Supplementary Data – Variability of Total THC in Greenhouse Cultivated Dried Cannabis

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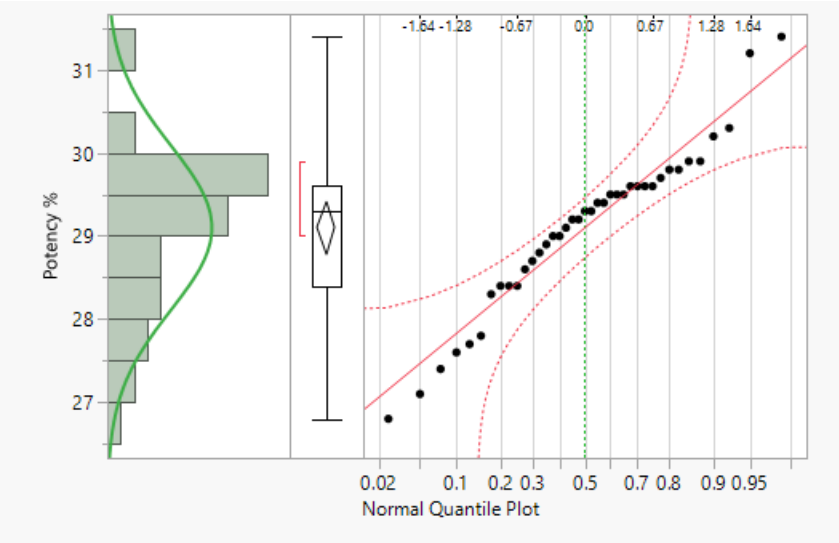
Supplementary Figure 1 Normality and Outlier Analysis.

Normality was confirmed using Shapiro-Wilk (SW) (α 0.01) and Outlier absence confirmed using Boxplots.

Supplementary Figure 1a Top Stratification Analysis for Cultivar B17 (manuscript Figure 1)

SW – 0.2552



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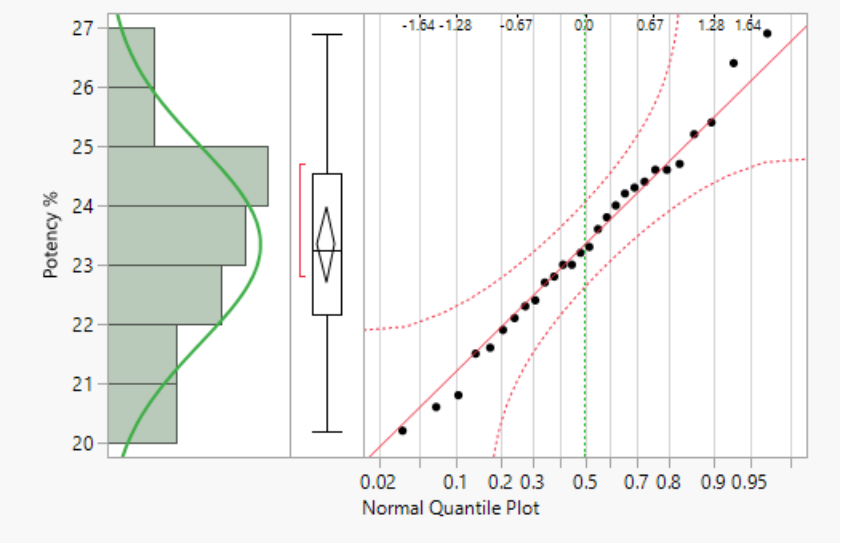
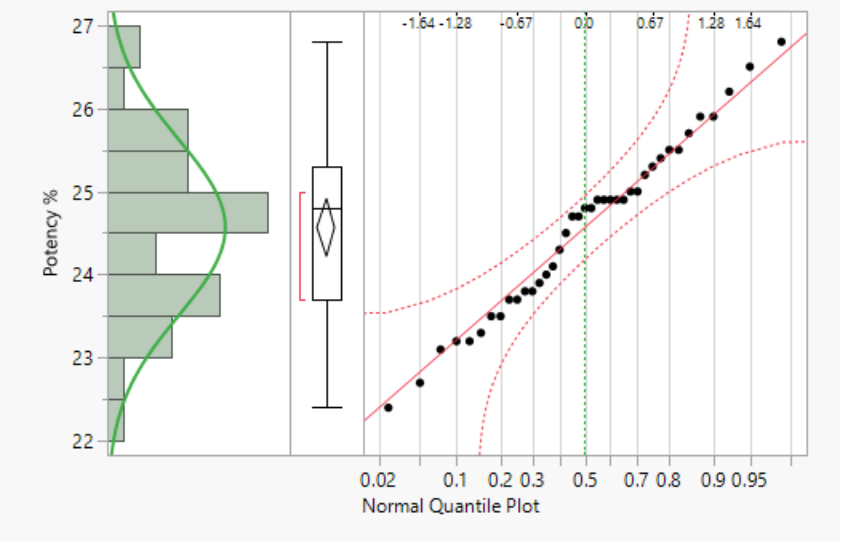
Supplementary Figure 1b Top Stratification Analysis for Cultivar F1 (manuscript Figure 1)

