Effects of Pre-Anthesis Drought, Heat and Their Combination on the Growth, Yield and Physiology of diverse Wheat (*Triticum aestivum* L.) Genotypes Varying in Sensitivity to Heat and drought stress.

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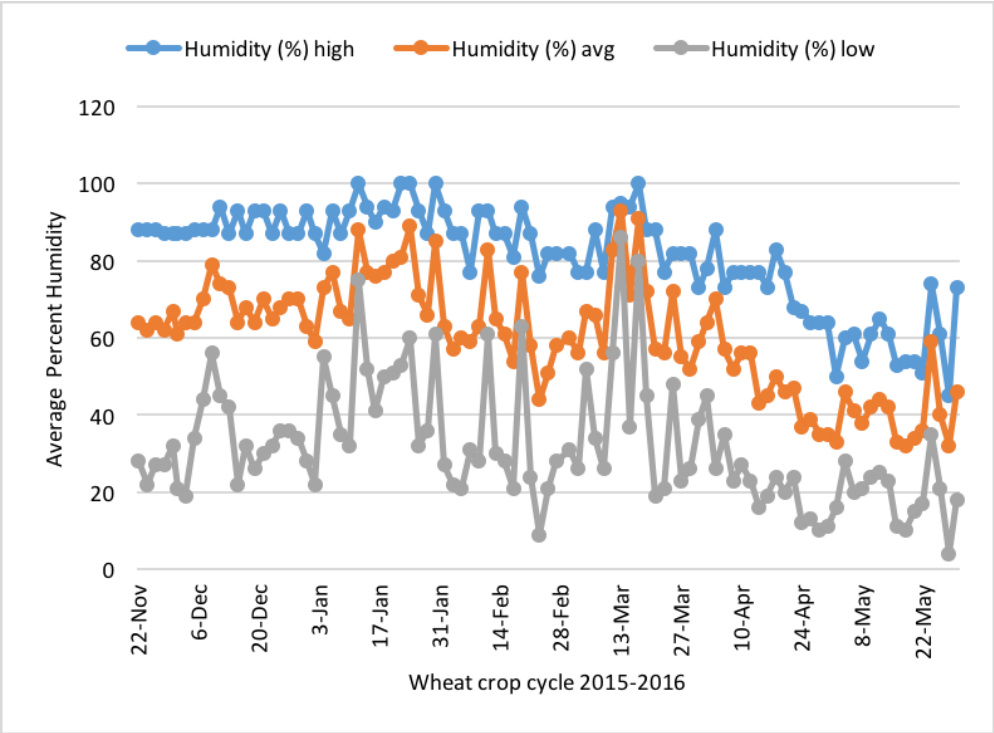


Figure S1. Minimum, Maximum and average temperature of trial location during two cropping seasons 2015-2016

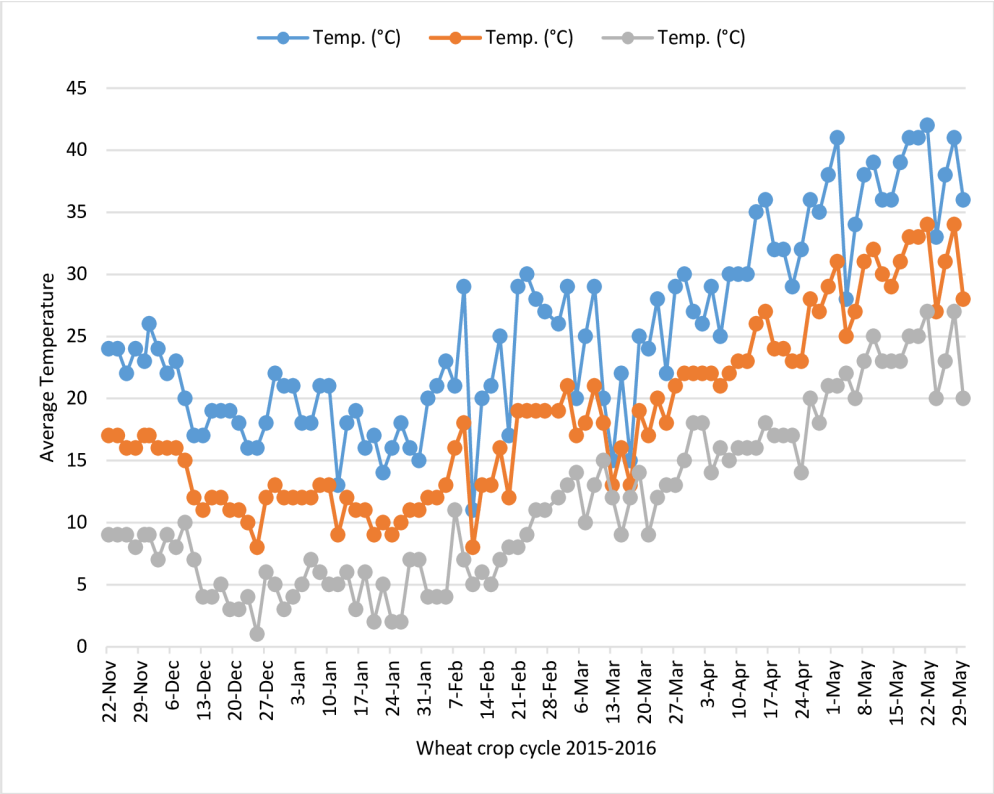


Figure S2. Minimum, Maximum and average precipitation of trial location during two cropping seasons 2015-2016

