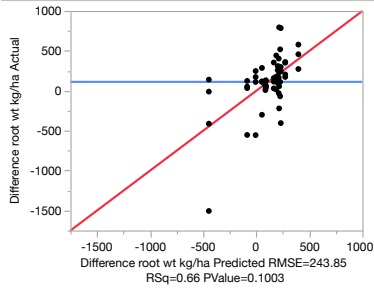


Response Difference root wt kg/ha

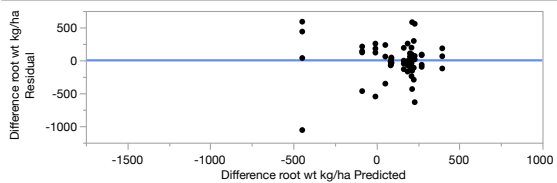
Actual by Predicted Plot



Effect Summary

Source	LogWorth	PValue
Rotation*Depth	1.979	0.01048
Year	0.920	0.12036
Year*Rotation*Depth	0.648	0.22507
Year*Depth	0.508	0.31057
Depth	0.239	0.57711
Rotation	0.122	0.75524
Year*Rotation	0.043	0.90541

Residual by Predicted Plot



Summary of Fit

RSquare	0.663936
RSquare Adj	0.551915
Root Mean Square Error	243.8543
Mean of Response	111.6408
Observations (or Sum Wgts)	61

REML Variance Component Estimates

Random Effect	Var Ratio	Var Component	Std Error	95% Lower	95% Upper	Wald p-Value	Pct of Total
Block[Year]	-0.254702	-15145.86	24539.446	-63242.29	32950.573	0.5371	0.000
Block[Year,Rotation]	0.8972128	53352.691	39640.019	-24340.32	131045.7	0.1783	47.291
Residual		59464.922	15109.643	38214.289	105130.3		52.709
Total		112817.61	41361.475	61435.707	271402.27		100.000

-2 LogLikelihood = 691.00915207

Note: Total is the sum of the positive variance components.

Total including negative estimates = 97671.754

Fixed Effect Tests

Source	Nparm	DF	DFDen	F Ratio	Prob > F
Year	1	1	3.921	3.9164	0.1204
Rotation	1	1	6.237	0.1061	0.7552
Year*Rotation	1	1	6.237	0.0153	0.9054
Depth	3	3	31.5	0.6695	0.5771
Year*Depth	3	3	31.5	1.2433	0.3106
Rotation*Depth	3	3	31.5	4.4233	0.0105*
Year*Rotation*Depth	3	3	31.5	1.5335	0.2251

Effect Details

Year

Least Squares Means Table

Level	Sq Mean	Std Error
2019	217.63061	68.854198
2020	18.22950	73.562868

Rotation

Least Squares Means Table

Level	Sq Mean	Std Error
C2	139.61712	81.450186
C4	96.24300	85.467701

Response Difference root wt kg/ha

Effect Details

Year*Rotation

Least Squares Means Table

Level	Least	
	Sq Mean	Std Error
2019,C2	231.0802	115.18796
2019,C4	204.1810	115.18796
2020,C2	48.1540	115.18796
2020,C4	-11.6950	126.29587

Depth

Least Squares Means Table

Level	Least	
	Sq Mean	Std Error
0-15cm	95.67656	71.818302
15-30cm	190.72424	75.248828
30-45cm	115.03293	75.248828
45-60cm	70.28651	75.248828

Year*Depth

Least Squares Means Table

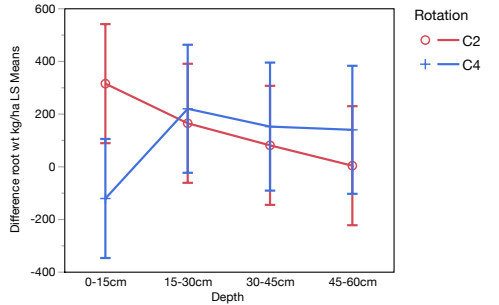
Level	Least	
	Sq Mean	Std Error
2019,0-15cm	299.3050	101.56642
2019,15-30cm	242.0727	101.56642
2019,30-45cm	190.0506	101.56642
2019,45-60cm	139.0941	101.56642
2020,0-15cm	-107.9519	101.56642
2020,15-30cm	139.3757	111.05768
2020,30-45cm	40.0153	111.05768
2020,45-60cm	1.4789	111.05768

Rotation*Depth

Least Squares Means Table

Level	Least	
	Sq Mean	Std Error
C2,0-15cm	313.6723	110.49420
C2,15-30cm	163.1712	110.49420
C2,30-45cm	79.4542	110.49420
C2,45-60cm	2.1709	110.49420
C4,0-15cm	-122.3192	110.49420
C4,15-30cm	218.2773	119.27716
C4,30-45cm	150.6117	119.27716
C4,45-60cm	138.4021	119.27716

Least Squares Means Plot



Response Difference root wt kg/ha

Effect Details

Rotation*Depth

Slice Rotation=C2

NumDF	DenDF	F Ratio	Prob > F
3	30.98	2.3929	0.0874

Slice Rotation=C4

NumDF	DenDF	F Ratio	Prob > F
3	31.98	2.6917	0.0627

Slice Depth=0-15cm

NumDF	DenDF	F Ratio	Prob > F
1	14.88	6.7397	0.0204*

Slice Depth=15-30cm

NumDF	DenDF	F Ratio	Prob > F
1	16.18	0.1005	0.7553

Slice Depth=30-45cm

NumDF	DenDF	F Ratio	Prob > F
1	16.18	0.1675	0.6877

Slice Depth=45-60cm

NumDF	DenDF	F Ratio	Prob > F
1	16.18	0.6141	0.4446

Year*Rotation*Depth

Block[Year]

Least Squares Means Table

Level	Least Sq Mean	Std Error
[2019]1	332.3398	.
[2019]2	207.8502	.
[2019]3	181.8741	.
[2019]4	148.4583	.
[2020]1	138.6793	.
[2020]2	-159.9635	.
[2020]3	18.6346	.
[2020]4	75.5676	.

Block[Year,Rotation]