



**Figure S1** – Map of the sampling areas of *Tefezia arenaria* collected during this study and forest-dominant species per area.

**Table S1** - Parameters settings for using the Cyranose-320.

| Method setting                 | Parameter setting | Pump speed |
|--------------------------------|-------------------|------------|
| Baseline purge                 | 10 sec            | Medium     |
| Sample draw                    | 10 sec            | Medium     |
| Air intake purge               | 5 sec             | High       |
| Sample gas purge               | 30 sec            | High       |
| Digital filtering              | On                |            |
| Substrate heater               | On: 42°C          |            |
| Training repeat count 1        | 1                 |            |
| Identifying repeat count 1     | 1                 |            |
| Statistical analysis by PCnose |                   |            |
| Algorithm                      | Canonical         |            |
| Pre-processing                 | Auto-scaling      |            |
| Normalization                  | Normalization 1   |            |
| Identification Quality         | Medium            |            |

**Table S2** – Dietary Reference Intakes for nutrients and elements. This table presents the Recommended Dietary Allowances (RDA, shown in bold), Adequate Intakes (AI, identified with \*) and Tolerable Upper Intake Level (UL, identified with †). These values were adapted from Dietary Reference Intakes Datasets from the USA, [61], and the EU [62–65]. The two right-most columns show the contribution (in %) of an 100 g intake of dry and fresh *T. arenaria*, to each nutrient and mineral element, considering the RDA or AI values.

|           |                      | Unit               | Adults (>18) |             |                  | <i>Terfezia arenaria</i> |                      |
|-----------|----------------------|--------------------|--------------|-------------|------------------|--------------------------|----------------------|
|           |                      |                    | Males        | Females     | UL               | 100 g dry                | 100 g fresh          |
| Nutrients | Carbohydrates        | g/day              | 130          | 130         |                  | 55 %                     | < 1 %                |
|           | Total Fiber          | g/day              | 30 - 38*     | 21 - 25*    |                  | 48 %                     | < 1 %                |
|           | Protein <sup>a</sup> | g/day              | 56           | 46          |                  | 33 %                     | < 1 %                |
|           | Fat                  | g/day              | ND           | ND          |                  |                          |                      |
| Elements  | Cr                   | (µg/day)           | 30 - 35*     | 20 - 25*    | ND               | > 100%                   | 3 % - 6 %            |
|           | Li                   | (µg/day)           | ND           | ND          | 2 <sup>b,d</sup> | > 100%                   | 2 %                  |
|           | Se                   | (µg/day)           | 55           | 55          | 255              | 91%                      | 1 %                  |
|           | Cu                   | (µg/day)           | 900          | 900         | 10,000           | 73%                      | < 1 %                |
|           | P                    | (mg/day)           | 700          | 700         | 4000             | 20 %                     | < 1 %                |
|           | Fe                   | (mg/day)           | 8            | 8 - 18      | 45               | 11 % - 24 %              | < 1 %                |
|           | K                    | (mg/day)           | 3400*        | 2600*       | ND               | 10 % - 14 %              | < 1 %                |
|           | Zn                   | (mg/day)           | 11           | 8           | 40               | 10% - 13 %               | < 1 %                |
|           | Mn                   | (mg/day)           | 2.3*         | 1.8*        | 11               | 6 % - 11 %               | < 1 %                |
|           | Mg                   | (mg/day)           | 420          | 310 - 320   | 350              | 3 % - 4 %                | < 1 %                |
|           | As <sup>†</sup>      | (µg/kg bw per day) | ND           | ND          | < 15             | 1 % <sup>b</sup>         | 0.01% <sup>c</sup>   |
|           | Ba <sup>†</sup>      | (mg/kg bw per day) | ND           | ND          | 0.2              | < 1 % <sup>b</sup>       | < 0.01% <sup>c</sup> |
|           | Ca                   | (mg/day)           | 1000 - 1200  | 1000 - 1200 | 2500             | < 1 %                    | < 0.01%              |
|           | Mo                   | (µg/day)           | 45           | 45          | 2000             | < 1 %                    | < 0.01%              |
|           | Na                   | (mg/day)           | 1500*        | 1500*       | 2300             | < 1 %                    | < 0.01%              |
|           | Ni                   | (mg/day)           | ND           | ND          | 1.0              | < 1 % <sup>c</sup>       | < 0.01% <sup>d</sup> |

<sup>a</sup>Based on g of protein per kg of body weight for the reference body weight, e.g., for adults 0.8 g kg<sup>-1</sup> of body weight for the reference body weight.

