

Supplementary Material SM1

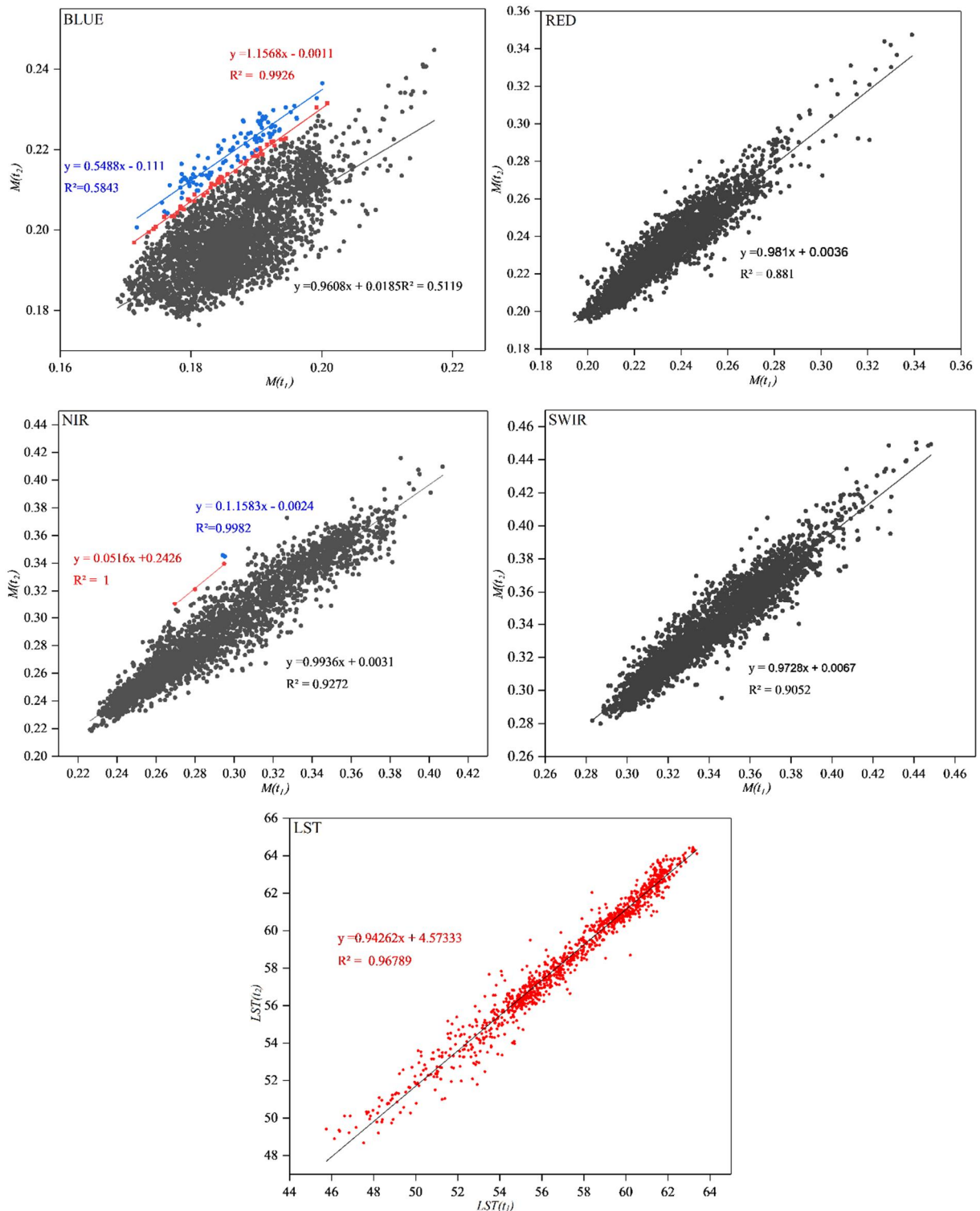


Figure S1. Pixel-wise scatterplots illustrating the relationships between MODIS reflectance acquired on 13 May 2014 ($M(t_1)$) and 22 May 2014 ($M(t_2)$) for four bands (BLUE, RED, NIR, SWIR), and for LST. Points are clustered according to change ratios, where blue color indicates positive changes, red represents minor changes, and black corresponds to negative changes.

