Table 1: Test for variance among families and populations

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

| Variable | Group | Ï‡2 | Variance | PVE | p |
| --- | --- | --- | --- | --- | --- |
| Height, before flowering: 2019 | Family:Population | 13.928 | 0.023 | 11.818 | **<0.001** |
| Population | 0.609 | 0.003 | 1.597 | 0.2175 |
| Residual |  | 0.165 | 86.585 |  |

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 | Ï‡2 | Variance | PVE | p |
| --- | --- | --- | --- | --- | --- |
| Height, before flowering: 2019 | Family:Population | 13.947 | 0.023 | 11.818 | **<0.001** |
| Population | 0.728 | 0.003 | 1.784 | 0.1965 |
| Residual |  | 0.165 | 86.398 |  |

Table 3: Quantify variance explained by urbanization

| Variable | Predictor | Ï‡2 | p |
| --- | --- | --- | --- |
| Height, before flowering: 2019 | Block | 7.432 | 0.059 |
| Distance to City Center | 0.041 | 0.84 |

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 | Ï‡2 | Variance | PVE | p |
| --- | --- | --- | --- | --- | --- |
| Height, before flowering: 2019 | Family:Population | 13.923 | 0.023 | 11.798 | **<0.001** |
| Population | 0.758 | 0.003 | 1.818 | 0.192 |
| Residual |  | 0.165 | 86.384 |  |

Table 5: Quantify variance explained by urbanization

| Variable | Predictor | Ï‡2 | p |
| --- | --- | --- | --- |
| Height, before flowering: 2019 | Block | 7.400 | 0.06 |
| Urbanization Score | 0.009 | 0.926 |