

Focusing the GWAS Lens on days to flower using latent variable phenotypes derived from global multi-environment trials

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Derek Wright, Sandesh Neupane, ... and Kirstin E. Bett. (2021) Utilizing multi-environment trials to improve genome-wide association studies and our understanding of crop adaptation: a case study with lentil (*Lens culinaris* Medik.).

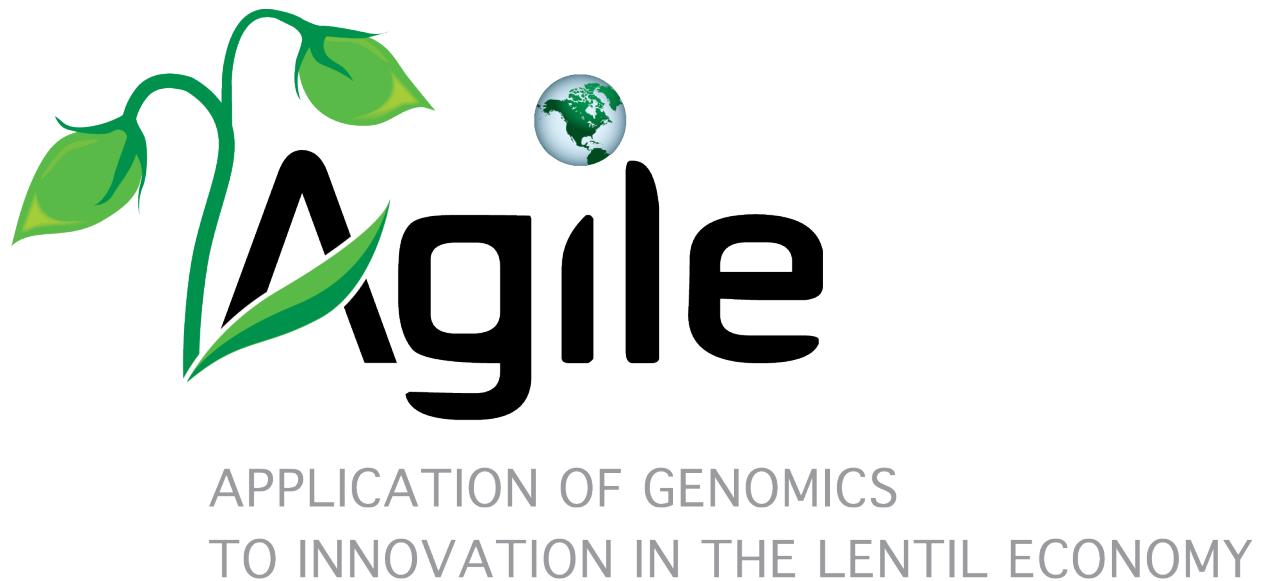
[View as pdf](#)

[Source Code Vignette \(GWAS_Phenology_Vignette.html\)](#)

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AGILE Project



Collaborators

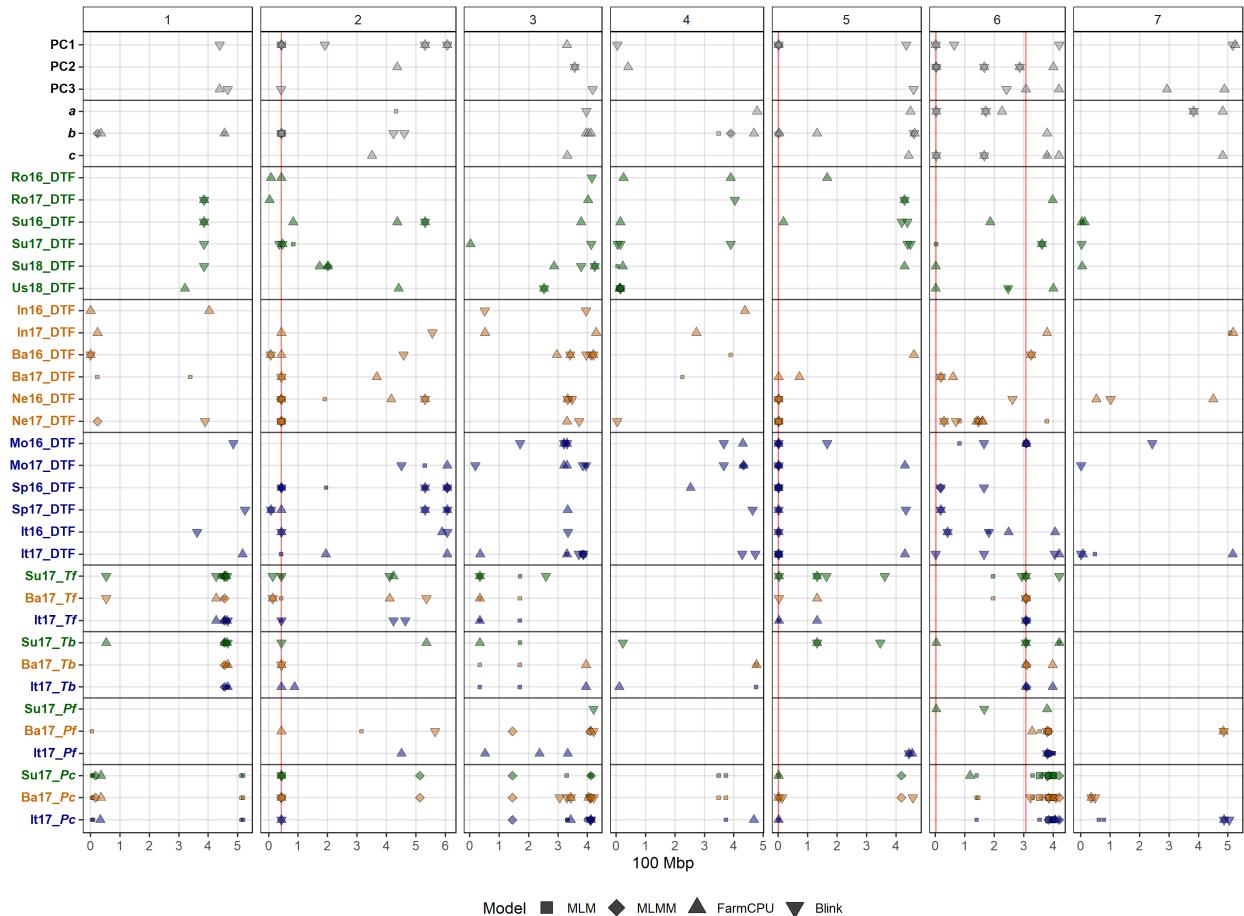
- Department of Plant Sciences and Crop Development Centre, University of Saskatchewan, Saskatoon, Saskatchewan, Canada
- UTAZ

Sponsors

-
- Saskatchewan Pulse Growers Association
 - Western Grains Research Foundation
 - GenomePrairie
 - GenomeCanada
 - Saskatchewan Ministry of Agriculture

