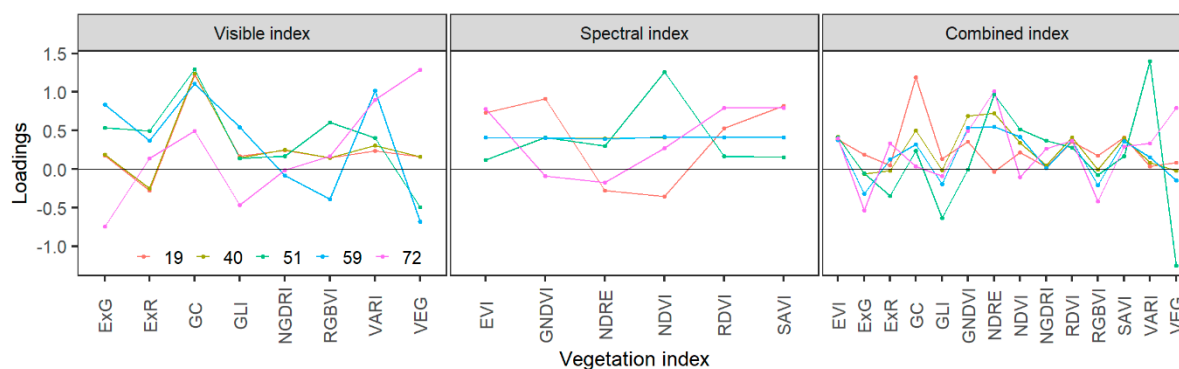


Figure S6. Loadings of vegetation indexes in PLSR models for estimating leaf area index at different prediction dates (represented by days after sowing, DAS; colour lines) before flowering. Models were built to estimate leaf area index using the mono-temporal datasets of the visible, spectral and combined index at each prediction date, respectively. Loadings of indexes are their contributions to the model.