

Response of Foliar Feeding of Nutrients and different level of Pruning Intensities on Physical attributes of Guava (*Psidium guajava* L.) c v. Allahabad Safeda

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Abstract: The experiment was conducted on nine year old well-established guava orchard planted at 3.0 × 3.0 m spacing to study the response of foliar feeding of nutrients and pruning intensities on the physical parameters of guava (*Psidium guajava* L.) cv. Allahabad Safeda during 2022-23 and 2023-24 at Horticultural orchard, Powarkheda, Narmadapuram under the Department of Horticulture, College of Agriculture, JNKVV Jabalpur (M.P.). The experiment was laid out in Factorial Randomized Block Design (FRBD) replicated three times. The treatment consist of two factor (A) three pruning levels, i.e., No pruning (P₀), pruning at 25cm shoot from tip (P₁), pruning at 50cm shoot from tip (P₂) and (B) thirteen level of nutrients N₀ - Control, N₁-Urea @ 2%, N₂- Urea @ 3%, N₃-Nano urea @ 0.2% N₄- Nano urea @ 0.3%, N₅ -Zinc @ 0.4%, N₆- Zinc @ 0.6%, N₇- Nano zinc @ 0.04%, N₈-Nano zinc @ 0.06%, N₉- Iron @ 0.3%, N₁₀-Iron @ 0.5%, N₁₁-Nano iron @ 0.03%, N₁₂-Nano iron @ 0.5%. The result revealed that the maximum fruit length (6.44cm), fruit width (6.84 cm), fruit volume (142.72ml), pulp weight (150.19g) and specific gravity (1.020) were recorded in P₂ (pruning 50cm shoot from tip). While, the minimum was observed under treatment N₀ (no pruning). With respect of foliar application of nutrients, the highest fruit length (6.35cm), fruit width (6.70 cm), fruit volume (144.51ml), pulp weight (152.91g) and specific gravity (1.027) were observed under treatment N₂ (3% urea) and lowest was found in N₀ (control). Among the treatment combination, in P₂N₂ (Pruning at 50cm shoot from tip + Urea @ 3%) was found superior with respect of the maximum fruit length (6.67cm), fruit width (7.07 cm), fruit volume (151.58ml), and pulp weight (163.15g) and the minimum was recorded in control.

Keywords: pruning intensity, nutrients, guava and physical parameters.

INTRODUCTION

Guava (*Psidium guajava* L.), is one of the most important tropical and sub-tropical fruit because of its high nutritional and processing value as well as possibility of cultivation even under adverse conditions. This belongs to the family Myrtaceae and native to Tropical America. In India, guava is mostly grown in Uttar Pradesh, Bihar, Maharashtra, Gujarat, Madhya Pradesh, Andhra Pradesh, Tamil Nadu, Rajasthan, Karnataka, West Bengal, Orissa, Kerala and Punjab. In Madhya Pradesh, guava cultivated in a 3508 thousand hectare area with production of

686.07 thousand MT and a productivity of 19.55 MT/ha. The major guava cultivated districts in the Madhya Pradesh are Rewa, Satna, Balaghat, Panna, Umaria, Gwalior, Shivpuri, Guna, Shajapur, Morena, Betul, Sehore, Singrauli, Jabalpur, Sidhi, Datia, Narmadapuram, Bhopal, Katni, Ratlam, Ujjain, Khargone, Dhar, Indore and Dewas (NHB, 2020). The guava fruit is round in shape and varies in colour from green to yellow. The interior flesh might be white, yellow, pink, or red in colour, with numerous yellowish seeds. Guava trees can reach a height

of 10 meters (33 feet) and live for 40 years (Vora, et al., 2018; and Pratap, et al., 2022).

Pruning helps in maintaining the balance between vegetative and reproductive growth of the plant. A light pruning is considered necessary to encourage new shoots after the harvest. Shoot pruning is helpful in reducing the tree size and improving the fruit quality, and also provide opportunity to increase the number of trees per unit area (Lal et al., 2000).

Foliar feeding of nutrients to fruit plants has gained much importance in recent years, which is quite economical and obviously an ideal way of evading the problems of nutrient availability and supplementing the fertilizers to the soil (Zagade et al., 2020). Nutrients like nitrogen, phosphorus and potash play a vital role in promoting plant vigour and productivity, whereas micronutrients like zinc, boron, copper, iron and molybdenum perform a specific role in the growth and development of plant, quality produce and uptake of major nutrients.

Keeping this in view, the studies were thus planned to see the response of foliar feeding of nutrients and different levels of pruning intensities on the physical attributes of guava (*Psidium guajava* L.) cv. Allahabad Safeda.