SW – 0.9836



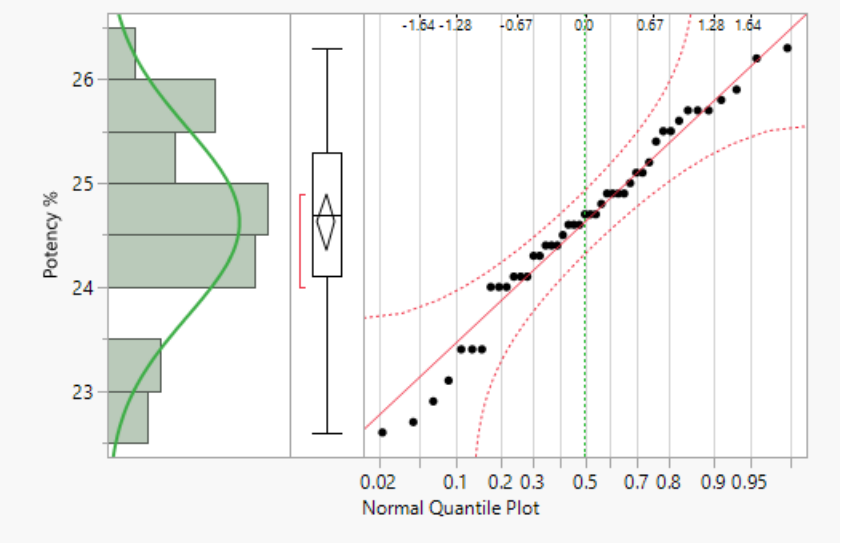
Supplementary Figure 1c Top Stratification Analysis for Cultivar P8 (manuscript Figure 1)

SW – 0.8064



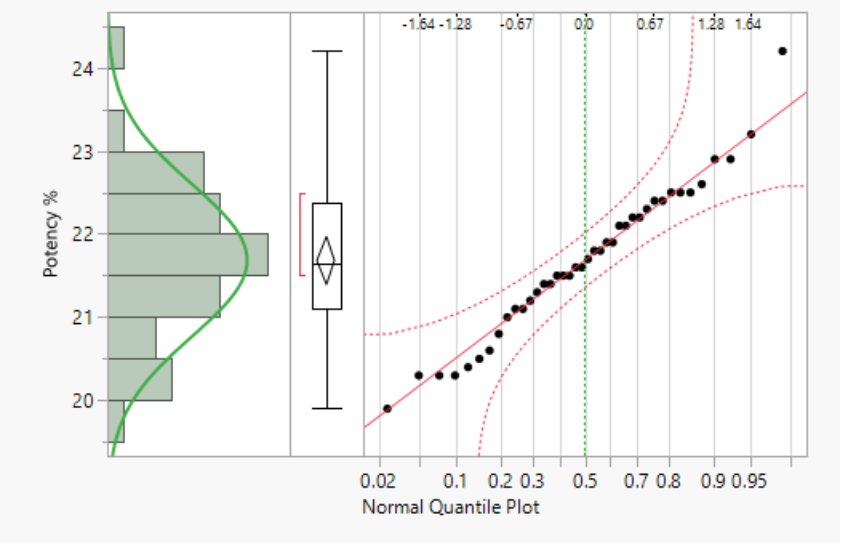
Supplementary Figure 1d Top Stratification Analysis for Cultivar C5 (manuscript Figure 1)

SW – 0.3707



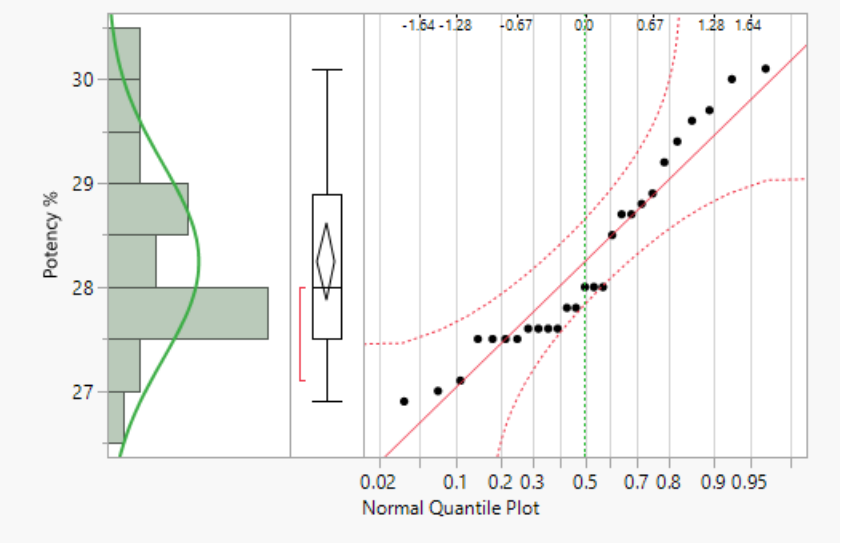
Supplementary Figure 1e Top Stratification Analysis for Cultivar E9 (manuscript Figure 1)

