Biological Forum – An International Journal **14(3): 608-612(2022)**

ISSN No. (Print): 0975-1130
ISSN No. (Online): 2249-3239

Influence of Pruning Intensities and Foliar Spray of Nutrients on Yield and Physical Parameters of Pomegranate (*Punica granatum* L.) cv. Bhagwa

Yuvraj Yadav[1], Rajnee Sharma[2*] and T.R. Sharma[3]
[1]M.Sc. Scholar, (Fruit Science), Department of Horticulture,
College of Agriculture, JNKVV, Jabalpur (Madhya Pradesh), India.
[2]Assistant Professor, Department of Horticulture, JNKVV, Jabalpur (Madhya Pradesh), India.
[3]Professor, Director of Extension Services, JNKVV, Jabalpur (Madhya Pradesh), India.

(Corresponding author: Rajnee Sharma)*
(Received 28 May 2022, Accepted 19 July, 2022)
(Published by Research Trend, Website: www.researchtrend.net)

ABSTRACT: The field investigation was carried out to study the efficacy of different pruning intensities and foliar spray of nutrients on yield and physical parameters of pomegranate *(Punica granatum* L.) *cv.* Bhagwa at Fruit Research Station, Imaliya, Department of Horticulture, JNKVV, Jabalpur during 2020-21. Pomegranate is a light loving plant thus enough light should be available or required in the tree canopy for quality fruit production which can be achieved by training and pruning and has significant impact on fruit production. In any fruit crop, for optimum fruiting and quality fruit production, the canopy management of the tree is prerequisite that deals with the development and maintenance of their structure in relation to the size and shape. The basic idea of canopy management (pruning) is to manipulate the tree vigour and use maximum available light and temperature to increase productivity, fruit quality and also to minimize the adverse effects of the weather and consequently, pruning intensities significantly influence the yield and physical characters. The maximum number of fruits/shoot (3.14), fruit set (45.19%) and yield (14.43 kg/plant) were noted with the pruning at 20 cm whereas, the superior quality of fruit with respect to the maximum fruit length (8.68 cm), fruit diameter (7.70 cm), fruit weight (284.36 g), number of arils/fruit (536.63), arils weight (179.00g) and minimum Peel: Aril (0.59) were significantly recorded under the 60cm pruning. Application of nutrients also bring out the significantly changes in the yield and physical quality of the fruits. The maximum number of fruits/shoot (2.84), fruit set (42.25%), yield (14.55 kg/plant), fruit weight (275.46 g), fruit length (7.79 cm), fruit diameter (7.73 cm), number of arils/fruit (514.90), arils weight/fruit (174.67) and minimum Peel: Aril (0.58) were significantly recorded with foliar spray of Urea 2% + Zn 0.4% + B 0.4%. As regarded, the interaction effect between pruning intensities and foliar application of nutrients significant effect observed in yield attributes and on the physical parameters of fruit. The higher yield of 18.93 kg/plant, with fruit set (48.15%) and number of fruit set per shoot (3.36/ shoot) were recorded under treatment 20 cm pruning along with foliar spray of Urea (2%) + Zn (0.4%) + B (0.4%). Whereas, maximum fruit weight (302.93 g), fruit length (8.52cm), fruit diameter (8.30 cm), number of arils/fruit (578.76), arils weight/fruit (197.33 g) and minimum Peel: Aril (0.54) were recorded under 60 cm pruning intensity along with foliar spray Urea (2%) + (Zn 0.4%) + B (0.4%).

Keywords: Physical characteristics, pruning intensity, pomegranate, yield.

