

Table S1. Agricultural practices during the growing period.^a

DAS	Date	Measures
0	07.09.2016	Sowing of winter oilseed rape (cultivar „Mercedes“ from Rapool), each subplot contains 5 rows with 12-15 seeds each, Scattering snail granules
12	19.09.2016	Weeding, Spraying against flea beetle using Syngentas `Karate Zeon`, agent Lambda-Cyhalothrin
14	21.09.2016	Weeding and scattering snail granules
16	23.09.2016	Weeding, Spraying against flea beetle using Syngentas `Karate Zeon`, agent Lambda-Cyhalothrin
21	28.09.2016	Fertilisation of 50 kg N ha ⁻¹ (about 5 g N m ⁻²) as calcium ammonium nitrate, Weeding and scattering snail granules
29	06.10.2016	Thinning or partial seeding on subplots with less than 40 plants
40	17.10.2016	Weeding
42	19.10.2016	Scattering snail granules
44	21.10.2016	Scattering mice poison
51	28.10.2016	Scattering snail granules
57 58	03.11.2016, 04.11.2016	Weeding
75	21.11.2016	Weeding
155	09.02.2017	Weeding
181	07.03.2017	Fertilisation of 60 kg N ha ⁻¹ as calcium ammonium nitrate
188	14.03.2017	Fertilisation of 40 kg N ha ⁻¹ as calcium ammonium nitrate, Spraying 150 g ha ⁻¹ Trafo from Syngenta against stem weevil, repeated one week later
197	23.03.2017	Weeding
205 210	31.03.2017, 05.04.2017	Spraying against pollen beetle, 200 g ha ⁻¹ `Mospilan` in 300 L ha ⁻¹ water, agent Acetamiprid (against imagines and larvea, time of treatment: crop development stage DC 51 (beginning of bud formation) to 69 (end of blooming))
237	02.05.2017	Weeding
244	09.05.2017	Weeding
246	11.05.2017	Weeding
268	02.06.2017	Taking up nets against bird damage
272	06.06.2017	Taking up roofs (start of precipitation manipulation)
301	05.07.2017	Weeding
307	11.07.2017	Final harvest

^aAbbreviation: DAS=days after sowing.

Table S2. Biomass of flowers at stem elongation, as well as thousand seed weight (TSW) and Harvest Index (HI) at maturity.^a

	Ta				Te			
	.Aa		.Ar		.Aa		.Ar	
	Fa	Fr	Fa	Fr	Fa	Fr	Fa	Fr
<i>Stem elongation (Harvest 1)</i>								
Flowers [g DW plant ⁻¹]	0.006 (0.004)	0.008 (0.005)	0.007 (0.003)	0.008 (0.003)	0.014 (0.005)	0.014 (0.012)	0.012 (0.001)	0.007 (0.005)
<i>Maturity (Harvest 3)</i>								
TSW [g 1000 seeds ⁻¹]	4.11 (0.14)	3.79 (0.15)	3.99 (0.48)	3.83 (0.20)	4.38 (0.18)	4.23 (0.39)	4.19 (0.14)	4.19 (0.42)
HI.	0.31 (0.01)	0.30 (0.15)	0.29 (0.02)	0.30 (0.01)	0.31 (0.01)	0.29 (0.05)	0.28 (0.04)	0.26 (0.01)

^aValues are means of four replicates, numbers in parentheses give the standard deviation. Ta: ambient soil temperature, Te: elevated soil temperature, Aa: ambient precipitation amount, Ar: reduced precipitation amount, Fa: ambient precipitation frequency, Fr: reduced precipitation frequency.

Table S3. Total protein content (% dry weight), total amino acid concentration (% protein) and total concentration of amino acid types (% protein) in mature OSR seeds.^a

