|  |
| --- |
| Correlation matrix across the weather parameters summarised over a 15-day prior the report of an acute bovine liver disease event or the same calendar date the one or two years prior. Reported estimates are pairwise Pearson’s correlation coefficient (*r*, ranging between -1 and +1). Abbreviations: avg, average; cum, cumulative; DP, dewpoint (degrees Celsius; °C); OID, outbreak identification; Odate, outbreak date; PID, property identification; prec, precipitation (millimetres; mm); RH, relative humidity (per cent; %); sol. exp, solar exposure (Joule(s) per square metre; MJ/m2); Tavg, average temperature (degrees Celsius; °C); Tgap, average temperature gap (Tmax-Tmin); Tmax, maximum temperature (degrees Celsius; °C); Tmin, minimum temperature (degrees Celsius; °C); Tmin-DP, average of daily minimum and dewpoint at 9am temperature gap (degrees Celsius; °C); vap. press, vapour pressure (hectopascals; hPa). |
| ­ | $$Avg. daily T\_{min}$$ | $$Avg. daily T\_{max}$$ | $$Avg. daily T\_{avg}$$ | $$Avg. daily T\_{gap}$$ | $$Avg. daily vap.press\_{3pm}$$ | $$Cum. daily prec.$$ | $$Avg. daily sol.exp$$ | $$Cum. daily sol.exp$$ | $$Avg. daily RH\_{9am}$$ | $$Avg. daily RH\_{3pm}$$ | $$Avg. DP\_{9am}$$ | $$Avg. DP\_{3pm}$$ | $$Avg.min. to 9am DP\_{gap}$$ | $$Avg.max. to 3pm DP\_{gap}$$ |
| $$Avg. daily T\_{min}$$ | - |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $$Avg. daily T\_{max}$$ | 0.7380\* | - |  |  |  |  |  |  |  |  |  |  |  |  |
| $$Avg. daily T\_{avg}$$ | 0.9144\* | 0.9480\* | - |  |  |  |  |  |  |  |  |  |  |  |
| $$Avg. daily T\_{gap}$$ | -0.0723 | 0.6197\* | 0.3376\* | - |  |  |  |  |  |  |  |  |  |  |
| $$Avg. daily vap.press\_{3pm}$$ | 0.8756\* | 0.5836\* | 0.7632\* | -0.1558 | - |  |  |  |  |  |  |  |  |  |
| $$Cum. daily prec.$$ | 0.0295 | -0.2479\* | -0.1346 | -0.4004\* | 0.1319 | - |  |  |  |  |  |  |  |  |
| $$Avg. daily sol.exp$$ | 0.3837\* | 0.7174\* | 0.6114\* | 0.6143\* | 0.3275\* | -0.2576\* | - |  |  |  |  |  |  |  |
| $$Cum. daily sol.exp$$ | 0.3832\* | 0.7185\* | 0.6118\* | 0.6165\* | 0.3293\* | -0.2582\* | 0.9997\* | - |  |  |  |  |  |  |
| $$Avg. daily RH\_{9am}$$ | -0.4764\* | -0.2708\* | -0.3873\* | 0.154 | -0.1817 | 0.1098 | -0.0869 | -0.0827 | - |  |  |  |  |  |
| $$Avg. daily RH\_{3pm}$$ | -0.5994\* | -0.5304\* | -0.6008\* | -0.0868 | -0.1574 | 0.1427 | -0.2540\* | -0.2500\* | 0.7299\* | - |  |  |  |  |
| $$Avg. DP\_{9am}$$ | 0.9165\* | 0.7024\* | 0.8537\* | -0.0276 | 0.9201\* | 0.1022 | 0.3832\* | 0.3845\* | -0.0901 | -0.3310\* | - |  |  |  |
| $$Avg. DP\_{3pm}$$ | 0.8725\* | 0.5810\* | 0.7602\* | -0.1561 | 0.9958\* | 0.1393 | 0.3135\* | 0.3154\* | -0.1481 | -0.137 | 0.9326\* | - |  |  |
| $$Avg.min. to 9am DP\_{gap}$$ | 0.4882\* | 0.3055\* | 0.4136\* | -0.1166 | 0.1728 | -0.1509 | 0.124 | 0.1199 | -0.9892\* | -0.7521\* | 0.0988 | 0.1375 | - |  |
| $$Avg.max. to 3pm DP\_{gap}$$ | 0.2164 | 0.7670\* | 0.5621\* | 0.8819\* | -0.07 | -0.4135\* | 0.6316\* | 0.6316\* | -0.2144 | -0.5417\* | 0.1257 | -0.0765 | 0.2655\* | - |
| Correlation estimates with a star (\*) were significantly different from *r* = 0.00 at the 5% significance level. Strong (*r* ≥ 0.67) significant (*P* < 0.05) positive (*r* > 0.00) correlations are reported in green, mild to moderate (0 > *r* < 0.67) significant (*P* < 0.05) positive (*r* > 0.00) correlations in clear green, strong (*r* ≤ -0.67) significant (*P* < 0.05) negative (*r* < 0.00) correlations are reported in dark red, mild to moderate (-0.67 > *r* < 0) significant (*P* < 0.05) negative (*r* < 0.00) correlations in weak orange, and non-significant correlation (*P* > 0.05) correlation in gray.  |