SW – 0.7243



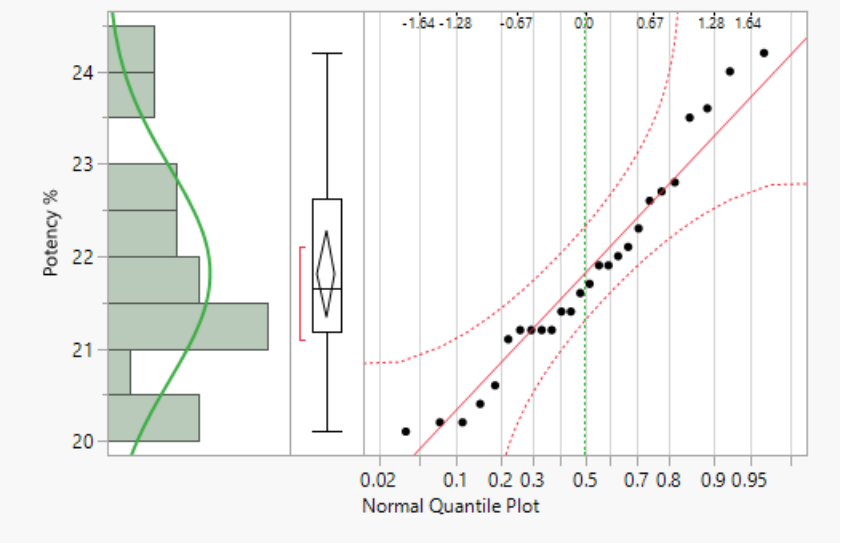
Supplementary Figure 1f Top Stratification Analysis for Cultivar G11 (manuscript Figure 1)

SW – 0.0354



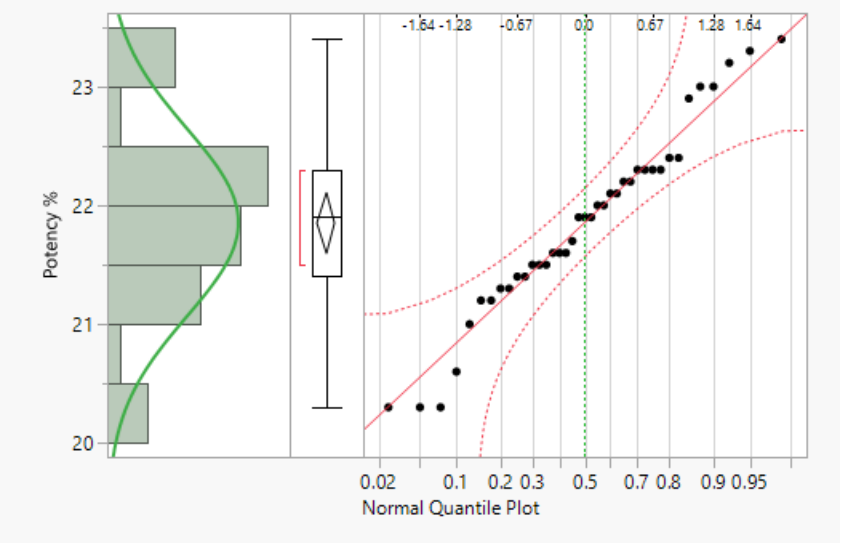
Supplementary Figure 1g Top Stratification Analysis for Cultivar K1 (manuscript Figure 1)

SW – 0.2480



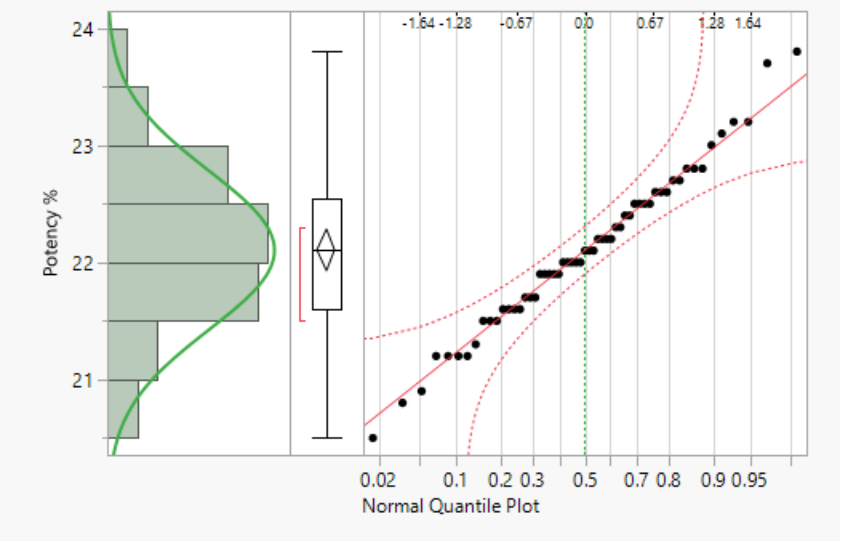
Supplementary Figure 1h Top Stratification Analysis for Cultivar K2 (manuscript Figure 1)

SW – 0.3373



Supplementary Figure 1i Top Stratification Analysis for Cultivar K3 (manuscript Figure 1)