	Ta				Te			
	.Aa		.Ar		.Aa		.Ar	
	Fa	Fr	Fa	Fr	Fa	Fr	Fa	Fr
Total protein content [% DW]	13.325 (0.866)	12.875 (0.287)	13.400 (1.225)	12.775 (0.395)	13.767 (0.815)	13.233 (0.751)	13.567 (0.569)	13.867 (0.351)
Total amino acids [% protein]	92.331 (1.515)	92.213 (2.297)	92.159 (0.947)	93.359 (1.279)	93.031 (3.129)	94.949 (0.482)	94.091 (1.339)	91.985 (1.774)
<i>Total concentration of amino acids [% protein]</i>								
Essential a.a.	35.099 (0.711)	34.724 (1.517)	35.091 (0.570)	35.589 (0.733)	34.016 (2.656)	35.901 (0.321)	35.251 (0.386)	34.241 (1.055)
Essential for children a.a.	4.559 (1.129)	5.104 (0.176)	5.058 (0.091)	5.069 (0.040)	5.134 (0.028)	5.140 (0.080)	5.133 (0.088)	4.999 (0.110)
Sem-essential a.a.	8.463 (0.090)	8.408 (0.077)	8.358 (0.055)	8.474 (0.073)	8.450 (0.219)	8.634 (0.153)	8.571 (0.141)	8.457 (0.277)
Non-essential a.a.	44.211 (0.690)	43.976 (0.902)	43.652 (0.497)	44.226 (0.622)	45.432 (0.423)	45.274 (0.419)	45.136 (0.869)	44.288 (1.101)

^aValues are means of four replicates, numbers in parentheses give the standard deviation. Ta: ambient soil temperature, Te: elevated soil temperature, Aa: ambient precipitation amount, Ar: reduced precipitation amount, Fa: ambient precipitation frequency, Fr: reduced precipitation frequency. Abbreviation: a.a.=amino acid.

Table S4. Individual amino acid concentration (% protein) in mature seeds.^a

	Ta		Te					
	Aa		Ar		Aa		Ar	
	Fa	Fr	Fa	Fr	Fa	Fr	Fa	Fr
<i>Essential [% protein]</i>								
Valine	5.357 (0.216)	5.517 (0.134)	5.393 (0.150)	5.542 (0.202)	5.441 (0.182)	5.539 (0.088)	5.406 (0.101)	5.289 (0.041)
Isoleucine	4.094 (0.090)	4.118 (0.111)	4.090 (0.071)	4.209 (0.115)	4.063 (0.138)	4.206 (0.058)	4.053 (0.073)	4.038 (0.043)
Leucine	7.020 (0.088)	6.992 (0.105)	7.059 (0.243)	7.086 (0.153)	7.138 (0.124)	7.180 (0.032)	7.073 (0.119)	7.066 (0.090)
Phe	3.997 (0.051)	4.002 (0.116)	3.960 (0.092)	3.993 (0.098)	4.082 (0.095)	4.107 (0.049)	4.028 (0.058)	3.965 (0.098)
Lysine	6.551 (0.087)	6.564 (0.095)	6.556 (0.138)	6.655 (0.050)	6.561 (0.059)	6.702 (0.052)	6.585 (0.50)	6.490 (0.054)
Methionine	2.008 (0.029)	2.016 (0.042)	2.014 (0.026)	2.035 (0.036)	2.033 (0.060)	2.064 (0.061)	2.039 (0.023)	2.007 (0.010)
Threonine	4.902 (0.172)	4.856 (0.093)	4.862 (0.178)	4.894 (0.100)	4.873 (0.160)	4.945 (0.208)	4.913 (0.024)	4.830 (0.188)
Tryptophan	1.170 (0.142)	1.164 (0.109)	1.157 (0.113)	1.174 (0.039)	1.185 (0.057)	1.158 (0.048)	1.153 (0.073)	1.225 (0.041)
<i>Essential for children [% protein]</i>								
Tyrosine	2.816 (0.080)	2.815 (0.055)	2.803 (0.102)	2.800 (0.060)	2.812 (0.082)	2.876 (0.140)	2.824 (0.070)	2.800 (0.060)
Cysteine	2.324 (0.064)	2.289 (0.135)	2.255 (0.065)	2.270 (0.032)	2.322 (0.055)	2.263 (0.080)	2.309 (0.017)	2.188 (0.066)
<i>Semi-essential [% protein]</i>								
Histidine	2.739 (0.019)	2.738 (0.023)	2.722 (0.038)	2.760 (0.014)	2.760 (0.064)	2.820 (0.032)	2.775 (0.037)	2.739 (0.075)
Arginine	5.724 (0.074)	5.670 (0.069)	5.636 (0.051)	5.715 (0.061)	5.690 (0.157)	5.718 (0.205)	5.796 (0.104)	5.718 (0.205)
<i>Non-essential [% protein]</i>								
Asx	7.455 (0.141)	7.555 (0.118)	7.454 (0.172)	7.596 (0.200)	7.552 (0.081)	7.713 (0.079)	7.517 (0.180)	7.499 (0.185)
Serine	4.504 (0.197)	4.447 (0.033)	4.392 (0.128)	4.443 (0.021)	4.536 (0.221)	4.517 (0.219)	4.568 (0.073)	4.469 (0.230)
Glx	16.15 (0.51)	15.81 (0.32)	15.90 (0.34)	15.97 (0.24)	16.74 (0.39)	16.40 (0.37)	16.53 (0.40)	16.24 (0.47)
Proline	6.152 (0.429)	6.121 (0.352)	6.020 (0.237)	6.101 (0.270)	6.506 (0.233)	6.393 (0.155)	6.356 (0.290)	6.151 (0.206)
Glycine	5.350 (0.065)	5.361 (0.134)	5.307 (0.143)	5.423 (0.159)	5.423 (0.044)	5.490 (0.046)	5.454 (0.037)	5.336 (0.070)
Alanine	4.601 (0.100)	4.681 (0.115)	4.579 (0.122)	4.698 (0.031)	4.673 (0.040)	4.759 (0.035)	4.716 (0.067)	4.791 (0.058) ^b