<sup>b</sup> Provisional reference dose.

<sup>c</sup> Values considering a person with 60 kg of reference body weight.

<sup>d</sup> Was considered the UL value.

<sup>†</sup> Elements with detrimental health effects

ND: Not determined.

**Table S3** – Comparison of the abundance of the main VOCs identified in *Terfezia arenaria* and in the other edible mushroom and truffle species. Values for *T. arenaria* were determined in the present study while values for the other mushrooms and truffle were determined in other studies. Abundance: +++ high; ++ medium; + low; - absent.

| Compounds    |                     | <i>Terfezia arenaria</i> | <i>Agaricus bisporus</i> | <i>Lentinula edodes</i> | <i>Pleurotus ostreatus</i> | <i>Tuber melanosporum</i> |
|--------------|---------------------|--------------------------|--------------------------|-------------------------|----------------------------|---------------------------|
| Alcohols     | 1-Octen-3-ol        | +++                      | +++                      | +++                     | ++                         | +                         |
|              | 3-Octanol           | +                        | ++                       | +                       | ++                         | +                         |
|              | 2-Octen-1-ol        | +                        | +                        | +                       | -                          | -                         |
| Aldehydes    | Benzeneacetaldehyde | +                        | +                        | +                       | -                          | +                         |
|              | Hexanal             | +                        | -                        | -                       | +                          | +                         |
|              | 2-Octenal           | +                        | +                        | +                       | +                          | -                         |
|              | Nonanal             | +                        | -                        | -                       | +                          | -                         |
| Hydrocarbons | Tetradecane         | +                        | +                        | -                       | -                          | -                         |
| Ketones      | 3-Octanone          | ++                       | ++                       | ++                      | ++                         | +                         |
| Terpenes     | Limonene            | +                        | +                        | -                       | +                          | -                         |
| References   |                     | This study               | [99]                     | [98]                    | [100]                      | [110]                     |

**Table S4** –Characterization of the VOCs identified in *Terfezia arenaria*, and in the other edible mushroom and truffle species (*Agaricus bisporus*, *Lentinula edodes*, *Pleurotus ostreatus* and *Tuber melanosporum*). The quantity of each volatile is presented in % of the total VOCs detected. The results for *Terfezia arenaria* were originated from this study, while the other mushroom species data was collected from literature review (Continue).

|          | Compounds                          | <i>Terfezia arenaria</i> | <i>Agaricus bisporus</i> | <i>Lentinula edodes</i> | <i>Pleurotus ostreatus</i> | <i>Tuber melanosporum</i> |
|----------|------------------------------------|--------------------------|--------------------------|-------------------------|----------------------------|---------------------------|
| Alcohols | 1-Octen-3-ol                       | 64.411%                  | 35.919%                  | 35.909%                 | 28.437%                    | 0.226%                    |
|          | 3-Octanol                          | 1.734%                   | 23.040%                  | 5.813%                  | 27.538%                    | 0.192%                    |
|          | 1-Octanol                          |                          | 1.369%                   | 4.139%                  | 0.789%                     | 0.011%                    |
|          | Phenylethyl Alcohol                |                          | 0.036%                   | 0.341%                  |                            | 0.802%                    |
|          | 3-methyl-1-Butanol                 |                          |                          |                         |                            | 17.877%                   |
|          | 1-Hexanol                          |                          |                          |                         | 0.507%                     | 0.011%                    |
|          | 2-ethyl-1-hexanol                  |                          |                          |                         | 0.140%                     | 0.011%                    |
|          | 2-butanol                          |                          |                          |                         |                            | 0.440%                    |
|          | 1-Propanol, 2-methyl               |                          |                          |                         |                            | 3.173%                    |
|          | 1-Butanol                          |                          |                          |                         |                            | 0.011%                    |
|          | 1-Butanol, 2-methyl-               |                          |                          |                         |                            | 25.793%                   |
|          | 1-Pentanol                         |                          |                          |                         |                            | 0.011%                    |
|          | 1-Butanol, 2-ethyl                 |                          |                          |                         |                            | 0.011%                    |
|          | 1-Pentanol, 4-methyl-              |                          |                          |                         |                            | 0.011%                    |
|          | 2-Heptanol, 6-methyl-              |                          |                          |                         |                            | 0.011%                    |
|          | 1-Hexanol, 3-methyl                |                          |                          |                         |                            | 0.011%                    |
|          | Ethanol, 2-(methylthio)-           |                          |                          |                         |                            | 0.090%                    |
|          | trans-(2-Ethylcyclopentyl)methanol |                          |                          |                         |                            | 0.011%                    |
|          | 1-Propanol, 3-(methylthio)-        |                          |                          |                         |                            | 0.113%                    |
|          | (Z)-2-Octen-1-ol                   | 3.625%                   | 1.102%                   | 3.187%                  |                            |                           |
|          | Benzyl Alcohol                     |                          | 1.920%                   | 0.170%                  |                            |                           |
|          | Benzeneethanol, $\beta$ -methyl-   |                          |                          | 0.271%                  |                            |                           |
|          | 1-Nonanol                          |                          | 0.124%                   |                         |                            |                           |