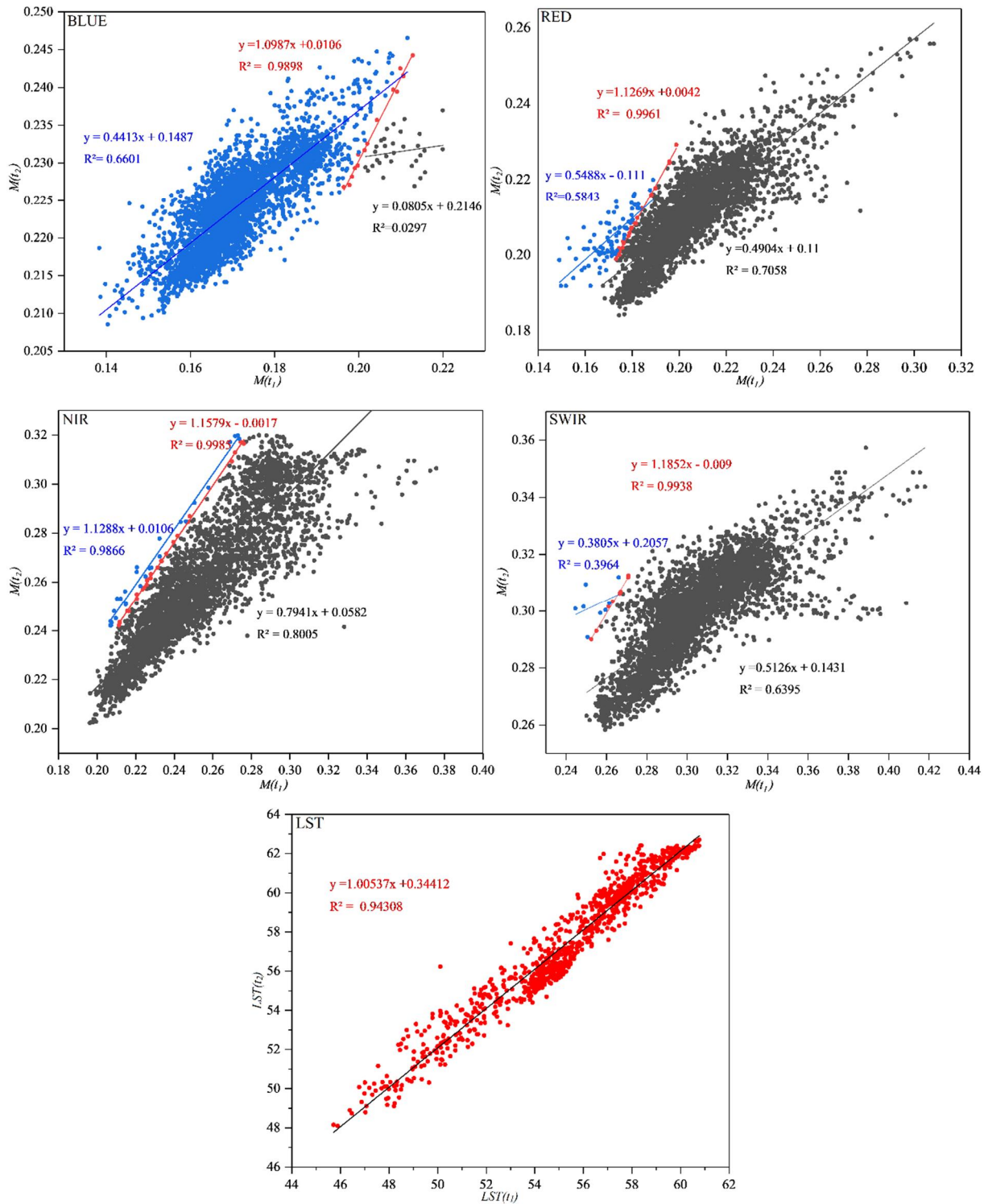


Figure S2. Pixel-wise scatterplots illustrating the relationships between MODIS reflectance acquired on 30 Apr 2015 ($M(t_1)$) and 7 May 2015 ($M(t_2)$) for four bands (BLUE, RED, NIR, SWIR), and for LST. Points are clustered according to change ratios, where blue color indicates positive changes, red represents minor changes, and black corresponds to negative changes.

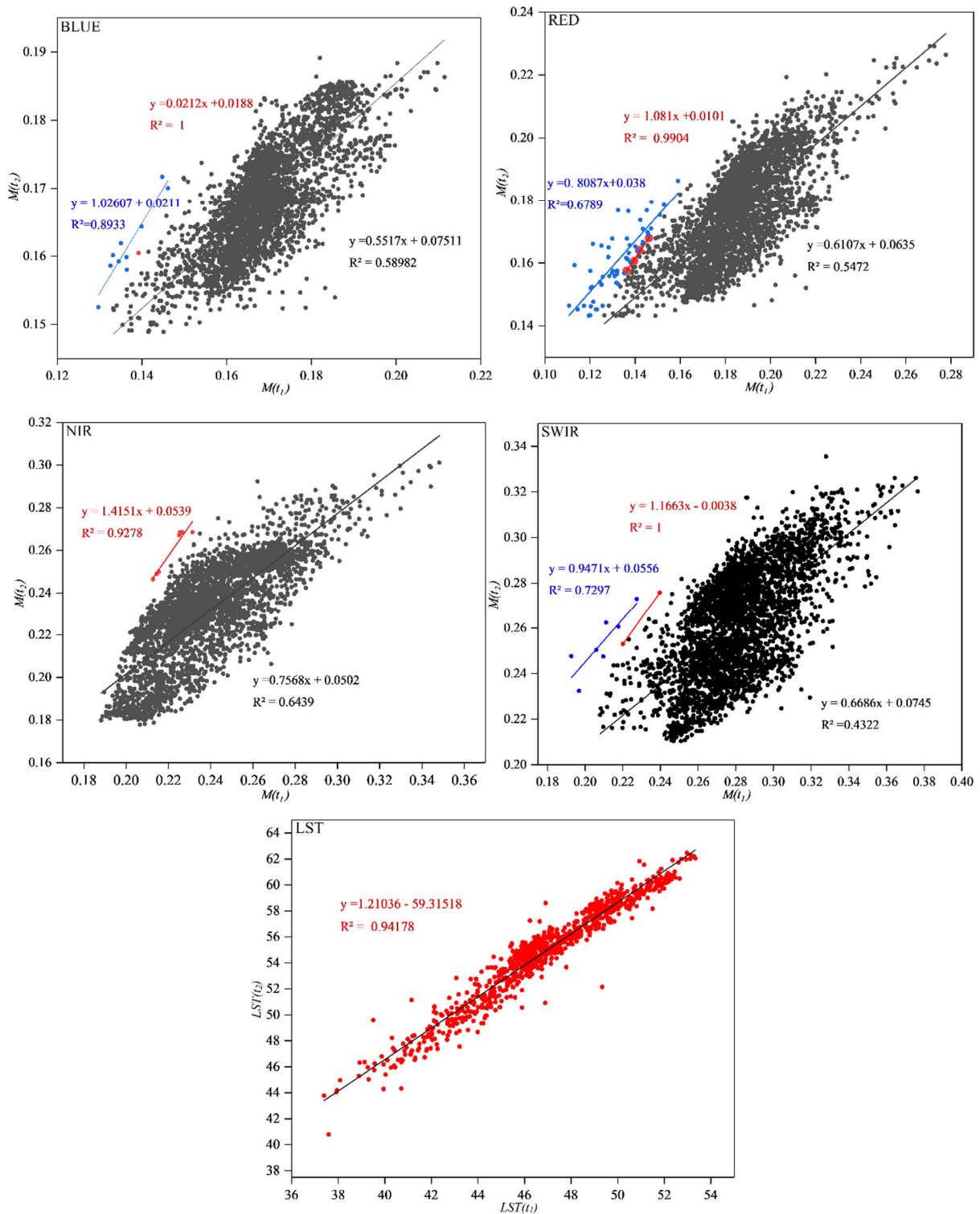


Figure S3. Pixel-wise scatterplots illustrating the relationships between MODIS reflectance acquired on 4 Apr 2017 ($M(t_1)$) and 12 Apr 2017 ($M(t_2)$) for four bands (BLUE, RED, NIR, SWIR), and for LST. Points are clustered according to change ratios, where blue color indicates positive changes, red represents minor changes, and black corresponds to negative changes.