^aValues are means of four replicates, numbers in parentheses give the standard deviation. Ta: ambient soil temperature, Te: elevated soil temperature, Aa: ambient precipitation amount, Ar: reduced precipitation amount, Fa: ambient precipitation frequency, Fr: reduced precipitation frequency. Abbreviations: asx=asparagine/aspartic acid; glx=glutamine/glutamic acid; phe=phenylalanine.

Table S5. Total amino acid concentration (% dry weight) and total concentration of amino acid types (% dry weight) in mature OSR seeds.^a

	Ta				Te			
	.Aa		.Ar		.Aa		.Ar	
	Fa	Fr	Fa	Fr	Fa	Fr	Fa	Fr
Total amino acids	12.368	11.940	12.138	11.925	12.737	12.567	12.770	12.847
[% DW]	(0.803)	(0.108)	(0.638)	(0.335)	(0.399)	(0.760)	(0.717)	(0.552)
<i>Total concentration of amino acids [% DW]</i>								
Essential a.a.	3.738	3.640	3.548	3.640	3.627	3.800	3.823	3.857
	(0.159)	(0.045)	(0.136)	(0.080)	(0.225)	(0.197)	(0.180)	(0.131)
Essential for children a.a.	0.673	0.658	0.678	0.697	0.707	0.680	0.697	0.693
	(0.057)	(0.036)	(0.059)	(0.040)	(0.038)	(0.036)	(0.040)	(0.029)
Sem-essential a.a.	1.128	1.083	1.120	1.083	1.163	1.143	1.163	1.173
	(0.069)	(0.021)	(0.102)	(0.031)	(0.078)	(0.085)	(0.068)	(0.067)
Non-essential a.a.	5.895	5.660	5.848	5.650	6.257	5.993	6.127	6.143
	(0.450)	(0.022)	(0.507)	(0.195)	(0.429)	(0.396)	(0.376)	(0.291)

^aValues are means of four replicates, numbers in parentheses give the standard deviation. Ta: ambient soil temperature, Te: elevated soil temperature, Aa: ambient precipitation amount, Ar: reduced precipitation amount, Fa: ambient precipitation frequency, Fr: reduced precipitation frequency. Abbreviations: DW=dry weight; a.a.=amino acid.

