Table 1: Test for variance among families and populations

Model: Total\_Height\_late^(1/3) ~ (1 | Population/Family) + Block

| Variable | Group | Variance | PVE | p |
| --- | --- | --- | --- | --- |
| Height, after flowering: 2020 | Family:Population | 0.052 | 2.428 | 0.1915 |
| Population | 0.000 | 0.000 | 0.5 |
| Residual | 2.081 | 97.572 |  |

Table 2: Assess how much variance is explained by urbanization

Urbanization = Distance to the City Center

Model: Total\_Height\_late^(1/3) ~ (1 | Population/Family) + Block + City\_dist

| Variable | Group | Variance | PVE | p |
| --- | --- | --- | --- | --- |
| Height, after flowering: 2020 | Family:Population | 0.047 | 2.212 | 0.212 |
| Population | 0.000 | 0.000 | 0.5 |
| Residual | 2.076 | 97.788 |  |

Table 3: Quantify variance explained by urbanization

| Variable | Predictor | χ2 | p |
| --- | --- | --- | --- |
| Height, after flowering: 2020 | Block | 48.63 | **<0.001\*\*\*** |
| Distance to City Center | 4.81 | **0.028\*** |

Table 4: Assess how much variance is explained by urbanization

Urbanization = Urbanization Score

Model: Total\_Height\_late^(1/3) ~ (1 | Population/Family) + Block + Urb\_score

| Variable | Group | Variance | PVE | p |
| --- | --- | --- | --- | --- |
| Height, after flowering: 2020 | Family:Population | 0.053 | 2.478 | 0.1865 |
| Population | 0.000 | 0.000 | 0.5 |
| Residual | 2.077 | 97.522 |  |

Table 5: Quantify variance explained by urbanization

| Variable | Predictor | χ2 | p |
| --- | --- | --- | --- |
| Height, after flowering: 2020 | Block | 49.053 | **<0.001\*\*\*** |
| Urbanization Score | 2.016 | 0.156 |