Table 1: Test for variance among families and populations

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

| Variable | Group | Variance | PVE | p |
| --- | --- | --- | --- | --- |
| Height, before flowering: 2020 | Family:Population | 0.056 | 6.058 | **0.024** |
| Population | 0.006 | 0.681 | 0.328 |
| Residual | 0.866 | 93.261 |  |

Table 2: Assess how much variance is explained by urbanization

Urbanization = Distance to the City Center

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

| Variable | Group | Variance | PVE | p |
| --- | --- | --- | --- | --- |
| Height, before flowering: 2020 | Family:Population | 0.057 | 6.189 | **0.022** |
| Population | 0.004 | 0.449 | 0.3835 |
| Residual | 0.865 | 93.362 |  |

Table 3: Quantify variance explained by urbanization

| Variable | Predictor | χ2 | p |
| --- | --- | --- | --- |
| Height, before flowering: 2020 | Block | 53.204 | <0.001\*\*\* |
| Distance to City Center | 2.773 | 0.096 |

Table 4: Assess how much variance is explained by urbanization

Urbanization = Urbanization Score

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

| Variable | Group | Variance | PVE | p |
| --- | --- | --- | --- | --- |
| Height, before flowering: 2020 | Family:Population | 0.057 | 6.154 | **0.0225** |
| Population | 0.006 | 0.618 | 0.343 |
| Residual | 0.865 | 93.229 |  |

Table 5: Quantify variance explained by urbanization

| Variable | Predictor | χ2 | p |
| --- | --- | --- | --- |
| Height, before flowering: 2020 | Block | 53.682 | <0.001\*\*\* |
| Urbanization Score | 1.793 | 0.181 |