

Table S1. Values of selected parameters of chlorophyll *a* fluorescence (Photosystem II efficiency) of non-acclimated (NA), cold-acclimated (CA) and deacclimated (DA) plants of oilseed rape (ten cultivars). *Average values \pm SD marked with the same letters did not differ significantly at $p \leq 0.05$ according to Duncan's test, $n=15$.*

| Treatment | Fv/Fm | ABS/RC | TRo/RC | ETo/RC | DIo/RC | ABS/CSm | TRo/CSm | ETo/CSm | DIo/CSm | P.I. _{ABS} |
|--------------|--------------------|--------------------|-------------------|-------------------|--------------------|---------------------|--------------------|--------------------|------------------|---------------------|
| Birdy NA | 0.826 \pm 0.01 a | 1.04 \pm 0.04 b | 0.86 \pm 0.04 b | 0.58 \pm 0.03 b | 0.18 \pm 0.01 b | 27783 \pm 793 a | 22961 \pm 751 a | 15676 \pm 848 a | 4823 \pm 161 b | 10.05 \pm 1.57 a |
| Birdy CA | 0.711 \pm 0.06 b | 1.44 \pm 0.34 a | 1.01 \pm 0.19 a | 0.51 \pm 0.03 c | 0.43 \pm 0.17 b | 23080 \pm 5330 b | 16645 \pm 4954 c | 8634 \pm 2923 c | 6435 \pm 916 a | 2.45 \pm 1.79 b |
| Birdy DA | 0.806 \pm 0.01 c | 1.09 \pm 0.12 b | 0.88 \pm 0.08 b | 0.62 \pm 0.04 a | 0.21 \pm 0.04 a | 24509 \pm 1509 b | 19773 \pm 1424 b | 13956 \pm 1335 b | 4736 \pm 312 b | 9.66 \pm 2.54 a |
| Bojan NA | 0.822 \pm 0.01 a | 1.01 \pm 0.07 b | 0.83 \pm 0.05 b | 0.59 \pm 0.02 a | 0.18 \pm 0.02 b | 27099 \pm 1553 a | 22291 \pm 1388 a | 15943 \pm 1183 a | 4808 \pm 264 b | 12.12 \pm 3.33 a |
| Bojan CA | 0.726 \pm 0.11 b | 1.61 \pm 1.07 a | 1.06 \pm 0.33 a | 0.50 \pm 0.08 b | 0.54 \pm 0.79 a | 25450 \pm 5352 ab | 18914 \pm 5551 b | 9822 \pm 3789 c | 6536 \pm 993 a | 3.20 \pm 2.64 c |
| Bojan DA | 0.784 \pm 0.03 a | 1.24 \pm 0.26 ab | 0.97 \pm 0.16 a | 0.62 \pm 0.04 a | 0.27 \pm 0.09 ab | 23803 \pm 1935 b | 18647 \pm 1577 b | 12138 \pm 1788 b | 5156 \pm 815 b | 6.67 \pm 3.46 b |
| Darcy NA | 0.827 \pm 0.01 a | 1.08 \pm 0.06 b | 0.89 \pm 0.04 a | 0.65 \pm 0.04 a | 0.19 \pm 0.02 b | 27700 \pm 1411 a | 22914 \pm 1328 a | 16735 \pm 953 a | 4786 \pm 169 b | 12.16 \pm 1.59 a |
| Darcy CA | 0.746 \pm 0.08 b | 1.33 \pm 0.47 a | 0.96 \pm 0.22 a | 0.53 \pm 0.05 b | 0.37 \pm 0.27 a | 25462 \pm 4296 b | 19268 \pm 4906 b | 11488 \pm 4200 c | 6194 \pm 883 a | 5.04 \pm 3.77 b |
