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Statistical Analysis

e data collected were subjected to descriptive and quantitative analysis using analysis of variance (ANOVA) using (SAS, 2003). Means of signi cant treatments were separated using the Fisher's Least Signi cant Di erence at 0.01 and 0.05 probability level (Steel and Torrie, 1987) [18].

Results

In uence of foliar application of Manganese and naphthalene acetic acid on

Magnesium, Manganese and Phosphorus contents of cucumber variety

e Table 1 below shows the mean values and standard error of interaction of variety, naphthalene acetic acid and Manganese on Magnesium, Manganese and Phosphorus contents of cucumber fruit. As the concentration of manganese applied to Poinsett variety that received no naphthalene acetic acid (NAA) application increased, Magnesium content of cucumber fruit increase) [19]. However, the Magnesium content of cucumber fruit of Marketer variety that received no application of naphthalene acetic acid initially increased but remained constant therea er. Furthermore, as the concentration of Manganese applied to Poinsett variety with 50 ppm NAA increased, Magnesium content of cucumber fruit initially increased but later reduced. Also, increase in concentration of Manganese applied with 50 ppm NAA to Marketer variety decreased the Magnesium content of cucumber fruit. Moreover, as the concentration of Manganese applied to Poinsett variety with 100 ppm NAA application increased, Magnesium content of cucumber fruit decreased therea er increased. Also, the Magnesium content of cucumber fruit of Marketer variety in the rst instance decreased but later increased with the increase in concentration of Manganese applied with 100 ppm NAA) [20].

Based on Manganese content of cucumber fruit, as the concentration of Manganese applied to Poinsett variety with no NAA application increased, Manganese content in cucumber fruit of Poinsett initially decreased and therea er increased while in Marketer variety, Manganese content of the cucumber fruit drastically decreased as the concentration of Manganese applied increased with no NAA application. Similarly, as the concentration of Manganese applied to Poinsett variety that received 50 ppm NAA application increased, Manganese content of cucumber fruit increased therea er reduced while in Marketer variety, the Manganese content of cucumber fruit decreased with the increased in Manganese concentration applied and 50 ppm NAA. Also, Manganese content of cucumber fruit of Poinsett variety initially decreased but later drastically increased with the increase in application of Manganese applied with 100 ppm NAA to Poinsett variety. However, the Manganese content of cucumber fruit of Marketer variety also decreased therea er increased with increased in concentration of Manganese applied with 100 ppm NAA) [21].

Additionally, the Phosphorus content of cucumber fruit decreased as the concentration of Manganese applied to Poinsett variety with no NAA application increased while in Marketer variety, increased in concentration of Manganese applied with no NAA application lead to initial decreased in Manganese content of cucumber fruit but later increased. Likewise, as the concentration of Manganese applied to Poinsett variety with 50 ppm NAA application increased, Phosphorus content of cucumber fruit increased therea er decreased. Also, increase in concentration of Manganese applied to Marketer variety with 50

Interactions			

crude protein in cucumber fruit of Poinsett variety decreased therea er increased as the concentration of Manganese applied increased with 50 ppm NAA application. Meanwhile, in Marketer variety, increase in concentration of Manganese applied with 50 ppm NAA application initially resulted in increase in percentage crude protein of cucumber fruit but later reduced. Similarly, as the concentration of Manganese applied to Poinsett variety with 100 ppm NAA application increased, percentage crude protein of cucumber fruit decreased but later drastically increased while the Marketer variety with 100 ppm NAA application, increased the percentage crude protein but remained stagnant therea er) [23]. Furthermore, percentage carbohydrate in cucumber fruit decreased in Poinsett variety therea er increased, as the concentration of Manganese applied with no NAA application increased while the percentage carbohydrate in cucumber fruit of Marketer variety with no NAA application increased but later decreased. Also, the percentage carbohydrate of cucumber fruit decreased as the concentration of Manganese applied to Poinsett variety that received 50 ppm NAA application increased whereas, in Marketer variety, increase in concentration of Manganese applied with 50 ppm NAA increased the percentage carbohydrate of cucumber fruit. Increase in concentration of Manganese with 100 ppm NAA application to Poinsett variety initially remained stagnant in percentage carbohydrate and therea er increased. But in Marketer variety, increase in concentration of Manganese applied with 100 ppm NAA application decreased the percentage carbohydrate of cucumber fruit later increased. Likewise, as the concentration of Manganese applied to Poinsett variety with no NAA application increased, the percentage ash content of cucumber fruit decreased but later increased while in Marketer variety with no NAA application, percentage ash content increased. Also, increase in concentration of Manganese applied to Poinsett with 50 ppm NAA application, increased the percentage ash content of cucumber fruit while in Marketer variety, with 50 ppm NAA application, percentage ash content initially decreased therea er increased. e percentage ash content of cucumber fruit in Poinsett variety increased as the concentration of Manganese applied increase with 100 ppm NAA. Marketer variety with 100 ppm NAA application increased the percentage ash content of cucumber fruit but remained stagnant therea er) [24, 25].