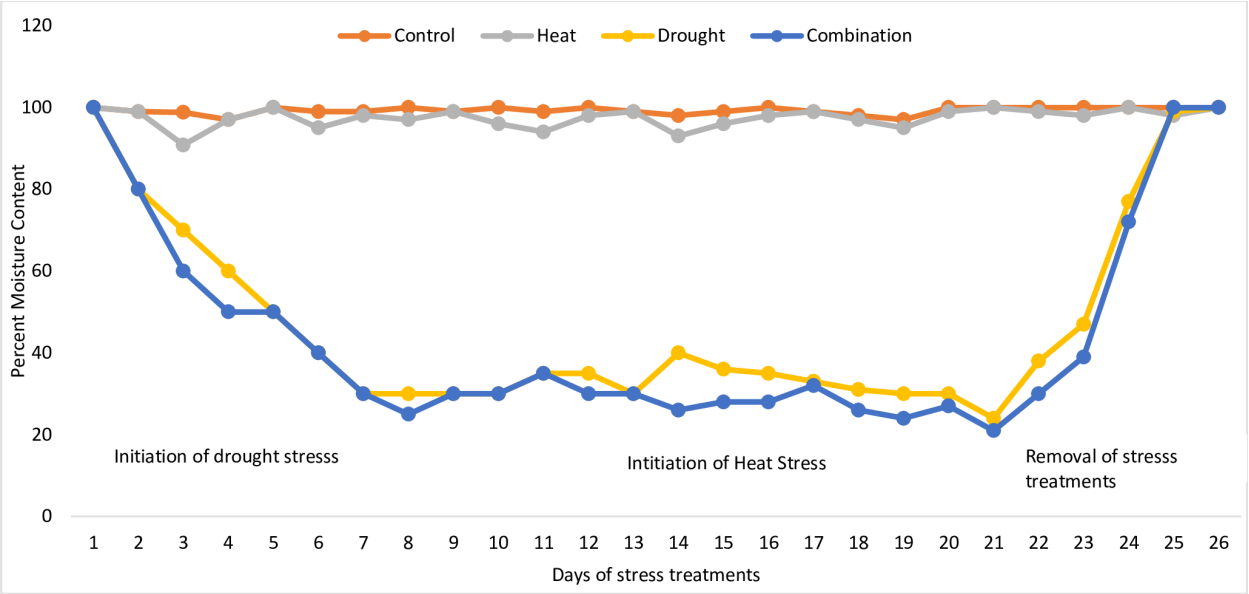


Figure S3. Soil moisture content during the drought treatment, heat treatment period and post-stress period calculated as the mean of the pots planted with the three plants

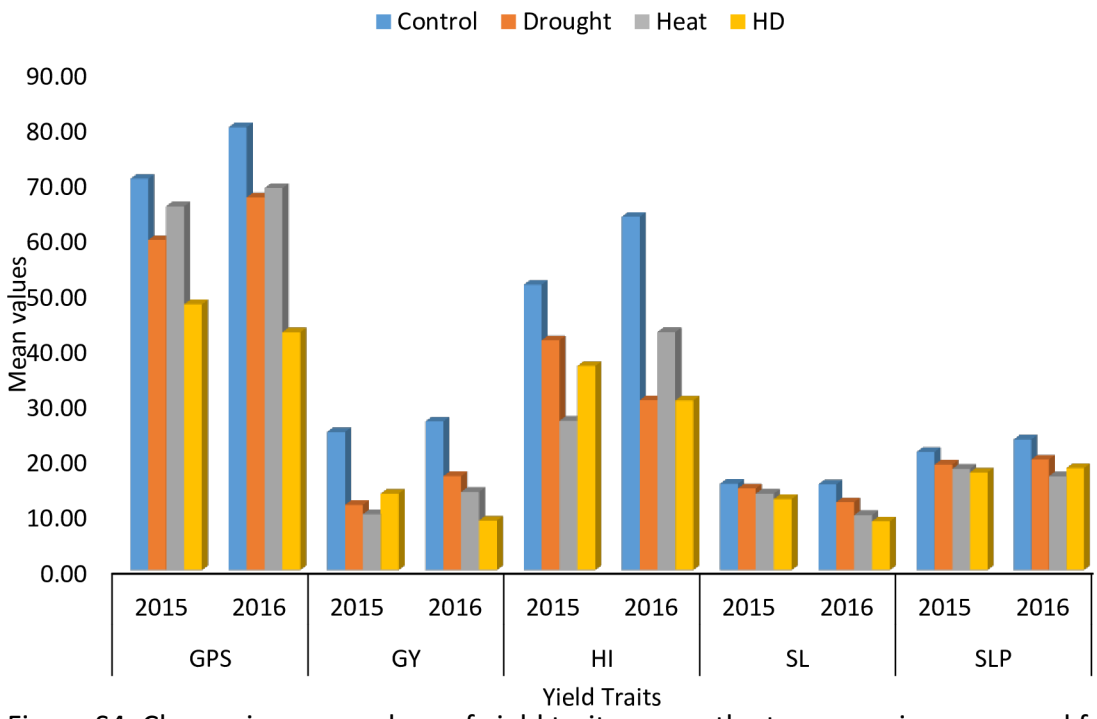


Figure S4: Change in mean values of yield traits across the two cropping years and four stress treatments i.e. [C], [D], [H] and [HD].