INTRODUCTION

The pomegranate (*Punica granatum* L.) is an economically important marketable fruit crop belongs to the family Punicaceae and it is diploid with chromosome number, 2n=2x=16 (Kumar *et al.,* 2018). It is originated from Iran or Persia region. Pomegranate is mostly consumed as fresh arils and on a small scale it is used for juice, syrup, jelly, processed arils, wine etc. There has been marked shift towards the consumption of pomegranate globally looking to its several nutritive, nutraceutical and medicinal properties (Shastri and Pawar 2014). Maharashtra is the leading producer of pomegranate followed by Karnataka, Andhra Pradesh, Gujarat and Tamil Nadu (Chandra *et al.,* 2010). India is the world's leading producer of pomegranate with nearly 50% of world's production. The total area under this fruit at present accounted for 131 thousand hectares with an annual production of 1346 thousand metric tons and productivity of 10.3 MT/ha in India and in MP, pomegranate is covering an area of 9675.20 ha with the production of 114266.29 tons with an average productivity of 11.81 tons/ha (Anonymous, 2018).

Three flowering seasons *i.e*., *Ambe Bahar* (January - February), *Mrig Bahar* (June - July), and *Hast Bahar* (September - October) have been observed in India (Radha and Medhew 2007). *Ambe Bahar* is mostly common and adopted by the growers due to higher yield and better quality of fruits. The flowers are borne on current year's growth and found mostly in clusters either terminally or in axils of the leaves. Three types of colorful orange-red flowers viz. male flowers (bell-shaped), hermaphrodite flowers (vase-shape) and intermediate flowers are found (Radha and Medhew 2007). The main growing shoot inhibit the growth of other shoots, when the shoots are pruned, the growth of other shoots can be encouraged and made strong, give the proper shape to the plant. Pruning is necessary to allow room for new growth and gives proper shape to the plants, removing of weak or old branches, crisscrossed branches and dry diseased twigs and suckers, divert the energy into that part which are capable to produce more photosynthates for development of healthy flowers (Sharma and Chouhan 2004). Pruning is the most important practices for successful and sustainable cultivation of the fruit crop including pomegranate. Pruning improves light penetration and air circulation, which results in better fruit quality and also in minimize the pest's allele and disease spread (Sharma and Chauhan 2004). Orchard floor management practices help in also a better light interception, regulation of soil erosion, reduced surface run-off and suppress weed population (Warade *et al*., 2008). The percent fruit set increased significantly with decrease in pruning severity (Gill and Bal 2006) and reduction in total yield of fruits with the increase in pruning severity (Yang *et al.,* 2009) heavy pruning registered the lowest fruit set in Sharma and Sing 2018, in Pomegranate, Kumar *et al.* 2005, in Sharbati, Flordasun and Prabhat cvs. of peaches and Sharma *et al*. (2017) in apricot. Pomegranate plant requires an accurate combination of the nutrients for the quantitative and qualitative fruit production. Its productivity and fruit quality can be enhanced by suitable and adequate supply of nutrients, balance nutrition is necessary both to the young and bearing trees for better growth, optimum and healthy fruit production (Dutta *et al.* 2000). Nitrogen is an important nutrient for the vegetative growth of the plant, and the deficiency of nitrogen resulted light green to yellow foliage over entire tree. Boron deficiency resulted serious issue such as growth cease at the growing point and poor development of roots, premature shading of male flowers and impaired pollen tube development leading to poor fruit setting and fruit cracking (Singh *et al.,* 2004). Zinc deficiency resulted reduce leaf and shoot growth, reduction in flowering and fruit setting (Wiedenhoeft, 2006). Looking to above fact and importance of pruning and nutrient present studies were conducted with the object to see the effect of pruning intensity and foliar application of nutrient effect on Pomegranate cv. *Bhagva.*