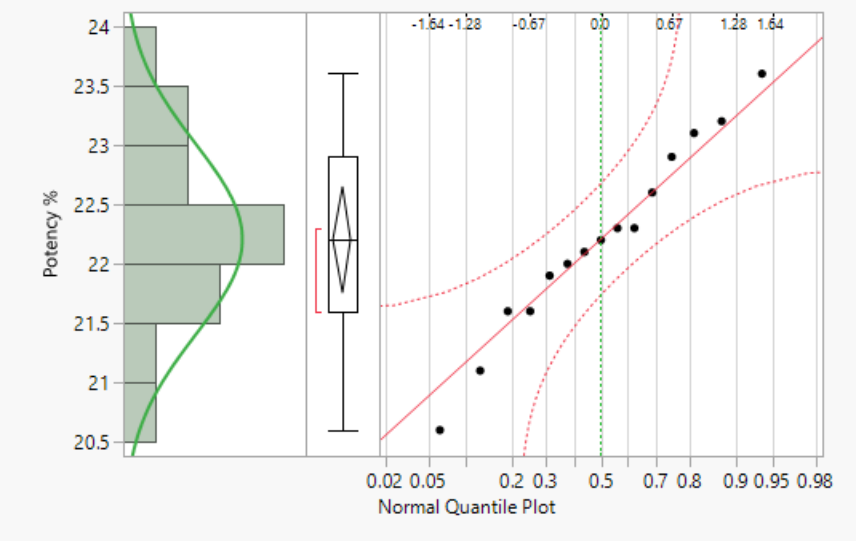
SW – 0.9437



Supplementary Figure 2 Top, Middle, Bottom Stratification Analysis

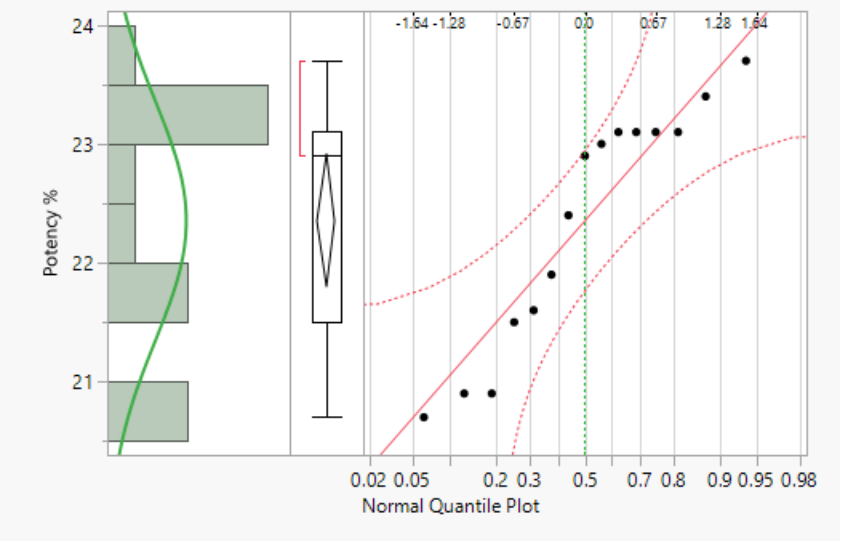
Supplementary Figure 2a K4 Top (manuscript Figure 2)

SW – 0.9900



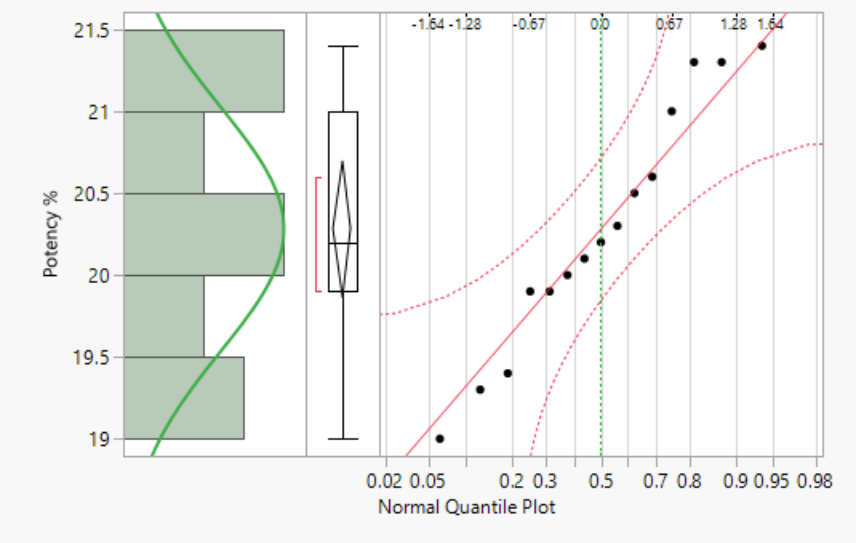
Supplementary Figure 2b K4 Middle (manuscript Figure 2)

SW – 0.0527



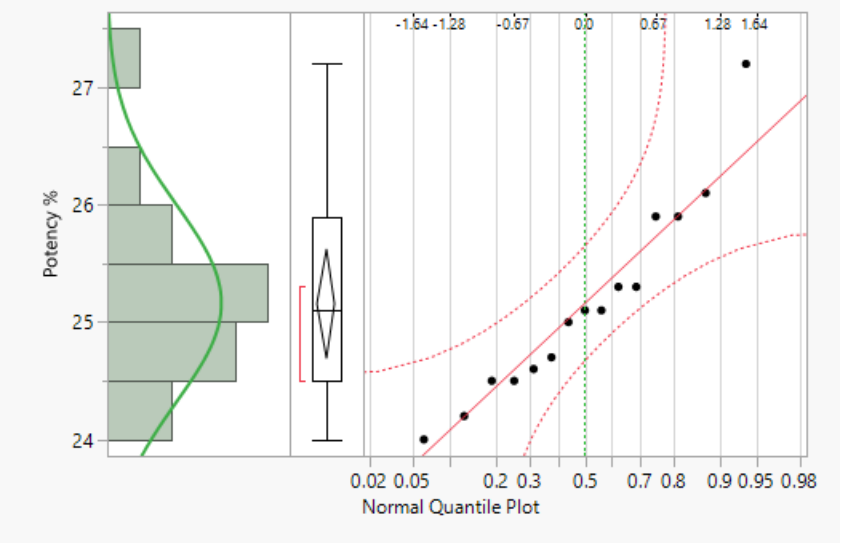
Supplementary Figure 2c K4 Bottom (manuscript Figure 2)