MATERIAL AND METHODS

The experiment was carried out on a nine year old orchard with planting distance of 3 m x 3 m at Horticultural orchard, Powarkheda, Narmadapuram under Department of Horticulture, College of Agriculture, JNKVV Jabalpur (M.P.) during 2022-23 and 2023-24. The experimental field was having deep black soil vertisol, clay in its texture, moderate fertility, uniform in topography, free from the waterlogged condition. The experiment was laid out in Factorial Randomized Block Design (FRBD) replicated thrice. The treatment consisted of three pruning levels, i.e. No pruning (P_0), pruning at 25cm shoot from tip (P_1), pruning at 50cm shoot from (P_2) and thirteen level of nutrients N_0 - Control, N_1 -Urea @ 2%, N_2 - Urea @ 3%, N_3 -Nano urea @ 0.2% N_4 - Nano urea @0.3%, N_5 -Zinc @ 0.4%, N_6 - Zinc @ 0.6%, N_7 - Nano zinc @ 0.04%, N_8 -Nano zinc @ 0.06%, N_9 - Iron @ 0.3%, N_{10} -Iron @ 0.5%, N_{11} -Nano iron @

0.03%, N_{12} -Nano iron @0.5%. The pruning was done on 27th of April and nutrients were applied through foliar application on before flowering and after fruit set in guava plant. The physical attributes were recorded as follows:

Fruit length and width: The length and width of five fruits from each treatment were measured with the help of digital Vernier caliper and expressed in centimeters.

Fruit volume (ml): Fruit volume of five fruits was measured by displacement of water after dipping fruit in a calibrated jar and expressed in term of ml of fruit.

Specific gravity: It is the ratio of weight of fruit (g) and fruit volume (ml).

$$\text{Specific gravity} = \frac{\text{Weight of fruit (g)}}{\text{Displaced water by fruit (ml)}}$$

RESULTS AND DISCUSSION

Physical parameter

Fruit length and fruit width (cm)

Data on fruit length and width as influenced by pruning intensity and foliar application of nutrients and their combination are presented in (Table 1-2 and Figure 1-2). Among, different levels of pruning the mean data (Pooled Data) of 2022-23 and 2023-24 revealed that the highest fruit length (6.44cm) and fruit width (6.84cm) were recorded in P_2 (pruning at 50cm shoot from tip) and lowest fruit length (5.70cm) and (6.01cm) were observed in P_0 (no pruning). The increase in fruit length and width (fruit size) might be due to was increased severity of pruning. The pruning favours increase in number and area of leaves that's why more photosynthesis. The similar findings were also reported by Adhikari and Kandel (2015). The results regarding foliar feeding of nutrients, revealed that the maximum fruit length (6.35cm) and fruit width (6.70cm) were recorded in N_2 (Urea @ 3%) and minimum fruit length (5.79cm) and fruit width (6.15cm) were found in N_0 (control). This might be due to accelerated rate of cell enlargement and formation of larger intercellular spaces during fruit growth and also increase in either flesh or seeds or both. This was primarily due to the stimulation of flesh

growth in fruits. The findings are in conformity with results reported by Kumar et al., (2017). Among the treatment combination of pruning intensity and nutrients, significantly highest fruit length (6.67 cm) and fruit width (7.07cm) was recorded in P₂N₂(pruning at 50cm shoot from tip + Urea @ 3%) followed by P₂N₁(pruning at 50cm shoot from tip + Urea @ 2%) having fruit length

(6.63cm) and fruit width (7.04cm). The minimum fruit length (5.48cm) and fruit width (5.79cm) were observed in P₀N₀ (no pruning + control). The results are in agreement with the earlier findings of Kewat and Tiwari, 2016; Lakhpathi, and Rajkumar, 2018; Singh, and Kaur, 2019; and Magadum, et al., 2023) in guava.

Table 1: Effect of pruning intensity and foliar feeding of nutrients on fruit length (cm)

Nutrients Factor B	Pruning factor A											
	Year 2022-23				Year 2023-24				Pooled			
	P ₀ (0 cm)	P ₁ (25 cm)	P ₂ (50 cm)	Mean	P ₀ (0 cm)	P ₁ (25 cm)	P ₂ (50 cm)	Mean	P ₀ (0 cm)	P ₁ (25 cm)	P ₂ (50 cm)	Mean
N ₀ (Control)	5.47	5.83	6.03	5.78	5.49	5.86	6.08	5.81	5.48	5.85	6.06	5.79
N ₁ (2% Urea)	5.91	6.30	6.61	6.27	5.95	6.35	6.67	6.32	5.93	6.33	6.63	6.30
N ₂ (3% Urea)	5.99	6.33	6.64	6.32	6.03	6.38	6.70	6.37	6.01	6.36	6.67	6.35
N ₃ (0.2% Nano urea)	5.73	6.19	6.49	6.14	5.76	6.23	6.54	6.18	5.75	6.21	6.52	6.16
N ₄ (0.3% Nano urea)	5.76	6.21	6.51	6.16	5.79	6.25	6.56	6.20	5.78	6.23	6.54	6.18
N ₅ (0.4% Zinc)	5.79	6.24	6.55	6.19	5.83	6.29	6.61	6.24	5.81	6.27	6.58	6.22
N ₆ (0.6% Zinc)	5.85	6.27	6.57	6.23	5.89	6.32	6.63	6.28	5.87	6.30	6.60	6.26
N ₇ (0.04% Nano zinc)	5.63	6.15	6.37	6.05	5.66	6.19	6.42	6.09	5.65	6.17	6.40	6.07
N ₈ (0.06% Nano zinc)	5.68	6.11	6.44	6.08	5.71	6.15	6.49	6.12	5.69	6.13	6.47	6.10
N ₉ (0.3% Iron)	5.53	6.03	6.31	5.96	5.56	6.07	6.36	6.00	5.55	6.05	6.34	5.98
N ₁₀ (0.5%Iron)	5.58	6.06	6.34	5.99	5.61	6.10	6.39	6.03	5.60	6.08	6.37	6.01
N ₁₁ (0.03% Nano Iron)	5.49	5.95	6.24	5.89	5.52	5.98	6.28	5.93	5.50	5.97	6.26	5.91
N ₁₂ (0.05% Nano Iron)	5.51	5.99	6.27	5.93	5.54	6.03	6.32	5.97	5.53	6.01	6.30	5.95
Mean	5.69	6.13	6.41		5.72	6.17	6.47		5.70	6.15	6.44	
	Pruning	Nutrient	Interaction		Pruning	Nutrient	Interaction		Pruning	Nutrient	Interaction	
SEm(±)	0.367	0.162	0.037		0.377	0.167	0.036		0.005	0.010	0.017	
CD at 5%	1.049	0.462	0.105		1.077	0.477	0.101		0.013	0.027	0.047	

