

**Table 5S:** Effect of the addition of different wood formats and of the timing of addition on oak volatile compounds (µg/L) identified after 3 months of storage. All data are expressed as µg/L

|           |                                      | Effect of the addition of different oak formats |        |       |       |     | Effect of the timing of the addition |       |       |      |
|-----------|--------------------------------------|-------------------------------------------------|--------|-------|-------|-----|--------------------------------------|-------|-------|------|
| Group     | Compound                             | control                                         | staves | cubes | chips | sig | Control                              | DAF   | AAF   | sig. |
| <b>B</b>  | 3-Ethyl-benzaldehyde                 | 3                                               | 3      | 3     | 3     | ns  | 3                                    | 3     | 3     | ns   |
| <b>B</b>  | 4-Ethyl-benzaldehyde                 | 4                                               | 3      | 4     | 4     | ns  | 4                                    | 4     | 4     | ns   |
| <b>B</b>  | Benzaldehyde                         | 26                                              | 26     | 27    | 25    | ns  | 26                                   | 27    | 24    | ns   |
| <b>B</b>  | Coniferaldehyde                      | 0                                               | 0      | 0     | 0     | ns  | 0                                    | 0     | 0     | ns   |
| <b>B</b>  | Sinapaldehyde                        | 0                                               | 0      | 0     | 0     | ns  | 0                                    | 0     | 0     | ns   |
| <b>B</b>  | Syringaldehyde                       | 2 b                                             | 220 b  | 541 a | 289 b | **  | 2                                    | 317   | 383   | ns   |
| <b>B</b>  | Vanillin                             | 11 c                                            | 131 bc | 352 a | 204 b | *** | 11 b                                 | 207 a | 251 a | *    |
| <b>BD</b> | 2-Phenylethanol (mg/L)               | 94,8                                            | 103,7  | 112,3 | 100,2 | ns  | 94,8                                 | 106,1 | 104,7 | ns   |
| <b>BD</b> | Benzyl alcohol                       | 73                                              | 74     | 82    | 79    | ns  | 73                                   | 80    | 76    | ns   |
| <b>BD</b> | Ethyl 4-hydroxybenzoate              | 1                                               | 1      | 1     | 1     | ns  | 1                                    | 1     | 1     | ns   |
| <b>BD</b> | Ethyl benzoate                       | 0                                               | 29     | 26    | 0     | ns  | 0                                    | 36    | 0     | ns   |
| <b>F</b>  | 2,5-Furandicarbaldehyde              | 0 a                                             | 0 a    | 1 a   | 0 a   | *   | 0                                    | 0     | 1     | ns   |
| <b>F</b>  | 2-Furanmethanol; Furfuryl alcohol    | 2 c                                             | 200 a  | 139 b | 13 c  | *** | 2 b                                  | 142 a | 93 a  | **   |
| <b>F</b>  | 2-Furfurylmethylketone (acetylfuran) | 3 c                                             | 57 b   | 74 a  | 10 c  | *** | 3                                    | 52    | 43    | ns   |
| <b>F</b>  | 2-furyl hydroxymethyl ketone         | 0                                               | 7      | 5     | 2     | *   | 0                                    | 5     | 4     | ns   |
| <b>F</b>  | 3-Methyl-2(5H)-furanone              | nd                                              | nd     | nd    | nd    | ns  | 0                                    | 0     | 0     | ns   |
| <b>F</b>  | Dihydro-5-pentyl-2(3H)-furanone      | 0 b                                             | 70 a   | 77 a  | 69 a  | **  | 0 b                                  | 77 a  | 67 a  | ***  |
| <b>F</b>  | Ethyl 2-furoate                      | 13                                              | 13     | 13    | 14    | ns  | 13                                   | 14    | 13    | ns   |
| <b>F</b>  | Furfural                             | 6d                                              | 1076a  | 647b  | 29c   | *** | 6                                    | 436   | 732   | ns   |
| <b>F</b>  | Hydroxymethyl-5-furfural             | 2 b                                             | 9 b    | 26 a  | 3 b   | **  | 2                                    | 12    | 13    | ns   |
| <b>F</b>  | Mellein                              | 9                                               | 9      | 10    | 8     | ns  | 9                                    | 10    | 8     | ns   |
| <b>F</b>  | Methyl 2-furoate                     | 0 b                                             | 10 a   | 9 a   | 4 ab  | *   | 0                                    | 8     | 7     | ns   |
| <b>F</b>  | Methyl-5-furfural                    | 1d                                              | 505 b  | 737 a | 36 c  | *** | 1                                    | 371   | 481   | ns   |
| <b>F</b>  | Solerone                             | 0                                               | 37     | 49    | 26    | ns  | 0 b                                  | 35 a  | 39 a  | *    |
| <b>L</b>  | cis-Whisky lactone                   | 1                                               | 2      | 3     | 14    | ns  | 1                                    | 5     | 7     | ns   |
| <b>L</b>  | trans-Whisky lactone                 | 4 b                                             | 3 b    | 4 b   | 35 a  | *** | 4                                    | 16    | 12    | ns   |
| <b>Ph</b> | 4-Ethylphenol                        | 7                                               | 6      | 4     | 4     | ns  | 7                                    | 4     | 6     | ns   |