SW – 0.5895



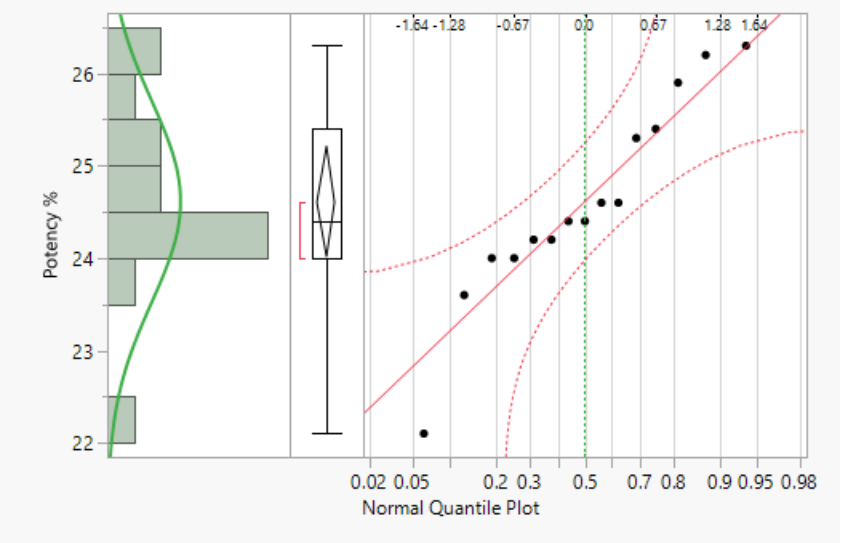
Supplementary Figure 2d F2 Top (manuscript Figure 2)

SW – 0.3341



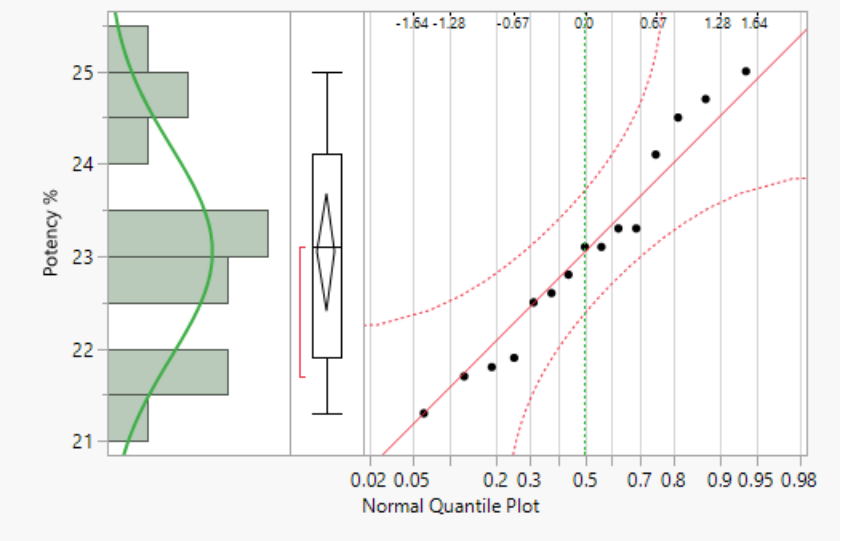
Supplementary Figure 2e F2 Middle (manuscript Figure 2)

SW – 0.3688



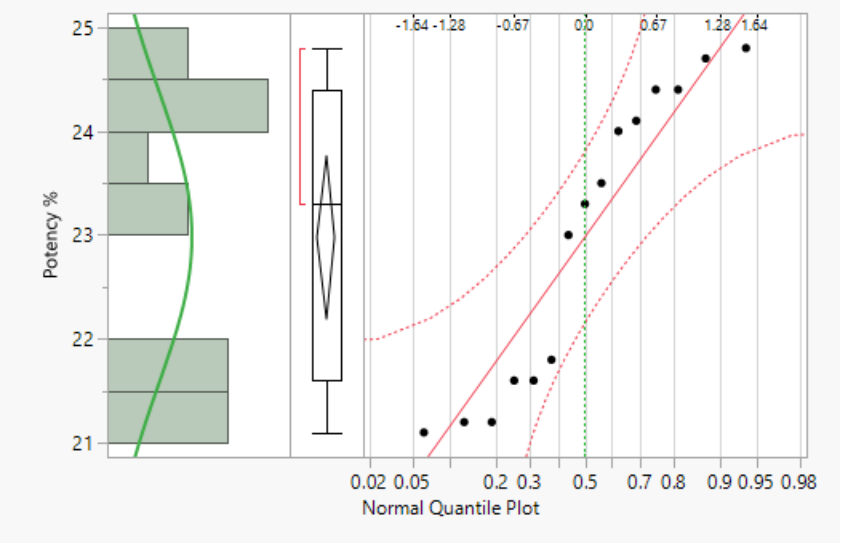
Supplementary Figure 2f F2 Bottom (manuscript Figure 2)

