

# Model report

Wednesday 20<sup>th</sup> December, 2017 09:36

## 1 Description of the fitted model

Trait	yield
Experimental design features	replicate (F) + row(replicate) (R) + col(replicate) (R)
Spatial model	splines
Genotype	random

## 2 Summary of the results

Table 1: Size of the data set and seven number descriptives

Number of observations	338.00
Number of missing values	0.00
Mean	184.16
Median	179.81
Min	54.58
Max	341.77
Lower quartile	148.56
Upper quartile	220.50
Variance	2569.23

Table 2: Effective dimensions

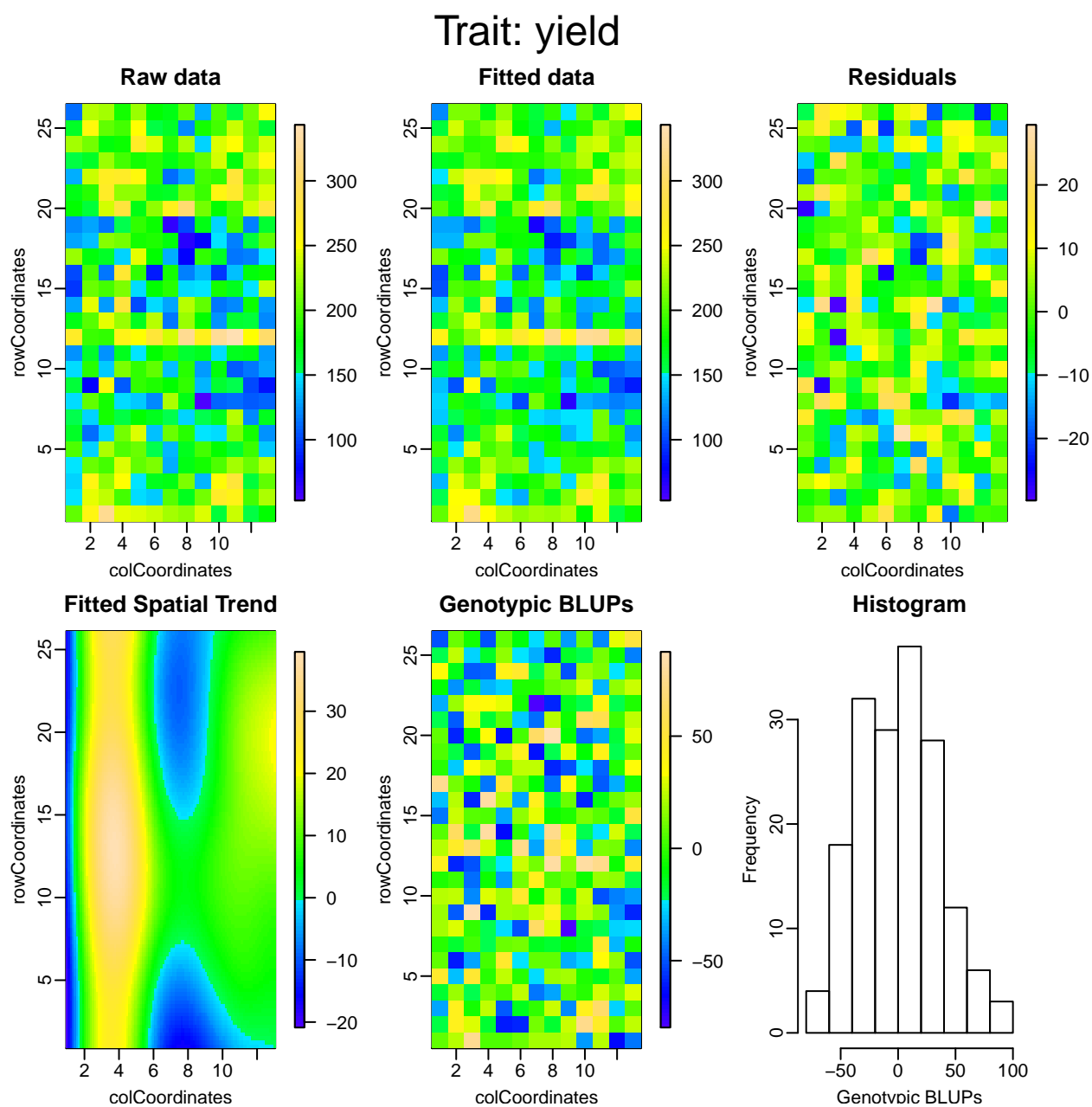
	Effective	Model	Nominal	Ratio	Type
Intercept	1.0	1	1	1.00	F
Replicate	1.0	1	1	1.00	F
Genotype	149.8	169	168	0.89	R
Row(replicate)	18.4	52	51	0.36	R
Col(replicate)	5.1	26	25	0.20	R
Lineair trend along cols	1.0	1	1	1.00	S
Lineair trend along rows	1.0	1	1	1.00	S
Lineair trend along rows and cols	1.0	1	1	1.00	S
Smooth trend along cols	4.3	8	8	0.54	S
Smooth trend along rows	0.6	14	14	0.04	S
Lineair trend in rows changing smoothly along cols	0.0	8	8	0.00	S
Lineair trend in cols changing smoothly along rows	0.6	14	14	0.04	S
Smooth-by-smooth interaction trend over rows and cols	4.2	28	28	0.15	S
Total	188.0	324	321	0.59	
Residual	150.0				
Nobs	338				