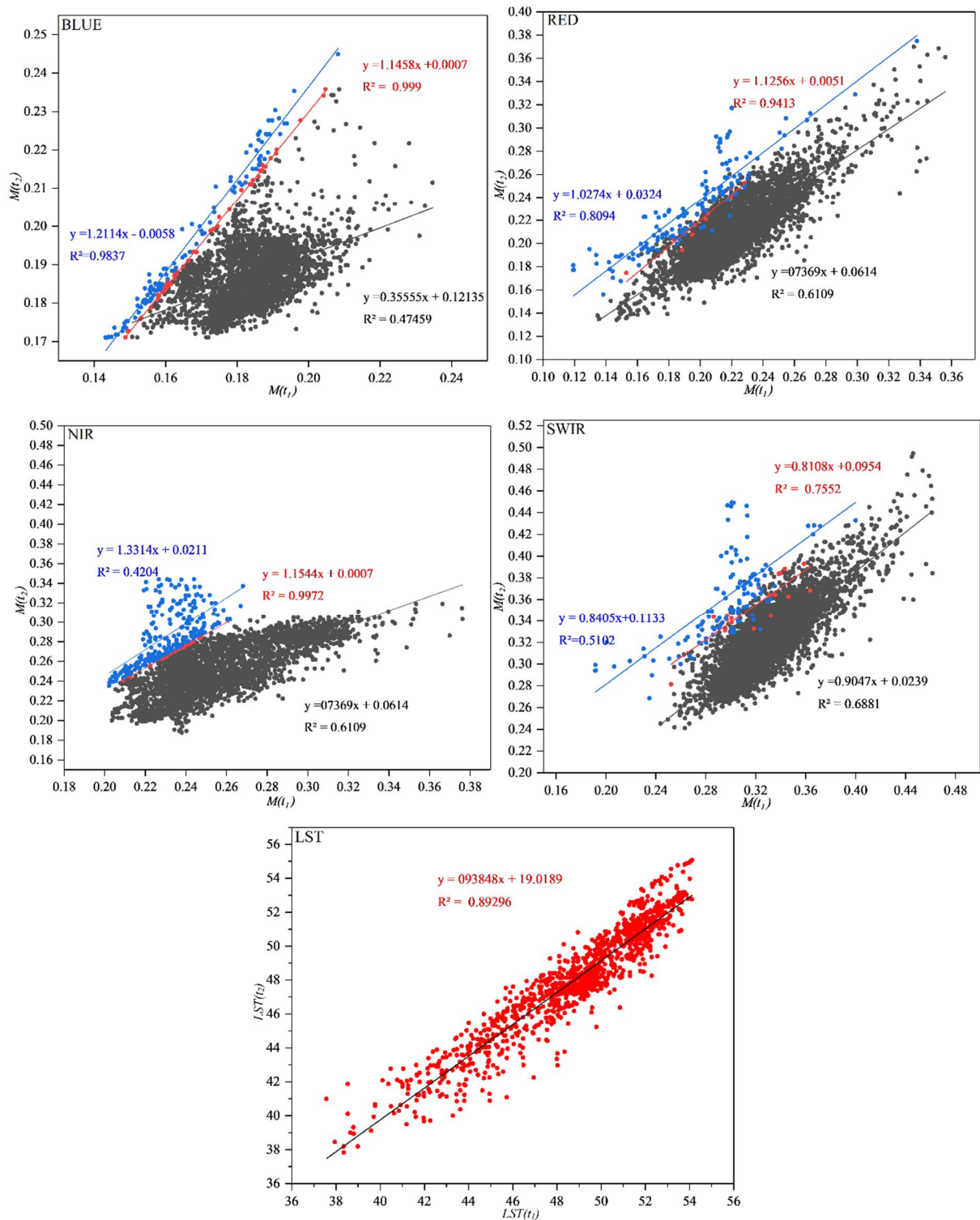


Figure S4. Pixel-wise scatterplots illustrating the relationships between MODIS reflectance acquired on 7 Apr 2018 ($M(t_1)$) and 14 Apr 2018 ($M(t_2)$) for four bands (BLUE, RED, NIR, SWIR), and for LST. Points are clustered according to change ratios, where blue color indicates positive changes, red represents minor changes, and black corresponds to negative changes.

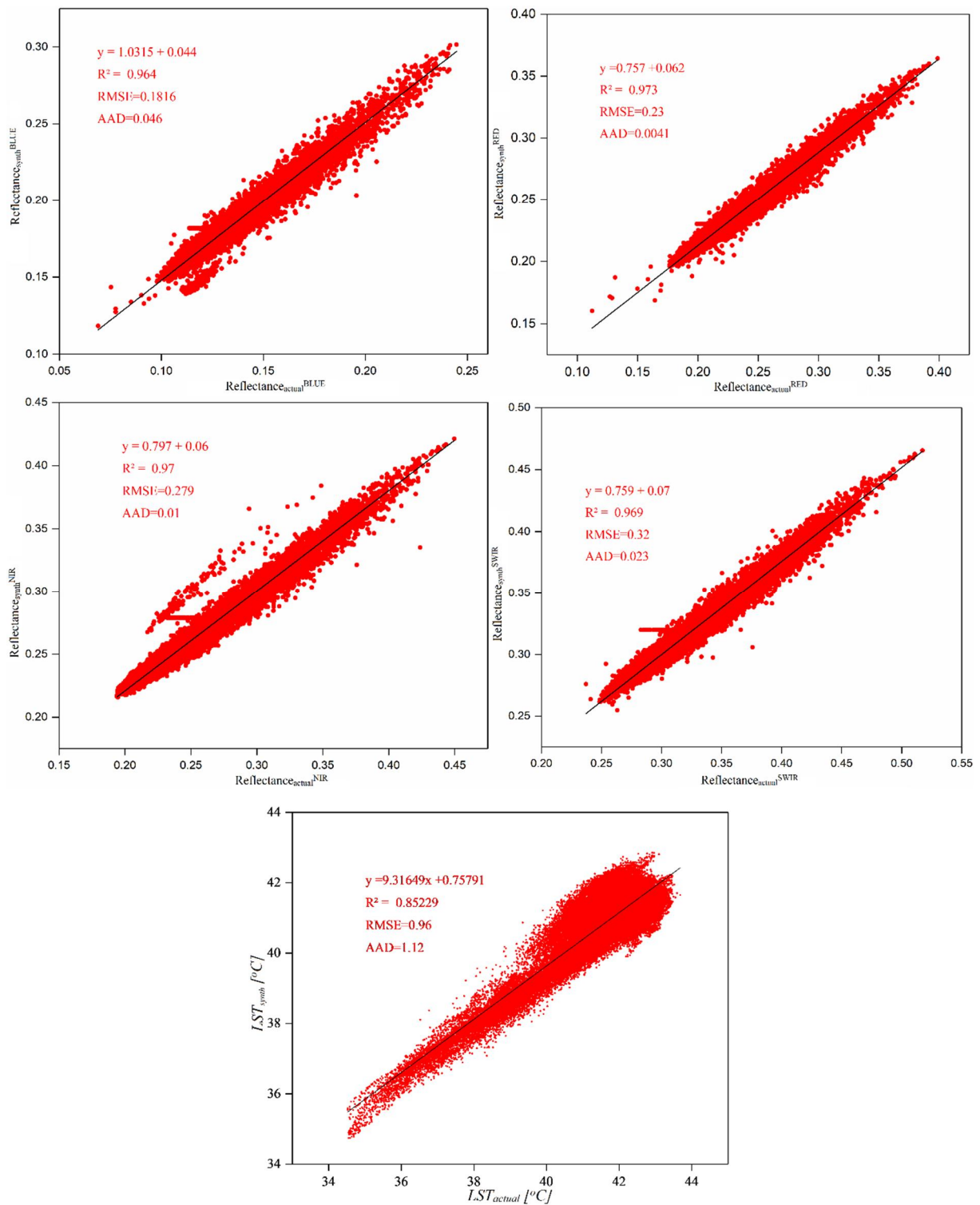


Figure S5. Scatterplots comparing the actual and synthetic values from the four Landsat 8 reflective bands (BLUE, RED, NIR, SWIR) and Land Surface Temperature (LST) for 16 May 2015.