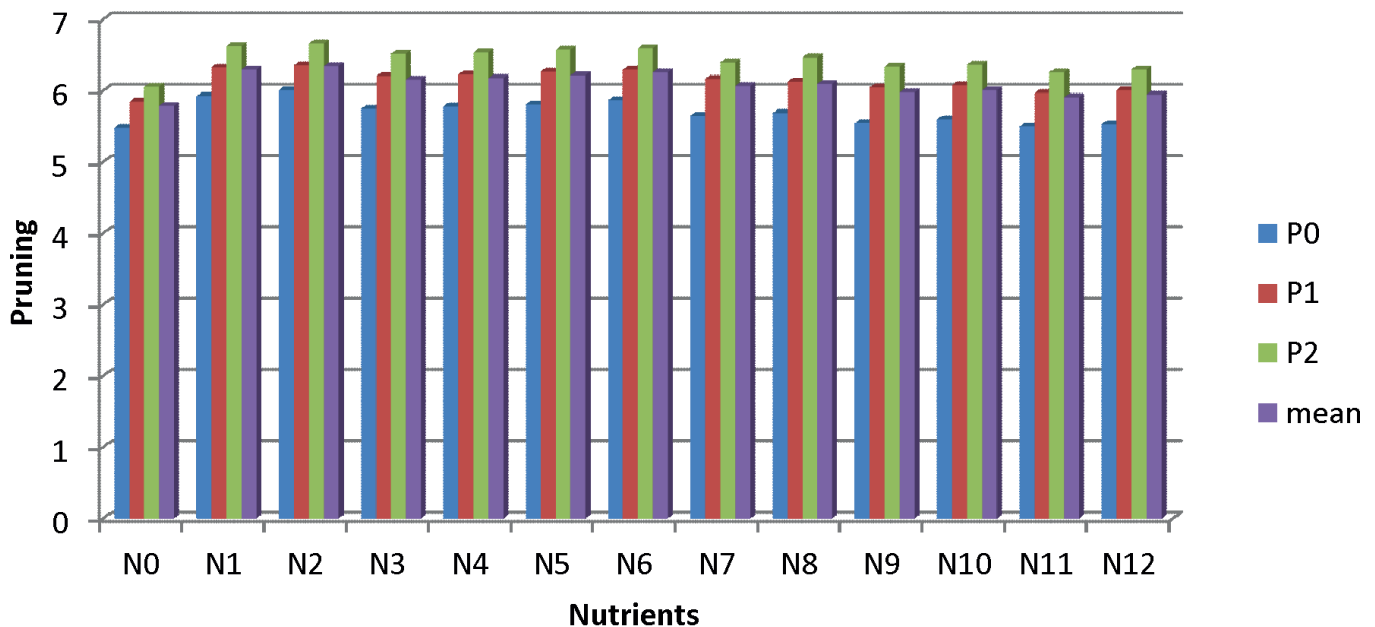


Fig. 1: Effect of pruning intensity and foliar feeding of nutrients on fruit length (cm)

Table 2: Effect of pruning intensity and foliar feeding of nutrients on fruit width (cm)

