

**Table S1.** Identification and sensory descriptors of volatile compounds on pistachios affected by regulated deficit irrigation and rootstock

| #  | Compound            | Rt (min) | KI (exp.) | KI (lit.) | Sensory descriptor               |
|----|---------------------|----------|-----------|-----------|----------------------------------|
| 1  | Acetic acid         | 2.21     | 603       | 605       | Vinegar                          |
| 2  | Ethyl acetate       | 2.44     | 601       | 612       | Pineapple; Anise                 |
| 3  | Pentanone           | 3.52     | 702       | 705       | Fruity; Cheese; Chocolate        |
| 4  | 1-Methyl-1H-pyrrole | 4.38     | 748       | 743       | Woody; Smoky; Herbal             |
| 5  | 1-Pentanol          | 5.03     | 774       | 765       | Sweet; Vanilla; Fusel            |
| 6  | (Z)-3-Octene        | 5.56     | 792       | 790       | nf                               |
| 7  | Hexanal             | 5.85     | 801       | 800       | Fatty; Green                     |
| 8  | 2-Octene            | 6.26     | 818       | 815       | nf                               |
| 9  | 1-Hexanol           | 7.95     | 874       | 868       | Green; Herbaceous; Woody         |
| 10 | (E)-4-Nonene        | 8.51     | 890       | 890       | nf                               |
| 11 | (Z)-4-Nonene        | 8.64     | 893       | 893       | nf                               |
| 12 | Nonane              | 8.90     | 900       | 900       | Gasoline                         |
| 13 | $\alpha$ -Pinene    | 9.99     | 938       | 937       | Woody                            |
| 14 | 2-Pentanol          | 10.30    | 948       | 950       | Oily; Green                      |
| 15 | 1-Decene            | 11.21    | 975       | 981       | nf                               |
| 16 | Sabinene            | 11.38    | 980       | 975       | Woody; Pine; Spicy               |
| 17 | 3-Decene            | 11.71    | 989       | 988       | nf                               |
| 18 | $\beta$ -Myrcene    | 11.84    | 992       | 991       | Fruity; Herbaceous; Sweet        |
| 19 | Decane              | 12.15    | 1000      | 1000      | Alkane                           |
| 20 | 3-Carene            | 12.48    | 1012      | 1011      | Lemon                            |
| 21 | Limonene            | 13.06    | 1032      | 1031      | Citrus; Sweet                    |
| 22 | (E)-3-Hexenol       | 13.29    | 1040      | 1038      | Green                            |
| 23 | 2-Octen-1-ol        | 13.86    | 1057      | 1061      | Citrus; Fruity; Green; Vegetable |
| 24 | 2-Methyl-decane     | 14.19    | 1068      | 1064      | nf                               |
| 25 | Terpinolene         | 14.95    | 1090      | 1089      | Plastic                          |
| 26 | Undecane            | 15.31    | 1100      | 1100      | Alkane                           |
| 27 | 2-Nonen-1-ol        | 15.43    | 1106      | 1105      | Melon; Waxy                      |
| 28 | 1-Nonanol           | 17.39    | 1180      | 1176      | Citrus; Rose                     |
| 29 | Dodecane            | 18.00    | 1201      | 1200      | Alkane                           |
| 30 | Decanal             | 18.11    | 1205      | 1206      | Floral; Citrus; Sweet; Waxy      |
| 31 | Tridecane           | 19.48    | 1301      | 1300      | Alkane                           |

Rt = Retention time; KI (exp.)= Kovat's index experimental; KI (lit.) = Kovat's index literature; nf = not found.