

## ANOVA tables of WCR preference and acceptance experiments

### Fig. 1 and Fig. S1

Fig. 1A and fig. S1A

Response: larva

	Chisq	Df	Pr(>Chisq)
plant	108.0639	1	<2e-16 ***
time	0.8069	3	0.8478
plant:time	2.1185	3	0.5482

fig. S1B

Response: larva

	Chisq	Df	Pr(>Chisq)
plant	15.5935	1	7.852e-05 ***
time	1.9055	3	0.5923
plant:time	5.1942	3	0.1581

Fig. 1B and fig. S1C

Response: larva

	Chisq	Df	Pr(>Chisq)
plant	17.0214	1	3.696e-05 ***
time	0.3248	3	0.9553
plant:time	1.1472	3	0.7657

Fig. 1C and fig. S1D

Response: larva

	Chisq	Df	Pr(>Chisq)
plant	41.0336	1	1.496e-10 ***
time	2.8719	3	0.4118
plant:time	4.1736	3	0.2433

Fig. 1D and fig. S1E

Response: larva

	Chisq	Df	Pr(>Chisq)
plant	31.4043	1	2.095e-08 ***
time	0.1827	3	0.9803
plant:time	4.4845	3	0.2137

Fig. 1E and fig. S1F

Response: larva

	Chisq	Df	Pr(>Chisq)
plant	28.2755	1	1.052e-07 ***
time	2.0286	3	0.5665
plant:time	5.6343	3	0.1308

### Fig. S2A and Fig. S3

Fig. S2A and Fig. S3A

B73 crown vs B73 primary

Response: larva

	Chisq	Df	Pr(>Chisq)
root	72.1931	1	<2e-16 ***
time	5.9973	3	0.1117
root:time	1.4944	3	0.6836

*bx1* crown vs *bx1* primary

Response: larva

	Chisq	Df	Pr(>Chisq)
root	0.0669	1	0.7958
time	2.1956	3	0.5328
root:time	0.2842	3	0.9630

Fig. S2A and Fig. S3B

W22 crown vs W22 primary

Response: larva

	Chisq	Df	Pr(>Chisq)
root	45.5258	1	1.506e-11 ***
time	0.0956	3	0.9924
root:time	2.4841	3	0.4782

*bx1*/W22 crown vs *bx1*/W22 primary

Response: larva

	Chisq	Df	Pr(>Chisq)
root	1.3419	1	0.2467
time	0.0842	3	0.9937
root:time	0.4160	3	0.9369

Fig. S2A and Fig. S3C

W22 crown vs W22 primary

Response: larva

	Chisq	Df	Pr(>Chisq)
root	19.5949	1	9.572e-06 ***

time	0.0765	3	0.9945
root:time	3.3853	3	0.3359

*bx2/W22* crown vs *bx2/W22* primary

Response: larva

	Chisq	Df	Pr(>Chisq)
root	0.4828	1	0.4871
time	0.4406	3	0.9317
root:time	0.4591	3	0.9278

Fig. S2A and Fig. S3D

W22 crown vs W22 primary

Response: larva

	Chisq	Df	Pr(>Chisq)
root	37.319	1	1.003e-09 ***
time	1.598	3	0.6599
root:time	1.184	3	0.7568

*bx6/W22* crown vs *bx6/W22* primary

Response: larva

	Chisq	Df	Pr(>Chisq)
root	1.4451	1	0.2293
time	4.7908	3	0.1878
root:time	0.2545	3	0.9683

Fig. S2A and Fig. S3E

B104 crown vs B104 primary

Response: larva

	Chisq	Df	Pr(>Chisq)
root	108.6728	1	<2e-16 ***
time	1.2215	3	0.7478
root:time	3.2075	3	0.3607

*Bx12oe* crown vs *Bx12oe* primary

Response: larva

	Chisq	Df	Pr(>Chisq)
root	1.3771	1	0.2406
time	0.1449	3	0.9860
root:time	1.1332	3	0.7691