MATERIAL AND METHODS

The present investigation was conducted during the year 2020-21 at Fruit Research Station, Imaliya, Department of Horticulture, JNKVV, Jabalpur. (M.P.). Four levels of pruning intensities viz. 0, 20, 40 & 60 cm and five nutrients level of Urea + Zn + B were applied alone or in combinations. The randomly selected plants were tagged and as per the treatments the shoots were pruned in the month of November at 0 cm (unpruned), 20 cm, 40 cm, and 60 cm levels with the help of secateur. As per treatments the first foliar spray of nutrient was applied in the month of December and the second was 30 days after the first spray *i.e*., in the month of January. Without spray and no pruning fruit plants were taken as control plant. The twenty treatments were replicated thrice in Asymmetrical Factorial RBD. Single tree was considered as an experimental unit and total of 60 plants randomly selected and tagged for the purpose of study. Digital vernier calipers was used for measuring the value of fruit length and fruit diameter in cm. Fruit weight was measured by electronic balance in gram. The percentage of fruit set from the tagged ten shoots was calculated as total number of fruit set per shoot divided by total number of flowers per shoot. The total number of fruits per shoot were counted from ten randomly tagged shoots and average fruits per shoot were computed. Fresh fruits were picked out from the tree as per treatment and weighed with the use of electric balance. Arils were manually separated from the randomly selected five fruits and the total number of arils in each fruit was counted numerically. Arils of the five fruits were extracted and weighted using a digital analytical balance. The average value was computed. Pomegranate fruit was weighed and cut into pieces with the help of stainless-steel knife. The peel and aril were separated by hands. All the peel and arils of the fruit were weighed separately with the help of an electronic weighing machine. The peel: aril ratio was calculated by weight of the peel/fruit divided by weight of the arils/fruit.

RESULT AND DISCUSSION

Fruit yield is the important attributes for growers to get the maximum profit per unit area. Pruning intensities significantly influence the yield and the maximum number of fruit set (45.19%), fruits/shoot (3.14) and yield (14.43 kg/plant) was noted with the pruning at 20 cm. Pruning intensities significantly influence the yield characters. The results are in accordance with the earlier findings that percent fruit set increased significantly with decrease in pruning severity (Gill and Bal 2006) and reduction in total yield of fruits with the increase in pruning severity (Yang *et al.,* 2009) heavy pruning registered the lowest fruit set as reported by

Sharma and Singh (2018). This might be due to pomegranate plant bear fruits in current season growth and light pruning promote a greater number of new spurs which increase flowering and fruit set percentage. This result was agreement with Bajpai *et al.* (1973) in pomegranate, Dhapute *et al*. (2018) in Custard Apple, Bhuva *et al.* (2018) in Pomegranate. Whereas, the superior quality of fruit with respect to the maximum fruit length (8.68 cm), fruit diameter (7.70 cm), fruit weight (284.36 g), number of arils/fruit (536.63), arils weight (179.00g) and minimum Peel: Aril (0.59) were significantly recorded under the 60cm pruning. The superior quality of fruits with respect to the maximum value of the physical parameters found might be due to deeper the pruning resulted a lesser number of fruits while, the more availability of metabolites and nutrients leads to increase physical characters of fruit. The results are agreement with the findings of Gupta and Gill (2015) in Ber, Choudhary *et al.* (2018) in Custard, Hiremath *et al.* (2018) in Pomegranate and Ghatul *et al.* (2019) in pomegranate.

The foliar application of the nutrients influences the yield characters of the plant. The maximum number of fruit set (42.25%), fruits/shoot (2.84) and yield (14.55 kg/plant) were significantly recorded with foliar spray of Urea 2% + Zn 0.4% + B 0.4% as well as nutrients bring out the significantly changes in the physical compositions of the fruits and the maximum fruit weight (275.46 g), fruit length (7.79 cm), fruit diameter (7.73 cm), number of arils (514.90), arils weight/fruit (174.67) and minimum Peel: Aril (0.58) were observed with foliar spray of Urea 2% + Zn 0.4% + B 0.4%). The improvement in yield as well as physical characteristics is due to optimum supply of proper plant nutrients in right amount during the entire crop growth period causing vigorous vegetative development of the plants and ultimately production of more food material in fruits. Application of nutrients play a key role in metabolic activity, sugar translocation, advancement in flowering and highest ratio of perfect flowers: male flowers, highest fruit set percentage. This result was conformity with the findings of Hasani *et al*. (2012); Jagtap *et al*. (2013) in acid lime and Gurjar *et al.* (2015) in mango.