Table S4 – Continue.

|          | Compounds                 | <i>Terfezia<br/>arenaria</i> | <i>Agaricus<br/>bisporus</i> | <i>Lentinula<br/>edodes</i> | <i>Pleurotus<br/>ostreatus</i> | <i>Tuber<br/>melanosporum</i> |
|----------|---------------------------|------------------------------|------------------------------|-----------------------------|--------------------------------|-------------------------------|
| Alcohols | 3-methyl-1-Butanol        |                              | 0.071%                       |                             |                                |                               |
|          | 3-Nonanol                 |                              | 0.053%                       |                             |                                |                               |
|          | 3-Heptanol                |                              | 0.036%                       |                             |                                |                               |
|          | (5Z)-Octa-1,5-dien-3-ol   | 1.554%                       |                              |                             |                                |                               |
|          | Chlorohexanol             | 0.158%                       |                              |                             |                                |                               |
|          | 1-Dodecanol               | 0.113%                       |                              |                             |                                |                               |
| Sulphurs | Disulfide, dimethyl       |                              |                              | 0.882%                      |                                | 0.056%                        |
|          | Dimethylsulfide           |                              |                              |                             |                                | 9.972%                        |
|          | Carbon disulfide          |                              |                              | 8.118%                      |                                |                               |
|          | Lenthionine               |                              |                              | 5.332%                      |                                |                               |
|          | Dimethyl trisulfide       |                              |                              | 4.630%                      |                                |                               |
|          | Tetrasulfide, dimethyl    |                              |                              | 1.303%                      |                                |                               |
|          | 1,2,4-Trithiolane         |                              |                              | 1.042%                      |                                |                               |
|          | 1,2,4,5-Tetrathiane       |                              |                              | 0.291%                      |                                |                               |
|          | Cyclic octaatomic sulfur  |                              |                              | 0.702%                      |                                |                               |
| Acids    | Acetic acid               |                              | 0.107%                       | 0.431%                      |                                | 0.056%                        |
|          | Propanoic acid, 2-methyl- |                              |                              |                             |                                | 0.068%                        |
|          | Butanoic acid,4-hydroxy-  |                              |                              |                             |                                | 0.011%                        |
|          | Butanoic acid, 2-methyl-  |                              |                              |                             |                                | 1.299%                        |
|          | Cystine                   |                              |                              | 0.551%                      |                                |                               |
|          | n-Hexadecanoic acid       |                              |                              | 0.170%                      |                                |                               |
|          | Pentadecanoic acid        |                              |                              | 0.080%                      |                                |                               |
|          | Tetradecanoic acid        |                              |                              | 0.261%                      |                                |                               |
|          | Propanoic acid            |                              | 0.053%                       |                             |                                |                               |

Table S4 – Continue.