Fig. S2A and Fig. S3F

B73NIL crown vs B73NIL primary

Response: larva

	Chisq	Df	Pr(>Chisq)
root	74.8092	1	< 2e-16 ***
time	8.5030	3	0.03668 *
root:time	4.7152	3	0.19388

*bx13* crown vs *bx13* primary

Response: larva

	Chisq	Df	Pr(>Chisq)
root	65.0666	1	7.241e-16 ***
time	5.5204	3	0.13742
root:time	11.2010	3	0.01069 *

**Fig. 2A, B, D, Fig. S4 and Fig. S9**

Fig. 2A and Fig. S4A

Response: larva

	Chisq	Df	Pr(>Chisq)
treat	0.1478	1	0.7006
time	0.9739	4	0.9137
treat:time	0.9269	4	0.9207

Fig. 2B and Fig. S4B

Response: larva

	Chisq	Df	Pr(>Chisq)
treat	0.1242	1	0.7246
time	3.4946	4	0.4787
treat:time	1.3094	4	0.8598

Fig. S4C

Response: larva

	Chisq	Df	Pr(>Chisq)
treat	2.6205	1	0.1055
time	1.3003	4	0.8613
treat:time	2.9949	4	0.5587

Fig. S9A

Response: larva

	Chisq	Df	Pr(>Chisq)
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treat	67.1657	1	2.496e-16 ***
time	0.0960	4	0.9989
treat:time	4.5032	4	0.3422

Fig. S9B

Response: larva

	Chisq	Df	Pr(>Chisq)
treat	65.5625	1	5.63e-16 ***
time	0.0542	4	0.9996
treat:time	0.4900	4	0.9745

Fig. S9C

Response: larva

	Chisq	Df	Pr(>Chisq)
treat	75.9314	1	<2e-16 ***
time	1.5270	4	0.8219
treat:time	2.9866	4	0.5601

Fig. 2D and Fig. S9D

Response: larva

	Chisq	Df	Pr(>Chisq)
treat	30.0463	1	4.219e-08 ***
time	0.2006	4	0.9953
treat:time	0.3587	4	0.9857

Fig. 2D and Fig. SS9E

Response: larva

	Chisq	Df	Pr(>Chisq)
treat	30.6438	1	3.1e-08 ***
time	0.8105	4	0.9370
treat:time	3.7622	4	0.4391

Fig. 2D and Fig. S9F

Response: larva

	Chisq	Df	Pr(>Chisq)
treat	23.5059	1	1.245e-06 ***
time	1.7715	4	0.7777
treat:time	1.4167	4	0.8413

Fig. 2D and Fig. S9G

Response: larva

	Chisq	Df	Pr(>Chisq)
treat	1.5861	1	0.2079
time	0.7055	4	0.9506
treat:time	0.2062	4	0.9950

Fig. S9H

Response: larva

	Chisq	Df	Pr(>Chisq)
treat	3.4065	1	0.06494 .
time	3.7101	4	0.44667
treat:time	1.1252	4	0.89025

Fig. S9I

Response: larva

	Chisq	Df	Pr(>Chisq)
treat	0.0086	1	0.9260
time	0.3504	4	0.9863
treat:time	2.8937	4	0.5758

Fig. S9J

Response: larva

	Chisq	Df	Pr(>Chisq)
treat	0.0871	1	0.7680
time	0.4194	4	0.9809
treat:time	1.6546	4	0.7989

Fig. S9K

Response: larva

	Chisq	Df	Pr(>Chisq)
treat	0.1998	1	0.6549
time	1.7813	4	0.7759
treat:time	1.3995	4	0.8443

Fig. S9L

Response: larva

	Chisq	Df	Pr(>Chisq)
treat	0.0022	1	0.9627
time	1.9477	4	0.7454
treat:time	2.4206	4	0.6589