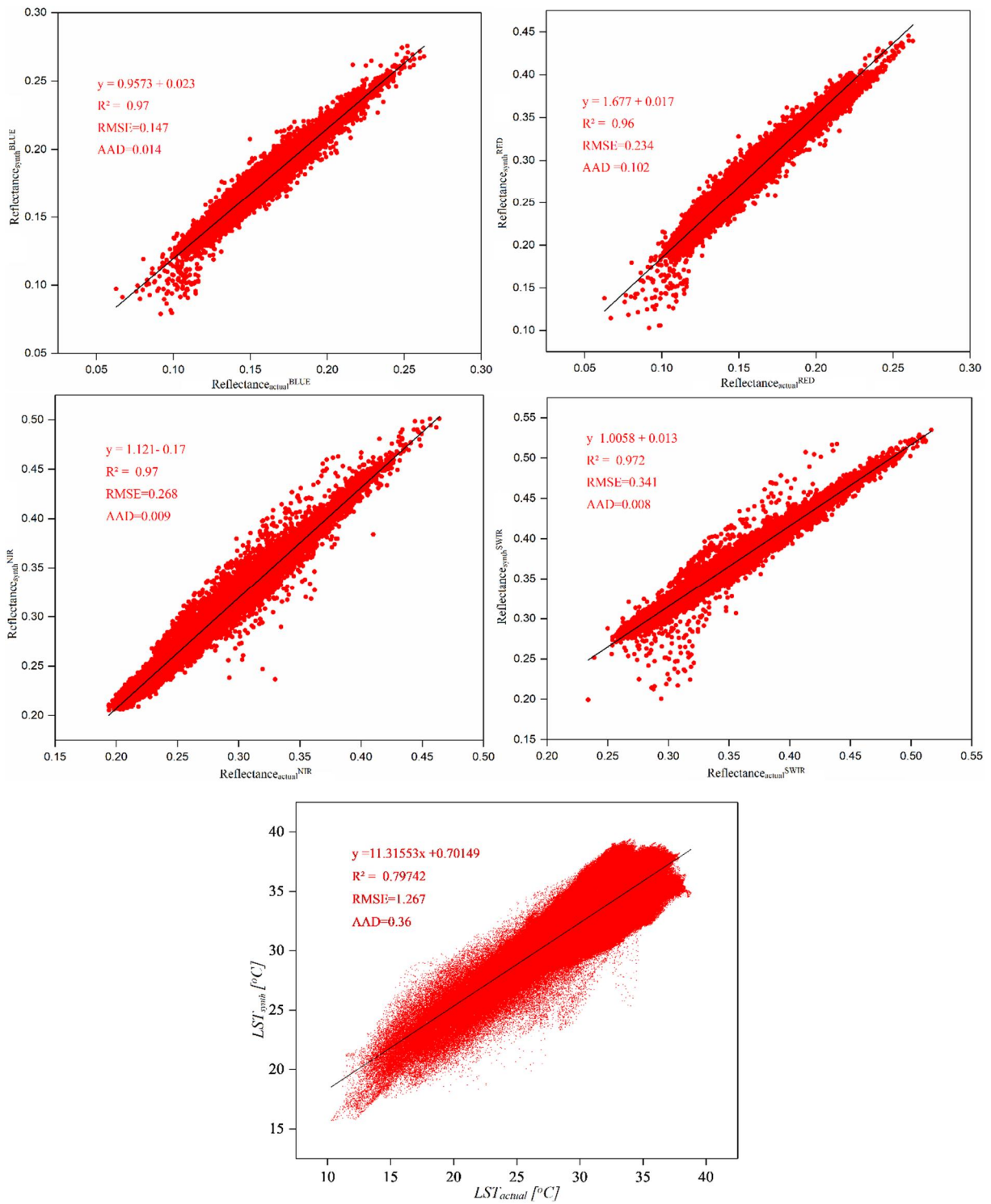


Figure S6. Scatterplots comparing the actual and synthetic values from the four Landsat 8 reflective bands (BLUE, RED, NIR, SWIR) and Land Surface Temperature (LST) for 2 May 2016.