Figures

Figure 1



Additional/Figure_01_plotly.html

Figure 2

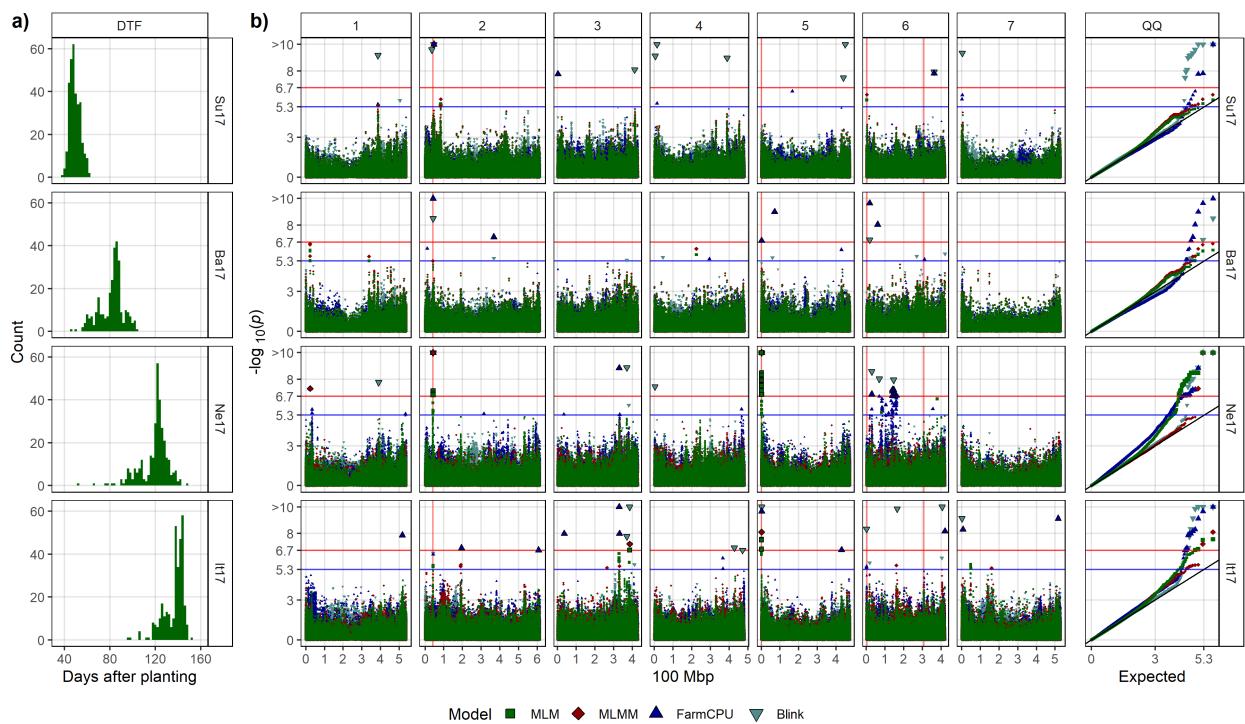


Figure 3

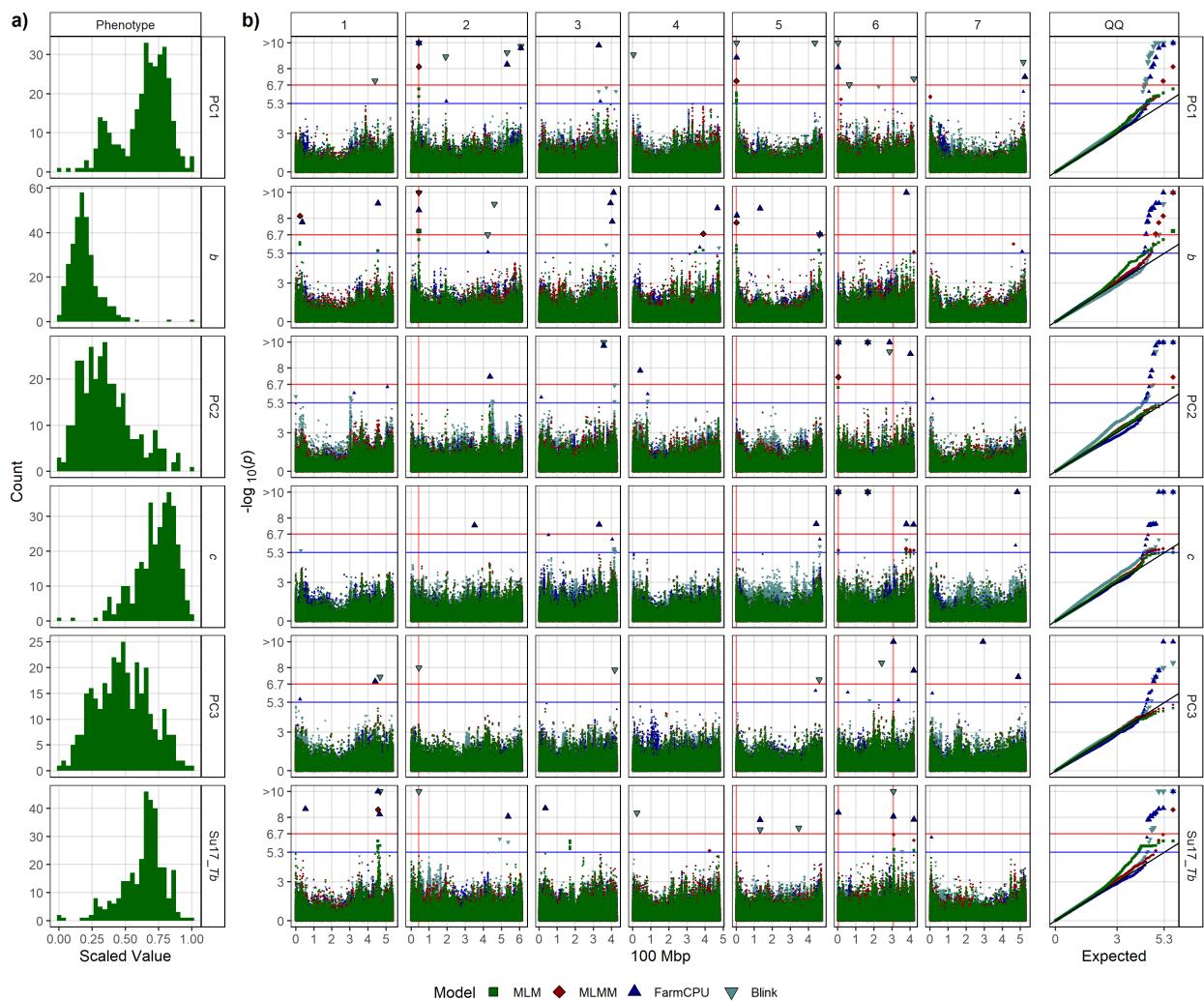


Figure 4

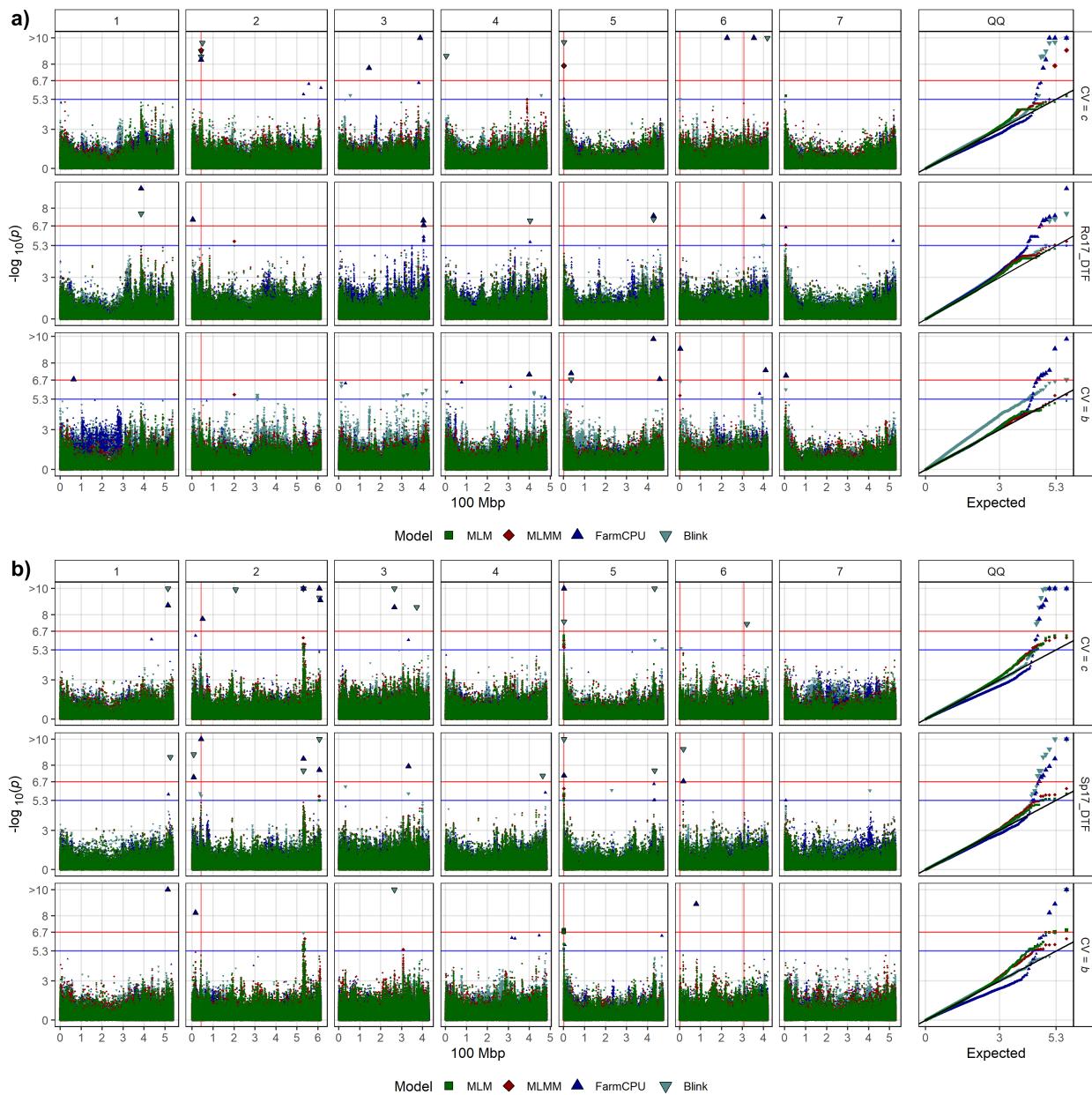
