Figure S1. Location of the study area and afforestation perimeter.

Table S1. Dasometric characteristics (H: height, bd: base diameter, dbh: diameter at breast height, G: basal area); Mean (standard error), and biomass measures of Carob trees plots (n = 9).

H (m)	bd (cm)	dbh (cm)	G (m² ha⁻¹)	Density (trees/ha)
3,86 (0,14)	12,95 (0,76)	9,32 (0,58)	2,31 (0,27)	179 (12)

Foliate Biomass (kg tree⁻¹)	Branches Biomass (kg tree⁻¹)	Stems Biomass (kg tree⁻¹)	Roots Biomass (kg tree⁻¹))	Biomass per tree (kg)
6,82 (0,85)	14,53 (3,06)	9,53 (1,04)	17,07 (2,42)	46,48 (6,62)

Table S2. ALS-based metrics used for the estimation of tree heights. All the metrics were obtained with FUSION from normalized LAS files.

ALS-based metrics derived	Description
H_Min	Minimum
H_Max	Maximum
H_Mean	Mean
H_Mode	Mode
H_StdDev	Standard deviation
H_Var	Variance
H_CV	Coefficient of variation
H_IQ	Interquartile distance
H_Skew	Skewness
H_Kurt	Krutosis
H_AAD	Average Absolute Deviation
H_MADMedian	Median of the absolute deviations from the overall median
H_MADMode	Median of the absolute deviations from the overall mode
H_L1, H_L2, … ,H_L4	L_moments L1, L2, … ,L4
H_LSkew	L_moment of skewness
H_LKurt	L_moment of kurtosis
H_P₀₁, H_P₁₀,…, H_P₉₉	Percentile values (1st, 5th, 10th, … , 99th)