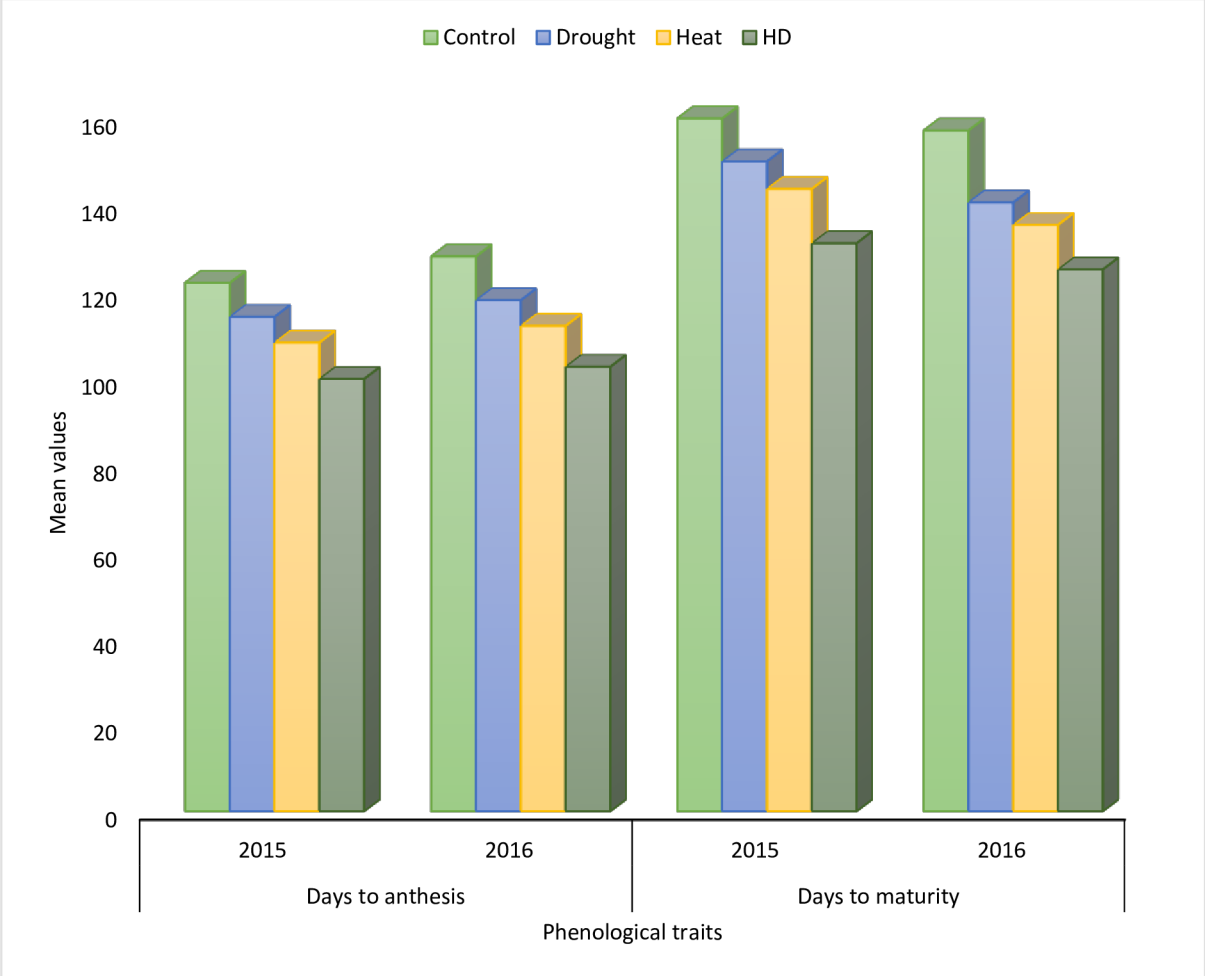


Figure S5: Change in mean values of Phenological traits across the two cropping years and four stress treatments i.e. [C], [D], [H] and [HD].

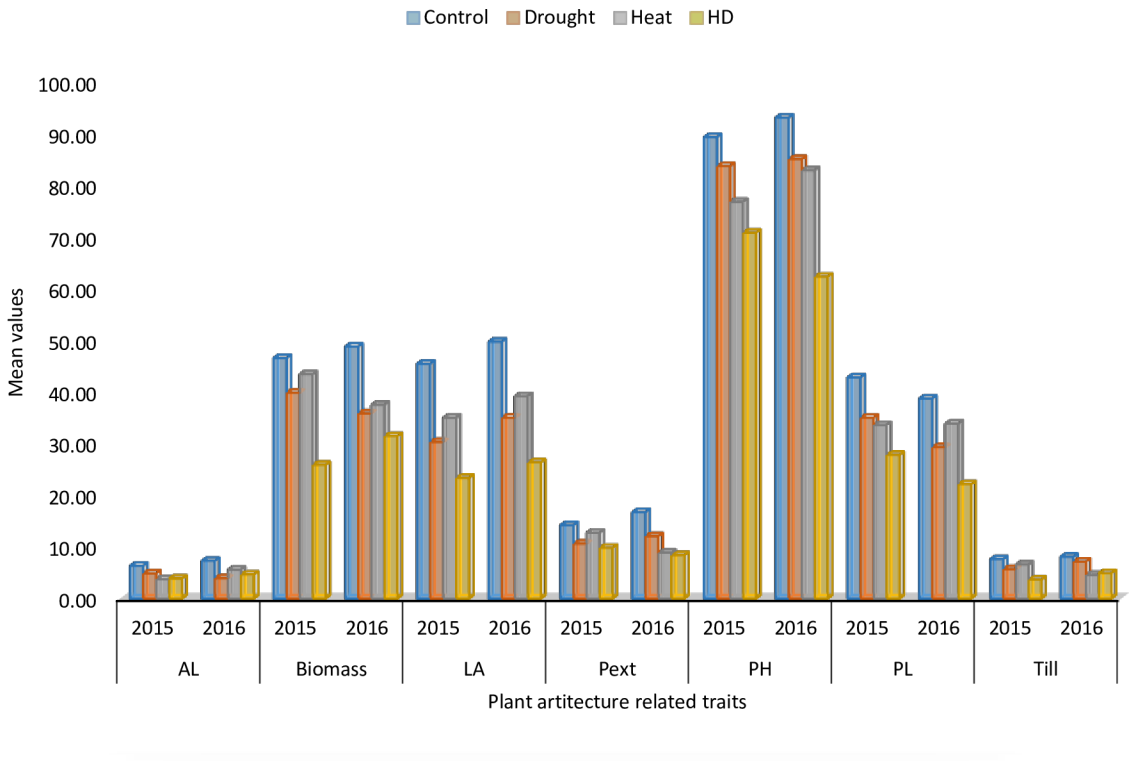


Figure S6: Change in mean values of plant architecture related traits across the two cropping years and four stress treatments i.e. [C], [D], [H] and [HD].

