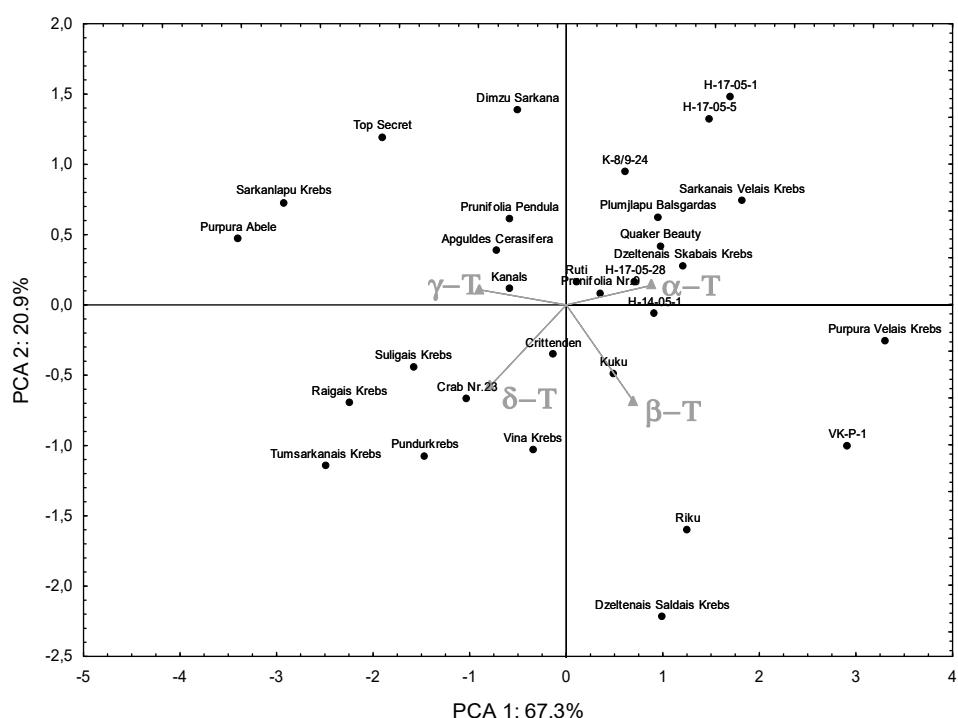
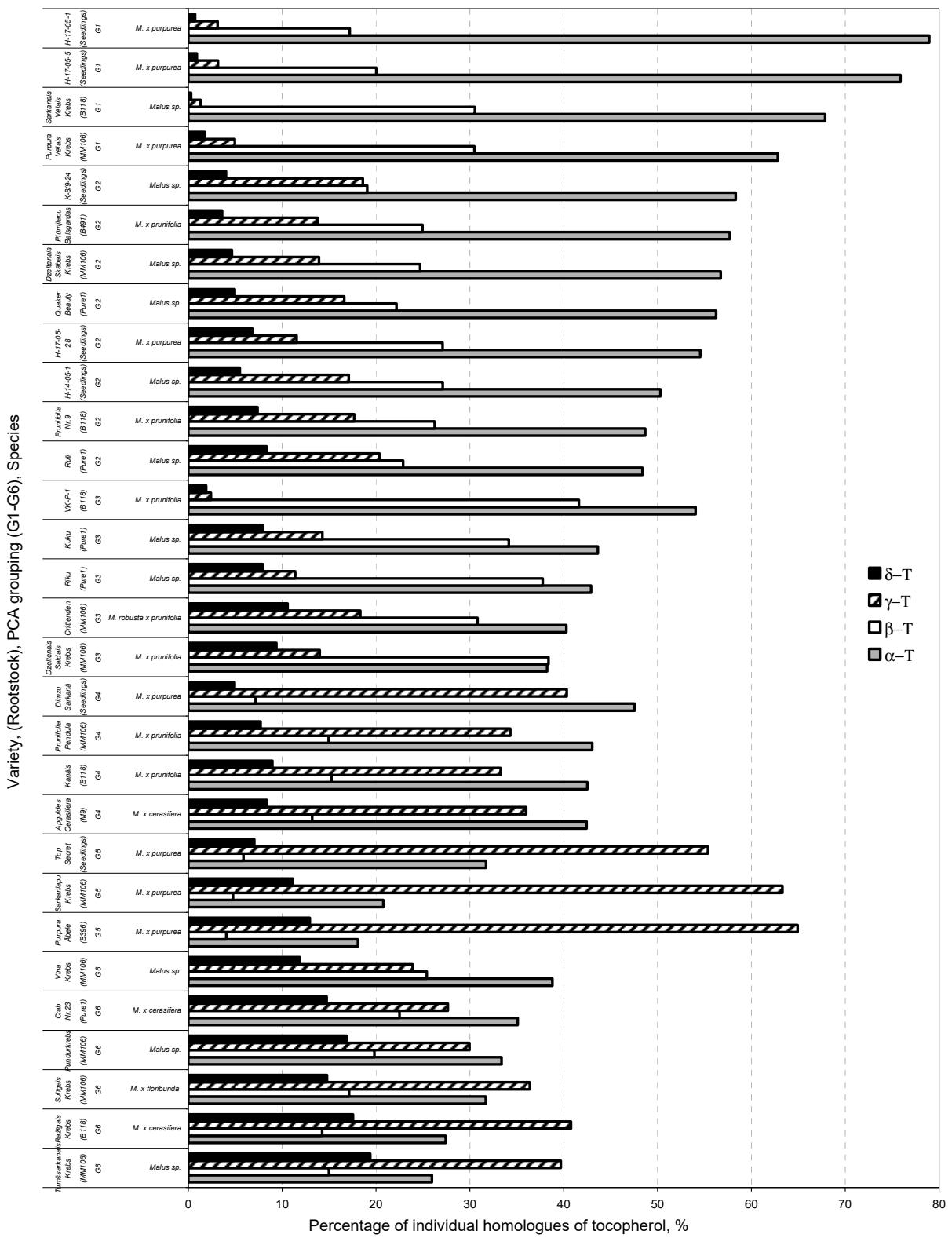


**Table S1.** The meteo conditions; average air temperature (°C), precipitation (rain) (mm), and humidity (%), during the 2013 year (January–December).