Nutrients Factor B	Pruning factor A											
	Year 2022-23				Year 2023-24				Pooled			
	P_0 (0 cm)	P_1 (25 cm)	P_2 (50 cm)	Mean	P_0 (0 cm)	P_1 (25 cm)	P_2 (50 cm)	Mean	P_0 (0 cm)	P_1 (25 cm)	P_2 (50 cm)	Mean
N_0 (Control)	5.78	6.18	6.43	6.13	5.80	6.21	6.48	6.16	5.79	6.20	6.46	6.15
N_1 (2% Urea)	6.22	6.65	7.01	6.63	6.26	6.70	7.07	6.68	6.24	6.68	7.04	6.65
N_2 (3% Urea)	6.30	6.68	7.04	6.67	6.34	6.73	7.10	6.72	6.32	6.71	7.07	6.70
N_3 (0.2% Nano urea)	6.04	6.54	6.89	6.49	6.07	6.58	6.94	6.53	6.06	6.56	6.92	6.51
N_4 (0.3% Nano urea)	6.07	6.56	6.91	6.51	6.10	6.60	6.96	6.55	6.09	6.58	6.94	6.53
N_5 (0.4% Zinc)	6.10	6.59	6.95	6.55	6.14	6.64	7.01	6.60	6.12	6.62	6.98	6.57
N_6 (0.6% Zinc)	6.16	6.62	6.97	6.58	6.20	6.67	7.03	6.63	6.18	6.65	7.00	6.61
N_7 (0.04% Nano zinc)	5.94	6.50	6.77	6.40	5.97	6.54	6.82	6.44	5.96	6.52	6.80	6.42
N_8 (0.06% Nano zinc)	5.99	6.46	6.84	6.43	6.02	6.50	6.89	6.47	6.00	6.48	6.87	6.45
N_9 (0.3% Iron)	5.84	6.38	6.71	6.31	5.87	6.42	6.76	6.35	5.86	6.40	6.74	6.33
N_{10} (0.5% Iron)	5.89	6.41	6.74	6.35	5.92	6.45	6.79	6.39	5.91	6.43	6.77	6.37
N_{11} (0.03% Nano Iron)	5.80	6.30	6.64	6.25	5.83	6.33	6.68	6.28	5.81	6.32	6.66	6.26
N_{12} (0.05% Nano Iron)	5.82	6.34	6.67	6.28	5.85	6.38	6.72	6.32	5.84	6.36	6.70	6.30
Mean	6.00	6.48	6.81		6.03	6.52	6.87		6.01	6.50	6.84	
	Pruning	Nutrient	Interaction		Pruning	Nutrient	Interaction		Pruning	Nutrient	Interaction	
SEm (\pm)	0.411	0.162	0.037		0.421	0.167	0.036		0.001	0.002	0.004	
CD at 5%	1.176	0.462	0.105		1.204	0.477	0.101		0.003	0.006	0.010	

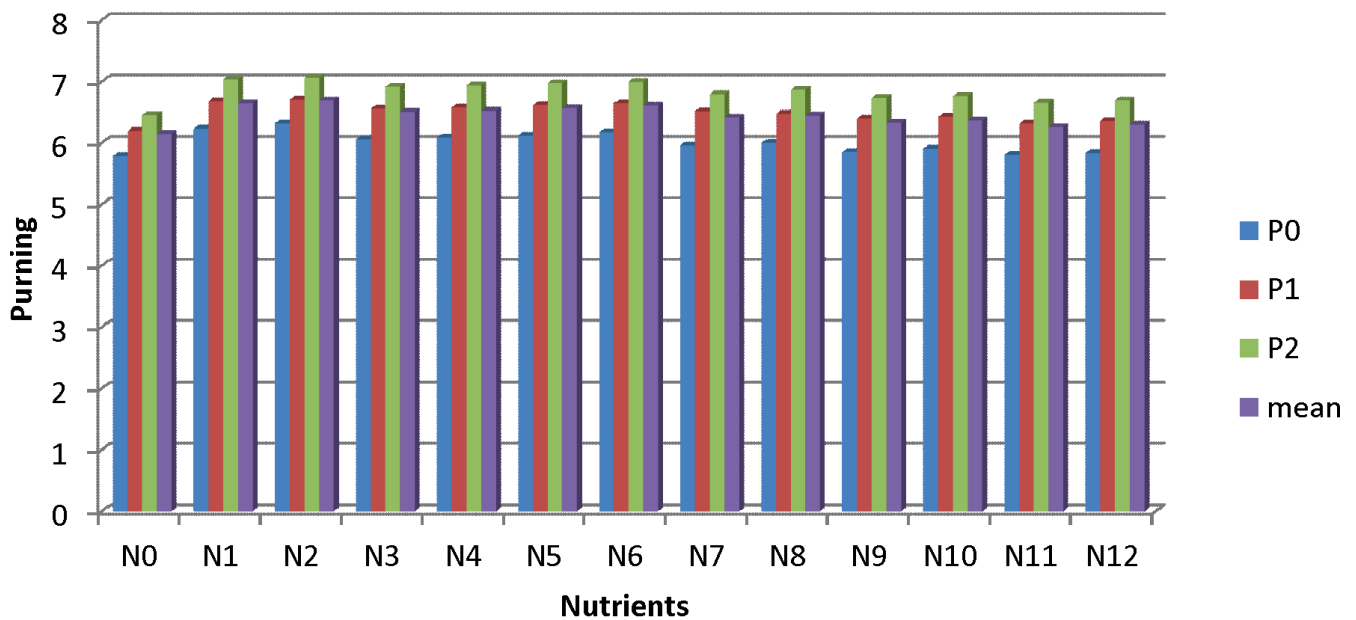


Fig. 2: Response of pruning intensity and foliar feeding of nutrients on fruit width (cm).