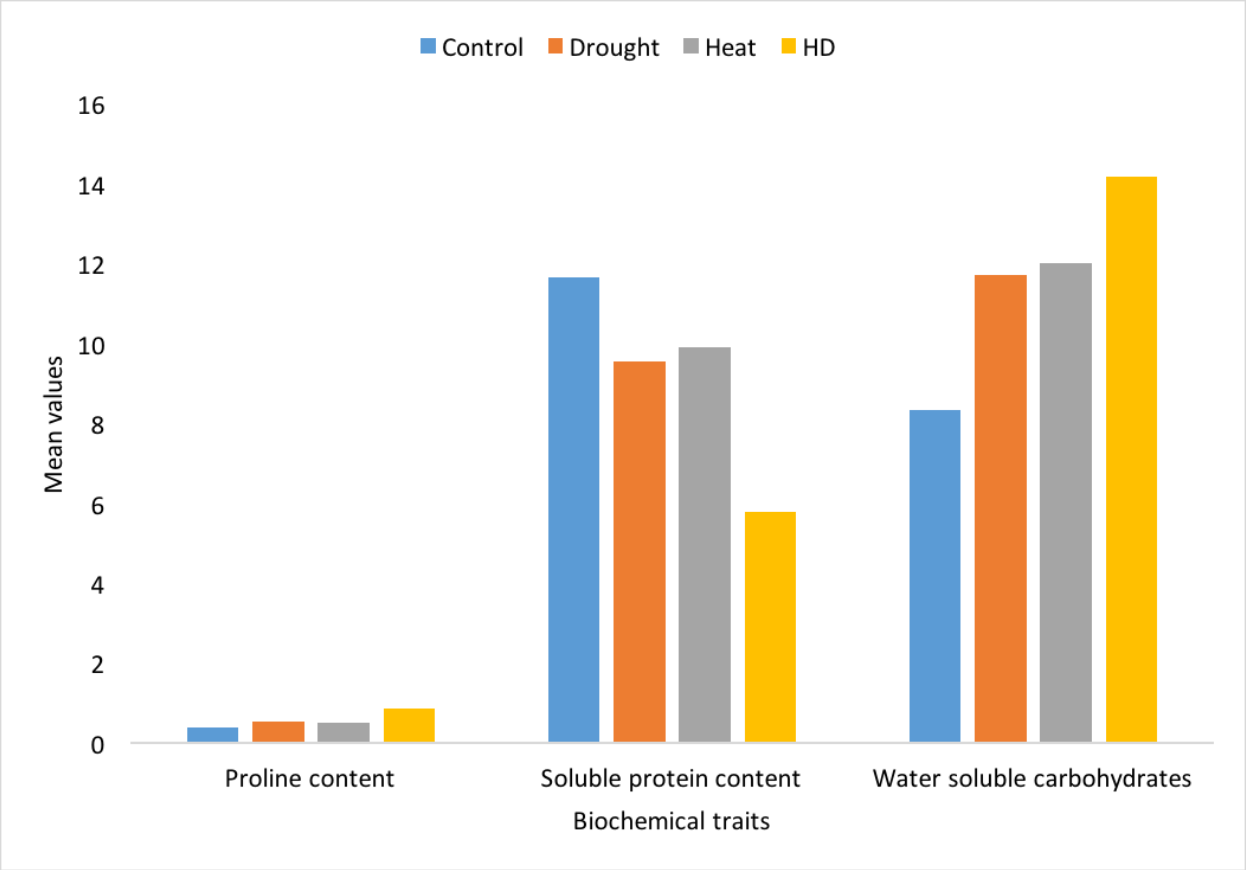


Figure S7: Change in mean values of Biochemical traits against four stress treatments i.e. [C], [D], [H] and [HD].