|              | Compounds                                  | <i>Terfezia<br/>arenaria</i> | <i>Agaricus<br/>bisporus</i> | <i>Lentinula<br/>edodes</i> | <i>Pleurotus<br/>ostreatus</i> | <i>Tuber<br/>melanosporum</i> |
|--------------|--|------------------------------|------------------------------|-----------------------------|--------------------------------|-------------------------------|
| Aldehydes    | Benzaldehyde                               |                              | 5.566%                       | 0.822%                      | 0.300%                         | 0.045%                        |
|              | Benzeneacetaldehyde                        | 0.236%                       | 0.249%                       | 0.401%                      |                                | 0.011%                        |
|              | Hexanal                                    | 4.830%                       |                              |                             | 1.438%                         | 0.011%                        |
|              | Octanal                                    |                              |                              | 0.261%                      | 0.407%                         | 0.011%                        |
|              | 2-Methyl-Butanal                           |                              | 0.036%                       |                             |                                | 0.316%                        |
|              | 3-Methyl-Butanal                           |                              |                              |                             | 0.860%                         | 0.474%                        |
|              | Acetaldehyde                               |                              |                              |                             |                                | 3.320%                        |
|              | Butanal                                    |                              |                              |                             |                                | 0.011%                        |
|              | 2-Butenal                                  |                              |                              |                             |                                | 0.440%                        |
|              | 4-Methyl-Hexanal                           |                              |                              |                             |                                | 0.011%                        |
|              | 5-Methyl-Hexanal                           |                              |                              |                             |                                | 0.011%                        |
|              | (E)-2-Octenal                              | 0.968%                       | 2.009%                       | 0.601%                      | 1.240%                         |                               |
|              | Nonanal                                    | 0.135%                       |                              |                             | 0.032%                         |                               |
|              | trans-2-hexenal / (E)-2-Hexenal            |                              |                              |                             | 0.127%                         |                               |
|              | 2,4-nonadienal                             |                              |                              |                             | 0.144%                         |                               |
|              | 2-Phenylpropenal                           |                              |                              | 9.421%                      |                                |                               |
|              | 2-Phenylpropionaldehyde                    |                              |                              | 0.231%                      |                                |                               |
|              | 2-Propenal, 3-phenyl-                      |                              |                              | 0.261%                      |                                |                               |
|              | (E, E)-2,4-Octadienal                      |                              | 0.302%                       |                             |                                |                               |
|              | Benzaldehyde, 2,5-bis[(trimethylsilyl)oxy] | 0.214%                       |                              |                             |                                |                               |
| Hydrocarbons | 2,4-Dithiapentane                          |                              |                              |                             |                                | 0.023%                        |
|              | Benzene, 1-methoxy-3-methyl-               |                              |                              |                             |                                | 8.357%                        |
|              | Benzene, 1,2-dimethoxy-                    |                              |                              |                             |                                | 0.440%                        |

Table S4 – Continue.

|              | Compounds                        | <i>Terfezia<br/>arenaria</i> | <i>Agaricus<br/>bisporus</i> | <i>Lentinula<br/>edodes</i> | <i>Pleurotus<br/>ostreatus</i> | <i>Tuber<br/>melanosporum</i> |
|--------------|----------------------------------|------------------------------|------------------------------|-----------------------------|--------------------------------|-------------------------------|
| Hydrocarbons | Benzene, 1,3-dimethoxy-          |                              |                              |                             |                                | 0.011%                        |
|              | Benzene, 1,4-dimethoxy-2-methyl- |                              |                              |                             |                                | 0.124%                        |
|              | Butane, 1-methoxy-2-methyl-      |                              |                              |                             |                                | 0.124%                        |
|              | Anisole                          |                              |                              |                             |                                | 6.098%                        |
|              | Toluene                          |                              |                              |                             | 7.548%                         | 1.016%                        |
|              | Undecane                         |                              | 0.018%                       |                             | 1.414%                         |                               |
|              | Dodecane                         |                              | 0.036%                       | 0.040%                      | 0.305%                         |                               |
|              | Nonadecane                       |                              |                              |                             | 0.160%                         |                               |
|              | Pentadecane                      |                              |                              | 0.100%                      | 0.478%                         |                               |
|              | Heptadecane                      |                              |                              | 0.210%                      | 0.319%                         |                               |
|              | Hexadecane                       | 0.169%                       | 0.018%                       | 0.140%                      | 0.393%                         |                               |
|              | cis- $\alpha$ -Bisabolene        |                              | 0.036%                       |                             | 0.360%                         |                               |
|              | Octadecane                       |                              |                              |                             | 0.262%                         |                               |
|              | Eicosane                         | 0.090%                       |                              |                             | 0.107%                         |                               |
|              | 2-Methyl-2-phenyl-Oxirane        |                              |                              | 1.012%                      |                                |                               |
|              | 2-Methyl-2-phenyl-Oxirane        |                              | 0.036%                       |                             |                                |                               |
|              | Decane                           |                              | 0.036%                       |                             |                                |                               |
|              | Tetradecane                      | 0.236%                       | 0.231%                       |                             |                                |                               |
|              | Dotriacontane                    | 0.315%                       |                              |                             |                                |                               |
|              | Eicosane-7-hexyl                 | 0.236%                       |                              |                             |                                |                               |
|              | 3,3,5-Trimethylheptane           | 0.146%                       |                              |                             |                                |                               |
|              | 1-chloroeicosane                 | 0.113%                       |                              |                             |                                |                               |
|              | Caprylene (1-octene)             | 0.293%                       |                              |                             |                                |                               |