SW – 0.5911



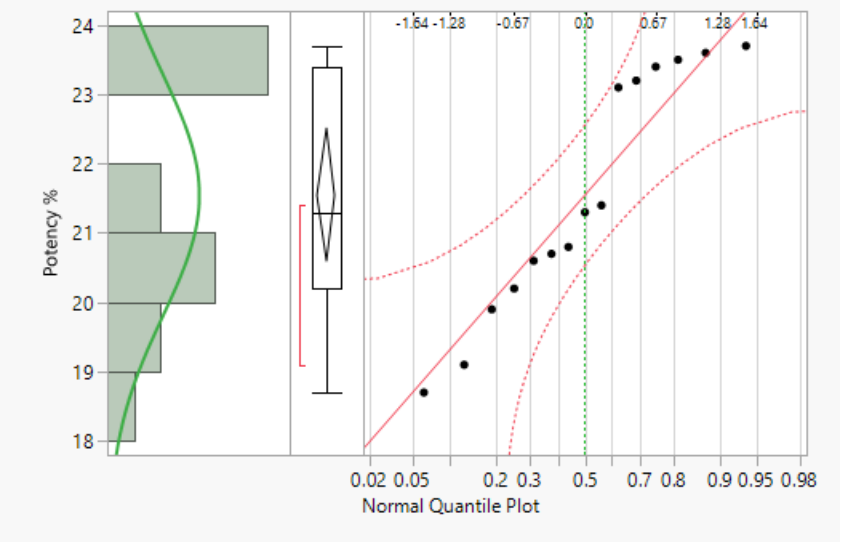
Supplementary Figure 2g D15 Top (manuscript Figure 2)

SW – 0.0343



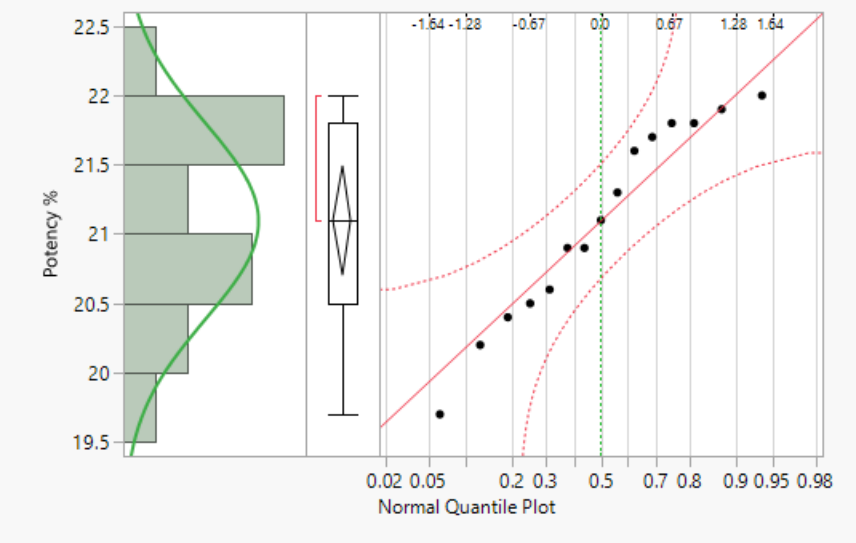
Supplementary Figure 2h D15 Middle (manuscript Figure 2)

SW – 0.0901



Supplementary Figure 2i D15 Bottom (manuscript Figure 2)

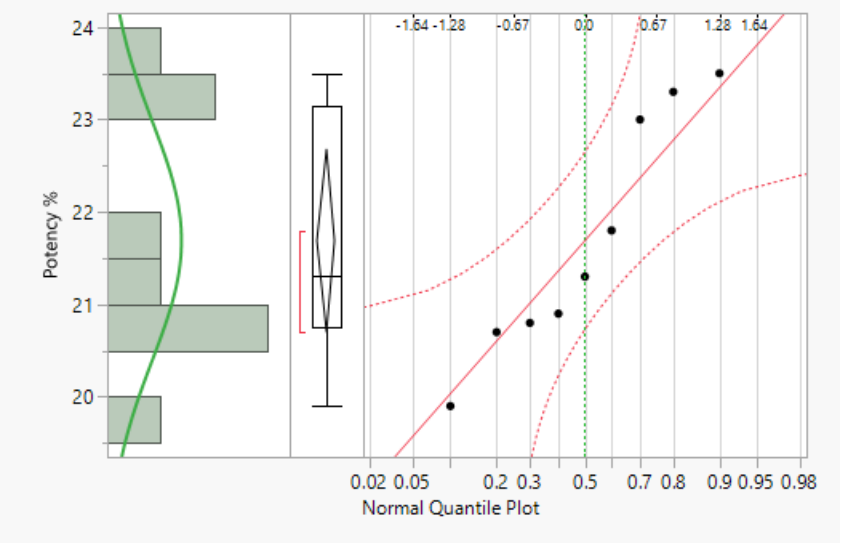
SW – 0.5911



Supplementary Figure 3 Plant vs Plant Analysis

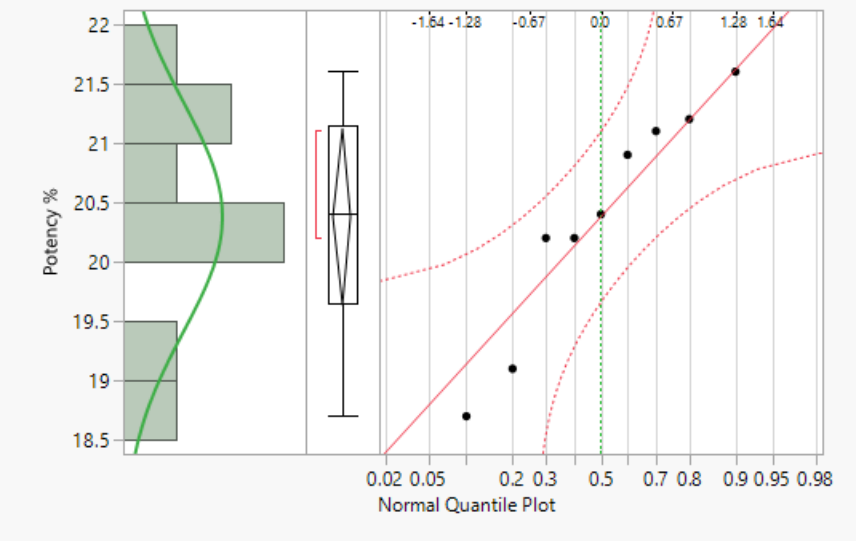
Supplementary Figure 3a D15 Plant A (manuscript Figure 4)