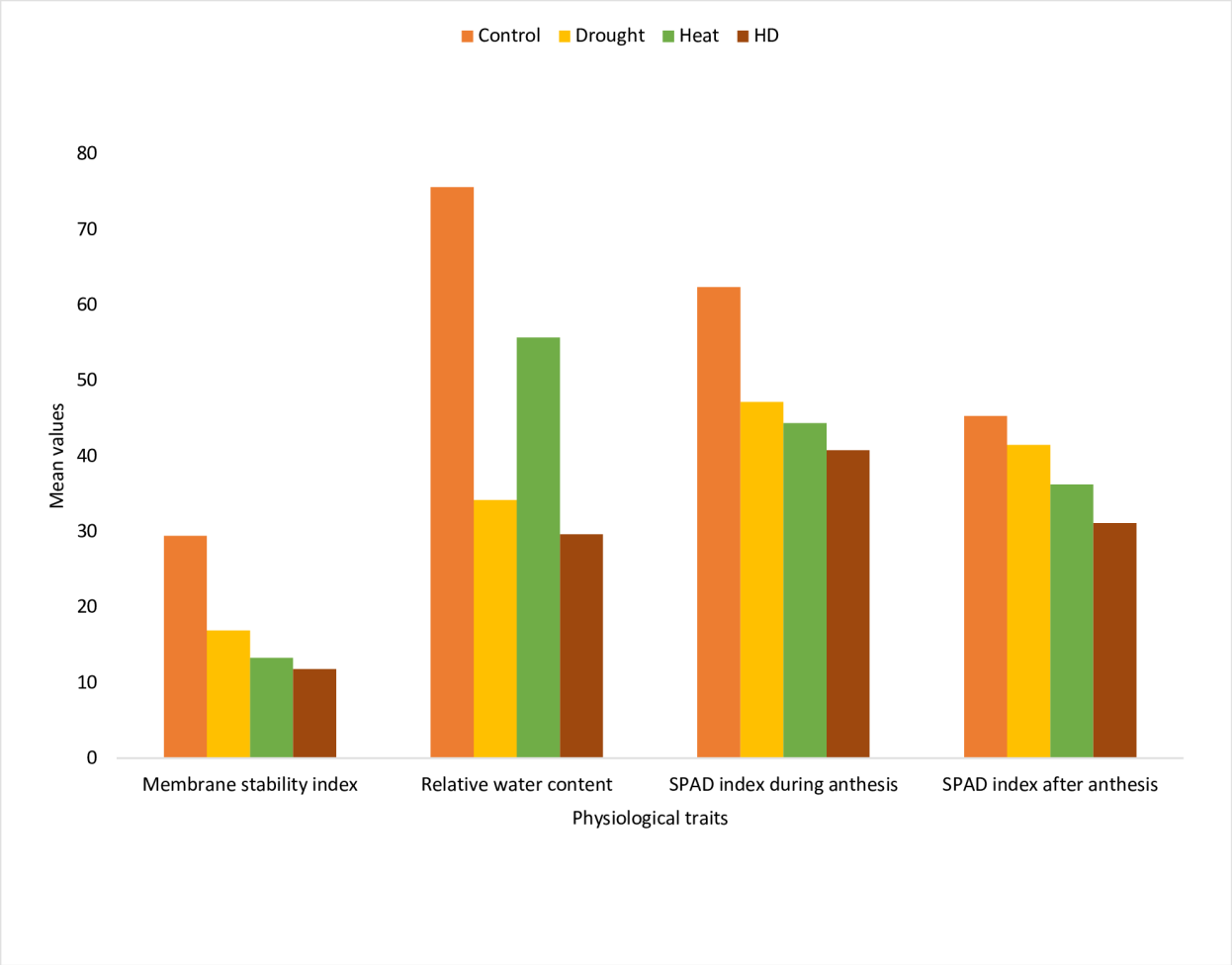
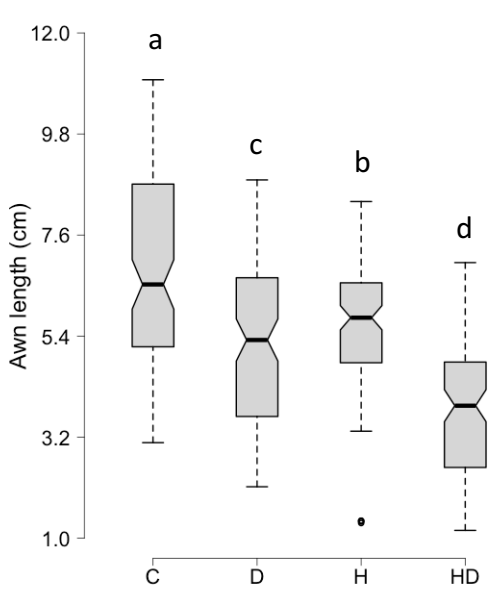
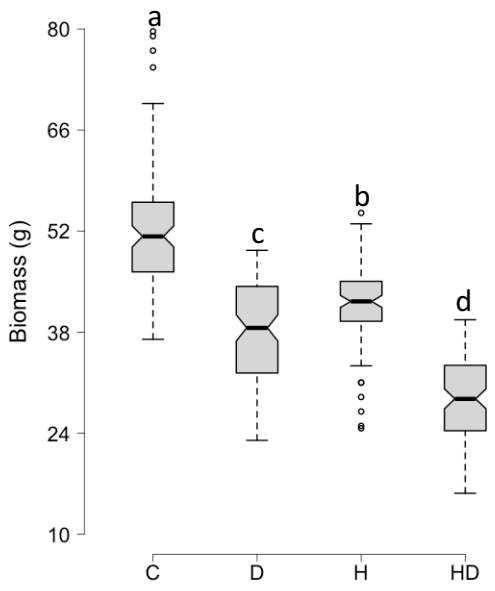
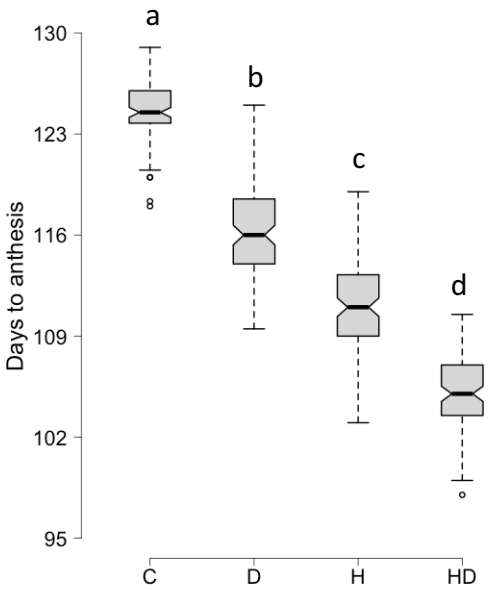


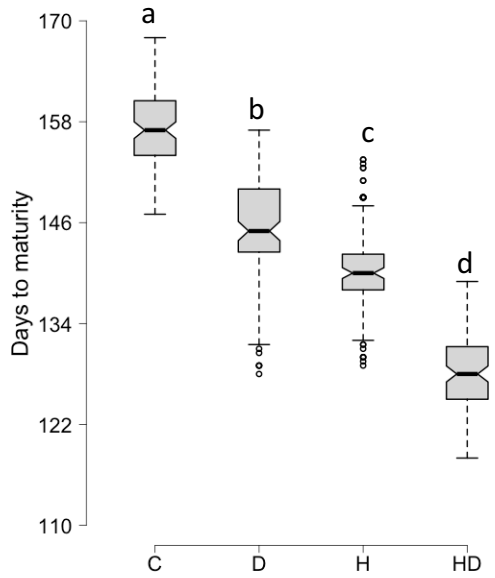
Figure S8: Change in mean values of physiological traits against four stress treatments i.e. [C], [D], [H] and [HD].

