

The Genetics of LMA in North American Spring Wheat (*Triticum aestivum* L.)

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Supplemental Tables 2, 3, and 4

Supplemental Table S2. Correlations between untreated samples (n = 251)

| A | GH2018.1 | GH2018.2 | GH2018.3 |
|----------|--|--|--|
| GH2018.1 | | $r^2 = 0.469$ $p < 2.2 \times 10^{-16}$ | $r^2 = 0.176$ $p < 1.9 \times 10^{-11}$ |
| GH2018.2 | $r^2 = 0.469$ $p < 2.2 \times 10^{-16}$ | | $r^2 = 0.358$ $p < 2.2 \times 10^{-16}$ |
| GH2018.3 | $r^2 = 0.176$ $p < 1.9 \times 10^{-11}$ | $r^2 = 0.358$ $p < 2.2 \times 10^{-16}$ | |

| B | GH2019.1 | GH2019.2 | GH2019.3 |
|----------|--|--|--|
| GH2019.1 | | $r^2 = 0.634$ $p < 2.2 \times 10^{-16}$ | $r^2 = 0.504$ $p < 2.2 \times 10^{-16}$ |
| GH2019.2 | $r^2 = 0.634$ $p < 2.2 \times 10^{-16}$ | | $r^2 = 0.518$ $p < 2.2 \times 10^{-16}$ |
| GH2019.3 | $r^2 = 0.504$ $p < 2.2 \times 10^{-16}$ | $r^2 = 0.518$ $p < 2.2 \times 10^{-16}$ | |

Supplemental Table S3. MLM examining sources of variation, including dpa as a fixed effect and genotype, run, and expt as random effects.

| Random Effects | | |
|----------------|------------------------|----------|
| Groups | Variance | Std. Dev |
| Genotype | 5.263×10^{-2} | 0.229404 |
| Run | 2.008×10^{-2} | 0.141710 |
| Expt | 2.268×10^{-5} | 0.004762 |
| Residual | 8.133×10^{-2} | 0.285178 |

| Fixed Effects | | | | | |
|---------------|-----------|------------|------------|--------|-----------|
| | Estimates | Std. Error | df | t | Pr (> t) |
| mean | 0.580098 | 0.213471 | 136.273426 | 2.717 | 0.00743 |
| dpa | -0.006257 | 0.008881 | 381.471685 | -0.705 | 0.48152 |

dpa = days past anthesis
expt = experiment
Std. Dev = standard deviation
Std. Error = standard error
df = degrees of freedom

Supplemental Table S4. REML (restricted maximum likelihood) output from a MLM when including genotype as a random effect and experiment (expt) as a fixed effect.

| Random Effects | | |
|----------------|----------|----------|
| Groups | Variance | Std. Dev |
| Genotype | 0.04049 | 0.2012 |
| Residual | 0.11970 | 0.3460 |

| Fixed Effects | | | | | |
|---------------|-----------|------------|-----|-------|---------------------|
| | Estimates | Std. Error | df | t | Pr (> t) |
| mean | 0.46079 | 0.02501 | 473 | 18.42 | 2×10^{-16} |
| expt | -0.04195 | 0.03085 | 253 | -1.36 | 0.175 |

Std. Dev = standard deviation

Std. Error = standard error

df = degrees of freedom