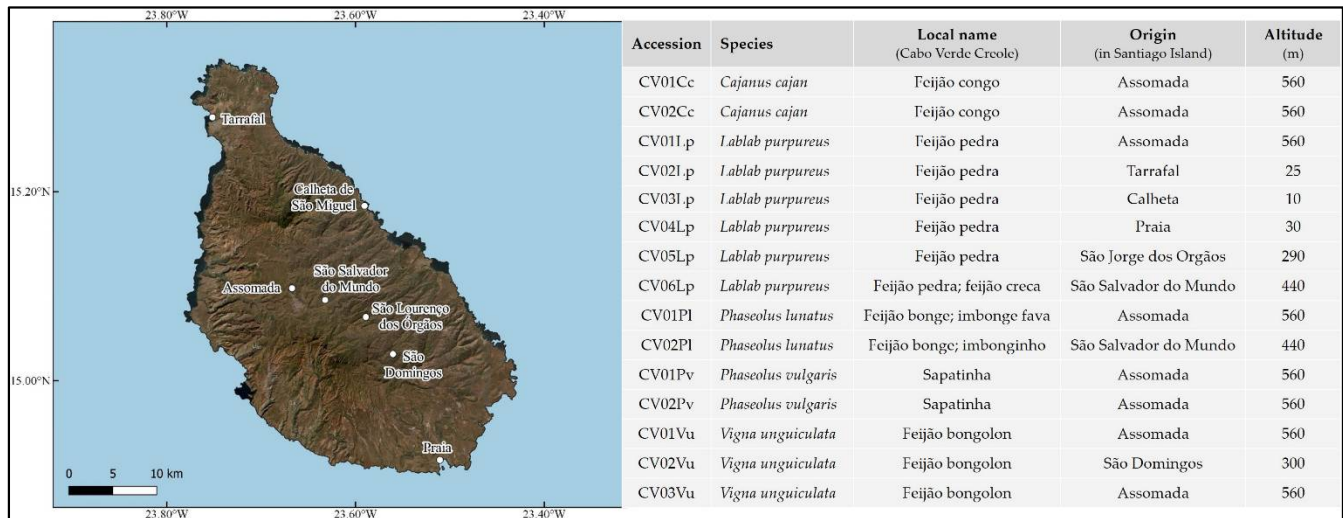


## Supplementary Materials:

**Figure S1:** Santiago Island and details on market locations (left). List of the 15 Cabo Verde bean accessions used for this study, including local names in Cabo Verdean Creole; origin/market location and altitude in Santiago Island (right).



**Table S1.** Eigenvalues, proportion of variability and mineral traits that contributed to the first four PCs (PCA) concerning the five most cultivated and traded food legume species in Cabo Verde.

| Components               | PC1    | PC2    | PC3    | PC4    |
|--------------------------|--------|--------|--------|--------|
| Eigenvalues              | 2.936  | 2.076  | 1.658  | 1.070  |
| % Variance explained     | 29.36  | 20.76  | 16.58  | 10.70  |
| % Cumulative variance    | 29.36  | 50.12  | 66.70  | 77.40  |
| Coefficients of variance |        |        |        |        |
| B                        | -0.503 | 0.098  | -0.120 | -0.201 |
| Ca                       | -0.242 | -0.559 | 0.091  | -0.134 |
| Cu                       | 0.072  | -0.099 | -0.545 | -0.216 |
| Fe                       | 0.059  | -0.239 | 0.447  | 0.607  |
| K                        | -0.396 | -0.132 | -0.237 | 0.158  |
| Mg                       | -0.266 | 0.394  | 0.400  | -0.020 |
| Mn                       | 0.347  | 0.485  | 0.112  | -0.056 |
| P                        | -0.420 | 0.215  | 0.009  | 0.147  |
| S                        | -0.394 | 0.222  | 0.132  | -0.485 |
| Zn                       | -0.008 | 0.328  | -0.484 | 0.492  |

**Table S2.** Accessions in worldwide genebanks of food legume species of Cabo Verde assessed through the Genesys Database [71].

| Species                   | Number of accessions | Biological status of accessions | Provenance (Island) |
|---------------------------|----------------------|---------------------------------|---------------------|
| <i>Cajanus cajan</i>      | 9                    | Breeding/Research Material      | Unknown             |
|                           | 5                    | Traditional cultivar/Landrace   | Unknown             |
| <i>Phaseolus lunatus</i>  | 1                    | Traditional cultivar/Landrace   | Unknown             |
| <i>Phaseolus vulgaris</i> | 1                    | Traditional cultivar/Landrace   | Unknown             |
| <i>Vigna unguiculata</i>  | 1                    | Traditional cultivar/Landrace   | Santiago            |