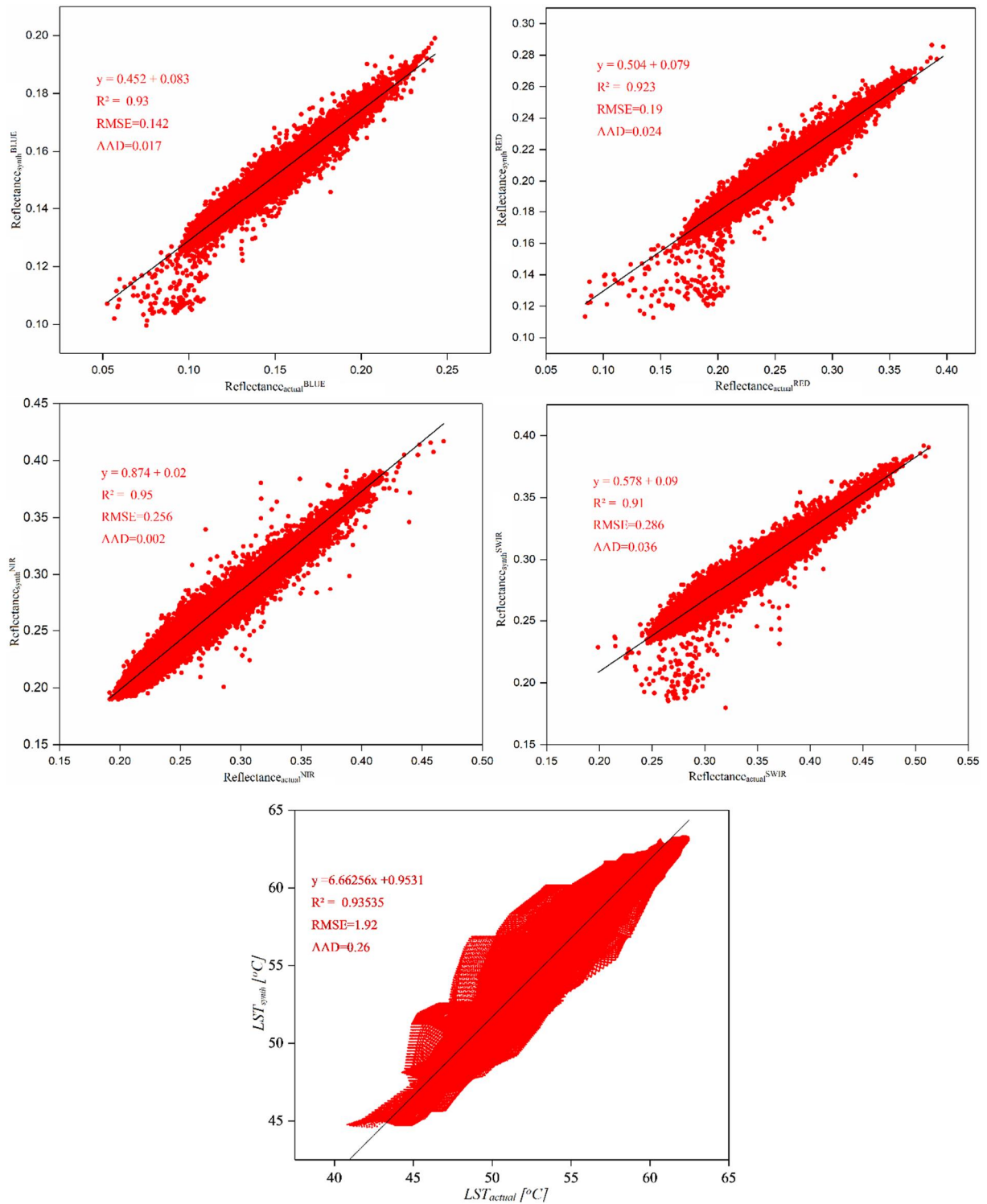


Figure S7. Scatterplots comparing the actual and synthetic values from the four Landsat 8 reflective bands (BLUE, RED, NIR, SWIR) and Land Surface Temperature (LST) for 19 Apr 2017.

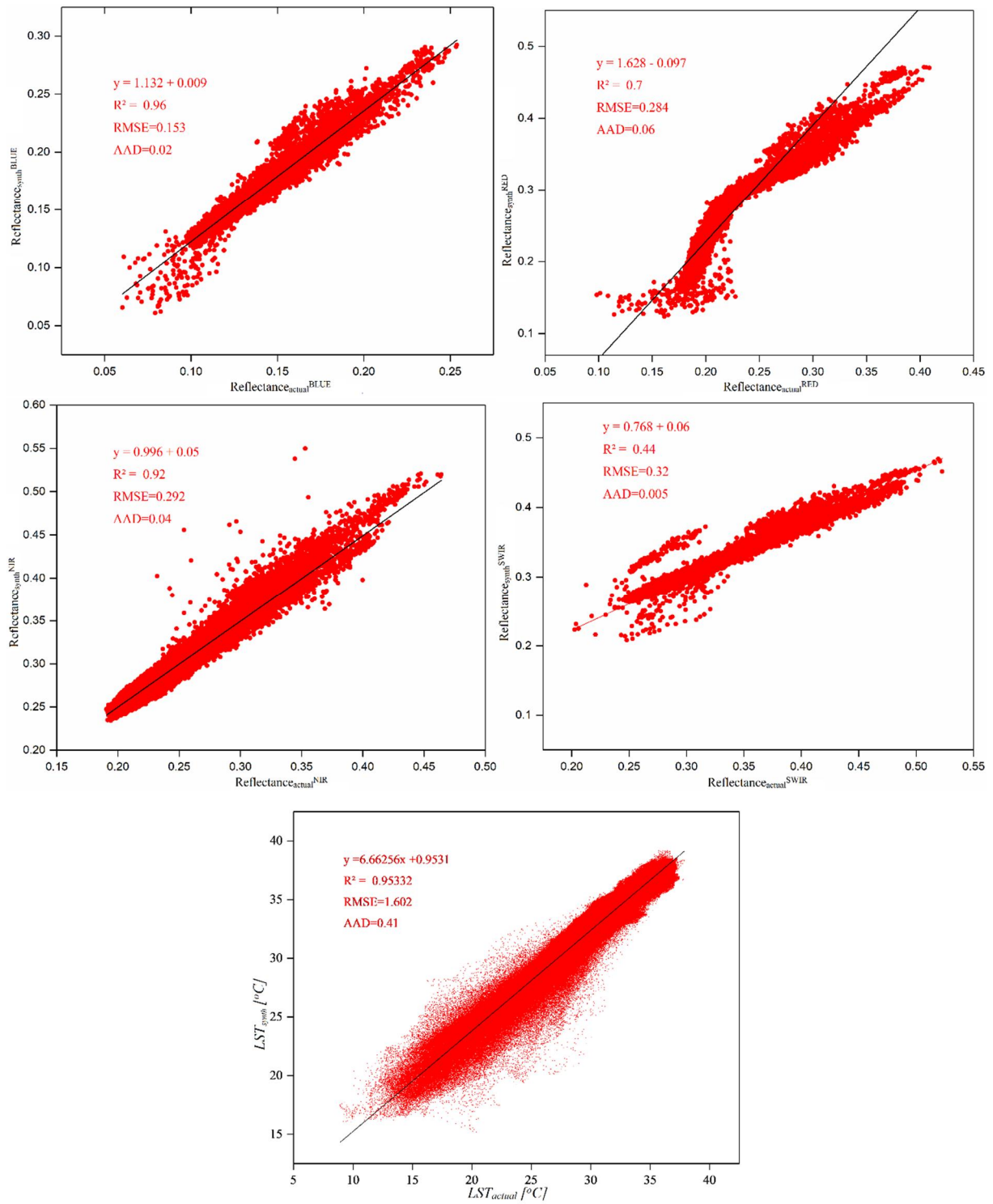
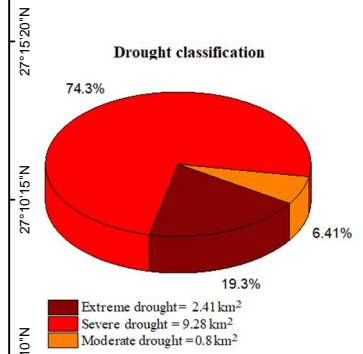
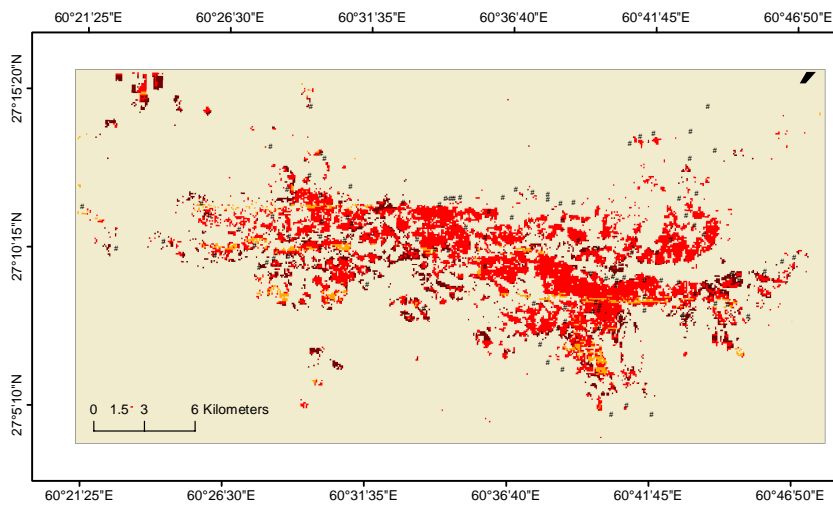
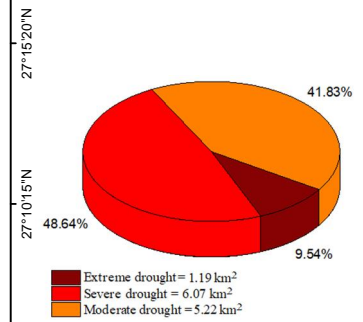
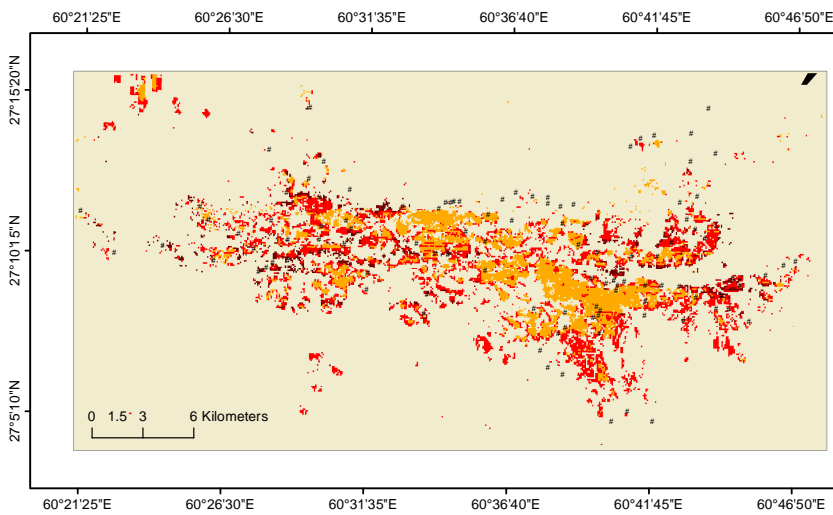


