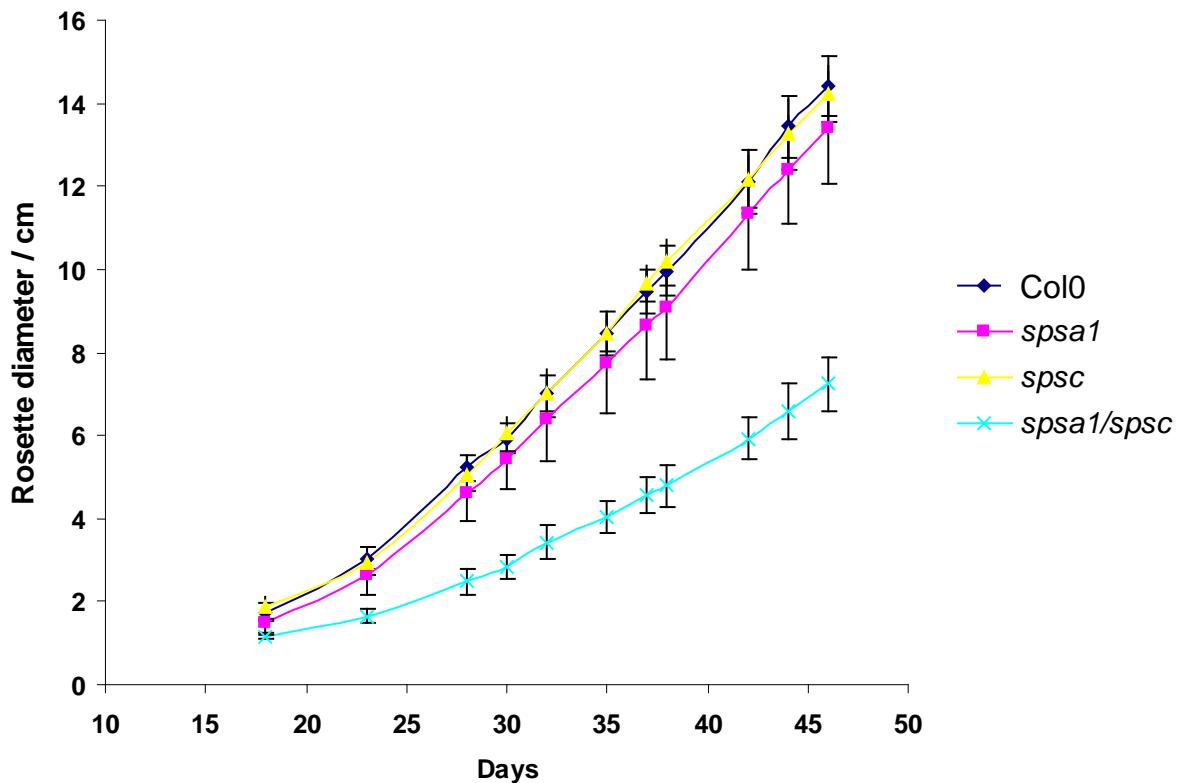


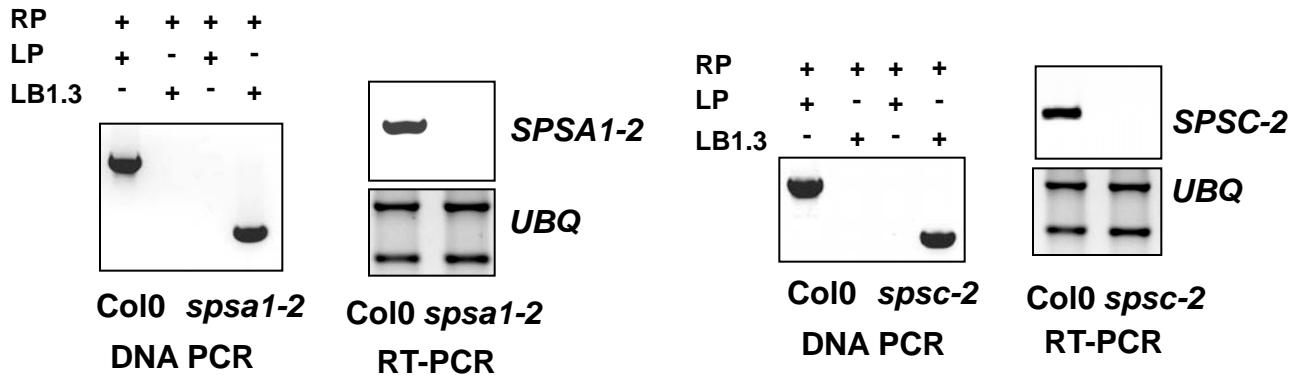
# Volkert et al. Supplementary Figure S1



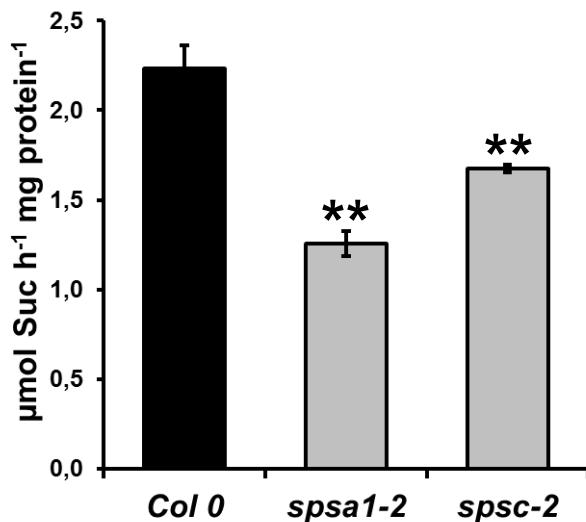
**Supplementary Figure S1.** Rosette diameter as a proxy for plant growth on soil under short day (8h light/ 16h dark) conditions. Each value is the mean  $\pm$  SD of at least three measurements.

# Volkert et al. Supplementary Figure S2

**A**



**B**



**Supplementary Figure S2:** Analysis of an independent set of SPS T-DNA insertion lines. A, genotyping (DNA PCR) and expression (RT-PCR) analysis of *SPSA1* and *SPSC* expression in the respective mutant background as compared to the wild type control (Col 0). *UBQ* serves as an internal control. D, SPS enzyme activity in *spsa1-2* and *spsc-2* knock-out lines as compared to the wild type control. The values represent the mean of at least 4 independent biological replicates  $\pm$  SD. \*\* indicates a significant difference to the control at  $P < 0,001$  according to students *t* test.