SW – 0.3106



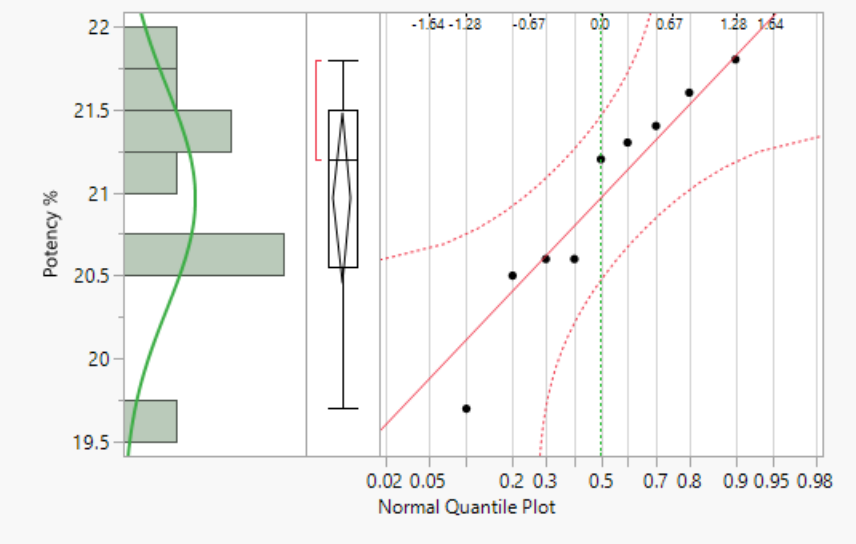
Supplementary Figure 3b D155 Plant B (manuscript Figure 4)

SW – 0.4571



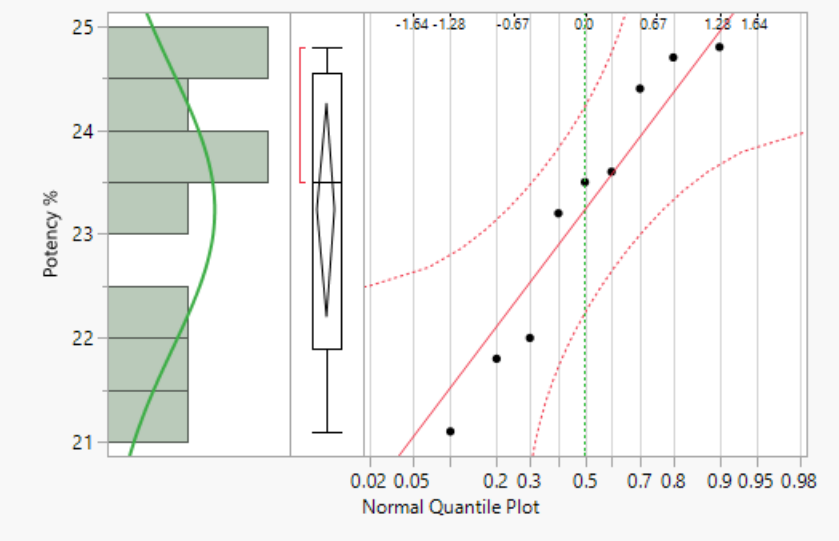
Supplementary Figure 3c D15 Plant C (manuscript Figure 4)

SW – 0.5170



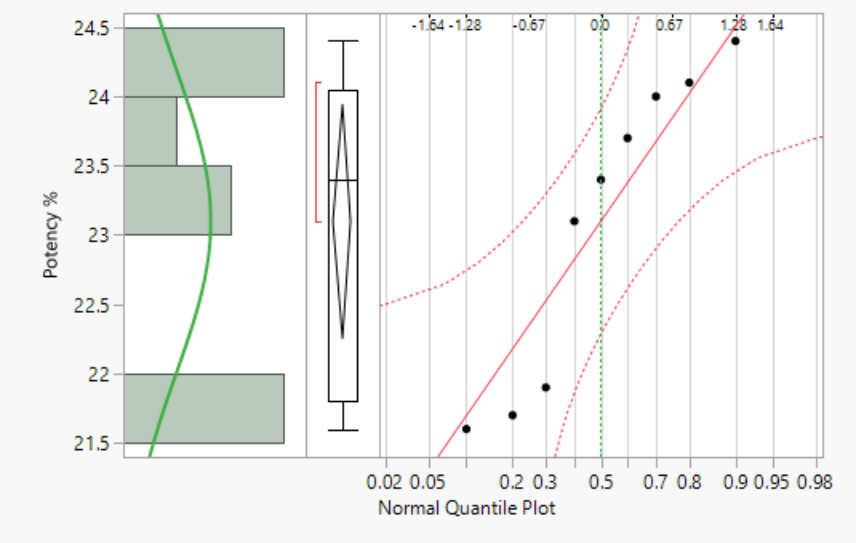
Supplementary Figure 3d D15 Plant D (manuscript Figure 4)

SW – 0.4136



Supplementary Figure 3e D15 Plant E (manuscript Figure 4)

SW – 0.1421



Supplementary Table 1 Fischer's F tests for effect size comparisons (α 0.01).

