

| Covariates | Univariate | | Multivariate | | Multilevel: (1 location/method) | | | |
|-------------------|---------------------|-------|--------------------|--------|---------------------------------|-------|----------|--------|
| Model 1 | HR(95%CI) | p | HR(95%CI) | p | HR(95%CI) | p | Variance | SD |
| Photoperiod | 1.17(1.15-1.18) | <0.05 | 1.20(1.18-1.21) | <0.05 | 1.20(1.18-1.22) | <0.05 | - | - |
| MWImin | 1.14(1.08-1.20) | <0.05 | 0.68(0.64-0.73) | <0.05 | 0.68(0.64-0.73) | <0.05 | - | - |
| MWImax | 0.81(0.78-0.84) | <0.05 | 0.87(0.83-0.91) | <0.05 | 0.87(0.82-0.91) | <0.05 | - | - |
| Location | UR; 0.80(0.77-0.82) | <0.05 | 0.83(0.80-0.86) | <0.05 | - | - | - | - |
| Location/method* | - | - | - | - | - | - | 0.0316 | 0.1778 |
| Location(interc) | | | | | | | 0.0003 | 0.0198 |
| Method | BG; 1.31(1.27-1.36) | <0.05 | 1.29(1.24-1.34) | <0.05 | | | - | - |
| Model 2 | HR(95%CI) | p | HR(95%CI) | p | HR(95%CI) | p | Variance | SD |
| Photoperiod | 1.17(1.15-1.18) | <0.05 | 1.19(1.18-1.21) | <0.05 | 1.20(1.18-1.21) | <0.05 | - | - |
| MWImin | 1.14(1.08-1.20) | <0.05 | 0.69(0.65-0.74) | <0.05 | 0.69(0.65-0.74) | <0.05 | - | - |
| Location | UR; 0.80(0.77-0.82) | <0.05 | 0.80(0.77-0.83) | <0.05 | - | - | - | - |
| Location/method* | - | - | - | - | - | - | 0.0371 | 0.1927 |
| Location(interc) | | | | | | | 0.0003 | 0.0199 |
| Method | BG; 1.31(1.27-1.36) | <0.05 | 1.30(1.25-1.35) | <0.05 | - | - | - | - |
| Model 3 | HR(95%CI) | p | HR(95%CI) | p | HR(95%CI) | p | Variance | SD |
| Photoperiod | 1.17(1.15-1.18) | <0.05 | 1.15(1.13-1.16) | <0.05 | 1.15(1.13-1.16) | <0.05 | - | - |
| MWImax | 0.81(0.78-0.84) | <0.05 | 0.89(0.85-0.94) | <0.05 | 0.89(0.85-0.94) | <0.05 | - | - |
| Location | UR; 0.80(0.77-0.82) | <0.05 | 0.87(0.83-0.90) | <0.05 | - | - | - | - |
| Location/method* | - | - | - | - | - | - | 0.0289 | 0.1701 |
| Location (interc) | | | | | | | 0.0003 | 0.0197 |
| Method | BG; 1.31(1.27-1.36) | <0.05 | 1.30(1.25-1.35) | <0.05 | - | - | - | - |
| Model 4 | HR(95%CI) | p | HR(95%CI) | p | HR(95%CI) | p | Variance | SD |
| Photoperiod | 1.17(1.15-1.18) | <0.05 | 1.21(1.19-1.24) | <0.05 | 1.22(1.19-1.25) | <0.05 | - | - |
| Mintemperature | 1.03(1.03-1.03) | <0.05 | 0.97(0.96-0.98) | <0.05 | 0.97(0.96-0.98) | <0.05 | - | - |
| MinRH | 0.997(0.996-0.999) | <0.05 | 0.998(0.996-0.999) | 0.0318 | 0.998(0.996-0.999) | 0.04 | - | - |
| Location | UR; 0.80(0.77-0.82) | <0.05 | 0.79(0.76-0.82) | <0.05 | - | - | - | - |
| Location/method* | - | - | - | - | - | - | 0.0388 | 0.1970 |
| Location (interc) | | | | | | | 0.0003 | 0.0199 |
| Method | BG; 1.31(1.27-1.36) | <0.05 | 1.30(1.25-1.35) | <0.05 | - | - | - | - |

