

Supplementary Table S6A. Effect of studied stimulant applied at the beginning of flowering (I term) or at full flowering stage (II term) on content [nM cm<sup>-3</sup>] following amino-acids: glycine, alanine, valine, leucine, isoleucine, phenylalanine, tryptophan, tyrosine, proline and histidine in the nectar of common buckwheat line PA16. Nectar was analysed in the open flowers able to fertilization. Means (n = 3) ± SE.

| Treatment       | Glycine   | Alanine    | Valine    | Leucine    | Isoleucine | Phenylalanine | Tryptophan | Tyrosine   | Proline  | Histidine  |
|-----------------|-----------|------------|-----------|------------|------------|---------------|------------|------------|----------|------------|
| I term          |           |            |           |            |            |               |            |            |          |            |
| Control         | 804 ± 58  | 1812 ± 155 | 851 ± 96  | 1448 ± 35  | 1112 ± 55  | 457 ± 77      | 588 ± 64   | 1174 ± 59  | 120 ± 12 | 717 ± 34   |
| BAP             | 307 ± 59  | 702 ± 53   | 291 ± 92  | 459 ± 93   | 346 ± 46   | 159 ± 56      | 124 ± 65   | 324 ± 35   | 35 ± 5   | 240 ± 96   |
| NAA             | 480 ± 50  | 1195 ± 60  | 746 ± 91  | 1140 ± 133 | 935 ± 89   | 331 ± 38      | 358 ± 95   | 805 ± 40   | 118 ± 16 | 861 ± 61   |
| GA <sub>3</sub> | 6093 ± 51 | 1194 ± 253 | 610 ± 91  | 908 ± 42   | 708 ± 82   | 425 ± 64      | 307 ± 39   | 712 ± 53   | 107 ± 14 | 503 ± 78   |
| Cysteine        | 448 ± 47  | 1197 ± 107 | 622 ± 58  | 1146 ± 194 | 807 ± 99   | 330 ± 39      | 258 ± 58   | 829 ± 85   | 90 ± 10  | 608 ± 23   |
| Putrescine      | 949 ± 61  | 1522 ± 13  | 1056 ± 99 | 1594 ± 165 | 1223 ± 160 | 533 ± 63      | 515 ± 86   | 943 ± 17   | 152 ± 8  | 958 ± 84   |
| NaCl            | 550 ± 57  | 1276 ± 118 | 606 ± 86  | 1106 ± 195 | 844 ± 67   | 500 ± 66      | 401 ± 49   | 764 ± 18   | 63 ± 3   | 626 ± 86   |
| ASAHI           | 560 ± 85  | 1236 ± 196 | 818 ± 71  | 1316 ± 175 | 901 ± 92   | 424 ± 68      | 423 ± 59   | 704 ± 92   | 99 ± 7   | 694 ± 56   |
| TYTANIT         | 124 ± 36  | 974 ± 49   | 618 ± 67  | 1042 ± 183 | 711 ± 45   | 286 ± 34      | 361 ± 54   | 657 ± 53   | 58 ± 6   | 632 ± 91   |
| II term         |           |            |           |            |            |               |            |            |          |            |
| Control         | 230 ± 46  | 958 ± 21   | 663 ± 48  | 1567 ± 103 | 1076 ± 69  | 705 ± 96      | 445 ± 66   | 867 ± 12   | 57 ± 4   | 1052 ± 114 |
| BAP             | 302 ± 24  | 1190 ± 206 | 711 ± 51  | 1457 ± 155 | 1009 ± 157 | 345 ± 55      | 449 ± 66   | 1125 ± 183 | 67 ± 8   | 1084 ± 113 |
| NAA             | 315 ± 28  | 1454 ± 254 | 841 ± 56  | 1749 ± 159 | 1150 ± 114 | 525 ± 87      | 465 ± 73   | 1108 ± 106 | 51 ± 4   | 1086 ± 183 |
| GA <sub>3</sub> | 201 ± 21  | 1324 ± 225 | 553 ± 40  | 1283 ± 182 | 896 ± 75   | 340 ± 27      | 409 ± 96   | 791 ± 29   | 46 ± 13  | 1041 ± 230 |
| Cysteina        | 199 ± 30  | 1204 ± 145 | 556 ± 19  | 1345 ± 168 | 1008 ± 104 | 171 ± 35      | 352 ± 44   | 829 ± 85   | 41 ± 6   | 1006 ± 155 |
| Putrescine      | 278 ± 60  | 983 ± 58   | 538 ± 37  | 1251 ± 189 | 794 ± 89   | 389 ± 83      | 453 ± 93   | 706 ± 73   | 100 ± 19 | 1081 ± 121 |
| NaCl            | 229 ± 56  | 1038 ± 90  | 411 ± 32  | 1110 ± 145 | 717 ± 76   | 422 ± 21      | 392 ± 43   | 567 ± 54   | 70 ± 17  | 687 ± 98   |
| ASAHI           | 158 ± 25  | 1052 ± 121 | 526 ± 84  | 1158 ± 132 | 806 ± 91   | 213 ± 69      | 266 ± 24   | 671 ± 51   | 40 ± 5   | 729 ± 63   |
| TYTANIT         | 222 ± 88  | 1423 ± 128 | 596 ± 57  | 1247 ± 183 | 762 ± 38   | 256 ± 71      | 298 ± 87   | 750 ± 30   | 31 ± 5   | 781 ± 50   |

BAP – 6-benzylaminopurine; NAA – 1-naphthaleneacetic acid; cysteine, GA<sub>3</sub> – gibberellic acid, NaCl – sodium chloride), ASAHI SL and TYTANIT – commercial prepartates. Data marked with green colour show positive effect of stimulant comparing to control value separative for each control.