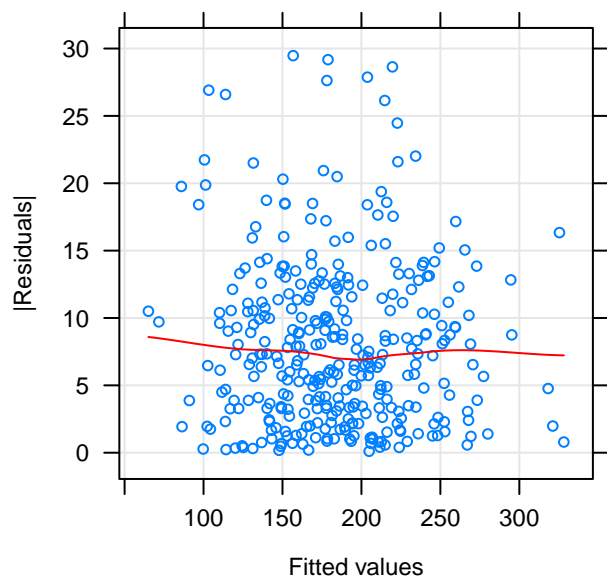
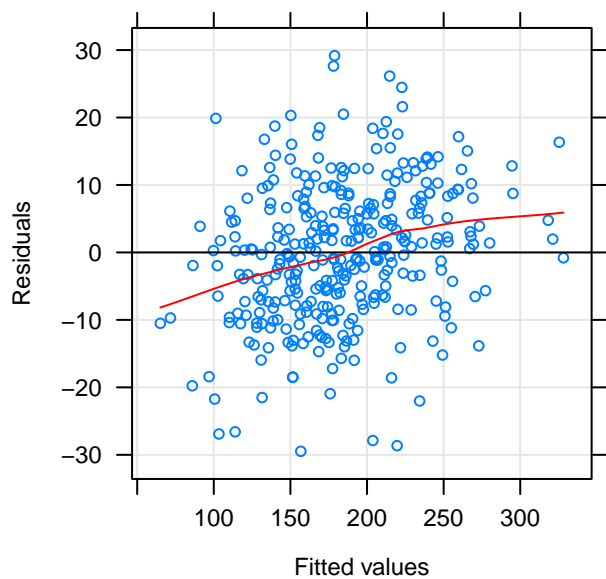
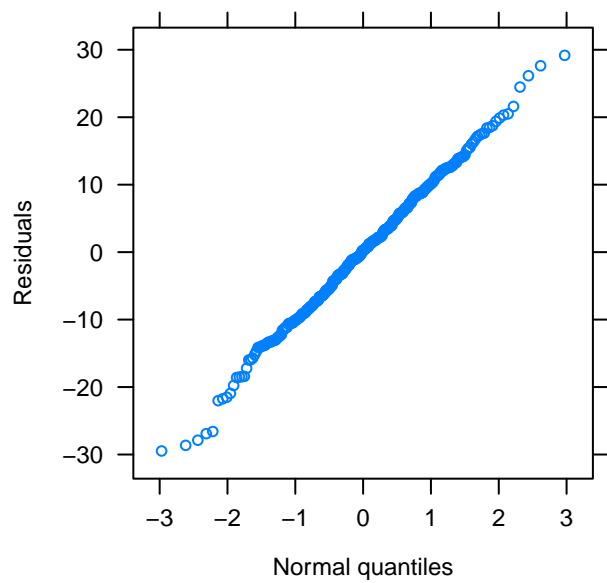
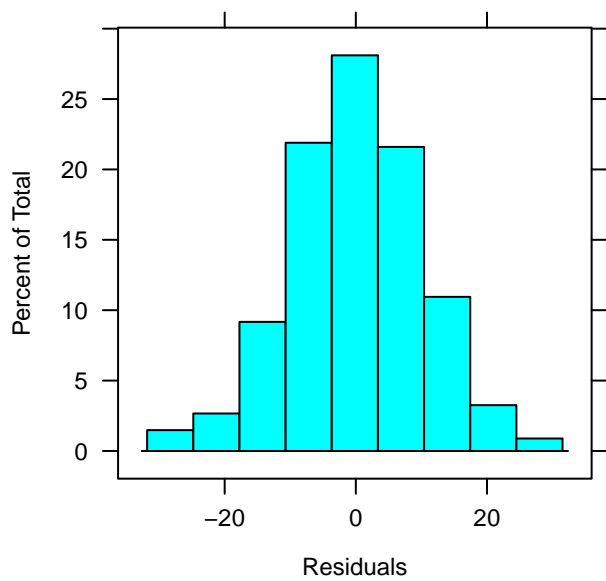
The generalized heritability is 0.89

Table 3: Variance components

	Variance
Genotype	1.329e+03
Row(replicate)	2.138e+02
Col(replicate)	2.124e+01
Smooth trend along cols	1.831e+04
Smooth trend along rows	3.397e+01
Lineair trend in rows changing smoothly along cols	1.191e-04
Lineair trend in cols changing smoothly along rows	8.886e+00
Smooth-by-smooth interaction trend over rows and cols	1.069e+03
Residual	2.319e+02

### 3 Diagnostic plots





## 4 List of best 20 genotypes

	predictedBLUPs	se predictedBLUPs
SB032	290.17	13.32
SB025	285.40	13.00
SB023	285.22	12.93
SB011	280.63	13.05
SB144	277.89	13.12
SB022	277.74	13.35
SB156	269.10	13.59
SB031	267.17	13.30
SB055	264.35	13.18
SB054	259.24	13.47
SB128	254.96	13.67
SB194	252.00	13.03
SB093	250.57	13.65
SB183	250.51	13.19
SB020	249.64	12.77
SB143	248.41	13.64
SB155	245.80	13.04
SB140	245.54	13.42
SB163	244.62	13.33
SB028	244.29	13.09