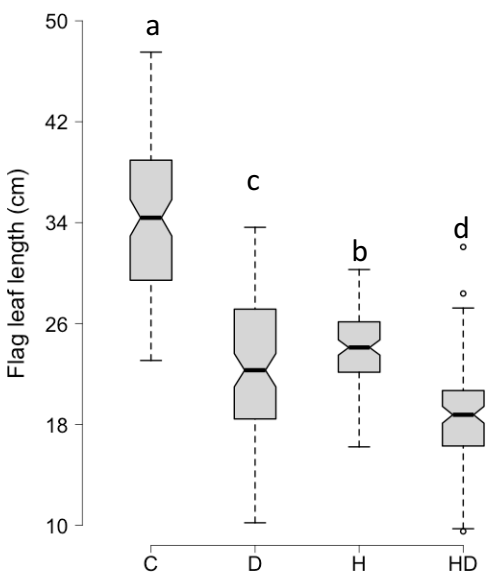
Appendix 1: Effect of Heat and drought stress on agro-physiological traits C: Control D: Drought, H: Heat, HD Combined Drought and Heat stress
Alphabetic letters: LSD groups

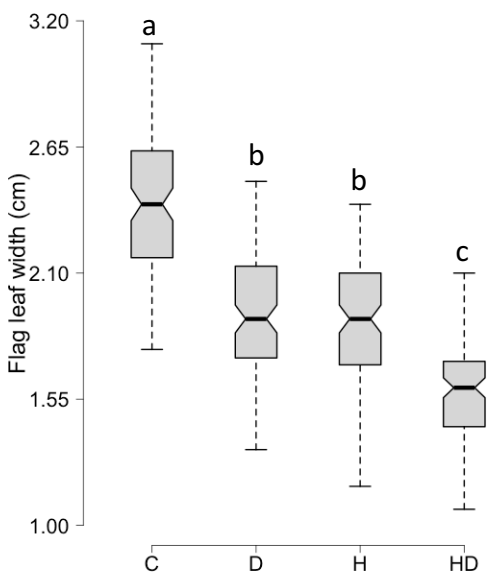


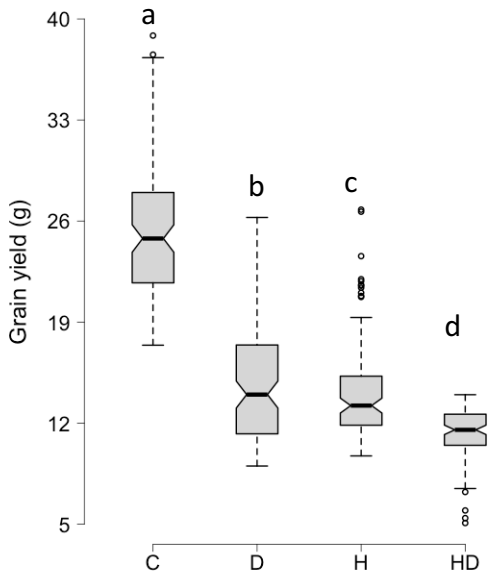


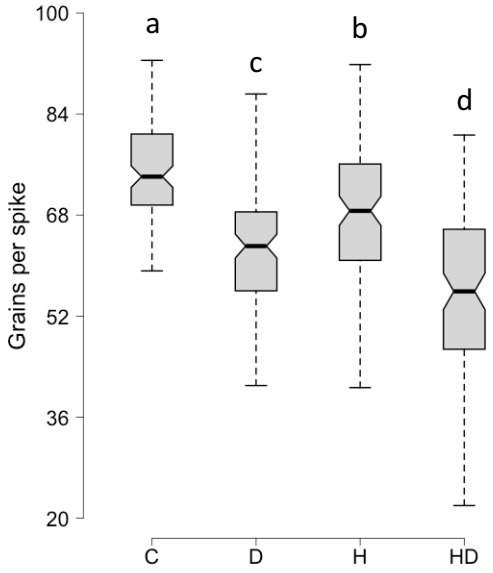


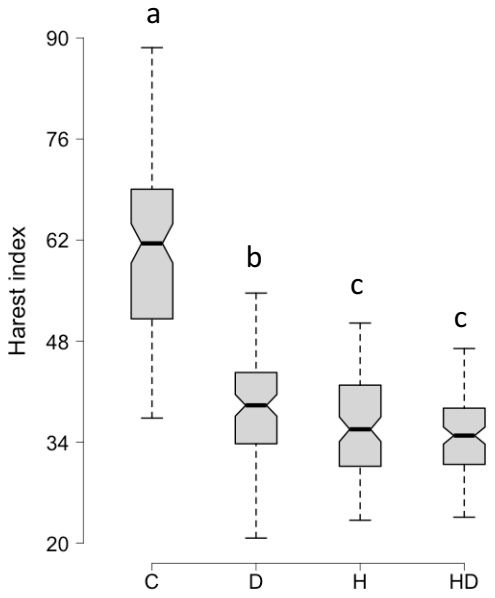


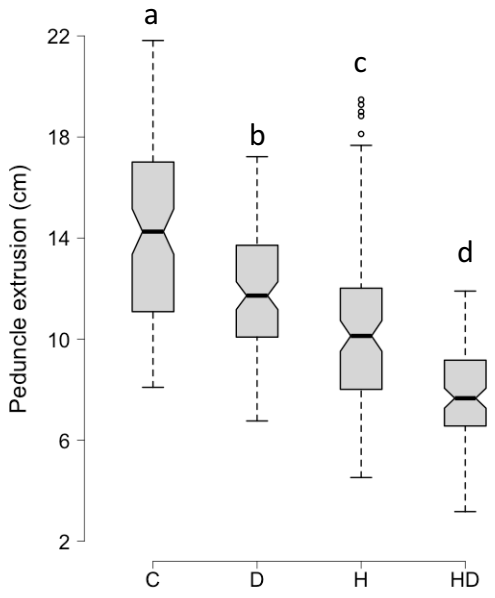


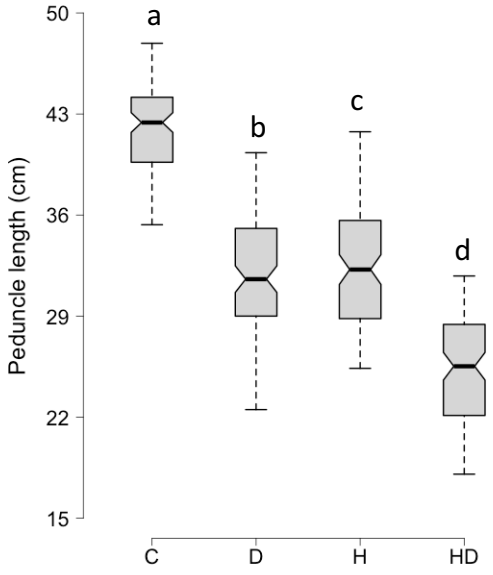


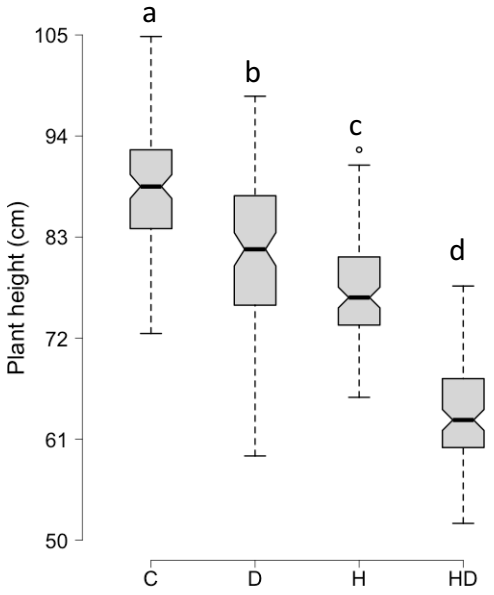

Grain yield (g)
40
33
26
19
12
5
a
b
c
d
C
D
H
HD

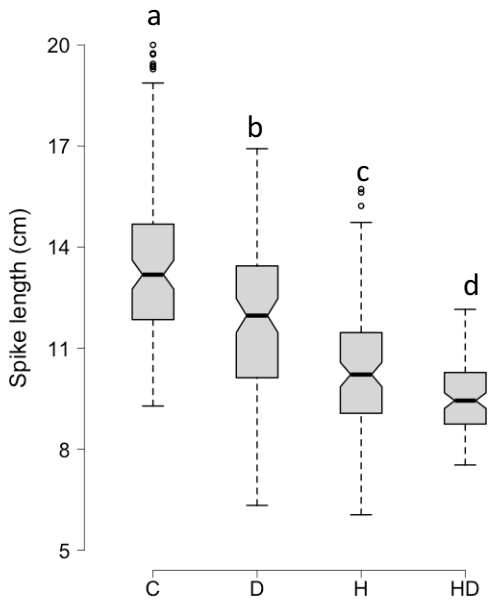