Cultivar K4 (manuscript table 3a)	P Value	Equivalent?	Effect Size Test
Top Vs Middle	0.4043	Yes	Cohen's D
Top Vs Bottom	0.7789	Yes	Cohen's D
Middle Vs Bottom	0.2663	Yes	Cohen's D
Cultivar F2 (manuscript table 3b)			
Top Vs Middle	0.3405	Yes	Cohen's D
Top Vs Bottom	0.265	Yes	Cohen's D
Middle Vs Bottom	0.8692	Yes	Cohen's D
Cultivar D15 (manuscript table 3c)			
Top Vs Middle	0.4563	Yes	Cohen's D
Top Vs Bottom	0.01418	Yes	Cohen's D
Middle Vs Bottom	0.001894	No	Glass's D
Cultivar D15 (manuscript table 4)			
A vs B	0.4298	Yes	Cohen's D
A vs C	0.07831	Yes	Cohen's D
A vs D	0.9248	Yes	Cohen's D
A vs E	0.652	Yes	Cohen's D
B vs C	0.3108	Yes	Cohen's D
B vs D	0.3779	Yes	Cohen's D
B vs E	0.732	Yes	Cohen's D
C vs D	0.0649	Yes	Cohen's D
C vs E	0.1797	Yes	Cohen's D
D vs E	0.5861	Yes	Cohen's D

Supplementary Table 2 Adjusted Retrospective Power Analysis & Least Significant Number – See manuscript discussion.

Supplementary Table 2a K4 Top vs Middle vs Bottom data.

Power Details

Test Plant Location

Power

α	σ	δ	Number	Power	AdjPower
0.0100	0.861486	0.944708	45	1.0000	0.9999

Least Significant Number

α	σ	δ	Number(LSN)
0.0100	0.861486	0.944708	12.74645

Supplementary Table 2b F2 Top vs Middle vs Bottom data.

Power Details

Test Plant Location

Power

α	σ	δ	Number	Power	AdjPower
0.0100	1.031765	0.895636	45	0.9952	0.9890

Least Significant Number

α	σ	δ	Number(LSN)
0.0100	1.031765	0.895636	17.20205

Supplementary Table 2c D15 Top vs Middle vs Bottom data.

Power Details

Test Plant Location

Power

α	σ	δ	Number	Power	AdjPower
0.0100	1.355682	0.804119	45	0.8099	0.7065

Least Significant Number

α	σ	δ	Number(LSN)
0.0100	1.355682	0.804119	30.99842

Supplementary Table 2d D15 Plant vs Plant data.

Power Details

Test Plant

Power

α	σ	δ	Number	Power	AdjPower
0.0100	1.098459	1.135523	45	0.9988	0.9954

Least Significant Number

α	σ	δ	Number(LSN)
0.0100	1.098459	1.135523	18.90411

Supplementary Statistical Analyses

Bartlett Test Scores (α 0.01) – Test for homogeneity of variance for ANOVA testing.

Manuscript Figure 3 - Batch J Top vs Middle vs Bottom – 0.4933.

Manuscript Figure 3 - Batch K Top vs Middle vs Bottom – 0.5013.

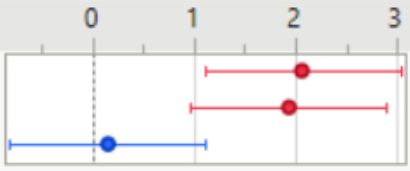
Manuscript Figure 3 - Batch L Top vs Middle vs Bottom – 0.0076*.

Manuscript Figure 4 - Batch L plants vs plants – 0.3837.

*Significant difference between variances, therefore Kruskal-Wallis Test used instead of ANOVA.

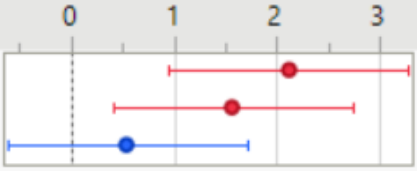
Manuscript Figure 3 Batch J Tukey-Kramer HSD Data

Level	- Level	p-Value
Middle	Bottom	<.0001*
Top	Bottom	<.0001*
Middle	Top	0.8874



Manuscript Figure 3 Batch K Tukey-Kramer HSD Data

Level	- Level	p-Value
Top	Bottom	<.0001*
Middle	Bottom	0.0004*
Top	Middle	0.3246



Manuscript Figure 3 Batch L Dunn's post-hoc Data

Nonparametric Comparisons For All Pairs Using Dunn Method For Joint Ranking

Level	- Level	Score Mean Difference	Std Err Dif	Z	p-Value
Top	Bottom	14.86667	4.793303	3.101549	0.0058*
Top	Middle	12.00000	4.793303	2.503493	0.0369*
Middle	Bottom	2.80000	4.793303	0.584148	1.0000

Manuscript Figure 4 Batch L Tukey Kramer HSD Data (Plant vs Plant)

Level	- Level	p-Value
Plant D	Plant B	<.0001*
Plant E	Plant B	<.0001*
Plant D	Plant C	0.0008*
Plant E	Plant C	0.0016*
Plant D	Plant A	0.0369*
Plant E	Plant A	0.0678
Plant A	Plant B	0.1037
Plant A	Plant C	0.6345
Plant C	Plant B	0.7859
Plant D	Plant E	0.9990