2019 Miscanthus Nutrient Analysis - Bible Hill

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Nutrient Analysis

Miscanthus shoot samples were collected in the fall for nutrient analysis. Shoots were cut approximately 5 cm above ground level and placed in labelled paper bags. Samples were placed in a drying oven (VWR Signature^{TM} Forced Air Safety Oven) and dried at 80 °C for a minimum of seven days. Upon removal from the oven, samples were ground using a Wiley Mill (Standard Model No. 3, Arthur H. Thomas Co.) and passed through a 1.0 mm sieve. Ground samples were sent for plant tissue analysis at Harlow Institute (Dalhousie Agricultural Campus, Truro, NS, Canada).

Nitrogen Content

Table 1: Mean values of nitrogen and phosphorus content measured in the fall of the establishment year (2019).

Treatment	Nitrogen Content (g N plant^{-1})	Phosphorus Content (g P plant^{-1})
CT	35.06	8.253
DG	54.11	11.91
PS	45.44	11.03
SE	28.97	6.328

Normality Assumptions

Prior to the completion of any statistical analyses, a histogram of the observed data (and subsequent errors) should be evaluated to estimate the most appropriate distribution to assign to the Generalized Linear Model (GLM). To further support the visualization, two significance tests can be run to check normality and homogeneity of variance.

Table 2: ANOVA results of mean nitrogen content per plant (g N plant^{-1}) in Miscanthus biomass collected on 01 October 2019 from Bible Hill, NS.

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
Treatment	3	1486	495.3	3.371	0.05467
Residuals	12	1763	146.9		

Signif. codes: 0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Including Plots

You can also embed plots, for example:

Note that the `echo = FALSE` parameter was added to the code chunk to prevent printing of the R code that

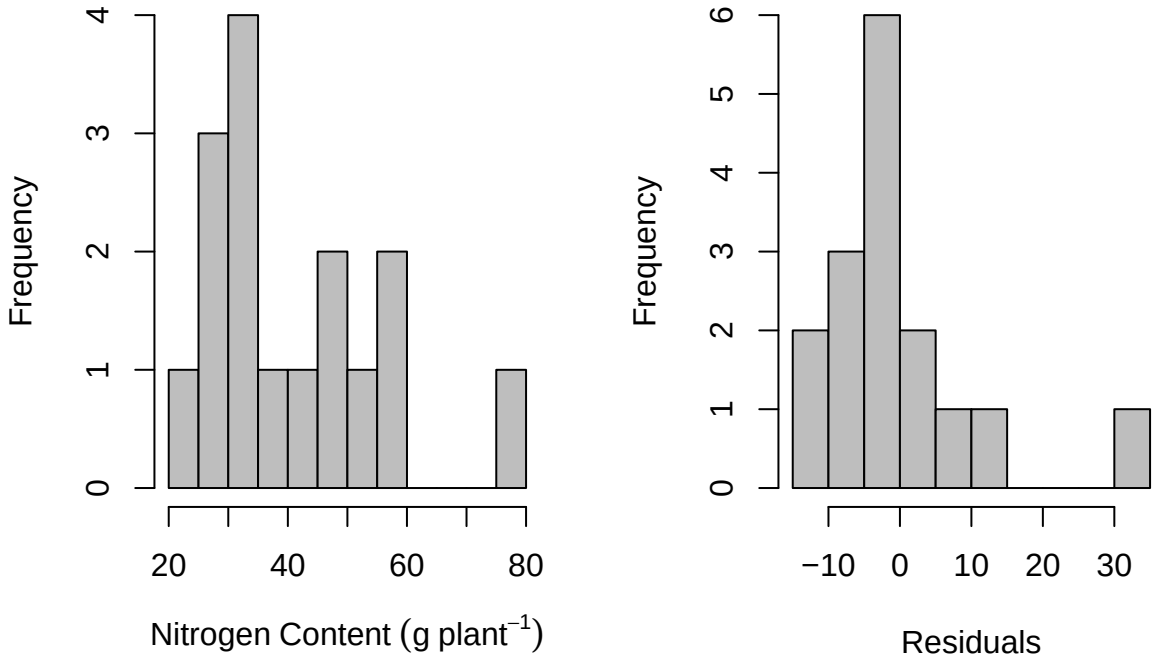

Figure 1: Histogram

generated the plot.