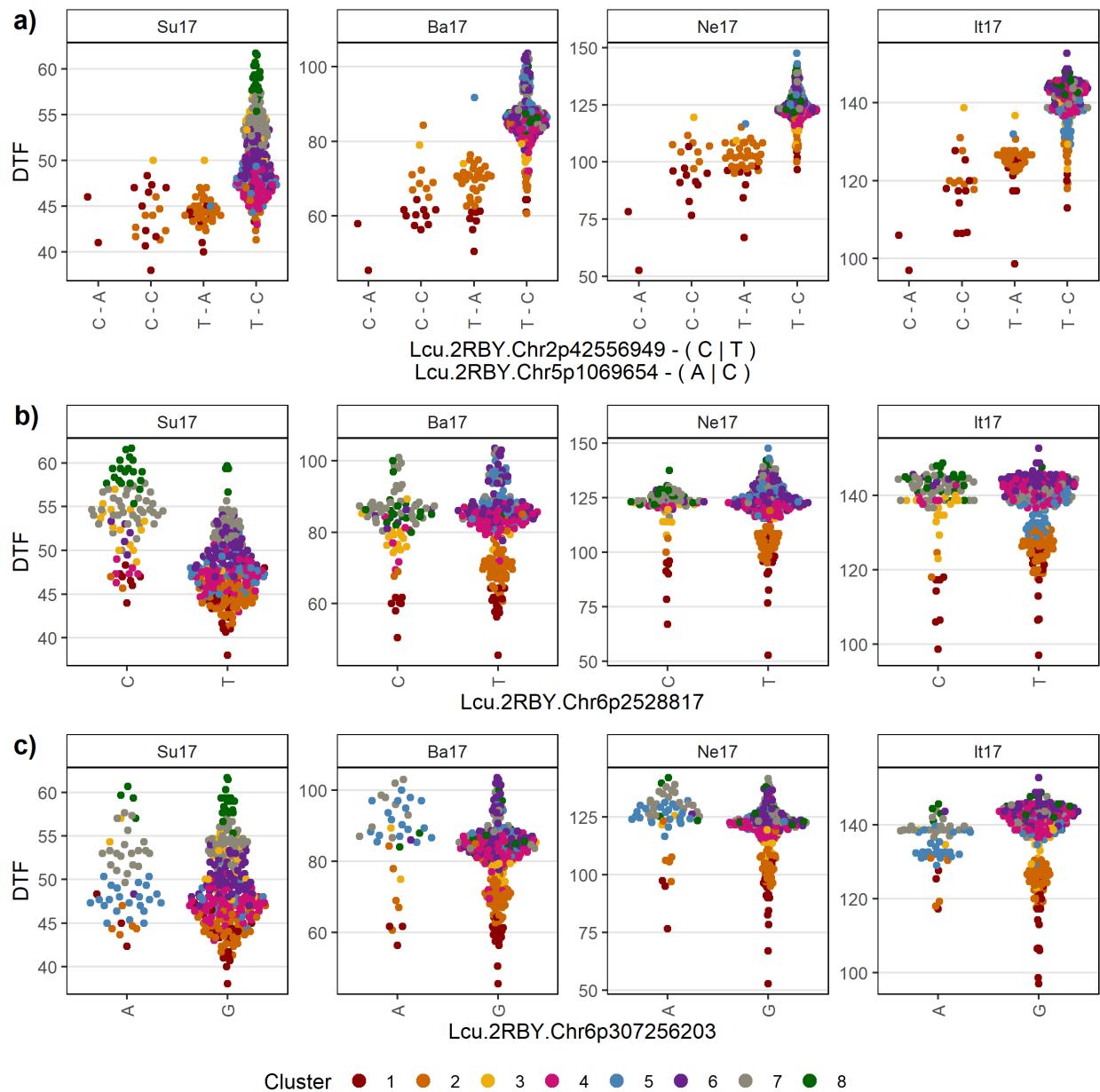


Figure 5



[Additional/Figure_05_a_plotly.html](#)

[Additional/Figure_05_b_plotly.html](#)

[Additional/Figure_05_c_plotly.html](#)