**Fig. 2F**WT + H<sub>2</sub>O vs *bx1* + H<sub>2</sub>O

Response: larva

	Chisq	Df	Pr(>Chisq)
treat	9.6202	1	0.001925 **

WT + H<sub>2</sub>O vs *bx1* + Fe(III)(DIMBOA)<sub>3</sub>

Response: larva

	Chisq	Df	Pr(>Chisq)
treat	0.0833	1	0.7729

*bx1* + H<sub>2</sub>O vs *bx1* + Fe(III)(DIMBOA)<sub>3</sub>

Response: larva

	Chisq	Df	Pr(>Chisq)
treat	4.1233	1	0.0423 *

**Fig. S10**

Fig. S10A

Response: larva

	Chisq	Df	Pr(>Chisq)
treat	27.0190	1	2.015e-07 ***
time	4.3062	4	0.3661
treat:time	0.7091	4	0.9502

Fig. S10B

Response: larva

	Chisq	Df	Pr(>Chisq)
treat	54.0415	1	1.963e-13 ***
time	3.2580	4	0.5156
treat:time	4.0472	4	0.3997

Fig. S10C

Response: larva

	Chisq	Df	Pr(>Chisq)
treat	22.9730	1	1.643e-06 ***
time	0.2487	4	0.9929
treat:time	0.3483	4	0.9865

Fig. S10D

Response: larva

	Chisq	Df	Pr(>Chisq)
treat	19.6903	1	9.106e-06 ***
time	0.0734	4	0.9993
treat:time	0.1458	4	0.9975

Fig. S10E

Response: larva

	Chisq	Df	Pr(>Chisq)
treat	15.6941	1	7.446e-05 ***
time	0.9069	4	0.9236
treat:time	0.4568	4	0.9776

Fig. S10F

Response: larva

	Chisq	Df	Pr(>Chisq)
treat	3.0330	1	0.08159 .
time	0.0702	4	0.99940
treat:time	0.2312	4	0.99381

Fig. S10G

Response: larva

	Chisq	Df	Pr(>Chisq)
treat	0.5406	1	0.4622
time	0.1517	4	0.9973
treat:time	0.1690	4	0.9966

Fig. S10H

Response: larva

	Chisq	Df	Pr(>Chisq)
treat	2.3672	1	0.1239
time	0.2858	4	0.9907
treat:time	0.6068	4	0.9623

**Fig. 2E and Fig. S11**

Fig. S11A

Response: larva



	Chisq	Df	Pr(>Chisq)
treat	20.6421	1	5.537e-06 ***
time	5.6079	4	0.23041
treat:time	9.1007	4	0.05863 .

Fig. S11B

Response: larva

	Chisq	Df	Pr(>Chisq)
treat	26.6029	1	2.499e-07 ***
time	1.2307	4	0.8730
treat:time	0.9343	4	0.9196

Fig. 2E and Fig. S11C

Response: larva

	Chisq	Df	Pr(>Chisq)
treat	9.6340	1	0.00191 **
time	8.1835	4	0.08508 .
treat:time	7.6690	4	0.10448

**Fig. 2G, H and Fig. S12**

Fig. 2G and Fig. S12A

WT+H<sub>2</sub>O vs *bx1*+H<sub>2</sub>O

Response: larva

	Chisq	Df	Pr(>Chisq)
treat	40.6554	1	1.816e-10 ***
time	0.8566	4	0.9307
treat:time	2.4092	4	0.6610

WT+H<sub>2</sub>O vs *bx1*+Fe(III)(DIMBOA)<sub>3</sub>

Response: larva

	Chisq	Df	Pr(>Chisq)
treat	0.2040	1	0.6515
time	2.2918	4	0.6823
treat:time	1.0585	4	0.9008

Fig. 2H and Fig. S12B

Crown root + H<sub>2</sub>O vs Primary root + H<sub>2</sub>O

Response: larva

	Chisq	Df	Pr(>Chisq)
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treat	62.7187	1	2.384e-15 ***
time	1.8065	4	0.7713
treat:time	0.7634	4	0.9433