Table S6. Individual amino acid concentration (% dry weight) in mature seeds.^a

	Ta				Te			
	Aa		Ar		Aa		Ar	
	Fa	Fr	Fa	Fr	Fa	Fr	Fa	Fr
<i>Essential [% protein]</i>								
Valine	0.713 (0.022)	0.710 (0.008)	0.690 (0.017)	0.708 (0.017)	0.710 (0.000)	0.725 (0.044)	0.733 (0.031)	0.733 (0.015)
Isoleucine	0.545 (0.025)	0.530 (0.008)	0.548 (0.042)	0.538 (0.012)	0.560 (0.052)	0.557 (0.028)	0.557 (0.030)	0.560 (0.020)
Leucine	0.935 (0.052)	0.900 (0.008)	0.945 (0.076)	0.905 (0.024)	0.983 (0.076)	0.950 (0.050)	0.960 (0.056)	0.980 (0.036)
Phe	0.533 (0.034)	0.515 (0.006)	0.530 (0.040)	0.510 (0.014)	0.577 (0.042)	0.543 (0.025)	0.547 (0.031)	0.550 (0.026)
Lysine	0.873 (0.048)	0.845 (0.013)	0.878 (0.065)	0.850 (0.020)	0.903 (0.058)	0.887 (0.035)	0.893 (0.035)	0.900 (0.030)
Methionine	0.268 (0.015)	0.265 (0.017)	0.270 (0.027)	0.260 (0.012)	0.280 (0.020)	0.273 (0.021)	0.277 (0.012)	0.273 (0.006)
Threonine	0.663 (0.031)	0.627 (0.006)	0.663 (0.032)	0.623 (0.012)	0.670 (0.017)	0.653 (0.015)	0.667 (0.031)	0.670 (0.036)
Tryptophan	0.155 (0.010)	0.150 (0.016)	0.155 (0.021)	0.150 (0.008)	0.163 (0.015)	0.153 (0.012)	0.157 (0.015)	0.170 (0.010)
<i>Essential for children [% protein]</i>								
Tyrosine	0.375 (0.021)	0.363 (0.013)	0.375 (0.026)	0.358 (0.005)	0.387 (0.012)	0.380 (0.010)	0.383 (0.025)	0.390 (0.026)
Cysteine	0.298 (0.041)	0.295 (0.024)	0.303 (0.034)	0.290 (0.012)	0.320 (0.027)	0.300 (0.030)	0.313 (0.015)	0.303 (0.006)
<i>Semi-essential [% protein]</i>								
Histidine	0.365 (0.024)	0.353 (0.005)	0.365 (0.037)	0.353 (0.010)	0.380 (0.026)	0.373 (0.025)	0.377 (0.021)	0.380 (0.020)
Arginine	0.763 (0.046)	0.730 (0.016)	0.755 (0.066)	0.730 (0.022)	0.783 (0.051)	0.770 (0.060)	0.787 (0.047)	0.793 (0.047)
<i>Non-essential [% protein]</i>								
Asx	0.993 (0.047)	0.973 (0.015)	0.998 (0.072)	0.970 (0.021)	1.040 (0.069)	1.020 (0.028)	1.020 (0.056)	1.040 (0.044)
Serine	0.600 (0.044)	0.573 (0.013)	0.588 (0.039)	0.568 (0.015)	0.605 (0.012)	0.597 (0.006)	0.620 (0.036)	0.620 (0.044)
Glx	2.155 (0.209)	2.035 (0.013)	2.133 (0.225)	2.040 (0.086)	2.307 (0.189)	2.173 (0.200)	2.243 (0.145)	2.253 (0.119)
Proline	0.823 (0.113)	0.788 (0.034)	0.808 (0.090)	0.780 (0.054)	0.897 (0.081)	0.847 (0.067)	0.863 (0.076)	0.853 (0.046)
Glycine	0.713 (0.039)	0.690 (0.008)	0.710 (0.048)	0.693 (0.017)	0.747 (0.046)	0.727 (0.035)	0.740 (0.036)	0.740 (0.026)
Alanine	0.613 (0.026)	0.603 (0.005)	0.613 (0.039)	0.600 (0.016)	0.643 (0.040)	0.630 (0.040)	0.640 (0.036)	0.637 (0.021)

^a Values are means of four replicates, numbers in parentheses give the standard deviation. Ta: ambient soil temperature, Te: elevated soil temperature, Aa: ambient precipitation amount, Ar: reduced precipitation amount, Fa: ambient precipitation frequency, Fr: reduced precipitation frequency. Abbreviations: asx=asparagine/aspartic acid; glx=glutamine/glutamic acid; phe=phenylalanine.