Supplemental Tables

Supplemental Table 1

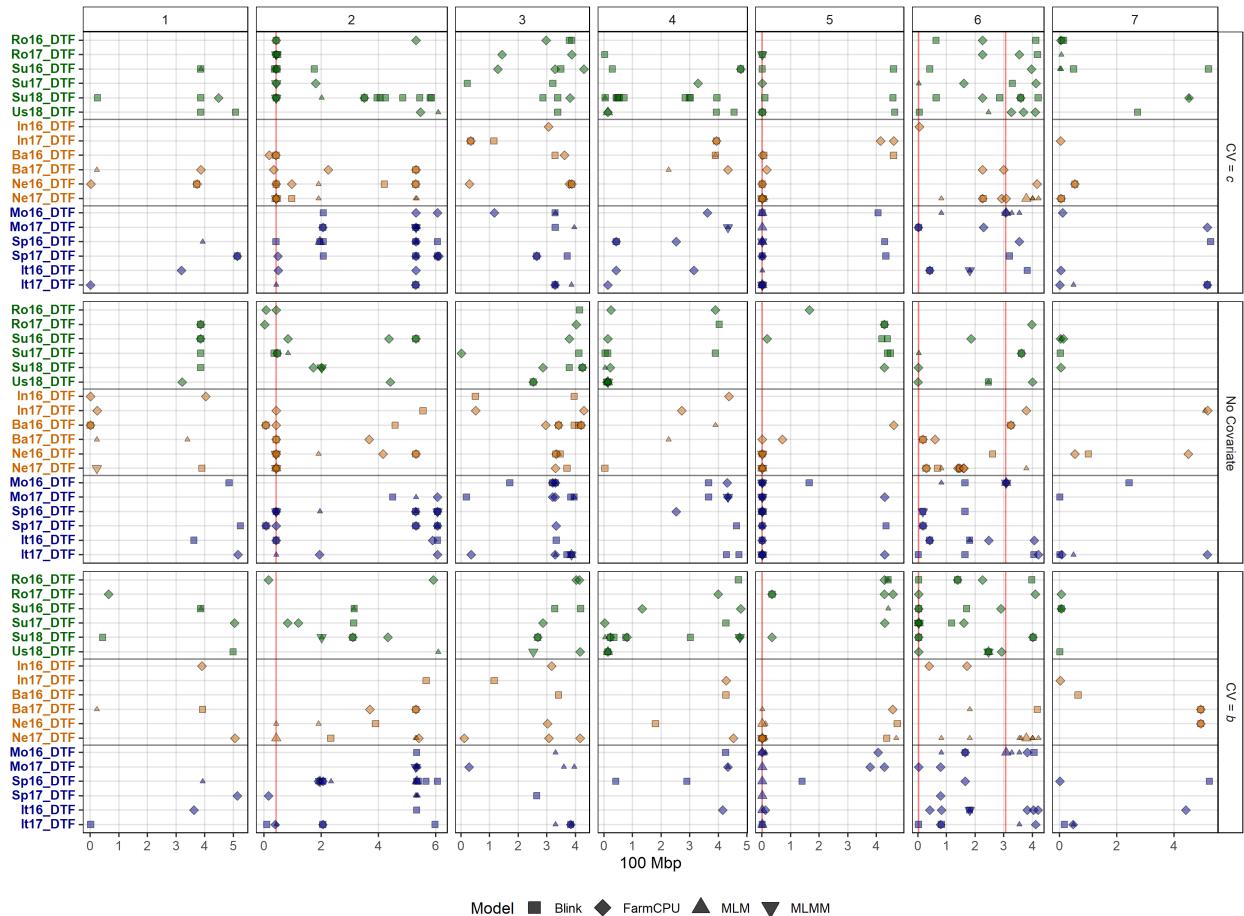
Supplemental_Table_01.csv

Supplemental Table 2

Supplemental_Table_02.xlsx

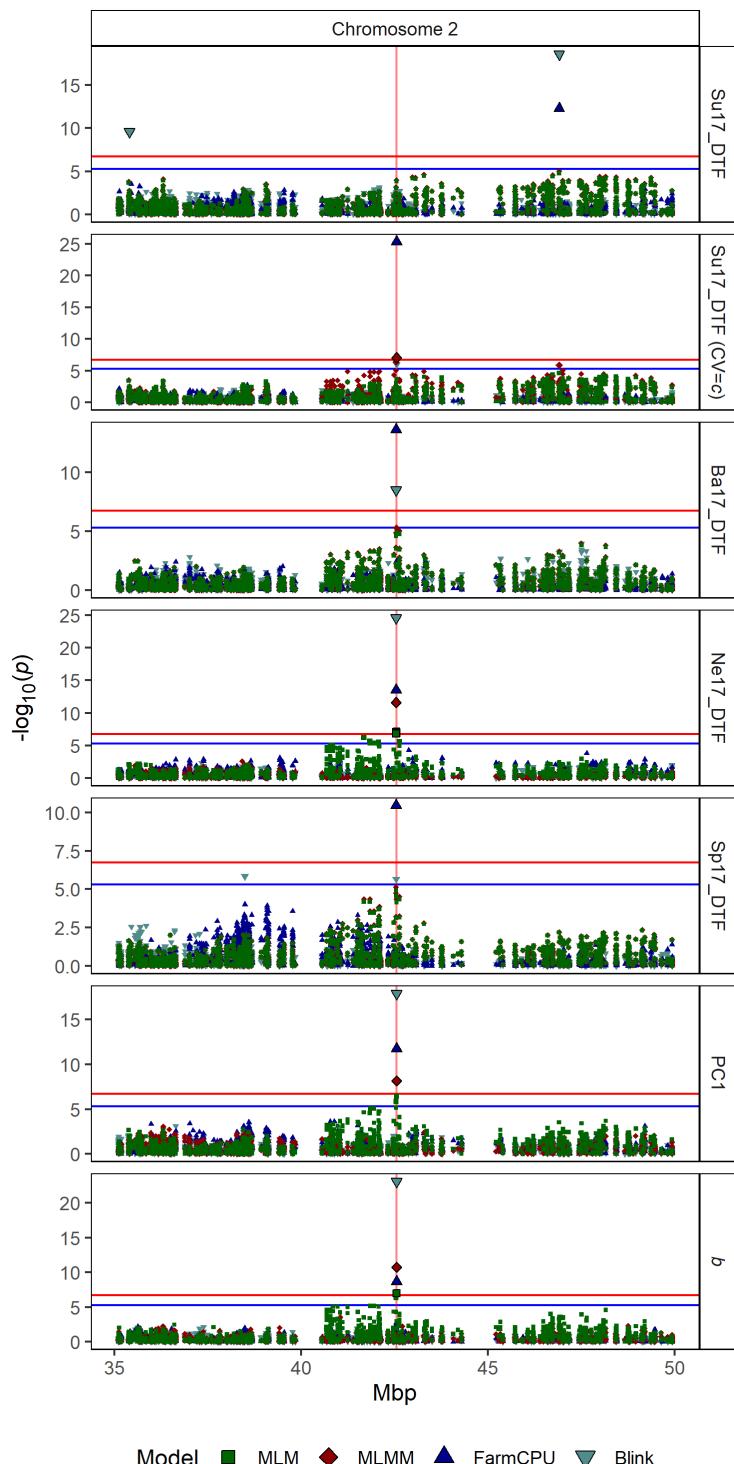