| Darcy DA | 0.807 \pm 0.03 a | 1.15 \pm 0.23 ab | 0.93 \pm 0.14 a | 0.64 \pm 0.05 a | 0.23 \pm 0.09 b | 26274 \pm 1638 ab | 21227 \pm 1758 a | 14948 \pm 2221 b | 5047 \pm 645 b | 10.03 \pm 4.08 a |
| Feliks NA | 0.824 \pm 0.02 a | 1.11 \pm 0.10 a | 0.92 \pm 0.07 a | 0.65 \pm 0.04 a | 0.20 \pm 0.04 b | 27811 \pm 1605 a | 22939 \pm 1661 a | 16430 \pm 1870 a | 4871 \pm 368 b | 11.26 \pm 3.08 a |
| Feliks CA | 0.763 \pm 0.05 b | 1.23 \pm 0.37 a | 0.92 \pm 0.20 a | 0.52 \pm 0.06 b | 0.31 \pm 0.18 a | 26026 \pm 3502 b | 19981 \pm 3711 b | 11672 \pm 2873 c | 6044 \pm 928 a | 5.01 \pm 3.39 c |
| Feliks DA | 0.805 \pm 0.02 a | 1.15 \pm 0.15 a | 0.92 \pm 0.10 a | 0.63 \pm 0.04 a | 0.23 \pm 0.05 b | 25789 \pm 1244 b | 20771 \pm 1159 b | 14241 \pm 1278 b | 5018 \pm 404 b | 8.44 \pm 2.86 b |
| Finley NA | 0.822 \pm 0.01 a | 1.08 \pm 0.12 a | 0.89 \pm 0.09 a | 0.61 \pm 0.05 a | 0.19 \pm 0.03 b | 26049 \pm 1999 a | 21418 \pm 1781 a | 14712 \pm 1703 a | 4631 \pm 401 b | 10.20 \pm 3.31 a |
| Finley CA | 0.775 \pm 0.03 b | 1.11 \pm 0.25 a | 0.86 \pm 0.17 a | 0.48 \pm 0.03 c | 0.26 \pm 0.09 a | 24425 \pm 4102 ab | 19049 \pm 3955 b | 10963 \pm 3039 b | 5376 \pm 318 a | 4.88 \pm 2.36 b |
| Finley DA | 0.810 \pm 0.01 a | 1.02 \pm 0.07 a | 0.83 \pm 0.05 a | 0.58 \pm 0.02 b | 0.19 \pm 0.02 b | 23891 \pm 1744 b | 19365 \pm 1485 b | 13622 \pm 1376 a | 4527 \pm 332 b | 10.39 \pm 3.04 a |
| Graf NA | 0.826 \pm 0.01 a | 1.07 \pm 0.05 b | 0.88 \pm 0.04 a | 0.61 \pm 0.03 a | 0.19 \pm 0.01 b | 26979 \pm 1386 a | 22291 \pm 1286 a | 15400 \pm 1048 a | 4688 \pm 196 b | 10.08 \pm 1.57 a |
| Graf CA | 0.753 \pm 0.05 c | 1.20 \pm 0.20 a | 0.90 \pm 0.09 a | 0.52 \pm 0.04 b | 0.31 \pm 0.12 a | 25344 \pm 4126 ab | 19266 \pm 4377 b | 11406 \pm 3012 c | 6078 \pm 509 a | 4.37 \pm 2.22 b |
| Graf DA | 0.801 \pm 0.02 b | 1.15 \pm 0.25 ab | 0.92 \pm 0.17 a | 0.64 \pm 0.05 a | 0.23 \pm 0.08 b | 24749 \pm 1574 b | 19828 \pm 1298 b | 13950 \pm 1415 b | 4921 \pm 632 b | 9.67 \pm 3.50 a |
| Monolit NA | 0.830 \pm 0.01 a | 1.06 \pm 0.08 b | 0.88 \pm 0.06 a | 0.63 \pm 0.04 a | 0.18 \pm 0.02 b | 27204 \pm 1228 a | 22567 \pm 1048 a | 16178 \pm 1005 a | 4637 \pm 276 b | 12.21 \pm 3.50 a |