Figure S8. Scatterplots comparing the actual and synthetic values from the four Landsat 8 reflective bands (BLUE, RED, NIR, SWIR) and Land Surface Temperature (LST) for 23 Apr 2018.

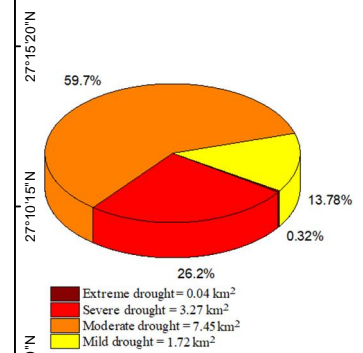
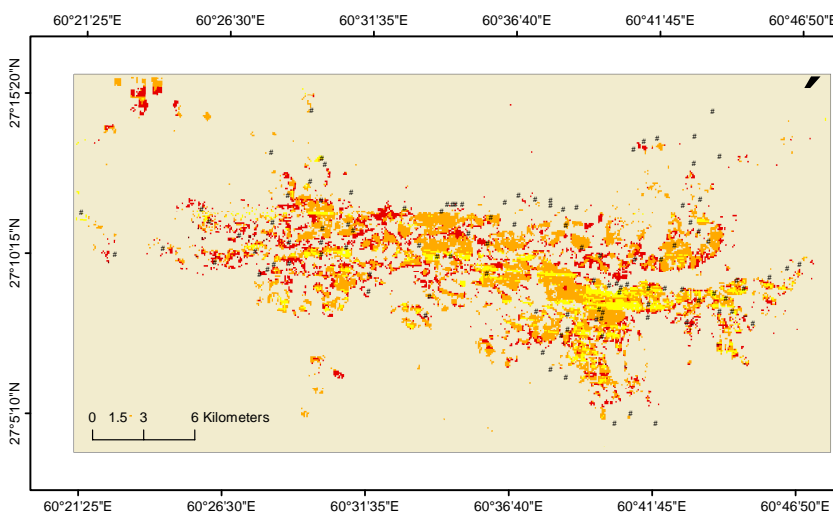
22 May 2014



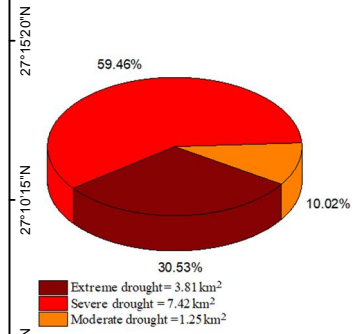
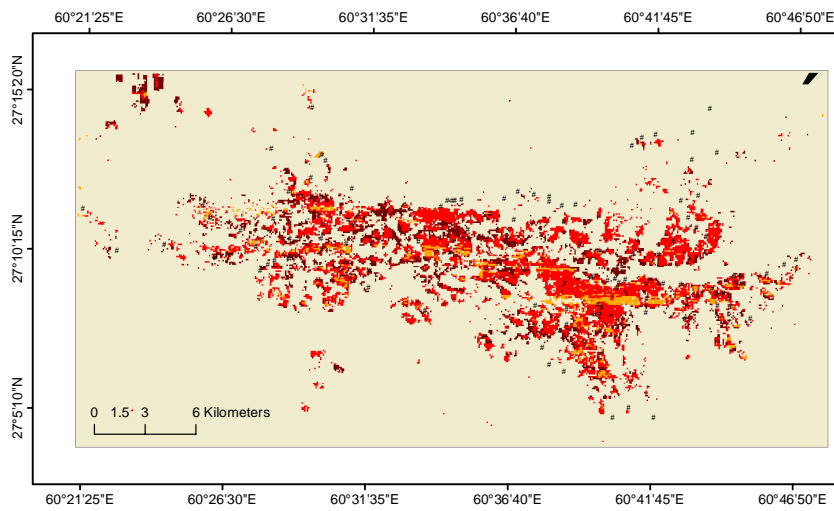
29 May 2014