| <b>Supplemental Table 1: Primers used in this study.</b>                                    |    |                                       |
|---|----|---------------------------------------|
| Nucleotide sequence of gene-specific primers for protein expression in <i>S. cerevisiae</i> |    |                                       |
| AtSPSA1   | Fw | 5'-CACCATGGCCGGGAACGATTGGG-3'         |
|   | Rv | 5'-TCAGTCCTTGAGAAGCTCTAATTC-3'        |
| AtSPSA2   | Fw | 5'- CACCATGGTGGGAAACGACTGGGTGAATAG-3' |
|   | Rv | 5'-TCAAGGCTTGAGGAGACTGATCCCAAG-3'     |
| AtSPSB  | Fw | 5'-CACCATGGCGGGAAACGAGTGG-3'          |
|   | Rv | 5'-TCAAGCAGTGGCTTCGAGAGCTG-3'         |
| AtSPSC  | Fw | 5'-CACCATGGCAAGAAATGATTGGAT-3'        |
|   | Rv | 5'-TTACTTGATCCCATAAGGCCTCT-3'         |
| Nucleotide sequence of gene-specific primers for construction of promoter-GUS constructs    |    |                                       |
| AtSPSA1   | Fw | 5'-ATCGATAAGATTGTTCTGTTGGT-3'         |
|   | Rv | 5'-GAATTCCCTGGTGGGACGATCAAAG-3'       |
| AtSPSA2   | Fw | 5'-ATCGATCACTAATACTAACGAATG-3'        |
|   | Rv | 5'-GAATTCTGGTGGCTCTCCGAAC-3'          |
| AtSPSB  | Fw | 5'-ATCGATGAAGCCAATCTAGTTAAATG-3'      |
|   | Rv | 5'-GAATTCTCTGAGTTGTCCTCTGTTTC-3'      |
| AtSPSC  | Fw | 5'-ATCGATCTGTGTAGTAATGCATTTC-3'       |
|   | Rv | 5'-GAATTCCCTCTGATTGTTGCACTG-3'        |
| Nucleotide sequence of gene-specific primers for used to confirm T-DNA insertions           |    |                                       |
| SALK_148643_LP  |    | 5'-TTCTAATAATGTTGCGCCTGG-3'           |
| SALK_148643_RP  |    | 5'-CACCGGGTATGTGTTTTACG-3'            |
| SALK_099817_LP  |    | 5'-CTCTCAAAGGAGATCACGTCG-3'           |
| SALK_099817_RP  |    | 5'-AGCTCCATGGATAGGAAGAGC-3'           |
| SALK_037958_LP  |    | 5'-GTAGTTACGGCAGTGCTCTGG-3'           |
| SALK_037958_RP  |    | 5'-GTGAATGTCAGCCTTCGAG-3'             |
| SALK_020179_LP  |    | 5'-AATGCCACAAAGACAGGTCAG-3'           |
| SALK_020179_RP  |    | 5'-TTTCAATATGCTCGTGGGAC-3'            |
| Lbb3.1  |    | 5'-ATTTGCCGATTCGGAAC-3'               |
| AtSPSA1   | Fw | 5'-CGAGCAGATTGTCACTCTGCT-3'           |
|   | Rv | 5'-AAAGGAGATCACGTCGGTGAGA-3'          |
| AtSPSA2   | Fw | 5'-ACTCTACTCACGTCCCTCTGG-3'           |
|   | Rv | 5'-CGGGTTGCTCACGCAAGTC-3'             |
| AtSPSB  | Fw | 5'-GATCAGGCATCTAGCAATTCCC-3'          |
|   | Rv | 5'-TCAGAACCCATGTGACGAGC-3'            |
| AtSPSC  | Fw | 5'-CTACCTATCCCATGTCGAACAT-3'          |
|   | Rv | 5'-GCCTAAGGTCATCGACTCTTC-3'           |
| UBQ   | Fw | 5'-ATGCAGATYTTGTGAAGAC-3'             |
|   | Rv | 5'-ACCACCACGRAGACGGAG-3'              |
| Nucleotide sequence of gene-specific primers used for qPCR                                  |    |                                       |
| AtSPSA1   | Fw | 5'- GCAGCGGTACCTCCAGTAAG-3'           |
|   | Rv | 5'- CACCGGACGAACAAATACCT              |
| AtSPSA2   | Fw | 5'- AGTGAAGATCCCCTGTTGA-3'            |
|   | Rv | 5'- ACCTAAGGGCCTGAGATCGT-3'           |
| AtSPSB  | Fw | 5'- ACGAGAATGCAGATCGTCC-3'            |
|   | Rv | 5'- CGGAGAAGAGCATCAGAAC-3'            |
| AtSPSC  | Fw | 5'- CGGAGAAGAGCATCAGAAC-3'            |
|   | Rv | 5'- AATGGGCAGACCATAAGCAG-3'           |
| 18S rRNA At   | Fw | 5'-AAACCCCGACTTATGGAAGG-3'            |
|   | Rv | 5'-CGAACCTAATTCTCCGTCA-3'             |