



**SUPPLEMENTARY FIGURE 8** | SynCom differentially affects maize hybrids by dramatically changing  $T_{leaf}$  control under WW conditions. **(A)** Fluctuation of VPD (kPa) revealed tremendous variance throughout 57–115 DAS and a strong influence on  $T_{leaf}$ . The gray background highlights days when VPD exceeded 2 kPa (58–60, 79–81, 96–98, 101–115 DAS). **(B–D)** The differences between  $T_{leaf}$  of inoculated and uninoculated plants ( $\Delta T_{leaf}$ ), rounded every 30 min over time, revealed that SynCom differentially changed the plant temperature control among all hybrids under WW conditions. Values were displayed above the x-axis when  $T_{leaf}$  of inoculated plants is higher than  $T_{leaf}$  of uninoculated plants or below the x-axis when  $T_{leaf}$  of uninoculated plants is higher than  $T_{leaf}$  of inoculated plants, and colored in blue or red, respectively, when significantly different ( $P \leq 0.05$ ). Areas filled with light gray denote not statistically significant differences. **(B)** DKB177 exhibited a dramatic response to SynCom, as inoculated plants predominantly displayed lower  $T_{leaf}$  than uninoculated plants (31 against 1,328 aau, respectively). **(C)** Although the whole period showed an increase in  $T_{leaf}$  for SX7341 (313 versus 234 aau for inoculated and uninoculated plants, respectively), during periods with high VPD ( $> 2$  kPa), peaks in  $T_{leaf}$  of inoculated SX7341 were overcome by those of SynCom-treated plants. **(D)** Inoculated P3707VYH were, on average, cooler (68 aau) than uninoculated P3707VYH (195 aau), especially when VPD was high. WW, well watering;  $T_{leaf}$ , leaf temperature; VPD, vapor-pressure deficit;  $\Delta T_{leaf}$ , difference of  $T_{leaf}$ ; aau, arbitrary area units; DAS, days after sowing.