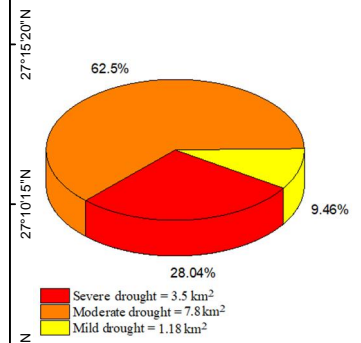
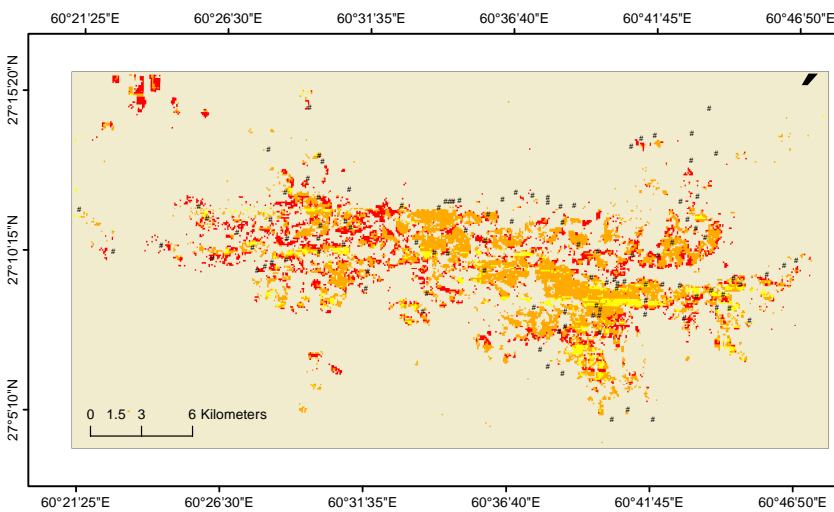
7 May 2015



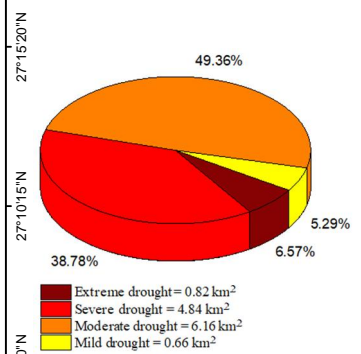
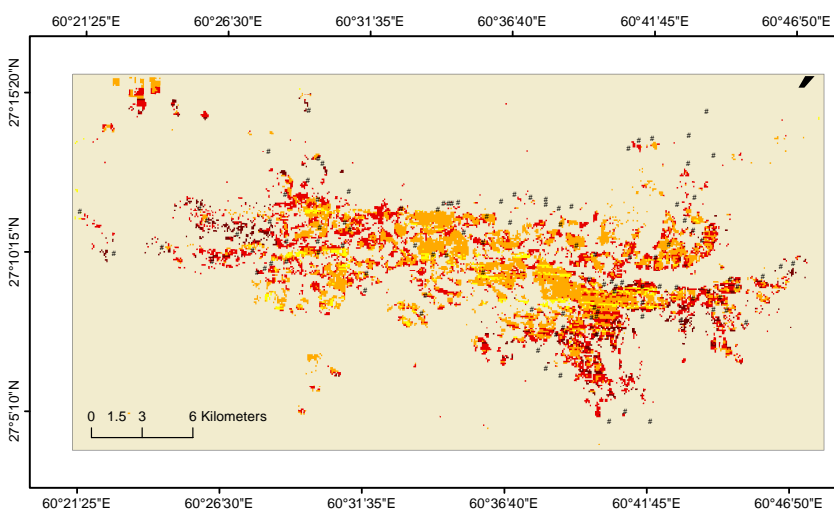
15 May 2015



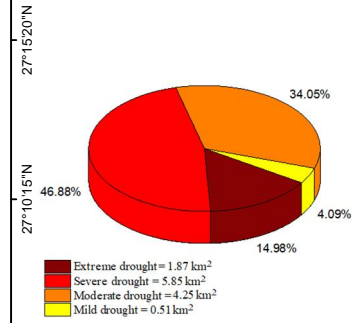
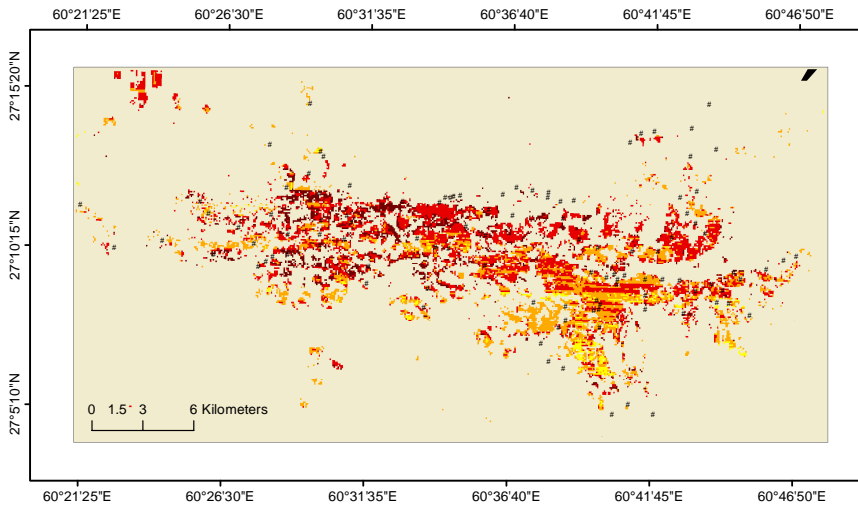
16 Apr 2016



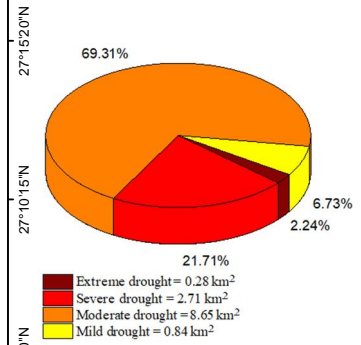
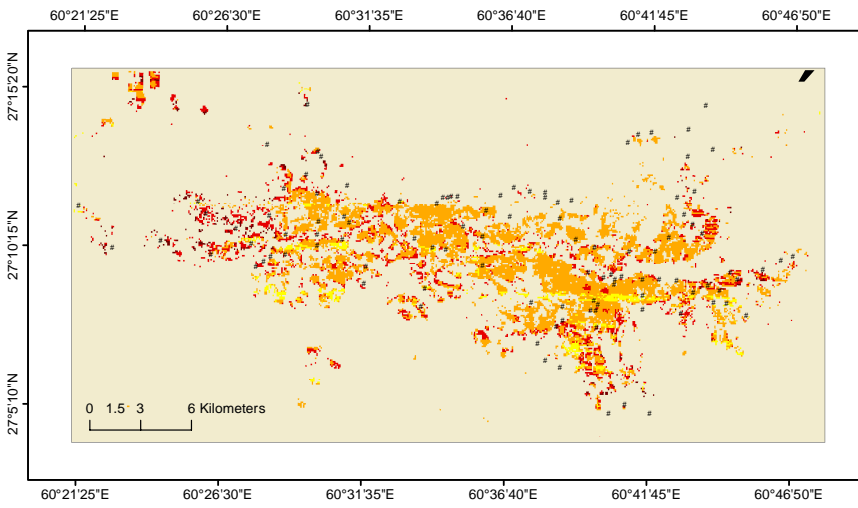
25 Apr 2016