| Monolit CA | 0.750 \pm 0.06 b | 1.31 \pm 0.42 a | 0.96 \pm 0.22 a | 0.49 \pm 0.04 b | 0.35 \pm 0.21 a | 26217 \pm 3728 a | 19852 \pm 4142 b | 10735 \pm 3734 b | 6365 \pm 924 a | 3.78 \pm 2.59 b |
| Monolit DA | 0.814 \pm 0.02 a | 1.10 \pm 0.18 b | 0.89 \pm 0.13 a | 0.62 \pm 0.05 a | 0.21 \pm 0.05 b | 26485 \pm 1863 a | 21576 \pm 1673 a | 15082 \pm 1749 a | 4909 \pm 449 b | 10.46 \pm 4.23 a |
| Pantheon NA | 0.754 \pm 0.21 a | 1.89 \pm 2.69 a | 0.88 \pm 0.07 a | 0.62 \pm 0.05 a | 1.01 \pm 2.64 a | 25527 \pm 2180 b | 19459 \pm 5838 a | 13581 \pm 4173 a | 6068 \pm 4533a | 9.20 \pm 3.75 a |
| Pantheon CA | 0.784 \pm 0.04 a | 1.17 \pm 0.26 a | 0.91 \pm 0.16 a | 0.55 \pm 0.06 b | 0.26 \pm 0.11 a | 27648 \pm 4017 a | 21799 \pm 4040 a | 13302 \pm 2698 a | 5850 \pm 545 a | 5.69 \pm 2.74 b |
| Pantheon DA | 0.808 \pm 0.02 a | 1.08 \pm 0.20 a | 0.87 \pm 0.13 a | 0.60 \pm 0.04 a | 0.21 \pm 0.07 a | 24775 \pm 1634 b | 20015 \pm 1493 a | 14052 \pm 1553 a | 4760 \pm 528 a | 10.09 \pm 3.10 a |
| President NA | 0.797 \pm 0.16 a | 1.34 \pm 1.39 a | 0.87 \pm 0.05 a | 0.64 \pm 0.07 a | 0.48 \pm 1.41 a | 26608 \pm 5730 a | 22058 \pm 5024 a | 15879 \pm 3630 a | 4550 \pm 728 c | 11.61 \pm 3.02 a |
| President CA | 0.788 \pm 0.04 c | 1.13 \pm 0.27 a | 0.88 \pm 0.16 a | 0.52 \pm 0.04 b | 0.25 \pm 0.11 b | 27566 \pm 3035 a | 21811 \pm 3253ab | 13329 \pm 3186 b | 5755 \pm 686 a | 6.47 \pm 3.31 c |
| President DA | 0.807 \pm 0.02 b | 1.14 \pm 0.21 a | 0.92 \pm 0.14 a | 0.61 \pm 0.04 a | 0.22 \pm 0.06 ab | 26079 \pm 1255 b | 21037 \pm 1099 b | 14267 \pm 1564 b | 5042 \pm 507 b | 8.80 \pm 3.62 b |
| Rokas NA | 0.829 \pm 0.01 a | 1.01 \pm 0.03 b | 0.84 \pm 0.03 b | 0.60 \pm 0.03 a | 0.17 \pm 0.01 b | 26253 \pm 1201 a | 21753 \pm 1077 a | 15695 \pm 850 a | 4500 \pm 158 c | 12.62 \pm 1.99 a |
| Rokas CA | 0.739 \pm 0.05 c | 1.37 \pm 0.47 a | 1.00 \pm 0.27 a | 0.53 \pm 0.05 b | 0.37 \pm 0.21 a | 24597 \pm 4712 a | 18328 \pm 4414 b | 10128 \pm 2792 c | 6268 \pm 887 a | 3.40 \pm 1.97 c |
| Rokas DA | 0.801 \pm 0.02 b | 1.09 \pm 0.16 b | 0.87 \pm 0.10 b | 0.61 \pm 0.04 a | 0.22 \pm 0.06 b | 25097 \pm 2117 a | 20121 \pm 1952ab | 14134 \pm 1667 b | 4976 \pm 448 b | 9.50 \pm 3.19 b |