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: 2019 | Family:Population | 0.053 | 5.527 | **0.0325** |
| Population | 0.013 | 1.348 | 0.2155 |
| Residual | 0.892 | 93.125 |  |

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: 2019 | Family:Population | 0.053 | 5.528 | **0.0325** |
| Population | 0.015 | 1.525 | 0.191 |
| Residual | 0.891 | 92.947 |  |

Table 3: Quantify variance explained by urbanization

| Variable | Predictor | χ2 | p |
| --- | --- | --- | --- |
| Height, after flowering: 2019 | Block | 38.746 | **<0.001\*\*\*** |
| Distance to City Center | 0.011 | 0.918 |

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: 2019 | Family:Population | 0.053 | 5.502 | **0.0325** |
| Population | 0.015 | 1.559 | 0.1855 |
| Residual | 0.891 | 92.939 |  |

Table 5: Quantify variance explained by urbanization

| Variable | Predictor | χ2 | p |
| --- | --- | --- | --- |
| Height, after flowering: 2019 | Block | 38.365 | **<0.001\*\*\*** |
| Urbanization Score | 0.050 | 0.823 |