Supplemental Figures

Supplemental Figure 1

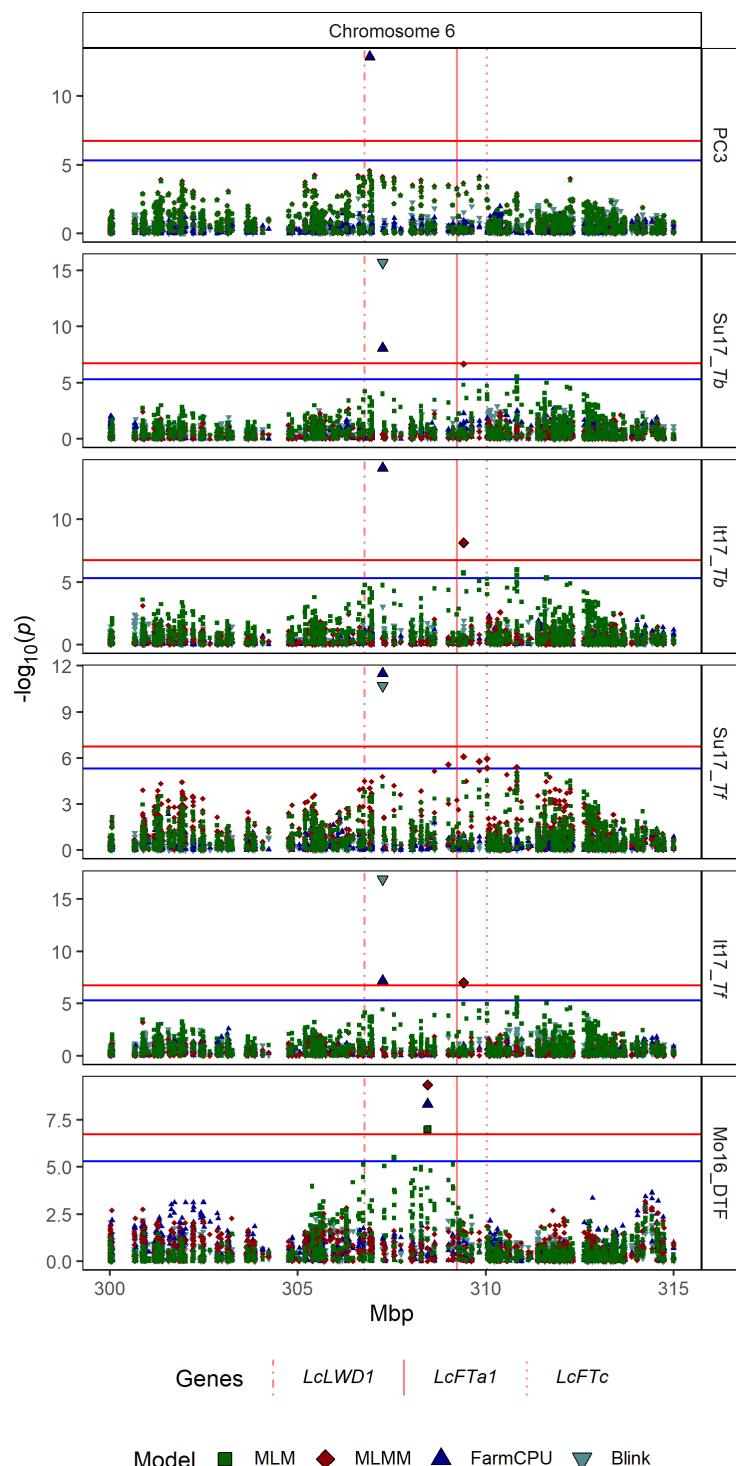


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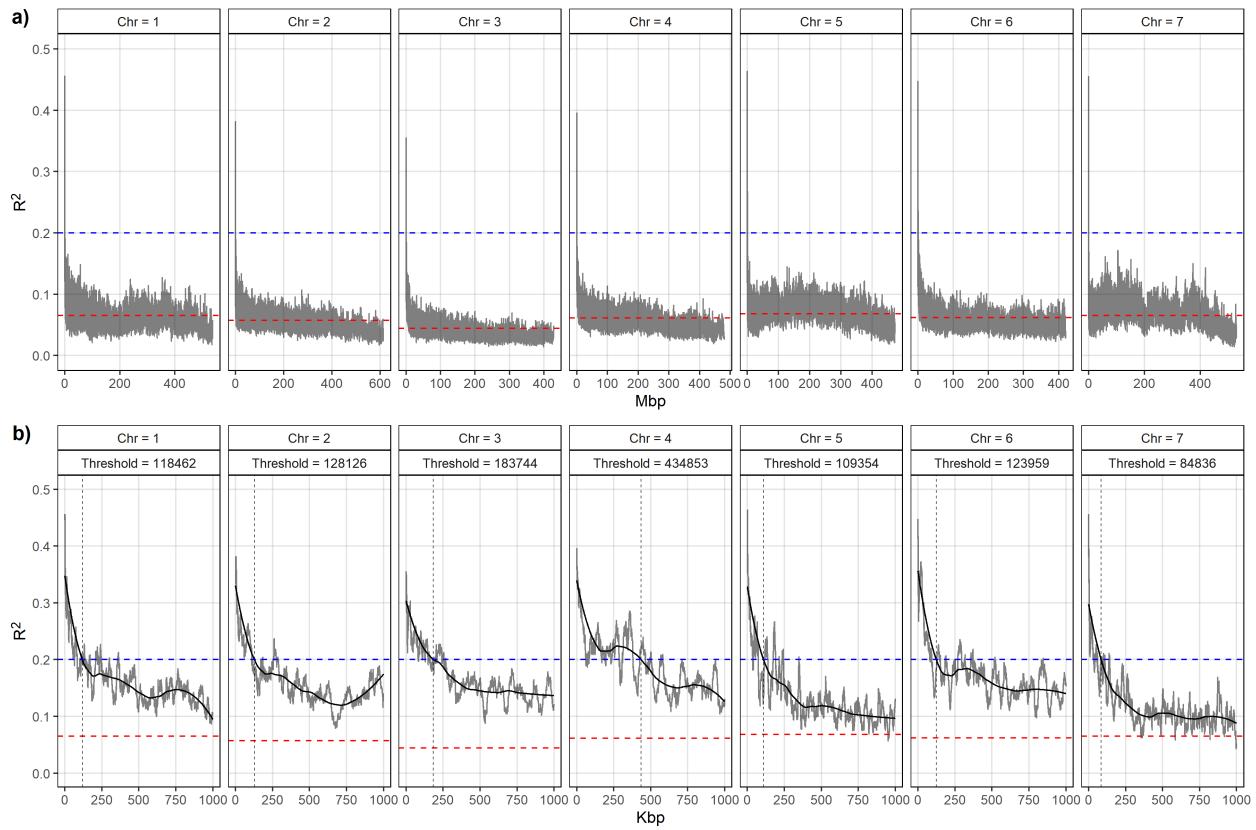
Supplemental Figure 2