Table S7. Total oil content (% dry weight), total fatty acid concentration (% oil) and the concentration of individual saturated fatty acids (% oil) in mature OSR seeds.^a

	Ta				Te			
	Aa		Ar		Aa		Ar	
	Fa	Fr	Fa	Fr	Fa	Fr	Fa	Fr
Total oil content [% DW]	52.850 (0.810)	52.675 (0.846)	52.250 (1.179)	53.125 (0.645)	52.100 (1.039)	52.133 (0.896)	51.767 (0.493)	51.133 (0.945)
Total fatty acids [% oil]	100.01 (0.01)	100.01 (0.01)	100.00 (0.02)	100.00 (0.00)	100.00 (0.01)	100.01 (0.01)	100.00 (0.01)	99.99 (0.02)
<i>Saturated fatty acids [% oil]</i>								
Capric a.	0.010 (0.000)	0.010 (0.000)	0.013 (0.005)	0.015 (0.006)	0.010 (0.000)	0.017 (0.006)	0.010 (0.000)	0.010 (0.000)
Lauric a.	0.013 (0.006)	0.010 (0.000)	0.015 (0.006)	0.018 (0.010)	0.013 (0.006)	0.017 (0.012)	0.020 (0.010)	0.010 (0.000)
Myristic a.	0.053 (0.005)	0.053 (0.005)	0.050 (0.008)	0.055 (0.006)	0.053 (0.006)	0.060 (0.010)	0.053 (0.006)	0.047 (0.006)
Pentadecyclic a.	0.025 (0.006)	0.028 (0.005)	0.025 (0.006)	0.023 (0.005)	0.030 (0.000)	0.027 (0.006)	0.030 (0.000)	0.027 (0.006)
Palmitic a.	4.370 (0.463)	4.623 (0.169)	4.423 (0.473)	4.817 (0.133)	4.727 (0.250)	4.503 (0.445)	4.420 (0.544)	4.510 (0.433)
Margaric a.	0.045 (0.010)	0.043 (0.005)	0.048 (0.010)	0.045 (0.010)	0.047 (0.006)	0.043 (0.006)	0.050 (0.010)	0.047 (0.006)
Stearic a.	2.085 (0.053)	2.115 (0.119)	2.020 (0.226)	2.153 (0.125)	2.160 (0.101)	2.047 (0.185)	1.873 (0.097)	2.023 (0.212)
Arachidic a.	0.583 (0.031)	0.570 (0.022)	0.580 (0.008)	0.570 (0.020)	0.577 (0.021)	0.570 (0.022)	0.590 (0.040)	0.610 (0.000)
Behenic a.	0.273 (0.013)	0.263 (0.006)	0.275 (0.017)	0.275 (0.017)	0.280 (0.026)	0.263 (0.006)	0.287 (0.006)	0.287 (0.006)
Lignoceric a.	0.118 (0.010)	0.108 (0.010)	0.100 (0.014)	0.108 (0.019)	0.103 (0.012)	0.108 (0.010)	0.100 (0.014)	0.130 (0.014)

^aValues are means of four replicates, numbers in parentheses give the standard deviation. Ta: ambient soil temperature, Te: elevated soil temperature, Aa: ambient precipitation amount, Ar: reduced precipitation amount, Fa: ambient precipitation frequency, Fr: reduced precipitation frequency. Abbreviations: DW=dry weight; a.=acid. Lipid numbers of the fatty acids: capric acid=C10:0; lauric acid=C12:0; myristic acid=C14:0; pentadecyclic acid=C15:0; palmitic acid=C16:0; margaric acid=C17:0; stearic acid=C18:0; arachidic acid=C20:0; behenic acid=C22:0; lignoceric acid=C24:0.

Table S8. Total and saturated fatty acid concentration (% dry weight) in mature OSR seeds.^a