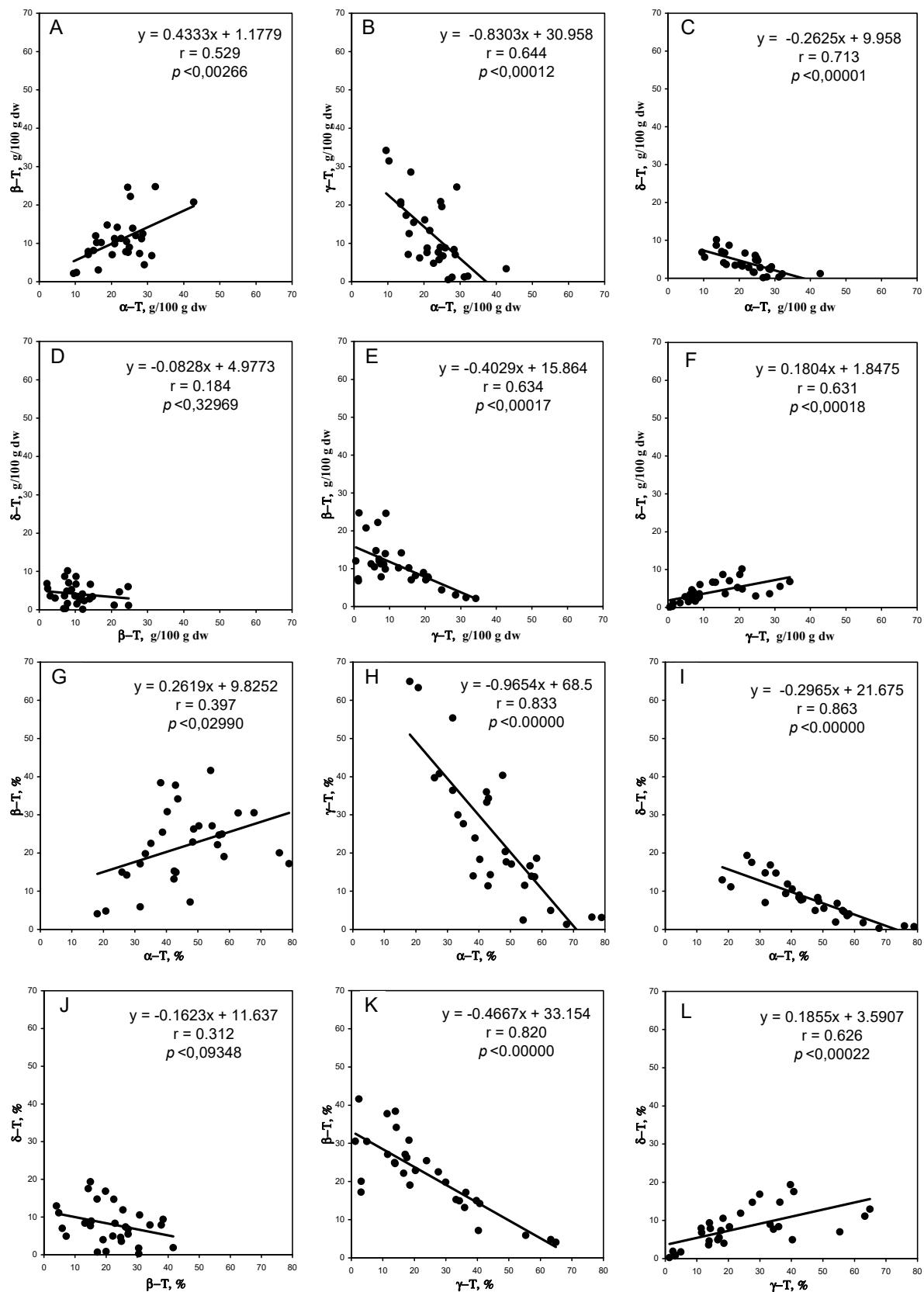
Month\Meteo parameter	Air temperature, °C	Precipitation, mm	Humidity, %
January	-6.1	35.4	89.1
February	-2.2	29.1	88.6
March	-5.1	8.7	73.4
April	4.0	39	77.8
May	14.7	91.7	73.6
June	17.8	38.4	74.0
July	18.2	40	75.8
August	17.6	88.9	75.4
September	12.1	130.4	84.7
October	8.4	13.9	84.8
November	4.9	43	88.9
December	2.5	48	88.5
Average	7.3	606.5	81.2



**Figure S1.** Distribution of study samples based in principal component analysis (PCA) according content of tocopherol homologues ( $\alpha$ ,  $\beta$ ,  $\gamma$ , and  $\delta$ ) (mg/100 g dw).



**Figure S2.** Proportion (%) of four tocopherol homologues in crab apple seeds (*Malus* spp.) of thirty samples characterized by high genetic diversity.



**Figure S3.** Correlation between the individual homologues of tocopherol expressed as tocopherol content (mg/100 g dw) (A–F) and proportion (%) (G–L) in crab apple seeds.