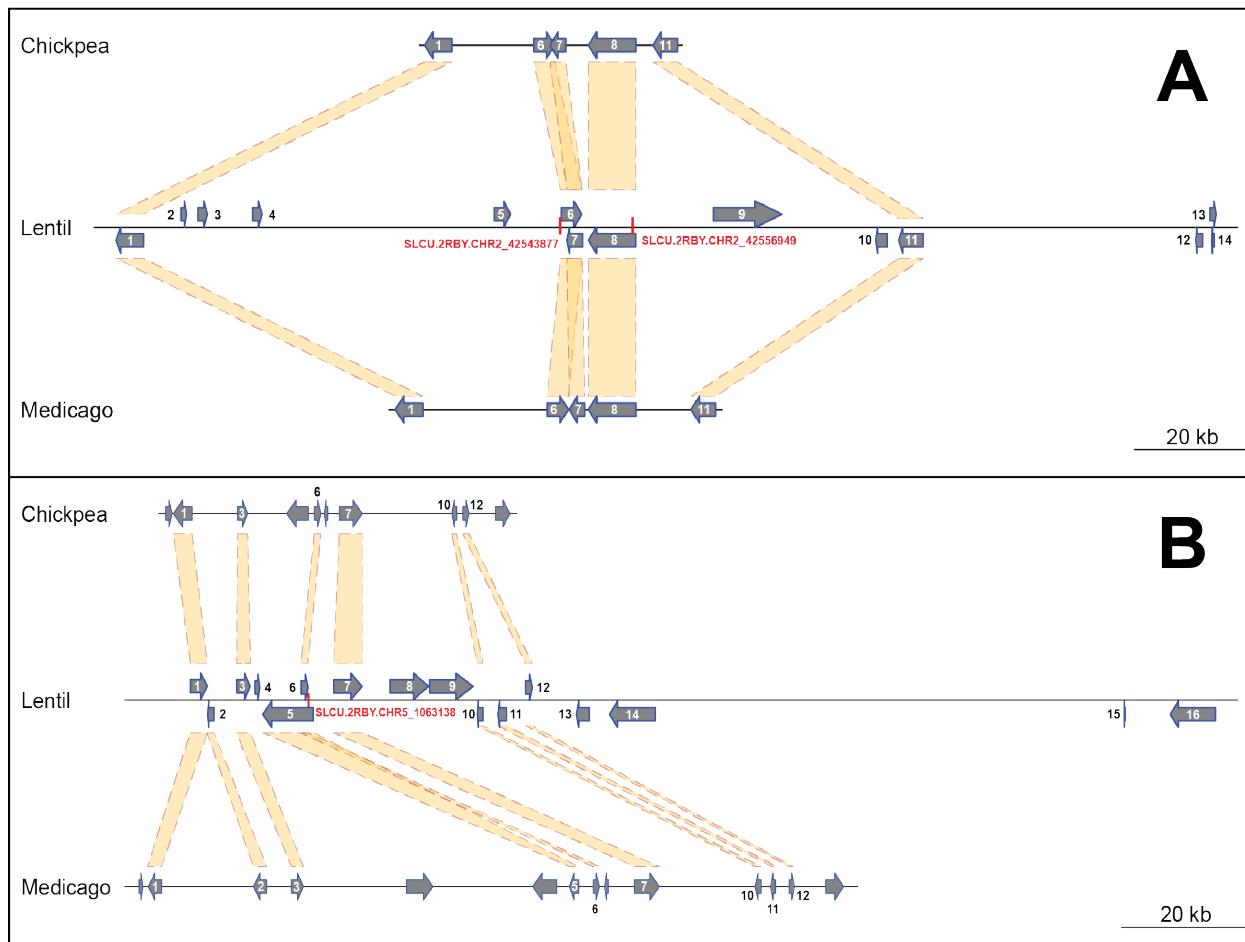
Supplemental Figure 3



Supplemental Figure 4

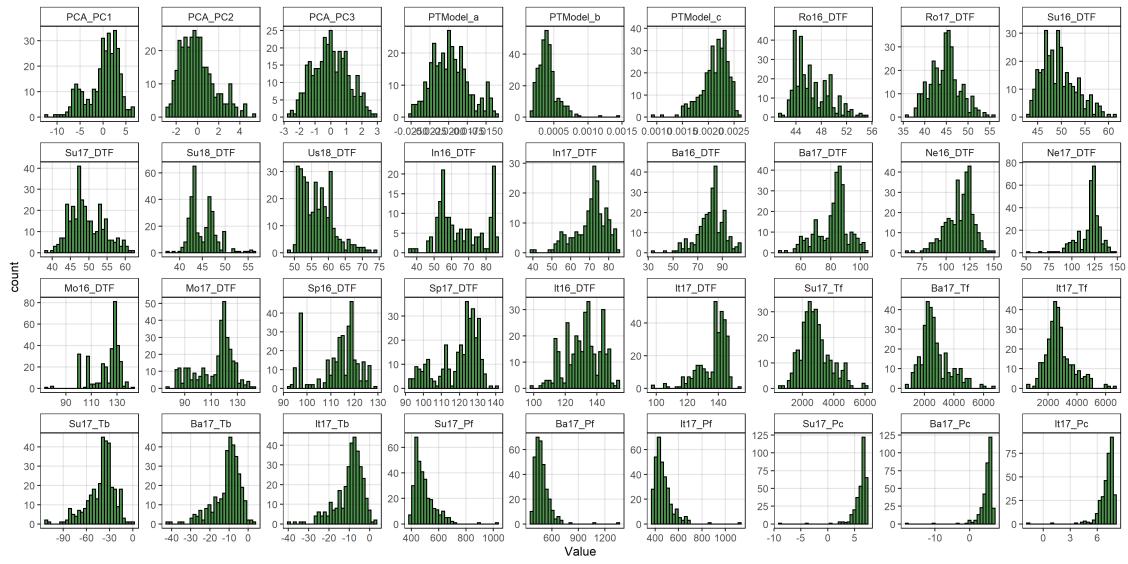


Supplemental Figure 5



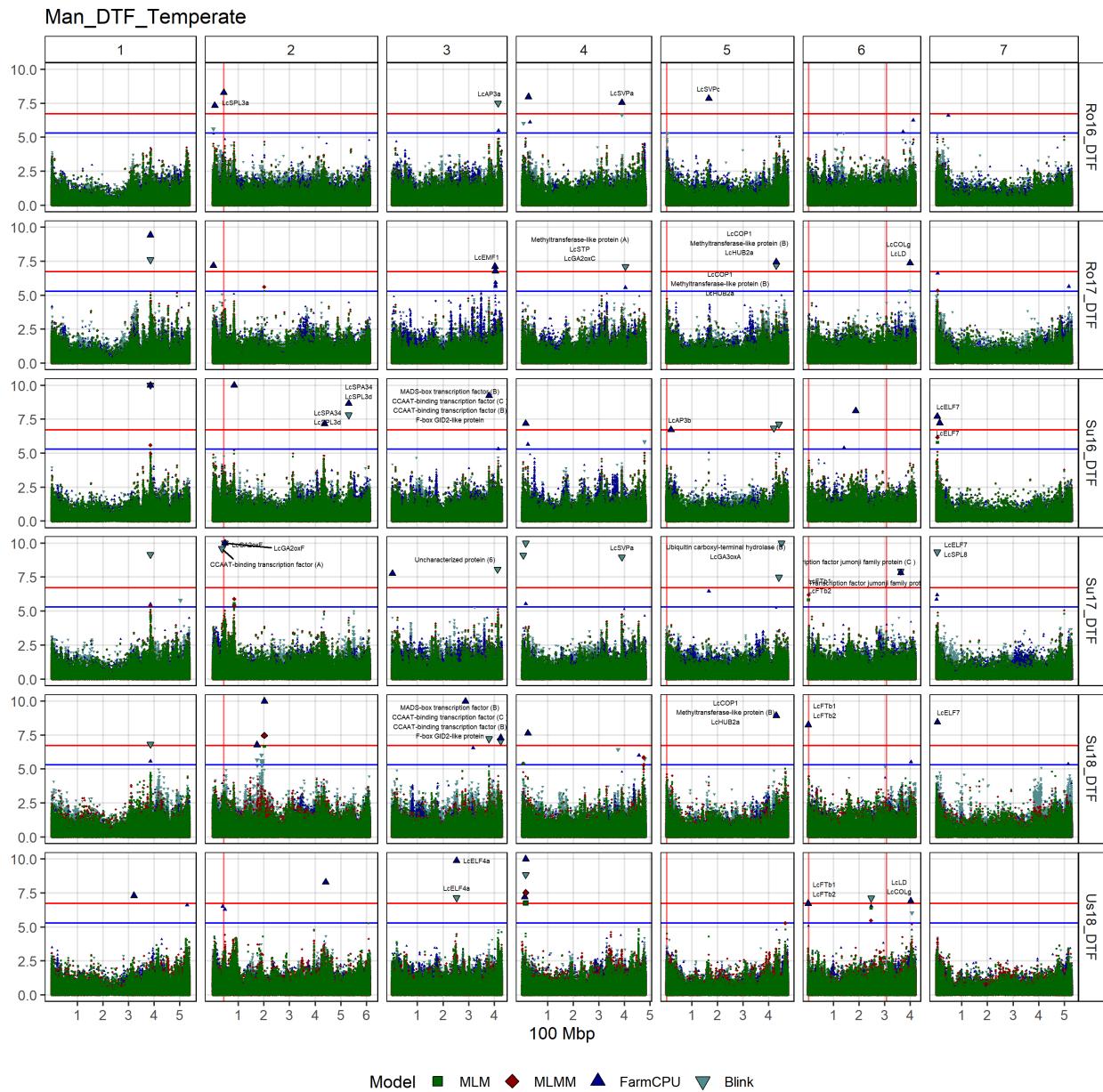
Additional Figures