Fruit volume (ml), Pulp weight (g) and Specific gravity

Data on fruit volume (ml) pulp weight (g) and specific gravity as influenced by pruning and foliar application of nutrients and their combination are presented in (Table:3-5 and Figure:3-5). Among, different level of pruning, the mean data (Pooled Data) of 2022-23 and 2023-24 revealed that the maximum fruit volume (142.72ml) pulp weight (150.19g) and specific gravity (1.020) were recorded in P₂ (pruning at 50cm shoot from tip) and minimum fruit volume (128.47ml), pulp weight (130.71g) and specific gravity (1.013) were recorded in P₀ (no pruning). The results regarding foliar feeding of nutrients the highest fruit volume (144.51ml), pulp weight (152.91g) and specific gravity (1.027) were recorded in N₂ (Urea @ 3%). The lowest fruit volume (127.25ml), pulp weight (128.65g) and specific gravity (1.005) were recorded in N₀ (control). Increase in fruit

volume with different concentration of urea could be due to the involvement of urea in the synthesis of endogenous auxins, which results in an increase in cell division and cell enlargement in fruit and also an increase in accumulation of food material in cells which result in an increase in the fruit volume in guava. The findings are in conformity with results reported by by Kumar *et al.*, (2017). Among, the treatment combinations, significantly highest fruit volume (151.58ml) and pulp weight (163.15g) was recorded in P₂N₂ (pruning at 50cm shoot from tip + Urea @ 3%) followed by P₂N₁ (pruning at 50cm shoot from tip + Urea @ 2%) having fruit volume (150.39ml) and pulp weight(160.93g). The minimum fruit volume (122.76ml) and pulp weight(122.52g) was recorded in P₀N₀ (no pruning + control). The obtained results are in accordance with (Jatav, et al.,2016; Yadav, et al.,2017; Ghatul, et al.,2019; Sachin, et al., 2019; Jayswal, et al.,2019; and Kumar, et al., 2021), in guava.

Table 3: Effect of pruning intensity and foliar feeding of nutrients on fruit volume (ml).

Nutrients Factor B	Pruning factor A											
	Year 2022-23				Year 2023-24				Pooled			
	P ₀ (0 cm)	P ₁ (25 cm)	P ₂ (50 cm)	Mean	P ₀ (0 cm)	P ₁ (25 cm)	P ₂ (50 cm)	Mean	P ₀ (0 cm)	P ₁ (25 cm)	P ₂ (50 cm)	Mean
N ₀ (Control)	122.24	125.76	131.21	126.40	123.28	127.79	133.24	128.10	122.76	126.78	132.23	127.25
N ₁ (2% Urea)	135.11	142.58	149.37	142.35	136.15	144.61	151.40	144.05	135.63	143.60	150.39	143.20
N ₂ (3% Urea)	136.85	143.57	150.56	143.66	137.89	145.60	152.59	145.36	137.37	144.59	151.58	144.51
N ₃ (0.2% Nano urea)	127.40	134.42	143.33	135.05	128.44	136.45	145.36	136.75	127.92	135.44	144.35	135.90
N ₄ (0.3% Nano urea)	128.88	136.87	144.74	136.83	129.92	138.90	146.77	138.53	129.40	137.89	145.76	137.68
N ₅ (0.4% Zinc)	131.10	138.35	146.25	138.57	132.14	140.38	148.28	140.27	131.62	139.37	147.27	139.42
N ₆ (0.6% Zinc)	133.34	140.91	147.79	140.68	134.38	142.94	149.82	142.38	133.86	141.93	148.81	141.53
N ₇ (0.04% Nano zinc)	125.67	132.20	140.30	132.72	126.71	134.23	142.33	134.42	126.19	133.22	141.32	133.57
N ₈ (0.06% Nano zinc)	126.11	133.53	142.36	134.00	127.15	135.56	144.39	135.70	126.63	134.55	143.38	134.85
N ₉ (0.3% Iron)	124.75	129.44	137.23	130.47	125.79	131.47	139.26	132.17	125.27	130.46	138.25	131.32
N ₁₀ (0.5% Iron)	125.04	130.65	138.45	131.38	126.08	132.68	140.48	133.08	125.56	131.67	139.47	132.23
N ₁₁ (0.03% Nano Iron)	122.96	127.85	134.96	128.59	124.00	129.88	136.99	130.29	123.48	128.87	135.98	129.44
N ₁₂ (0.05% Nano Iron)	123.96	128.55	135.66	129.39	125.00	130.58	137.69	131.09	124.48	129.57	136.68	130.24
Mean	127.95	134.21	141.71		128.99	136.24	143.74		128.47	135.22	142.72	
	Pruning	Nutrient	Interaction		Pruning	Nutrient	Interaction		Pruning	Nutrient	Interaction	
SEm (±)	6.886	5.491	1.089		7.372	5.491	1.089		0.094	0.195	0.338	
CD at 5%	19.683	15.694	3.114		21.072	15.694	3.114		0.262	0.545	0.944	