	Ta				Te			
	.Aa		.Ar		.Aa		.Ar	
	Fa	Fr	Fa	Fr	Fa	Fr	Fa	Fr
Total fatty acids	52.844	52.628	52.127	52.701	52.098	52.100	51.758	51.127
[% DW]	(0.825)	(0.774)	(1.414)	(1.234)	(1.033)	(0.866)	(0.480)	(0.948)
<i>Saturated fatty acids [% DW]</i>								
Capric a.	0.005	0.005	0.007	0.008	0.004	0.009	0.004	0.004
	(0.000)	(0.000)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.000)
Lauric a.	0.005	0.005	0.008	0.009	0.007	0.009	0.010	0.005
	(0.004)	(0.000)	(0.003)	(0.005)	(0.004)	(0.006)	(0.005)	(0.000)
Myristic a.	0.028	0.028	0.026	0.029	0.028	0.031	0.028	0.024
	(0.003)	(0.003)	(0.005)	(0.003)	(0.003)	(0.006)	(0.003)	(0.003)
Pentade- cyclic a.	0.013	0.015	0.013	0.012	0.016	0.014	0.016	0.014
	(0.003)	(0.003)	(0.003)	(0.003)	(0.000)	(0.003)	(0.000)	(0.003)
Palmitic a.	2.311	2.435	2.314	1.924	2.463	2.349	2.290	2.307
	(0.269)	(0.112)	(0.283)	(1.284)	(0.139)	(0.250)	(0.299)	(0.237)
Margaric a.	0.024	0.022	0.025	0.024	0.024	0.023	0.026	0.024
	(0.006)	(0.003)	(0.005)	(0.005)	(0.003)	(0.003)	(0.005)	(0.003)
Stearic a.	1.102	1.114	1.057	1.143	1.126	1.068	0.969	1.034
	(0.040)	(0.056)	(0.136)	(0.053)	(0.071)	(0.112)	(0.041)	(0.103)
Arachidic a.	0.308	0.300	0.303	0.303	0.300	0.308	0.305	0.312
	(0.019)	(0.009)	(0.009)	(0.010)	(0.014)	(0.010)	(0.021)	(0.006)
Behenic a.	0.144	0.103	0.144	0.146	0.146	0.095	0.148	0.147
	(0.007)	(0.069)	(0.010)	(0.009)	(0.016)	(0.083)	(0.003)	(0.005)
Lignoceric a.	0.062	0.057	0.052	0.057	0.054	0.056	0.040	0.067
	(0.028)	(0.004)	(0.006)	(0.010)	(0.006)	(0.004)	(0.034)	(0.009)

^aValues are means of four replicates, numbers in parentheses give the standard deviation. Ta: ambient soil temperature, Te: elevated soil temperature, Aa: ambient precipitation amount, Ar: reduced precipitation amount, Fa: ambient precipitation frequency, Fr: reduced precipitation frequency. Abbreviations: DW=dry weight; a.=acid. Lipid numbers of the fatty acids: capric acid=C10:0; lauric acid=C12:0; myristic acid=C14:0; pentadecyclic acid=C15:0; palmitic acid=C16:0; margaric acid=C17:0; stearic acid=C18:0; arachidic acid=C20:0; behenic acid=C22:0; lignoceric acid=C24:0.

Table S9. Concentration of the unsaturated fatty acids: oleic acid, linoleic acid and linolenic acid (in % oil and in % dry weight) in mature OSR seeds.^a

	T _a				T _e			
	A _a	A _r	A _a	A _r	A _a	A _r	A _a	A _r
	F _a	F _r	F _a	F _r	F _a	F _r	F _a	F _r
<i>Unsaturated fatty acids [% oil]</i>								
Oleic a.	65.933 (0.671)	65.550 (0.436)	65.673 (0.243)	65.788 (0.465)	65.407 (0.621)	65.873 (0.244)	65.943 (0.398)	65.887 (0.0757)
Linoleic a.	17.545 (0.081)	17.755 (0.185)	17.915 (0.468)	17.663 (0.301)	17.650 (0.599)	17.690 (0.478)	17.720 (0.330)	17.570 (0.321)
Linolenic a.	7.960 (0.256)	7.615 (0.168)	7.613 (0.282)	7.648 (0.258)	7.710 (0.159)	7.557 (0.241)	7.680 (0.184)	7.633 (0.270)
<i>Unsaturated fatty acids [% DW]</i>								
Oleic a.	34.843 (0.419)	34.526 (0.366)	34.316 (0.884)	34.950 (0.551)	34.081 (0.999)	34.343 (0.684)	34.136 (0.345)	33.690 (0.646)
Linoleic a.	9.273 (0.165)	9.354 (0.241)	9.357 (0.087)	9.382 (0.108)	9.192 (0.126)	9.220 (0.166)	9.173 (0.163)	8.983 (0.135)
Linolenic a.	4.065 (0.161)	4.012 (0.151)	3.976 (0.093)	4.062 (0.130)	4.016 (0.069)	3.939 (0.113)	3.975 (0.075)	3.904 (0.169)

^aValues are means of four replicates, numbers in parentheses give the standard deviation. T_a: ambient soil temperature, T_e: elevated soil temperature, A_a: ambient precipitation amount, A_r: reduced precipitation amount, F_a: ambient precipitation frequency, F_r: reduced precipitation frequency. Abbreviations: DW=dry weight; a.=acid. Lipid numbers of the fatty acids: oleic acid=C18:1n9c; linoleic acid=C18:2n6c; linolenic acid=C18:3n3.