Phenotype Data

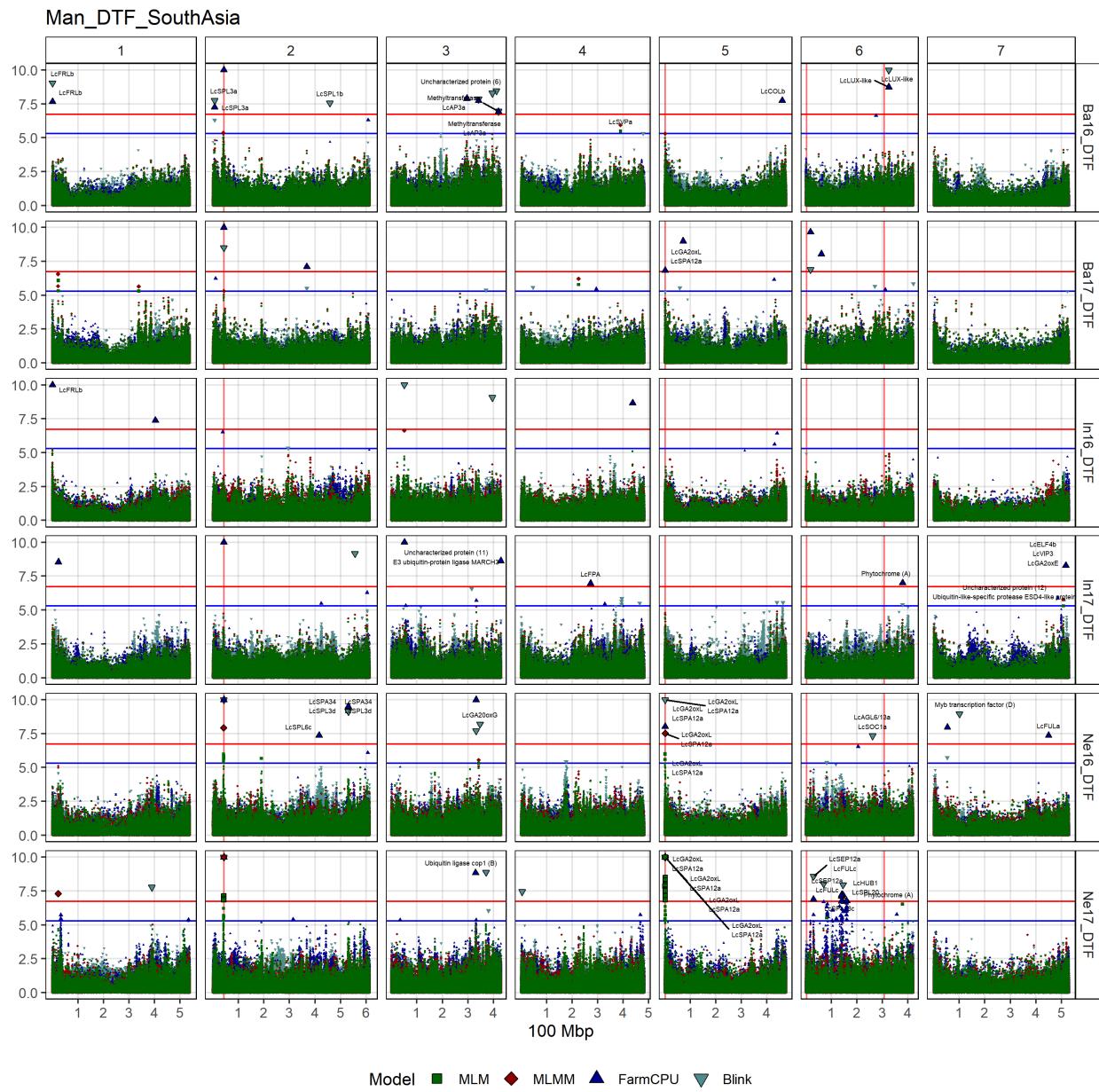


Grouped Manhattan Plots

DTF Temperate



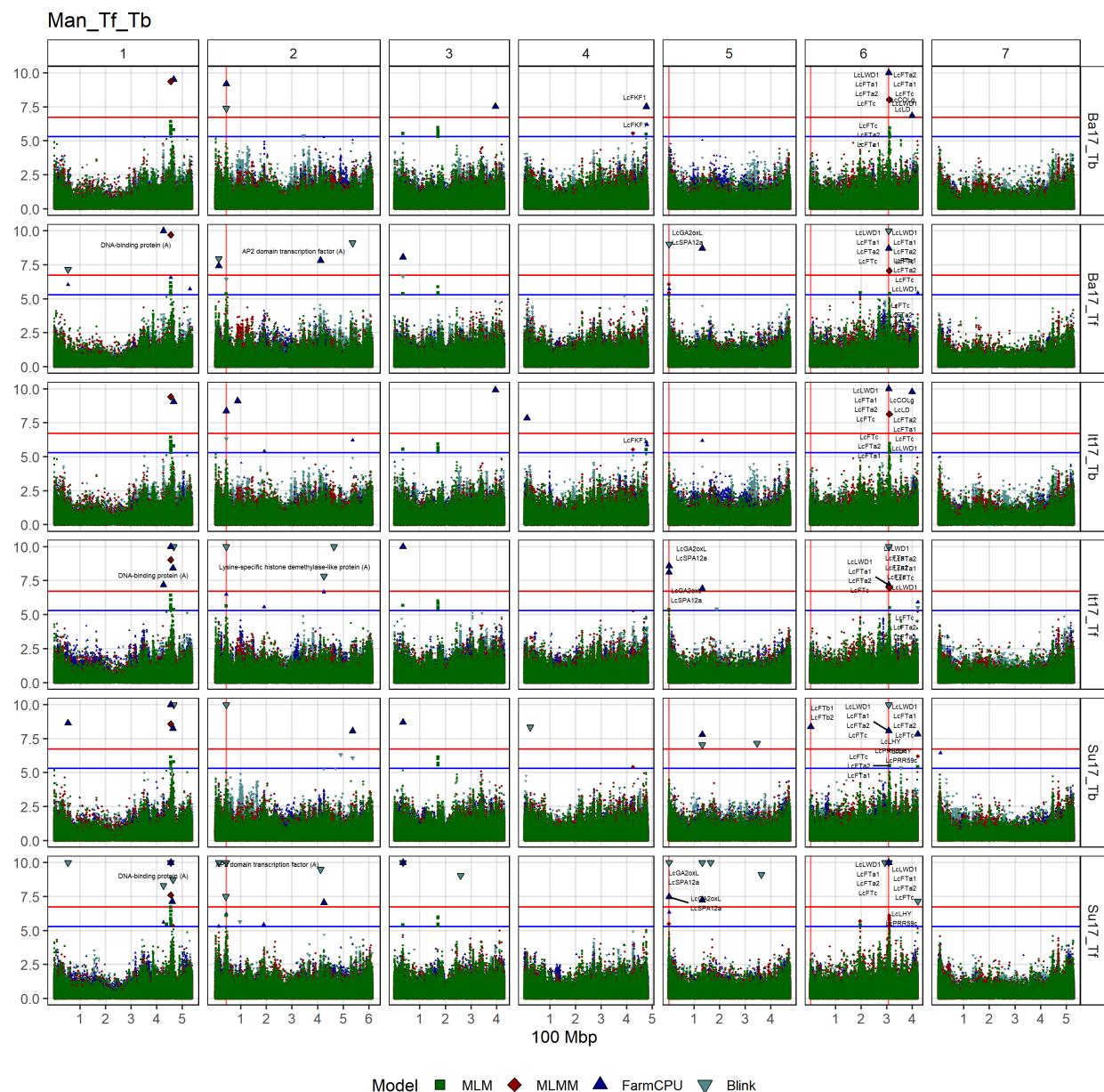
DTF South Asia



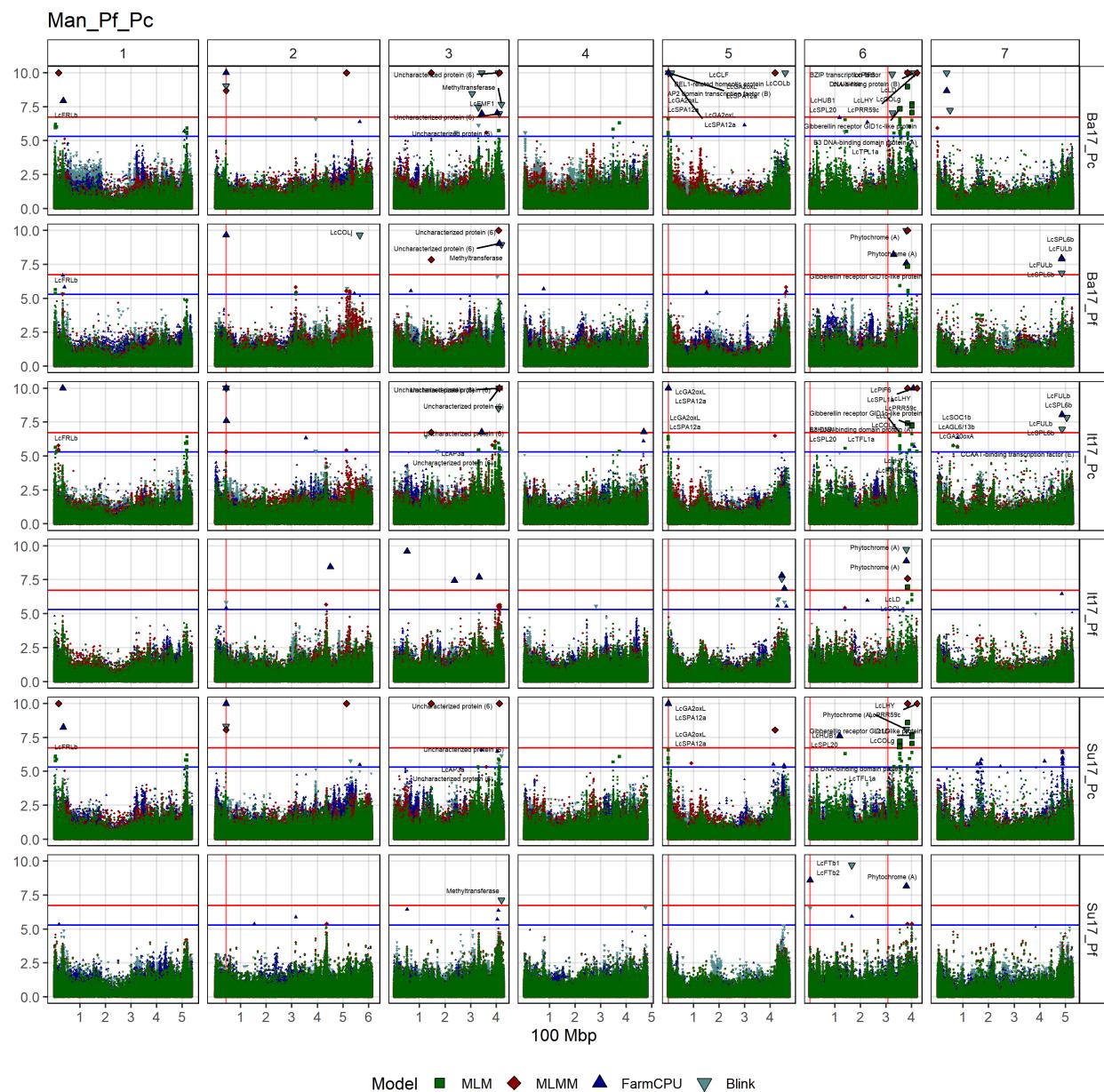
DTF Mediterranean