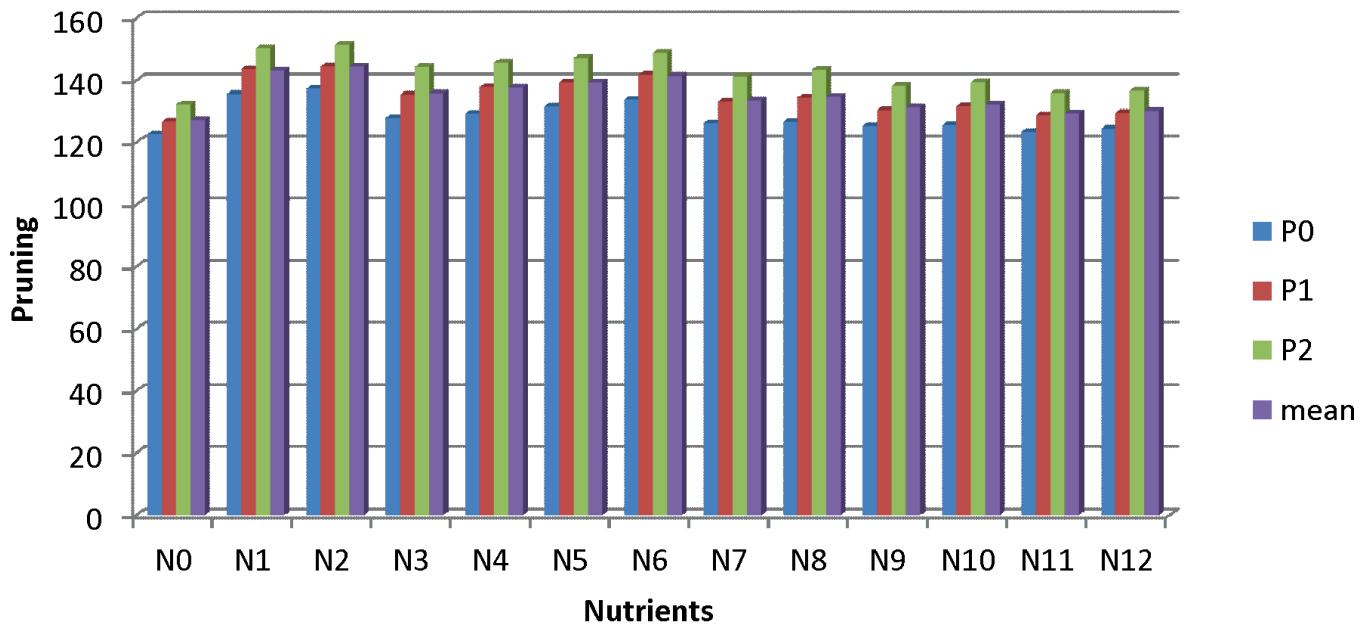


Fig. 3: Response of pruning intensity and foliar feeding of nutrients on fruit volume (ml).

Table 4: Effect of pruning intensity and foliar feeding of nutrients on pulp weight (g).

Nutrients Factor B	Pruning factor A											
	Year 2022-23				Year 2023-24				Pooled			
	<i>P</i> ₀ (0 cm)	<i>P</i> ₁ (25 cm)	<i>P</i> ₂ (50 cm)	Mean	<i>P</i> ₀ (0 cm)	<i>P</i> ₁ (25 cm)	<i>P</i> ₂ (50 cm)	Mean	<i>P</i> ₀ (0 cm)	<i>P</i> ₁ (25 cm)	<i>P</i> ₂ (50 cm)	Mean
N ₀ (Control)	121.49	126.07	133.87	127.14	123.54	129.13	137.78	130.15	122.52	127.60	135.83	128.65
N ₁ (2% Urea)	138.76	148.56	158.90	148.74	141.87	153.07	162.95	152.63	140.32	150.82	160.93	150.69
N ₂ (3% Urea)	141.28	150.47	161.10	150.95	144.45	154.98	165.20	154.88	142.87	152.73	163.15	152.91
N ₃ (0.2% Nano urea)	129.06	138.23	150.52	139.27	132.10	142.57	154.51	143.06	130.58	140.40	152.52	141.17
N ₄ (0.3% Nano urea)	130.99	141.45	152.62	141.69	134.07	145.87	156.65	145.53	132.53	143.66	154.64	143.61
N ₅ (0.4% Zinc)	133.20	143.21	154.59	143.67	136.35	147.59	158.63	147.52	134.78	145.40	156.61	145.60
N ₆ (0.6% Zinc)	136.43	146.40	156.91	146.58	139.55	150.82	160.97	150.45	137.99	148.61	158.94	148.51
N ₇ (0.04% Nano zinc)	126.50	135.33	146.14	135.99	128.92	138.85	150.10	139.29	127.71	137.09	148.12	137.64
N ₈ (0.06% Nano zinc)	127.40	137.07	148.60	137.69	129.82	140.59	152.56	140.99	128.61	138.83	150.58	139.34
N ₉ (0.3% Iron)	124.59	131.78	141.56	132.64	127.01	135.30	145.51	135.94	125.80	133.54	143.54	134.29
N ₁₀ (0.5% Iron)	125.66	133.25	143.38	134.10	128.20	136.77	147.38	137.45	126.93	135.01	145.38	135.77
N ₁₁ (0.03% Nano Iron)	122.61	128.79	138.65	130.02	124.84	132.01	142.59	133.15	123.73	130.40	140.62	131.58
N ₁₂ (0.05% Nano Iron)	123.57	129.85	139.67	131.03	126.08	133.37	143.67	134.37	124.83	131.61	141.67	132.70
Mean	129.35	137.73	148.19		132.06	141.61	152.19		130.71	139.67	150.19	
	<i>Pruning</i>	<i>Nutrient</i>	<i>Interaction</i>		<i>Pruning</i>	<i>Nutrient</i>	<i>Interaction</i>		<i>Pruning</i>	<i>Nutrient</i>	<i>Interaction</i>	
SEm (±)	9.441	7.527	1.440		10.070	7.837	1.356		0.094	0.195	0.338	
CD at 5%	26.985	21.514	4.117		28.782	22.399	3.875		0.262	0.545	0.944	