The interaction between pruning intensities and foliar application of nutrients had significant effect on the yield and yield attributes. The maximum number of fruits/shoot (3.82), fruit set (48.15%) and yield (18.93 kg/plant) were significantly recorded with pruning at 20 cm in combination with foliar spray of Urea 2% + Zn 0.4% + B 0.4%. Whereas, the maximum fruit length (8.52 cm), fruit diameter (8.30 cm), fruit weight (302.93g), number of arils/fruit (578.79) weight of arils/fruit (197.33g) and minimum Peel: Aril (0.54) were recorded with pruning at 60 cm + Urea 2% + Zn 0.4% + B 0.4%. The improvement in yield as well as physical characteristics is due to optimum supply of proper plant nutrients in right amount during the entire crop growth period causing vigorous vegetative development of the plants and ultimately production of more food material in fruits. Proper supply of nutrients throughout the growing period sustained the balance nutrient availability, wider C:N ratio and mobilization of metabolic activity, sugar translocation, advancement in flowering and highest ratio of perfect flowers: male flowers, highest fruit set percentage. Similar findings were also reported by Jagtap *et al.* (2013) in acid lime and Gurjar *et al.* (2015) in mango. Pruning intensities significantly influence the yield characters. This might be due to pomegranate plant bear fruits in current season growth and light pruning promote a greater number of new spurs which increase flowering and fruit set percentage. Bajpai *et al*. (1973); Bhuva *et al*. (2018) in Pomegranate. The superior quality of fruits with respect to the maximum value of the physical parameters found might be due to deeper the pruning resulted a lesser number of fruits while, the more availability of metabolites and nutrients leads to increase physical characters of fruit. Hiremath *et al.* (2018); Ghatul *et al.* (2019) also reported similar findings in Pomegranate.

Table 1: Effect of pruning intensities and foliar application of nutrients on yield parameters of pomegranate.

Treatments	Fruit Set (%)	Number of fruits per shoot	Fruit yield (kg/plant)	Fruit Length	Fruit Diameter	Fruit Weight (g)	Arils per Fruit	Arils Weight	Peel: Aril
P_0-Without pruning	32.05	1.37	7.48	6.55	6.48	206.53	378.85	122.80	0.68
P_1- Pruning @20cm	43.19	3.14	14.43	7.50	7.25	265.93	483.78	163.80	0.63
P_2-Pruning @40 cm	40.25	2.80	11.47	7.79	7.47	276.26	517.15	173.33	0.60
P_3-Pruning @60 cm	37.10	1.90	10.58	8.08	7.70	284.36	536.64	179.60	0.59
SE(m)±	0.05	0.008	0.03	0.02	0.01	0.27	0.46	0.24	0.003
CD at 5%	0.13	0.023	0.09	0.05	0.04	0.78	1.30	0.70	0.008
S_0- Without spray	32.97	1.65	6.31	7.05	6.55	240.69	440.86	144.00	0.67
S_1- Urea (2%) + Zn (0.2%) + B (0.2%)	39.80	2.53	12.51	7.71	7.49	265.36	496.13	166.58	0.60
S_2- Urea (2%) + Zn (0.4%) + B (0.4%)	42.25	2.84	14.55	7.97	7.73	275.46	514.90	174.67	0.58
S_3- Urea (4%) + Zn (0.2%) + B (0.2%)	37.54	2.18	10.46	7.29	7.10	253.18	467.11	154.92	0.64
S_4- Urea (4%) + Zn (0.4%) + B (0.4%)	38.18	2.30	11.13	7.38	7.25	256.68	476.54	159.25	0.62
SE(m)±	0.05	0.009	0.04	0.02	0.02	0.30	0.51	0.27	0.002
CD at 5%	0.15	0.025	0.11	0.05	0.04	0.87	1.46	0.78	0.007

Table 2: Combine effect of pruning intensities and foliar application of nutrients on yield parameters of pomegranate.

