

Appendices

Appendix I: Analysis of Variance for the effect of plant density on photosynthetic ability

ANOVA

<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	205.0173	2	102.5087	1.880042	0.194866	3.885294
Within Groups	654.296	12	54.52467			
Total	859.3133	14				

Appendix II: Least Significant difference at 5% probability level

Plots	Abs of diff of averages	LSD
1 and 2	8.94	0.149432
2 and 3	5.72	
1 and 3	3.22	

Appendix III; Analysis of Variance on the effect of plant density on plant height

ANOVA

<i>Source of Variation</i>	<i>SS</i>	<i>Df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	4998.933	2	2499.467	16.62336	0.0000048	3.219942
Within Groups	6315.067	42	150.3587			
Total	11314	44				

Appendix IV: Least Significant difference at 5% probability level

Plots	Abs of diff of averages	LSD
1 and 2	20.66666667	0.141154
2 and 3	23.73333333	
1 and 3	3.066666667	

Appendix V: analysis of Variance on the effect of plant density on the number of leaves

ANOVA

<i>Source of Variation</i>	<i>SS</i>	<i>Df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	12.13333	2	6.066667	11.04624	0.00014	3.219942
Within Groups	23.06667	42	0.549206			
Total	35.2	44				

Appendix VI: Least Significant difference at 5% probability level

Plots	abs of diff of averages	LSD
1 and 2	0.733333333	0.008531
2 and 3	0.533333333	
1 and 3	1.266666667	

Appendix VII: Analysis of Variance on the effect of plant density on stem girth

ANOVA

<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	0.592444	2	0.296222	6.204122	0.004358	3.219942
Within Groups	2.005333	42	0.047746			

Total 2.597778 44

Appendix VII: Least Significant difference at 5% probability level

Plots	Abs of diff of average	LSD
1 and 2	0.08	0.002515
2 and 3	0.273333333	
1 and 3	0.193333333	

Appendix IX: Effect of plant density on number of lines per cob

ANOVA

<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	41.6	2	20.8	7.682627	0.002284	3.354131
Within Groups	73.1	27	2.707407			
Total	114.7	29				

Appendix X: Least Significant difference at 5% probability level

Plots	Abs of diff of average	LSD
1 and 2	2	0.023275
2 and 3	2.8	
1 and 3	0.8	

Appendix XI: Analysis of Variance on the effect of plant population on the number of seeds per line

ANOVA

<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	375.2	2	187.6	7.2329	0.003052	3.354131
Within Groups	700.3	27	25.93704			
Total	1075.5	29				

Appendix XII: Least Significant difference at 5% probability level

Plots	Abs of diff of average	LSD
1 and 2	7.4	0.072039
2 and 3	7.6	
1 and 3	0.2	

Appendix XIII: Analysis of Variance on the effect of plant population density on leaf area

ANOVA

<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	22997.35	2	11498.68	1.367338	0.265892	3.219942
Within Groups	353200.5	42	8409.535			
Total	376197.8	44				

XIV: Least Significant difference at 5% probability level

Plots	Abs of diff of averages	LSD
1 and 2	52.56333333	1.055635
2 and 3	41.36666667	
1 and 3	11.19666667	

STUDENT DECLARATION

Signed below, Esther Afrifa, student of the Szent István Campus of the Hungarian University of Agriculture and Life Science, at the MSc Course of Crop Production Engineering, declare that the present Thesis is my own work and I have used the cited and quoted literature in accordance with the relevant legal and ethical rules. I understand that the one-page-summary of my thesis will be uploaded on the website of the Campus/Institute/Course and my Thesis will be available at the Host Department/Institute and in the repository of the University in accordance with the relevant legal and ethical rules.

Confidential data are presented in the thesis: yes no*

Date: 2023/ 05/02



Student

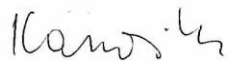
SUPERVISOR'S DECLARATION

As primary supervisor of the author of this thesis, I hereby declare that review of the thesis was done thoroughly; student was informed and guided on the method of citing literature sources in the dissertation, attention was drawn on the importance of using literature data in accordance with the relevant legal and ethical rules.

Confidential data are presented in the thesis: yes no *

Approval of thesis for oral defense on Final Examination: approved not approved *

Date: 2023/05/02



signature

***Please, underline the correct choice!**

DEDICATION

I commit this work to my parents, Mr. Afrifa Yeboah and Mrs. Cecilia Afrifa, my siblings Dorcas Afrifa and Edward Afrifa Manu and to all my loved ones for their support and prayers.