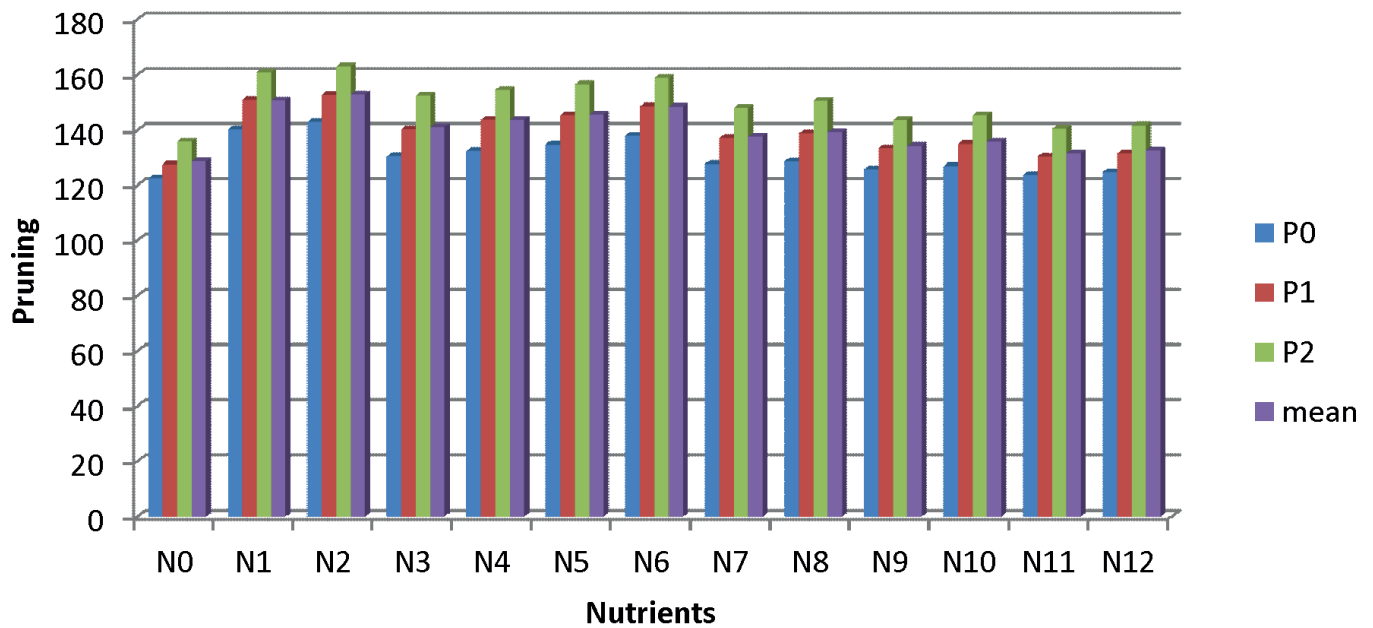


Fig. 4: Response of pruning intensity and foliar feeding of nutrients on pulp weight(g)

Table 5: Effect of pruning intensity and foliar feeding of nutrients on specific gravity .