Crown root + H<sub>2</sub>O vs Primary root + Fe(III)(DIMBOA)<sub>3</sub>

Response: larva

	Chisq	Df	Pr(>Chisq)
treat	23.1976	1	1.462e-06 ***
time	0.5891	4	0.96426
treat:time	10.9828	4	0.02676 *

Fig. S12C

Crown root + H<sub>2</sub>O vs Primary root + H<sub>2</sub>O

Response: larva

	Chisq	Df	Pr(>Chisq)
treat	186.9217	1	<2e-16 ***
time	1.4912	8	0.9929
treat:time	6.3331	8	0.6100

Crown root + H<sub>2</sub>O vs Primary root + Fe(III)(DIMBOA)<sub>3</sub>

Response: larva

	Chisq	Df	Pr(>Chisq)
treat	44.414	1	2.658e-11 ***
time	5.987	8	0.64869
treat:time	15.376	8	0.05224 .

Fig. S12D

Crown root + H<sub>2</sub>O vs Primary root + H<sub>2</sub>O

Response: larva

	Chisq	Df	Pr(>Chisq)
treat	44.2556	1	2.882e-11 ***
time	0.3576	4	0.9858
treat:time	3.8770	4	0.4229

Crown root + H<sub>2</sub>O vs Primary root + Fe(III)(DIMBOA)<sub>3</sub>

Response: larva

	Chisq	Df	Pr(>Chisq)
treat	2.6374	1	0.1044
time	0.3464	4	0.9866
treat:time	0.1631	4	0.9969

**Fig. S13**

Fig. S13A

WT+H<sub>2</sub>O vs WT +Fe(III)(DIMBOA)<sub>3</sub>

Response: larva

	Chisq	Df	Pr(>Chisq)
treat	0.0206	1	0.8859
time	4.7174	4	0.3175
treat:time	0.1334	4	0.9979

Fig. S13B

*bx1*+H<sub>2</sub>O vs *bx1*+Fe(III)(DIMBOA)<sub>3</sub>

Response: larva

	Chisq	Df	Pr(>Chisq)
treat	9.2714	1	0.002328 **
time	9.1526	4	0.057396 .
treat:time	0.4357	4	0.979450

Fig. S13C

Fe(III)(DIMBOA)<sub>3</sub> vs H<sub>2</sub>O

Response: larva

	Chisq	Df	Pr(>Chisq)
treat	0.1775	1	0.6735
time	4.8346	4	0.3047
treat:time	4.6740	4	0.3224

Fig. S13D

Rice + H<sub>2</sub>O vs Rice + Fe(III)(DIMBOA)<sub>3</sub>

Response: larva

	Chisq	Df	Pr(>Chisq)
treat	17.0577	1	3.626e-05 ***
time	12.8225	4	0.01218 *
treat:time	1.5434	4	0.81893

Fig. S13E

Fe(III)(DIMBOA)<sub>3</sub> vs H<sub>2</sub>O

Response: larva

	Chisq	Df	Pr(>Chisq)
treat	17.2918	1	3.206e-05 ***
time	3.2213	4	0.5215

treat:time 1.3256 4 0.8570

Fig. S13F

Barley + H<sub>2</sub>O vs Barley + Fe(III)(DIMBOA)<sub>3</sub>

Response: larva

	Chisq	Df	Pr(>Chisq)
treat	24.2404	1	8.503e-07 ***
time	9.4840	4	0.05008 .
treat:time	6.0985	4	0.19192

### Fig. 4D and Fig. S16

Fig. 4D and Fig. S16A

Fe(III)(DIMBOA)<sub>3</sub> vs H<sub>2</sub>O

Response: larva

	Chisq	Df	Pr(>Chisq)
treat	44.0065	1	3.273e-11 ***
time	7.0233	4	0.1347
treat:time	1.7092	4	0.7891

Fig. 4D and Fig. S16B

Fe(III)(DIMBOA)<sub>3</sub> vs H<sub>2</sub>O

Response: larva

	Chisq	Df	Pr(>Chisq)
treat	50.9168	1	9.636e-13 ***
time	0.5223	4	0.9713
treat:time	7.3820	4	0.1170