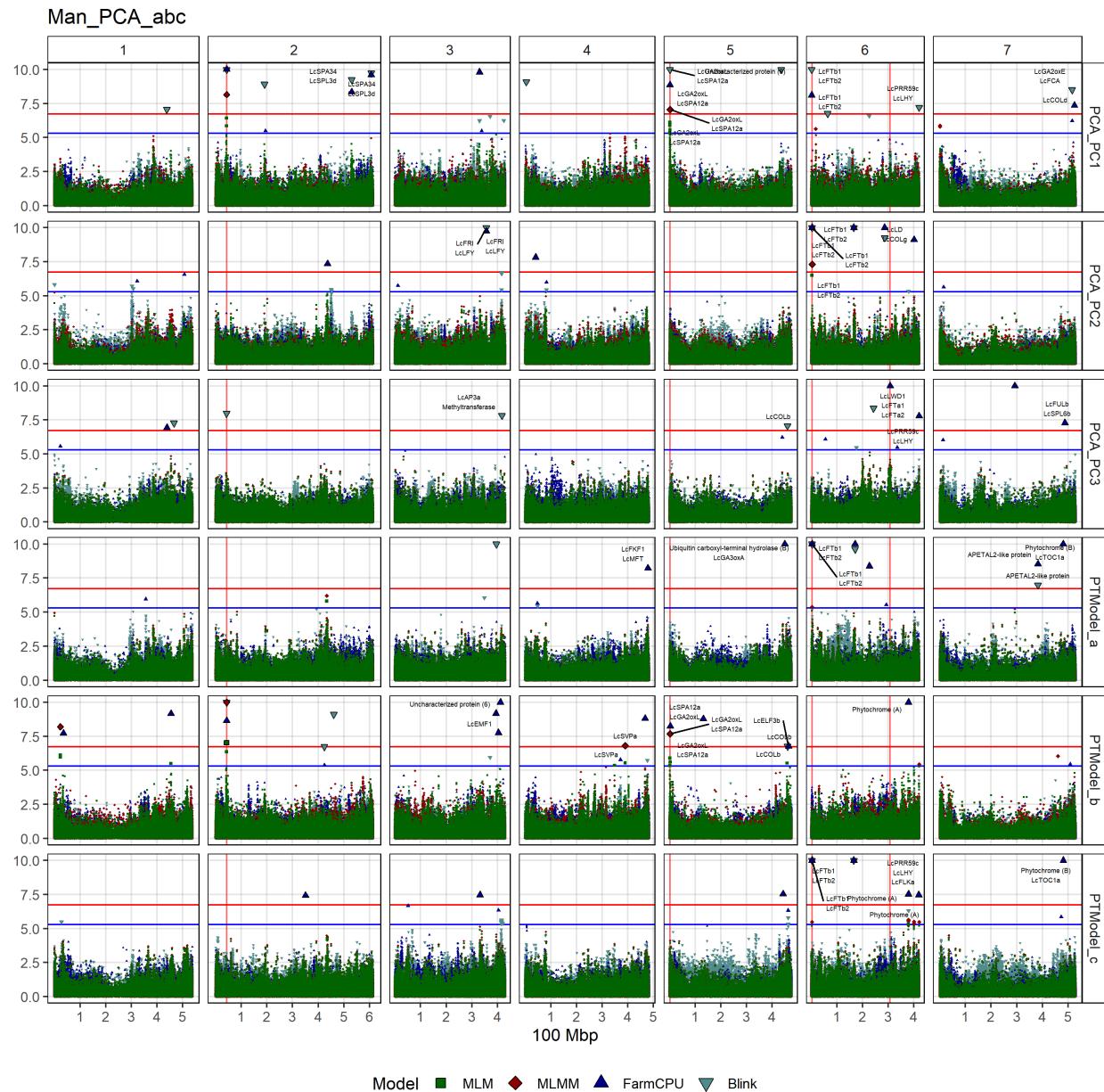
Tf and *Tc*



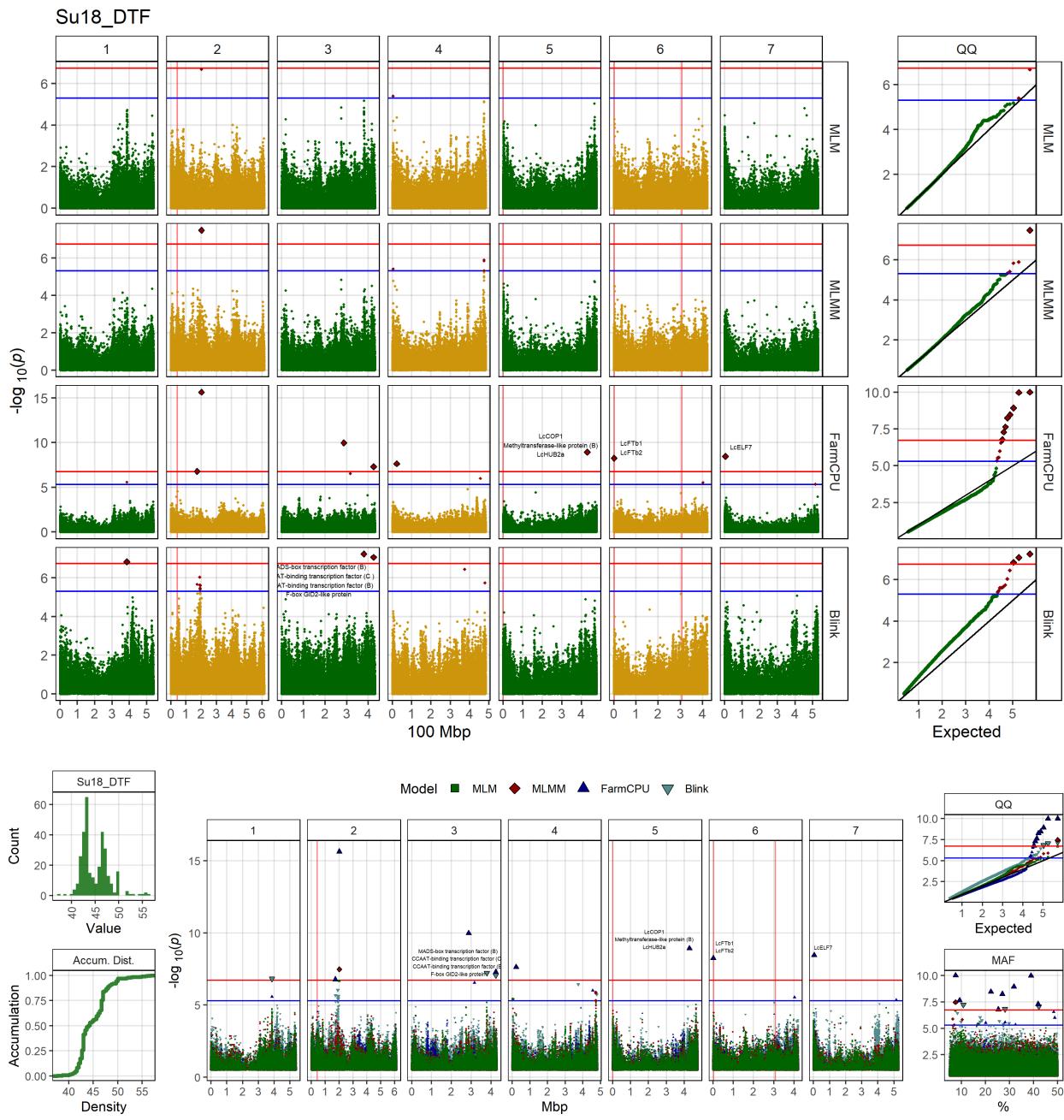
Pf and Pc



PCA + abc Coefficients



Faceted & Multi-Modeled Manhattan Plots



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