Nutrients Factor B	Pruning factor A											
	Year 2022-23				Year 2023-24				Pooled			
	P_0 (0 cm)	P_1 (25 cm)	P_2 (50 cm)	Mean	P_0 (0 cm)	P_1 (25 cm)	P_2 (50 cm)	Mean	P_0 (0 cm)	P_1 (25 cm)	P_2 (50 cm)	Mean
N_0 (Control)	1.001	1.003	1.006	1.003	1.003	1.006	1.010	1.006	1.002	1.005	1.008	1.005
N_1 (2% Urea)	1.020	1.023	1.027	1.023	1.023	1.027	1.032	1.027	1.022	1.025	1.030	1.025
N_2 (3% Urea)	1.022	1.025	1.029	1.025	1.025	1.029	1.034	1.029	1.024	1.027	1.032	1.027
N_3 (0.2% Nano urea)	1.014	1.016	1.019	1.016	1.017	1.020	1.024	1.020	1.016	1.018	1.022	1.018
N_4 (0.3% Nano urea)	1.016	1.018	1.021	1.018	1.019	1.022	1.026	1.022	1.017	1.020	1.023	1.020
N_5 (0.4% Zinc)	1.018	1.021	1.024	1.021	1.021	1.025	1.029	1.025	1.020	1.023	1.027	1.023
N_6 (0.6% Zinc)	1.019	1.022	1.025	1.022	1.022	1.026	1.030	1.026	1.021	1.024	1.028	1.024
N_7 (0.04% Nano zinc)	1.011	1.013	1.016	1.014	1.014	1.017	1.021	1.018	1.013	1.015	1.019	1.016
N_8 (0.06% Nano zinc)	1.013	1.015	1.018	1.015	1.016	1.019	1.023	1.019	1.015	1.017	1.021	1.017
N_9 (0.3% Iron)	1.007	1.009	1.012	1.009	1.010	1.013	1.016	1.013	1.009	1.011	1.014	1.011
N_{10} (0.5% Iron)	1.009	1.011	1.014	1.011	1.011	1.015	1.018	1.015	1.010	1.013	1.016	1.013
N_{11} (0.03% Nano Iron)	1.004	1.006	1.009	1.006	1.007	1.009	1.013	1.010	1.005	1.007	1.011	1.008
N_{12} (0.05% Nano Iron)	1.003	1.005	1.008	1.005	1.005	1.008	1.012	1.008	1.004	1.007	1.010	1.007
Mean	1.012	1.014	1.018		1.015	1.018	1.022		1.013	1.016	1.020	
	Pruning	Nutrient	Interaction		Pruning	Nutrient	Interaction		Pruning	Nutrient	Interaction	
SEm (±)	0.0027	0.0072	0.0004		0.0037	0.0075	0.0005		0.0008	0.0017	0.0030	
CD at 5%	0.0078	0.0206	*NS		0.0105	0.0216	*NS		0.0023	0.0048	*NS	

*Non significant

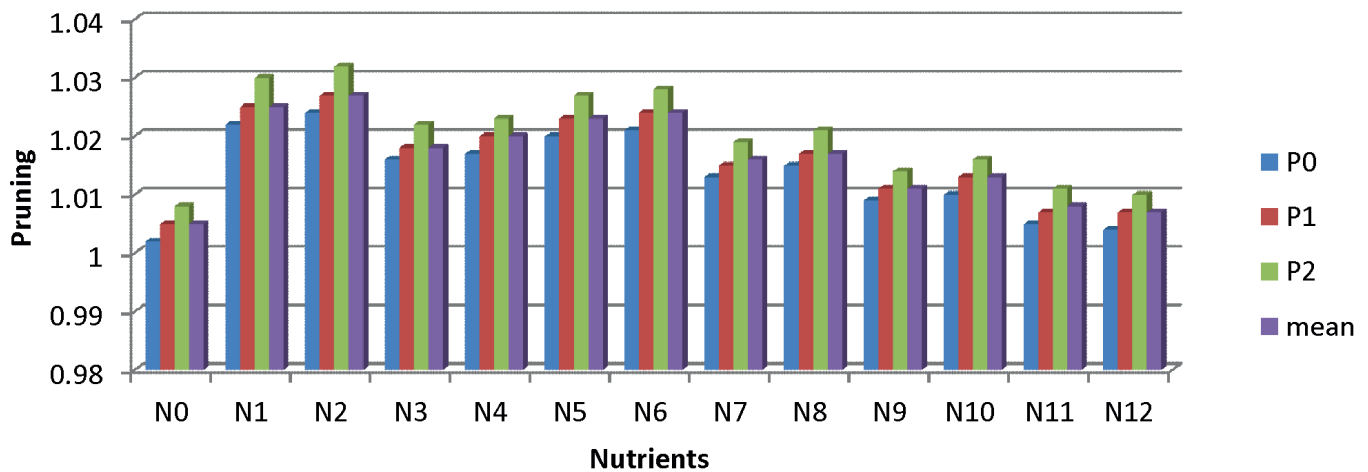


Fig. 5: Response of pruning intensity and foliar feeding of nutrients on specific gravity .

CONCLUSION

Based on the results obtained, it is concluded that different levels of pruning and nutrients and their combinations significantly influenced the physical parameters and the treatment combinations, P_2N_2 (pruning at 50cm shoot from tip + Urea @ 3%) was found superior with respect to the maximum, fruit length (6.67 cm), fruit width (7.07cm), fruit volume (151.58ml) and pulp weight (163.15g). The P_2N_1 (pruning at 50cm shoot from tip + Urea @ 2%) was found next best treatment with respect to fruit length (6.63cm) and fruit width (7.04cm), fruit volume(150.39ml) and pulp weight (160.93g).

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