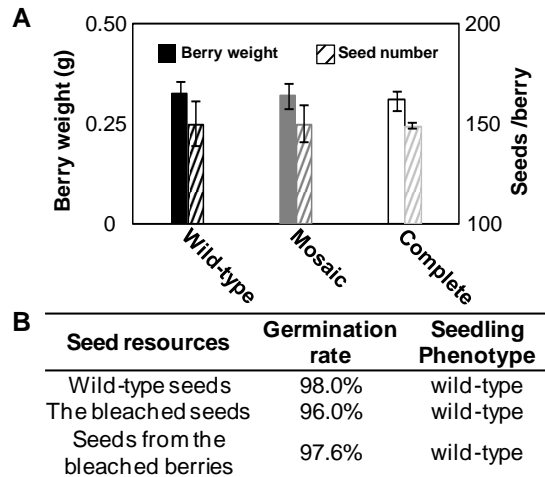


**Figure S1.** Characterization of *PfPDS* in *Physalis*. **(A)** A Neighbor-Joining tree of the *PDS* genes. The accession numbers of the sequences are AY593974 (PhyPDS, *Petunia hybrida*), EF650011 (SlyPDS, *Solanum lycopersicum*), EU165355 (NbePDS, *Nicotiana benthamiana*), AJ616742 (NtaPDS, *Nicotiana tabacum*), AEE83394 (AthPDS, *Arabidopsis thaliana*), AJ621573 (PsaPDS, *Pisum sativum*), NM\_001249840 (GmaPDS1, *Glycine max*), AK244738 (GmaPDS2, *Glycine max*), AF049356 (OsaPDS, *Oryza sativa*), and JX255734 (*PfPDS*, *Physalis floridana*). Bootstrap values of 1000 replicates are shown. **(B)** Expression of *PfPDS* in *P. floridana*. RT-PCR analysis was performed using total RNA from the different organs indicated. *PFACTIN* was used as an internal control. The experiments were performed with three biological replicates; typical, representative gel images are presented for each experimental result.



**Figure S2.** Quantity of berries and seed characteristics from the *PfpDS-TRV2* infected plants. **(A)** Berry weight and seed number in the berries, with different degrees of bleaching indicated. **(B)** Seed germination rate and inheritance of the *PfpDS* silencing phenotype mediated by *PfpDS-TRV2*.

**Table S1.** Primer information used in the present work.

Usage	Gene name	Sequence
Real time RT-PCR	<i>MPF3</i>	F: 5'-GGA GAT GAA GCA AGG AGA AAT G-3' R: 5'-AAC TTC CCA AGC AAA GAT TA-3'
	<i>MPF2</i>	F: 5'-GTG CTG AGC TGA TGG AAG AA-3' R: 5'-CTT CAA CAA AAT CTT CCC AC-3'
	<i>PfPDS</i>	F: 5'-CCA GTG GAT ATT CTC AAG C-3' R: 5'-GAC ATG TCA GCA TAC ACA C-3'
	<i>PFACTIN</i>	F: 5'-AAC CGG AAT GGT GAA GGC TGG-3' R: 5'-CCA TAT CAT CCC AAT TGC TGA C-3'
RACE	<i>PfPDS-3'UTR</i>	F1: 5'-GAG TCA AAA GGT GGC CAA G-3' F2: 5'-GGA GAT GCT TTT GTG TTT GCC-3'
	<i>PfPDS-5'UTR</i>	R1: 5'-ATG ATC ATA TGT GTT CTT CAG-3' R2: 5'-CTG TCA AAC CAT ATA TGT AC-3'
VIGS	<i>PfPDS</i>	F: 5'-CTA CCA TGG GGC ACT CAA CTT TAT AAA CC-3' R: 5'-CTA GGA TCC CTT CAG TTT TCT GTC AAA CC-3'
	<i>MPF3</i>	F: 5'-CGC CAT GGT CAA GAA AGA ACC AAC TCA T-3' R: 5'-GCG GAT CCA GAT TTT ACG AGA ACA TAT T-3'
	<i>MPF2</i>	F: 5'-CGC CAT GGC CAG CAT GAA GGA TAT CCT T-3' R: 5'-GCG GAT CCT GCT AGC TGA GTG GTA GCC C-3'