Table S4 – Continue.

|         | Compounds                                 | <i>Terfezia<br/>arenaria</i> | <i>Agaricus<br/>bisporus</i> | <i>Lentinula<br/>edodes</i> | <i>Pleurotus<br/>ostreatus</i> | <i>Tuber<br/>melanosporum</i> |
|---------|---|------------------------------|------------------------------|-----------------------------|--------------------------------|-------------------------------|
| Ketones | 3-Octanone                                | 14.479%                      | 19.027%                      | 11.736%                     | 25.880%                        | 0.203%                        |
|         | 2-Butanone                                |                              |                              |                             |                                | 3.817%                        |
|         | 2-Pentanone                               |                              |                              |                             |                                | 0.384%                        |
|         | 4-Heptanone                               |                              |                              |                             |                                | 0.011%                        |
|         | Acetone                                   |                              | 0.213%                       |                             |                                | 1.863%                        |
|         | 2-Hexanone, 5-methyl-                     |                              |                              |                             |                                | 0.011%                        |
|         | 2-Heptanone, 6-methyl-                    |                              |                              |                             |                                | 0.011%                        |
|         | Acetoin                                   |                              |                              |                             |                                | 0.113%                        |
|         | 2,3-octanedione                           |                              |                              |                             | 0.101%                         |                               |
|         | 2-Undecanone                              |                              | 0.036%                       | 0.080%                      |                                |                               |
|         | 1-Isoindolinone                           |                              |                              | 0.932%                      |                                |                               |
|         | 2-Octanone                                |                              | 0.302%                       |                             |                                |                               |
|         | (E)-6,10-dimethyl-5,9-Undecadien-2-one    |                              | 0.551%                       |                             |                                |                               |
|         | 1-Octen-3-one                             |                              | 2.792%                       |                             |                                |                               |
|         | 3-Nonanone                                |                              | 0.036%                       |                             |                                |                               |
|         | 3-Cyclohepten-1-one                       |                              | 0.925%                       |                             |                                |                               |
|         | 2-Octanone, 1-nitro-                      | 0.259%                       |                              |                             |                                |                               |
|         | Geranylacetone                            | 0.101%                       |                              |                             |                                |                               |
| Esters  | Hexadecanoic acid ethyl ester             |                              | 0.071%                       |                             |                                |                               |
|         | Hexanedioic acid, bis(2-ethylhexyl) ester |                              | 3.539%                       |                             |                                |                               |
|         | Formic acid,1-methylethyl ester           |                              |                              |                             |                                | 0.011%                        |
|         | 1-Butanol, 2-methyl-, acetate             |                              |                              |                             |                                | 0.395%                        |
|         | Ethyl acetate                             |                              |                              |                             |                                | 0.113%                        |



Table S4 – Continue.