Grains per spike
100
84
68
52
36
20
a
c
b
d
C
D
H
HD

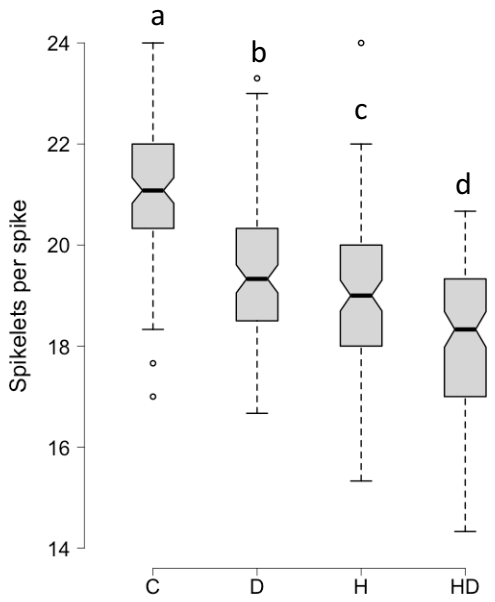

Harest index
90
76
62
48
34
20
a
b
c
c
C
D
H
HD

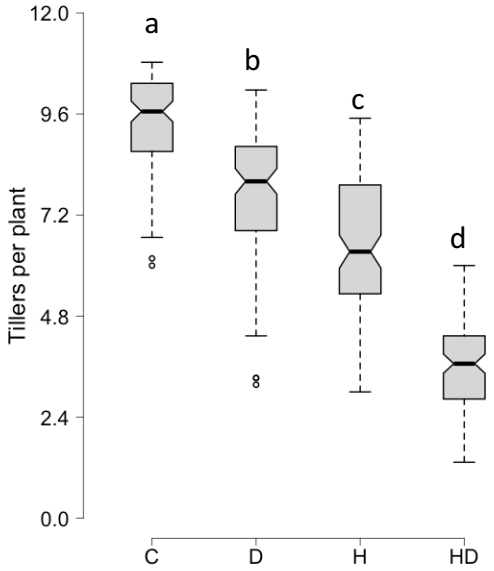

Peduncle extrusion (cm)
22
18
14
10
6
2
a
b
c
d
C
D
H
HD

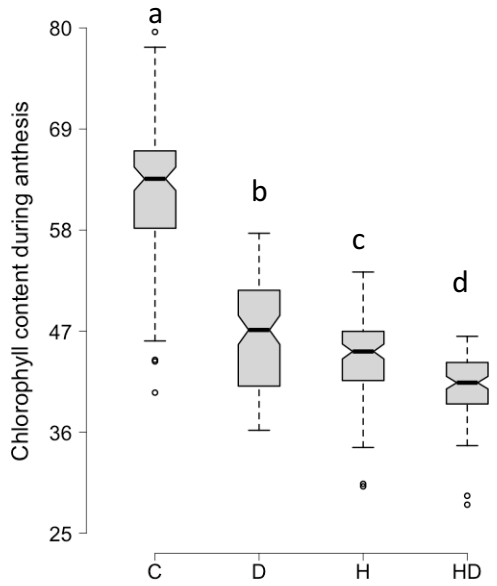

Peduncle length (cm)
50
43
36
29
22
15
a
b
c
d
C
D
H
HD

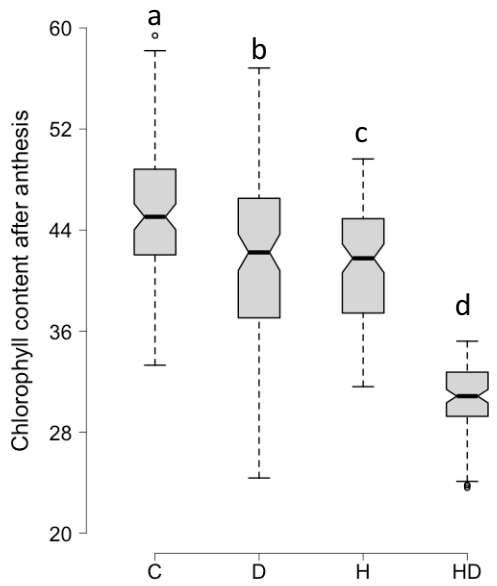

Plant height (cm)
105
94
83
72
61
50
a
b
c
d
C
D
H
HD

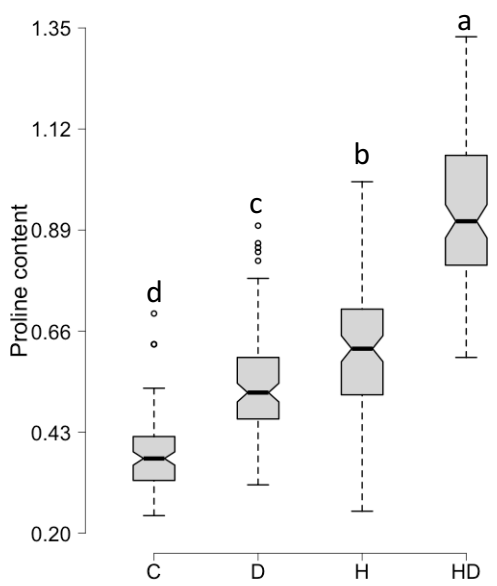

Spike length (cm)
20
17
14
11
8
5
a
b
c
d
C
D
H
HD

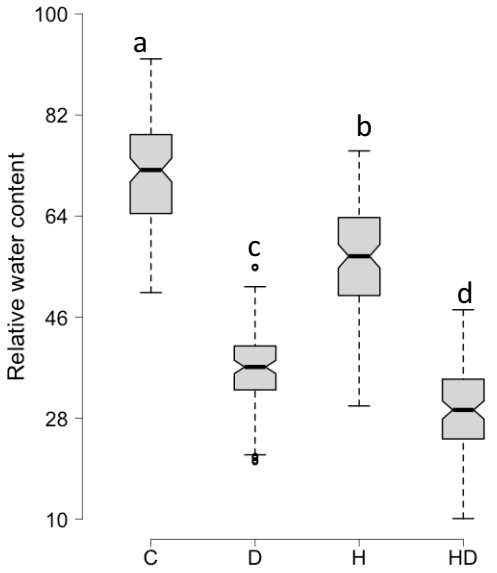