Table S10. Concentration of total and individual glucosinolates in mature OSR seeds.^a

	T _a				T _e			
	A _a		A _r		A _a		A _r	
	F _a	F _r	F _a	F _r	F _a	F _r	F _a	F _r
Total glucosinolates	10.904	10.188	11.323	10.798	13.770	12.114	11.674	13.013
	(1.212)	(0.679)	(2.475)	(0.965)	(2.924)	(3.421)	(1.952)	(2.447)
<i>[μmol g⁻¹ DW]</i>								
<i>Individual glucosinolates [μmol g⁻¹ DW]</i>								
Gluconasturtiin	0.069	0.060	0.080	0.075	0.059	0.044	0.049	0.064
	(0.006)	(0.005)	(0.014)	(0.009)	(0.014)	(0.020)	(0.026)	(0.012)
Glucobrteroin	0.038	0.037	0.048	0.043	0.036	0.030	0.030	0.038
	(0.009)	(0.005)	(0.010)	(0.007)	(0.010)	(0.009)	(0.009)	(0.012)
Glucoerucin	0.081	0.080	0.078	0.076	0.101	0.099	0.075	0.105
	(0.024)	(0.026)	(0.035)	(0.029)	(0.011)	(0.002)	(0.014)	(0.009)
Progoitrin	3.534	3.154	3.748	3.456	4.567	3.973	4.002	4.422
	(0.280)	(0.269)	(1.029)	(0.278)	(1.184)	(1.409)	(1.138)	(1.298)
Epiprogoitrin	0.071	0.064	0.076	0.070	0.082	0.074	0.078	0.083
	(0.005)	(0.005)	(0.019)	(0.006)	(0.018)	(0.020)	(0.018)	(0.020)
Gluconapoleiferin	0.301	0.316	0.354	0.337	0.630	0.565	0.435	0.578
	(0.124)	(0.093)	(0.109)	(0.127)	(0.294)	(0.331)	(0.222)	(0.238)
Glucoalysin	0.137	0.119	0.148	0.123	0.135	0.136	0.104	0.142
	(0.046)	(0.014)	(0.093)	(0.017)	(0.046)	(0.072)	(0.037)	(0.045)
Gluconapin	2.103	1.841	2.103	2.037	2.616	2.116	2.116	2.479
	(0.202)	(0.104)	(0.665)	(0.348)	(0.683)	(0.593)	(0.347)	(0.589)
4-Hydroxygluco-brassicin	3.569	3.575	3.682	3.604	3.631	3.386	3.752	3.703
	(0.432)	(0.109)	(0.281)	(0.117)	(0.243)	(0.250)	(0.308)	(0.376)
Glucobrassicinapin	0.701	0.641	0.659	0.701	1.456	1.411	0.736	1.023
	(0.290)	(0.176)	(0.228)	(0.222)	(0.744)	(1.184)	(0.467)	(0.527)
Glucobrassicin	0.101	0.098	0.099	0.082	0.150	0.081	0.128	0.115
	(0.029)	(0.035)	(0.033)	(0.029)	(0.041)	(0.003)	(0.037)	(0.014)
4-Methoxygluco-brassicin	0.015	0.011	0.011	0.011	0.019	0.017	0.017	0.018
	(0.007)	(0.010)	(0.010)	(0.009)	(/)	(/)	(/)	(0.005)
1-Methoxygluco-brassicin	0.136	0.145	0.130	0.134	0.151	0.136	0.112	0.121
	(0.033)	(0.037)	(0.017)	(0.042)	(0.052)	(0.015)	(0.070)	(0.014)

^aValues are means of four replicates, numbers in parentheses give the standard deviation. The “/” indicates that no standard deviation is calculated because only one value is available after outlier elimination (Grubb’s Test). T_a: ambient soil temperature, T_e: elevated soil temperature, A_a: ambient precipitation amount, A_r: reduced precipitation amount, F_a: ambient precipitation frequency, F_r: reduced precipitation frequency. Abbreviation: DW=dry weight.