|          | Compounds  | <i>Terfezia<br/>arenaria</i> | <i>Agaricus<br/>bisporus</i> | <i>Lentinula<br/>edodes</i> | <i>Pleurotus<br/>ostreatus</i> | <i>Tuber<br/>melanosporum</i> |
|----------|--|------------------------------|------------------------------|-----------------------------|--------------------------------|-------------------------------|
| Esters   | Ethane, 1,1-diethoxy-  |                              |                              |                             |                                | 1.852%                        |
|          | Propanoic acid, 2-methyl-, ethyl ester                           |                              |                              |                             |                                | 0.011%                        |
|          | Butanoic acid, 2-methyl-ethyl ester                              |                              |                              |                             |                                | 2.428%                        |
|          | Butanoic acid, 3-methyl-ethyl-ester                              |                              |                              |                             |                                | 0.429%                        |
|          | Formic acid, 2-methylbutylester                                  |                              |                              |                             |                                | 0.892%                        |
|          | Propanoic acid, 2-methyl-, 2-methylpropyl ester                  |                              |                              |                             |                                | 0.011%                        |
|          | Propanoic acid ,2-methyl-, 2-methylbutyl ester                   |                              |                              |                             |                                | 0.011%                        |
|          | Butyl 2-methylbutanoate  |                              |                              |                             |                                | 0.011%                        |
|          | Butanoic acid, 2-methyl-, 2-methylbutyl ester                    |                              |                              |                             |                                | 1.739%                        |
|          | Butanoic acid, 3-methyl-, 2-methylbutyl ester                    |                              |                              |                             |                                | 0.011%                        |
|          | Pentanoic acid, 2-methylbutyl ester                              |                              |                              |                             |                                | 0.192%                        |
|          | Methyl palmitate   |                              |                              | 0.130%                      |                                |                               |
|          | Pentyl propanoate  | 1.103%                       |                              |                             |                                |                               |
|          | Propionic acid, 3-iodo-, octadecyl ester                         | 0.439%                       |                              |                             |                                |                               |
|          | Propanoic acid, 2-methyl-, 3-hydroxy-2,2,4-trimethylpentyl ester | 0.248%                       |                              |                             |                                |                               |
| Terpenes | Pristane   |                              |                              |                             | 0.360%                         |                               |
|          | Phytane  |                              |                              |                             | 0.328%                         |                               |
|          | Limonene   | 0.394%                       | 0.107%                       |                             | 0.025%                         |                               |
|          | $\alpha$ -Pinene   | 2.105%                       |                              |                             |                                |                               |

**Table S4** – Characterization of the VOCs identified in *Terfezia arenaria*, and in the other edible mushroom and truffle species (*Agaricus bisporus*, *Lentinula edodes*, *Pleurotus ostreatus* and *Tuber melanosporum*).

| Compounds          |                                | <i>Terfezia<br/>arenaria</i> | <i>Agaricus<br/>bisporus</i> | <i>Lentinula<br/>edodes</i> | <i>Pleurotus<br/>ostreatus</i> | <i>Tuber<br/>melanosporum</i> |
|--------------------|--------------------------------|------------------------------|------------------------------|-----------------------------|--------------------------------|-------------------------------|
| Other<br>compounds | Carbon dioxide                 |                              |                              |                             |                                | 4.337%                        |
|                    | 1-Octadecanesulphonyl chloride | 0.338%                       |                              |                             |                                |                               |
|                    | Anthranilic acid               | 0.146%                       |                              |                             |                                |                               |
|                    | Tyrosol                        | 0.124%                       |                              |                             |                                |                               |
|                    | Henicosanoic acid              | 0.327%                       |                              |                             |                                |                               |
|                    | Pyridine, 5-ethenyl-2-methyl-  | 0.360%                       |                              |                             |                                |                               |
| References         |                                | This Study                   | [99]                         | [98]                        | [100]                          | [110]                         |

**Table S5** – Results and rates of Cyranose-320 identification of *T. arenaria*, *A. bisporus*, *L. edodes*, *P. ostreatus* and *T. melanosporum* with 40 °C and RT pre-analysis incubation temperatures.