Spikelets per spike
24
22
20
18
16
14
a
b
c
d
C
D
H
HD

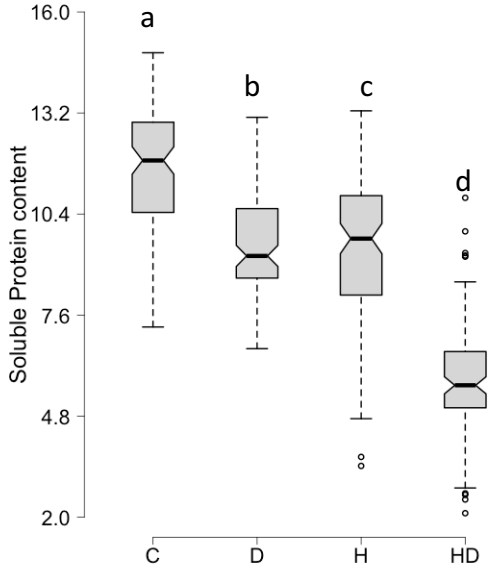

Tillers per plant
12.0
9.6
7.2
4.8
2.4
0.0
a
b
c
d
C
D
H
HD

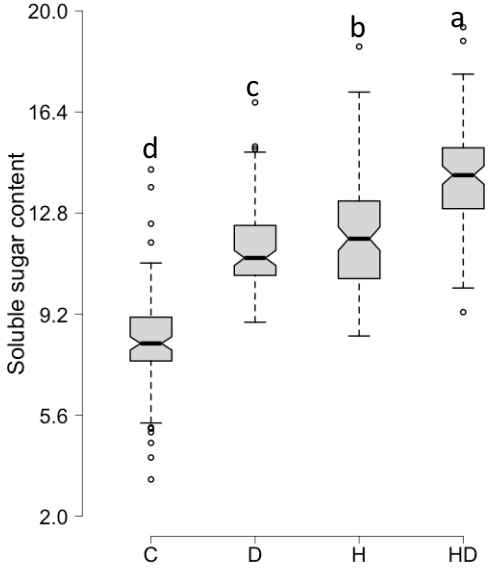

Chlorophyll content during anthesis
80
69
58
47
36
25
a
b
c
d
C
D
H
HD


Chlorophyll content after anthesis
60
52
44
36
28
20
a
b
c
d
C
D
H
HD


Proline content
1.35
1.12
0.89
0.66
0.43
0.20
d
c
b
a
C
D
H
HD


Relative water content
100
82
64
46
28
10
a
c
b
d
C
D
H
HD


Soluble Protein content
16.0
13.2
10.4
7.6
4.8
2.0
a
b
c
d
C
D
H
HD


Soluble sugar content
20.0
16.4
12.8
9.2
5.6
2.0
d
c
b
a
C
D
H
HD