| <b>Ph</b> | Ethyl guaiacol                       | 2b                                              | 3a     | 3a    | 3a    | *   | 2                                    | 4     | 3     | ns   |
| <b>Ph</b> | Eugenol                              | 2 c                                             | 5 b    | 11 a  | 4 b   | *** | 2                                    | 8     | 6     | ns   |
| <b>Ph</b> | Isoeugenol                           | 2 c                                             | 3 b    | 5 a   | 3 bc  | **  | 2                                    | 4     | 3     | ns   |
| <b>Ph</b> | m-Cresol                             | 1                                               | 1      | 1     | 1     | ns  | 1                                    | 1     | 1     | ns   |
| <b>Ph</b> | Methoxyeugenol                       | 0 c                                             | 7 b    | 13 a  | 7 b   | **  | 0 b                                  | 11 a  | 6 b   | *    |
| <b>Ph</b> | Methyl guaiacol                      | 1d                                              | 13b    | 8c    | 20a   | *** | 1 b                                  | 14 a  | 13 a  | *    |
| <b>Ph</b> | o-Cresol                             | 0 b                                             | 1 a    | 1 a   | 1 a   | *   | 0 b                                  | 1 a   | 1 a   | **   |
| <b>Ph</b> | o-Guaiacol                           | 18b                                             | 24a    | 26a   | 20b   | **  | 18                                   | 25    | 22    | ns   |
| <b>Ph</b> | p-Cresol                             | 2                                               | 3      | 3     | 2     | ns  | 2                                    | 3     | 2     | ns   |
| <b>Ph</b> | Phenol                               | 9                                               | 12     | 11    | 11    | ns  | 9                                    | 12    | 11    | ns   |
| <b>Ph</b> | Propyl guaiacol                      | 0                                               | 0      | 0     | 0     | ns  | 0                                    | 0     | 0     | ns   |
| <b>Ph</b> | Vinyl guaiacol                       | 13                                              | 8      | 5     | 5     | ns  | 13 a                                 | 6 b   | 6 b   | *    |
| <b>PY</b> | 3-Methyl-2-cyclohexen-1-one          | 1                                               | 1      | 2     | 2     | ns  | 1                                    | 2     | 2     | ns   |
| <b>PY</b> | 3-Methyl-2-cyclopentenone            | 1 b                                             | 4 a    | 4 a   | 1 b   | **  | 1                                    | 3     | 3     | ns   |
| <b>PY</b> | Cyclotene                            | 0 d                                             | 1 b    | 2 a   | 1 c   | **  | 0 b                                  | 1 a   | 1 a   | *    |
| <b>PY</b> | Dihydroxy-maltol                     | 0                                               | 5      | 11    | 4     | ns  | 0                                    | 9     | 4     | ns   |
| <b>PY</b> | Furaneol                             | 0                                               | 2      | 1     | 2     | ns  | 0                                    | 2     | 2     | ns   |
| <b>PY</b> | Maltol                               | 0                                               | 0      | 4     | 0     | ns  | 0                                    | 3     | 1     | ns   |
| <b>V</b>  | 4-Methylsyringol                     | 0                                               | 11     | 19    | 37    | ns  | 0                                    | 27    | 17    | ns   |
| <b>V</b>  | Acetophenone                         | 20 c                                            | 46 bc  | 70 b  | 137 a | **  | 20                                   | 101   | 68    | ns   |
| <b>V</b>  | Acetovanillone; Apocynin             | 106 c                                           | 126 bc | 139 b | 176 a | **  | 106                                  | 160   | 134   | ns   |
| <b>V</b>  | Butyrovaniellone                     | 14                                              | 16     | 15    | 16    | ns  | 14                                   | 16    | 14    | ns   |
| <b>V</b>  | Ethyl vanillate                      | 319                                             | 323    | 323   | 244   | ns  | 319                                  | 300   | 294   | ns   |
| <b>V</b>  | homovanillic acid                    | 0                                               | 0      | 0     | 0     |     | 0                                    | 0     | 0     | ns   |
| <b>V</b>  | Methyl syringate                     | 0                                               | 0      | 1     | 0     | ns  | 0                                    | 1     | 0     | ns   |
| <b>V</b>  | Methyl vanillate                     | 22                                              | 21     | 23    | 23    | ns  | 22                                   | 22    | 22    | ns   |
| <b>V</b>  | Propiovanillone                      | 18 b                                            | 40 a   | 54 a  | 45 a  | **  | 18 c                                 | 56 a  | 37 b  | **   |
| <b>V</b>  | Syringol                             | 2                                               | 12     | 17    | 15    | ns  | 2                                    | 19    | 10    | ns   |
| <b>V</b>  | Vanillic acid                        | 0 c                                             | 23 b   | 19 b  | 43 a  | si  | 0 b                                  | 35 a  | 22 a  | *    |
| <b>V</b>  | Zingerone                            | 6                                               | 9      | 7     | 7     | ns  | 6                                    | 8     | 7     | ns   |

Different letters signify statistically distinct means, as determined by Tukey's Honest Significant Difference (HSD) post hoc test at a 95% confidence interval. The term 'Sig.' indicates the level of significance according to the ANOVA test; 'ns': non-significant difference, \*:  $p < 0.05$  level, \*\*:  $p < 0.01$  level, and \*\*\*  $p < 0.001$  level.