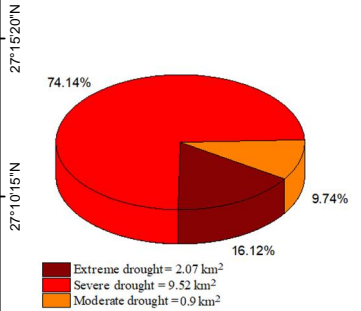
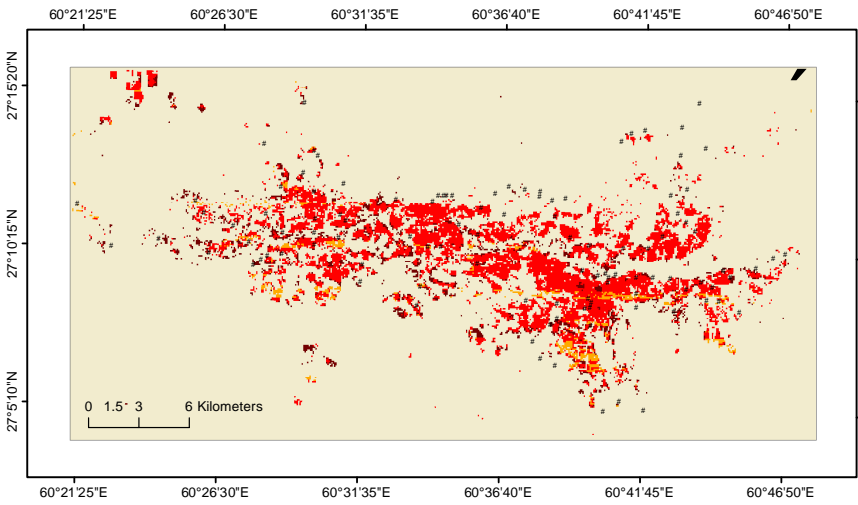
2 May 2016



4 Apr 2017



12 Apr 2017



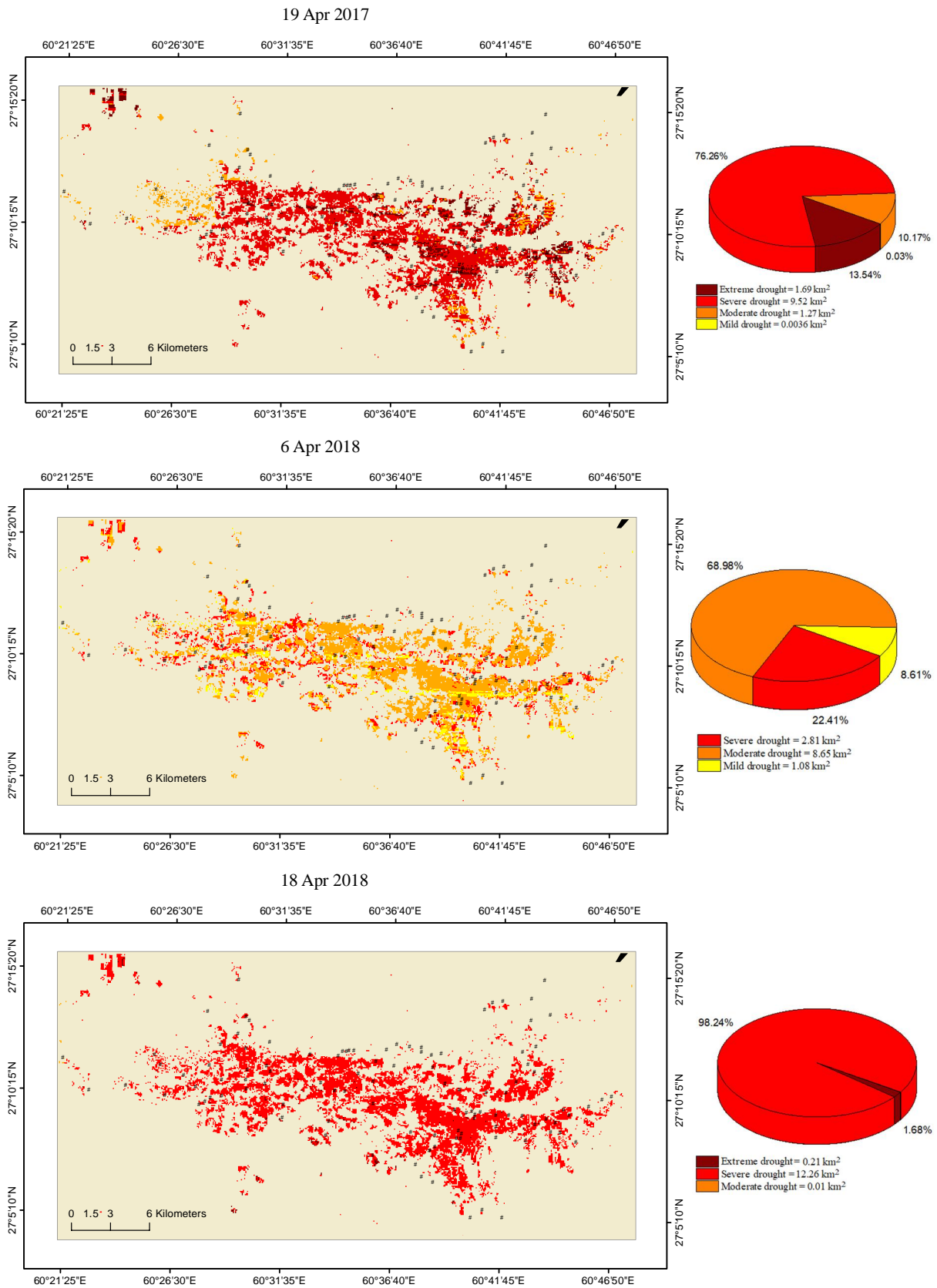


Figure S9. Agricultural Drought Index (ADI) maps (left) and corresponding pie charts illustrating the proportional extent of drought severity classes (right) for the assessed agricultural subregion of the Iranshahr area for various dates.