Moreover, mean values and standard error of interactions of variety, naphthalene acetic acid and Manganese on percentage crude fat, crude bre, moisture content and dry matter are shown in Table 3. As the concentration of Manganese applied to Poinsett variety with no NAA application increased, percentage crude fat of cucumber fruit decreased but later increased while the percentage crude fat in cucumber fruit of Marketer variety increased with no NAA application. e percentage crude fat of cucumber fruit of Poinsett variety decreased as the concentration of Manganese applied with 50 ppm NAA application to Poinsett variety increased, whereas in Marketer variety with the same level of NAA application, the percentage crude fat of cucumber fruit increased. As the concentration of Manganese applied with 100 ppm NAA application increased, the percentage crude fat of cucumber fruit of Poinsett variety increased. However, percentage crude fat of cucumber fruit of Marketer variety also increased with increased in concentration of Manganese applied with 100 ppm NAA application) [26, 27].

Based on percentage crude bre of cucumber fruit, as the concentration of Manganese applied to Poinsett variety with no NAA application increased, the percentage crude bre of cucumber fruit of Poinsett variety initially decreased, therea er increased. Also, the percentage crude bre of cucumber fruit of Marketer variety that received no application of NAA in the rst instance increased but later decreased. Similarly, the percentage crude bre of cucumber fruit of Poinsett variety decreased with increase in concentration of Manganese applied and 50 ppm NAA application while in Marketer variety, there was drastical decrease in percentage crude bre therea er slightly increased with 50 ppm NAA application . Also, as Manganese concentration applied to Poinsett variety increase with 100 ppm NAA application, the percentage crude bre of cucumber fruit of Poinsett variety increased. Meanwhile, Marketer variety with the same NAA application level resulted in initial decrease in percentage crude bre and therea er increased) [28].

Additionally, as the concentration of Manganese applied to Poinsett variety that received no NAA application increased, percentage

moisture content of cucumber fruit decreased therea er increased.

was produced from the application of 100 ppm NAA and 50 ppm Mn whereas in Marketer variety, 100 ppm NAA and 50 ppm Mn contributed to the highest carbohydrate (59.80%). e least amount of carbohydrate (53.56%) was produced from the Poinsett and 0 ppm NAA and 50 ppm Mn. It is important to note that samples with high carbohydrate content might not be best for diabetic and hypertensive patients requiring low sugar diets.

Furthermore, the highest percentage ash content was found in Poinsett interacting with 50 ppm NAA, and 100 ppm Mn. Also, the best ash content (13.96%) in Marketer variety was in uenced by the application of 100 ppm NAA and 100 ppm Mn. e result was in agreement with the nding of Bello et al. (2008) that reported that high ash contents are expected to have high concentrations of various mineral elements, which are expected to speed up metabolic processes and improve growth and development.

Moreover, according to the results, the interaction of 0 ppm NAA and 100 ppm Mn with Poinsett produced the highest percentage crude fat (3.71%) in Poinsett variety, while in Marketer variety, unsj0 Tw T* h3nding of

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