| Sample                     | Pre-analysis 40 °C |      |                   | Pre-analysis RT |      |                   |
|----------------------------|--------------------|------|-------------------|-----------------|------|-------------------|
|                            | Result             |      | Rate <sup>a</sup> | Result          |      | Rate <sup>a</sup> |
| <i>Terfezia arenaria</i>   | Terf3              | **** | excellent         | Terf3           | **** | excellent         |
| <i>Terfezia arenaria</i>   | Terf3              | **** | excellent         | Terf2, Terf2    |      |                   |
| <i>Terfezia arenaria</i>   | Terf3              | **** | excellent         | Terf3           | **** | excellent         |
| <i>Terfezia arenaria</i>   | Terf1              | **** | excellent         | Terf3           | ***  | acceptable        |
| <i>Terfezia arenaria</i>   | Terf3              | *    | not acceptable    | Terf3           | *    | not acceptable    |
| <i>Terfezia arenaria</i>   | Terf3, Terf3       |      |                   | Terf2, Terf2    |      |                   |
| <i>Terfezia arenaria</i>   | Terf2              | *    | not acceptable    | Terf3           | **** | excellent         |
| <i>Terfezia arenaria</i>   | Terf2              | *    | not acceptable    | Terf3           | **** | excellent         |
| <i>Terfezia arenaria</i>   | Terf2, Terf2       |      |                   | Terf3           | ***  | acceptable        |
| <i>Terfezia arenaria</i>   | Terf3              | *    | not acceptable    | Terf3           | **** | excellent         |
| <i>Terfezia arenaria</i>   | Terf2              | *    | not acceptable    | Terf2           | **** | excellent         |
| <i>Terfezia arenaria</i>   | Terf2              | **** | excellent         | Terf3           | **** | excellent         |
| <i>Terfezia arenaria</i>   | Terf2              | **** | excellent         | Terf3           | **** | excellent         |
| <i>Terfezia arenaria</i>   | Terf2              | **** | excellent         | Terf3           | ***  | acceptable        |
| <i>Terfezia arenaria</i>   | Terf2              | **** | excellent         | Terf3           | **** | excellent         |
| <i>Terfezia arenaria</i>   | Terf3              | ***  | acceptable        | Terf3           | ***  | acceptable        |
| <i>Terfezia arenaria</i>   | Terf2, Terf3       |      |                   | Terf3           | **** | excellent         |
| <i>Terfezia arenaria</i>   | Terf3              | *    | not acceptable    | Terf3           | *    | not acceptable    |
| <i>Terfezia arenaria</i>   | Terf3              | *    | not acceptable    | Terf3           | **** | excellent         |
| <i>Terfezia arenaria</i>   | Terf3, Terf3       |      |                   | Terf3           | **** | excellent         |
| <i>Agaricus bisporus</i>   | Terf2              | **** | excellent         | Unknown         |      |                   |
| <i>Agaricus bisporus</i>   | Terf3              | *    | not acceptable    | Confused        |      |                   |
| <i>Agaricus bisporus</i>   | Terf1              | **** | excellent         | Confused        |      |                   |
| <i>Agaricus bisporus</i>   | Terf1              | ***  | acceptable        | Terf1           | ***  | acceptable        |
| <i>Agaricus bisporus</i>   | Terf2              | *    | not acceptable    | Terf1           | **** | excellent         |
| <i>Lentinula edodes</i>    | Confused           |      |                   | Terf3           | ***  | acceptable        |
| <i>Lentinula edodes</i>    | Terf2              | **** | excellent         | Unknown         |      |                   |
| <i>Lentinula edodes</i>    | Terf1              | **** | excellent         | Unknown         |      |                   |
| <i>Lentinula edodes</i>    | Terf1              | **** | excellent         | Unknown         |      |                   |
| <i>Lentinula edodes</i>    | Confused           |      |                   | Terf3           | **** | excellent         |
| <i>Pleurotus ostreatus</i> | Confused           |      |                   | Unknown         |      |                   |
| <i>Pleurotus ostreatus</i> | Confused           |      |                   | Terf3           | ***  | acceptable        |
| <i>Pleurotus ostreatus</i> | Terf1              | ***  | acceptable        | Terf3           | *    | not acceptable    |
| <i>Pleurotus ostreatus</i> | Confused           |      |                   | Unknown         |      |                   |
| <i>Pleurotus ostreatus</i> | Confused           |      |                   | Unknown         |      |                   |
| <i>Tuber melanosporum</i>  | Unknown            |      |                   | Unknown         |      |                   |
| <i>Tuber melanosporum</i>  | Unknown            |      |                   | Terf1           | ***  | acceptable        |
| <i>Tuber melanosporum</i>  | Unknown            |      |                   | Terf2           | *    | not acceptable    |
| <i>Tuber melanosporum</i>  | Unknown            |      |                   | Unknown         |      |                   |
| <i>Tuber melanosporum</i>  | Unknown            |      |                   | Unknown         |      |                   |

<sup>a</sup> Result rate with stars, where: 5 stars (\*\*\*\*\*) - 100% of probability – excellent  
4 stars (\*\*\*\*) - 80% of probability - good  
3 stars (\*\*\*) - 60% of probability – acceptable  
2 stars (\*\*) - 40% of probability – bad  
1 star (\*) - 20% of probability – not acceptable