**Table S 1**. Results of analysis of variance related to biochemical parameters measured in genotypes of *Pistacia* species.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  | Mean of squares |  |  |  |  |
| Treatment | dF | Water content | Proline | Soluble carbohydrates | Phenolic compounds | Starch | Ca | K |
| Genotype | 8 | 347.05\* | 0.17ns | 7.40\* | 1.48\* | 5ns | 0.002\*\* | 0.30\* |
| Time | 12 | 2643/44\*\* | 8.56\*\* | 231.11\*\* | 250.05\*\* | 553.12\*\* | 0.10\*\* | 3.16\*\* |
| Genotype \* Time | 16 | 99.43ns | 0.66\* | 1.47ns | 0.86ns | 2.65ns | 0.002\*\* | 0.17\* |
| Error | 51 | 98.33 | 0.32 | 2.61 | 0.58 | 4.38 | 0.0003 | 0.06 |
| CV % |  | 20.20 | 25.91 | 29.97 | 19.55 | 17.69 | 12.22 | 15.28 |

\* and \*\* Significant at the probability level of 1 percent and 5 percent, respectively; ns: no significant

**Table S 2**. Interaction of genotype and sampling time on proline content of bark shoots.

|  |  |  |
| --- | --- | --- |
| Genotypes |  | Proline (mg/g fresh weigth)  |
| December | January | February f |
| *P. atlantica* Desf*.* | 1.0 fg ±0.28 | 2.39ae ±0.46 | 3.0ab ±0.19 |
| *P. atlantica* subsp*. kurdica* | 1.50 d-g ±0.19 | 2.51ae ±0.32 | 3.06ab ±0.22 |
| *P. atlantica* subsp*. mutica* | 1.52d-g ±0.45 | 2.57a-d ±0.41 | 1.75c-g ±0.41 |
|  II *P. vera* cv. *Badami -Riz-Zarand* | 0.86g ±0.10 | 3.30a ±0.32 | 2.83a-c ±0.41 |
| *P. vera cv. Badami-Riz-Zarand* I | 1.82c-g ±0.10 | 2.42a-e ±0.17 | 2.04b-f ±0.18 |
| *P. vera* var*. Sarakhs* | 1.81c-g ±0.09 | 3.0ab ±0.14 | 2.01b-f ±0.27 |
| *P. khinjuk* Stocks*.* |  1.83c-g ±0.34 1 | 2.71a-c ±0.30 | 2.12b-f ±0.71 |
| *P. terebinthus* L*.* | 1.36e-g ±0 | 2.18a-c ±0.03 | 2.62a-d ±0.06 |
| UCB1 | 2.12b-f ±0.32 | 2.56a-d ±0.33 | 2.33a-e ±0.23 |

|  |
| --- |
| Means with a common letter in each column are not significantly different (Duncan test, *P = 0.05*). |

**Table S 3**. Interaction of genotype and sampling time on calcium concentration of bark shoots.

|  |  |  |  |
| --- | --- | --- | --- |
| Genotype |  | Calcium (Percentage) |  |
| December | January |  February  |
| *P. atlantica* Desf*.* | 0.08lm ±0.04 | 0.16ghi ±0.09 | 0.21cde ±0.12 |
| *P. atlantica* subsp*. kurdica* | 0.14hij ±0.08 | 0.18d-g ±0.10 | 0.20cf ±0.11 |
| *P. atlantica* subsp*. mutica* | 0.09lm ±0.05 | 0.13ijk ±0.07 | 0.25b ±0.14 |
|  II *P. vera* cv. *Badami -Riz-Zarand* | 0.10klm ±0.05 | 0.18d-g ±0.10 | 0.21c-f ±0.12 |
| *P. vera cv. Badami-Riz-Zarand* I | 0.09lm ±0.05 | 0.17fgh ±0.09 | 0.24bc ±0.13 |
| *P. vera* var*. Sarakhs* | 0.09lm ±0.05 | 0.11jkl ±0.06 | 0.22bcd ±0.12 |
| *P. khinjuk* Stocks*.* | 0.06m ±0.03 | 0.18d-g ±0.10 | 0.16ghi ±0.09 |
| *P. terebinthus* L*.* | 0.09lm ±0.06 | 0.21c-f ±0.14 | 0.29a ±0.20 |
| UCB1 | 0.06m ±0.03 | 0.17efg ±0.09 | 0.18d-g ±0.10 |

|  |
| --- |
| Means with a common letter in each column are not significantly different (Duncan test, *P = 0.05*). |

**Table S 4**. Interaction of genotype and sampling time on potassium concentration of bark shoots.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | Potassium (%) |  |
| Genotype  | December |  January |  February  |
| *P. atlantica* Desf*.* | 1.18efg ±0.07 | 1.60cde ±0.08 | 2.31a ±0.23 |
| *P. atlantica* subsp*. kurdica* | 1.57cde ±0.10 | 1.48cde ±0.16 | 1.69bcd ±0.13 |
| *P. atlantica* subsp*. mutica* | 1.27d-g ±0.02 | 1.71bcd ±0.17 | 2.40a ±0.13 |
|  II *P. vera* cv. *Badami -Riz-Zarand* | 0.97fg ±0.21 | 1.42c-f ±0.05 | 2.10ab ±0.15 |
| *P. vera cv. Badami-Riz-Zarand* I | 1.51cde ±0.31 | 1.54cde ±0.05 | 2.25a ±0.10 |
| *P. vera* var*. Sarakhs* | 1.51cde ±0.05 | 1.72bcd ±0.07 | 2.28a ±0.11 |
| *P. khinjuk* Stocks*.* | 0.85g ±0.19 | 1.36c-f ±0.11 | 1.78bc ±0.08 |
| *P. terebinthus* L*.* | 1.11efg ±0.12 | 1.33c-f ±0.08 | 1.46cde ±0.13 |
| UCB1 | 1.69bcd ±0.15 | 1.39c-f ±0.07 | 1.57cde ±0.11 |

|  |
| --- |
| Means with a common letter in each column are not significantly different (Duncan test, *P = 0.05*). |

**Fig S1**. The phenolic compounds of bark shoot in different times.

**Fig S2**. Effects of sampling time on the water content of shoots.