| Covariates | Univariate | | Multivariate | | Multilevel: (1 location/method) | | | |
|-------------------|---------------------|-------|--------------------|---------|---------------------------------|--------|----------|--------|
| Model 5 | HR(95%CI) | p | HR(95%CI) | p | HR(95%CI) | p | Variance | SD |
| Photoperiod | 1.17(1.15-1.18) | <0.05 | 1.22(1.20-1.25) | <0.05 | 1.22(1.20-1.25) | <0.05 | - | - |
| Mintemperature | 1.03(1.03-1.03) | <0.05 | 0.97(0.96-0.98) | <0.05 | 0.97(0.96-0.98) | <0.05 | - | - |
| MaxRH | 0.996(0.995-0.998) | <0.05 | 0.997(0.995-0.999) | 0.023 | 0.997(0.995-0.999) | 0.024 | - | - |
| Location | UR; 0.80(0.77-0.82) | <0.05 | 0.80(0.77-0.82) | <0.05 | - | - | - | - |
| Location/method* | - | - | - | - | - | - | 0.0291 | 0.1708 |
| Location (interc) | | | | | | | 0.0003 | 0.0199 |
| Method | BG; 1.31(1.27-1.36) | <0.05 | 1.30(1.25-1.35) | <0.05 | - | - | - | - |
| Model 6 | HR(95%CI) | p | HR(95%CI) | p | HR(95%CI) | p | Variance | SD |
| Photoperiod | 1.17(1.15-1.18) | <0.05 | 1.22(1.19-1.25) | <0.05 | 1.22(1.19-1.25) | <0.05 | - | - |
| Mintemperature | 1.03(1.03-1.03) | <0.05 | 0.97(0.96-0.98) | <0.05 | 0.97(0.96-0.98) | <0.05 | - | - |
| MinRH | 0.997(0.996-0.999) | <0.05 | 0.999(0.99-1) | 0.343 | 0.999(0.997-1) | 0.41 | - | - |
| MaxRH | 0.996(0.995-0.998) | <0.05 | 0.998(0.99-1) | 0.243 | 0.998(0.995-1) | 0.21 | - | - |
| Location | UR; 0.80(0.77-0.82) | <0.05 | 0.79(0.76-0.82) | <0.05 | - | - | - | - |
| Location/method* | - | - | - | - | - | - | 0.0388 | 0.1970 |
| Location | | | | | | | 0.0003 | 0.0199 |
| Method | BG; 1.31(1.27-1.36) | <0.05 | 1.30(1.25-1.35) | <0.05 | - | - | - | - |
| Model 7 | | | | | HR(95%CI) | p | Variance | SD |
| Photoperiod | 1.17(1.15-1.18) | <0.05 | 1.23(1.20-1.27) | <0.05 | 1.23(1.20-1.27) | <0.05 | - | - |
| GDD | 1.04(1.03-1.04) | <0.05 | 0.97(0.96-0.98) | <0.05 | 0.97(0.96-0.978) | <0.05 | - | - |
| minRH | 0.997(0.996-0.999) | <0.05 | 0.997(0.996-0.999) | 0.00163 | 0.997(0.996-0.999) | 0.0022 | - | - |
| Location | UR; 0.80(0.77-0.82) | <0.05 | 0.81(0.78-0.85) | <0.05 | - | - | - | - |
| Location/method* | - | - | - | - | - | - | 0.0353 | 0.1880 |
| Location | | | | | | | 0.0003 | 0.0199 |
| Method | BG; 1.31(1.27-1.36) | <0.05 | 1.30(1.25-1.35) | <0.05 | - | - | - | - |
| Model 8 | | | | | HR(95%CI) | p | Variance | SD |
| Photoperiod | 1.17(1.15-1.18) | <0.05 | 1.24(1.21-1.28) | <0.05 | 1.25(1.21-1.28) | <0.05 | - | - |
| GDD | 1.04(1.03-1.04) | <0.05 | 0.96(0.95-0.97) | <0.05 | 0.966(0.958-0.975) | <0.05 | - | - |
| MaxRH | 0.996(0.995-0.998) | <0.05 | 0.997(0.995-0.999) | 0.0145 | 0.997(0.995-0.999) | 0.015 | - | - |
| Location | UR; 0.80(0.77-0.82) | <0.05 | 0.83(0.80-0.86) | <0.05 | - | - | - | - |
| Location/method* | - | - | - | - | - | - | 0.0339 | 0.1842 |
| Location | | | | | | | 0.0003 | 0.0198 |
| Method | BG; 1.31(1.27-1.36) | <0.05 | 1.30(1.25-1.35) | <0.05 | - | - | - | - |

| | <i>Univariate</i> | | <i>Multivariate</i> | | <i>Multilevel: (1 location/method)</i> | | | |
|-------------------------|---------------------|----------|---------------------|----------|--|----------|-----------------|-----------|
| Model 9 | HR(95%CI) | p | HR(95%CI) | p | HR(95%CI) | p | Variance | SD |
| Photoperiod | 1.17(1.15-1.18) | <0.05 | 1.23(1.20-1.27) | <0.05 | 1.24(1.20-1.27) | <0.05 | - | - |
| GDD | 1.04(1.03-1.04) | <0.05 | 0.97(0.96-0.98) | <0.05 | 0.97(0.96-0.978) | <0.05 | - | - |
| MaxRH | 0.996(0.995-0.998) | <0.05 | 0.99(0.996-1) | 0.5462 | 0.999(0.996-1) | 0.5 | - | - |
| MinRH | 0.997(0.996-0.999) | <0.05 | 0.998(0.996-0.999) | 0.03 | 0.998(0.996-0.999) | 0.049 | - | - |
| <i>Location</i> | UR; 0.80(0.77-0.82) | <0.05 | 0.82(0.78-0.85) | <0.05 | - | - | - | - |
| <i>Location/method*</i> | - | - | - | - | - | - | 0.0353 | 0.1880 |
| <i>Location(interc)</i> | | | | | | | 0.0003 | 0.0199 |
| <i>Method</i> | BG; 1.31(1.27-1.36) | <0.05 | 1.30(1.25-1.35) | <0.05 | - | - | - | - |

| MODEL | Chisq | Df | LogLikelihood(int) | AIC | BIC |
|----------------|--------------|-----------|---------------------------|------------|------------|
| Model 1 | 992.64 | 5 | -124808.1 | 982.64 | 944.71 |
| Model 2 | 959.42 | 4 | -124824.7 | 951.42 | 921.09 |
| Model 3 | 861.29 | 4 | -124873.8 | 853.29 | 822.95 |
| Model 4 | 917.79 | 5 | -124845.5 | 907.79 | 869.86 |
| Model 5 | 918.56 | 5 | -124845.2 | 908.56 | 870.64 |
| Model 6 | 919.35 | 6 | -124844.8 | 907.35 | 861.84 |
| Model 7 | 918.86 | 5 | -124835.4 | 908.86 | 870.94 |
| Model 8 | 915.46 | 5 | -124837.1 | 905.46 | 867.54 |
| Model 9 | 919.32 | 6 | -124835.2 | 907.32 | 861.81 |