Treatments	Fruit Set (%)	Number of fruits / shoots	Fruit yield (kg/plant)	Fruit Length (cm)	Fruit Diameter (cm)	Fruit Weight (g)	Arils per Fruit	Arils Weight (g)	Peel: Aril
Control (P_0S_0)	28.00	0.91	4.03	5.96	5.86	177.0	326.93	104	0.70
Without pruning + Urea (2%), Zn (0.2%) + B (0.2%) (P0S1)	33.42	1.50	6.67	6.77	6.71	217.3	400.20	129.7	0.68
Without pruning + Urea (2%), Zn (0.4%) + B (0.4%) (P0S2)	36.73	1.80	10.17	7.08	6.91	228.7	419.43	137.3	0.67
Without pruning + Urea (4%), Zn (0.2%) + B (0.2%) (P0S3)	30.95	1.30	7.10	6.41	4.43	203.0	366.35	120.3	0.69
Without pruning + Urea (4%), Zn (0.4%) + B (0.4%) (P0S4)	31.17	1.34	7.43	6.53	6.51	206.7	381.36	122.7	0.68
20cm pruning + Without spray (P1S0)	36.78	2.22	8.17	7.12	6.41	250.3	447.29	148.0	0.69
20cm pruning + Urea (2%), Zn (0.2%) + B (0.2%) (P1S1)	45.67	3.21	16.33	7.67	7.50	272.7	499.92	171.0	0.59
20cm pruning + Urea (2%), Zn (0.4%) + B (0.4%) (P1S2)	48.15	3.36	18.93	8.02	7.75	280.7	517.04	178.0	0.58
20cm pruning + Urea (4%), Zn (0.2%) + B (0.2%) (P1S3)	42.27	2.81	14.13	7.28	7.21	260.3	473.05	157.0	0.66
20cm pruning + Urea (4%), Zn (0.4%) + B (0.4%) (P1S4)	43.07	2.97	14.60	7.40	7.38	265.7	481.62	165.0	0.61
40 cm pruning + Without spray (P2S0)	34.79	2.18	6.83	7.40	6.80	263.1	486.16	157.0	0.68
40 cm pruning + Urea (2%), Zn (0.2%) + B (0.2%) (P2S1)	42.08	3.33	12.9	8.04	7.72	282.1	533.75	180.7	0.56
40 cm pruning + Urea (2%), Zn (0.4%) + B (0.4%) (P2S2)	43.03	3.66	15.37	8.28	7.97	289.8	544.36	186.0	0.56
40 cm pruning + Urea (4%), Zn (0.2%) + B (0.2%) (P2S3)	40.40	2.84	10.67	7.58	7.33	271.4	506.24	169.3	0.60
40 cm pruning + Urea (4%), Zn (0.4%) + B (0.4%) (P2S4)	40.94	3.00	11.57	7.63	7.52	275.3	515.26	173.7	0.59
60 cm pruning + Without spray (P3S0)	32.29	1.29	6.20	7.70	7.13	272.3	503.05	167.0	0.63
60 cm pruning + Urea (2%), Zn (0.2%) + B (0.2%) (P3S1)	38.03	2.12	12.13	8.34	8.01	289.3	550.64	185.0	0.56
60 cm pruning + Urea (2%), Zn (0.4%) + B (0.4%) (P3S2)	41.10	2.47	13.73	8.52	8.30	302.9	578.76	197.3	0.54
60 cm pruning + Urea (4%), Zn (0.2%) + B (0.2%) (P3S3)	36.55	1.75	9.92	7.88	7.42	278.2	522.81	173.0	0.61
60 cm pruning + Urea (4%), Zn (0.4%) + B (0.4%) (P3S4)	37.52	1.89	10.90	7.97	7.61	279.0	527.93	175.7	0.59
SE(m)±	0.10	0.018	0.07	0.04	0.03	0.61	1.02	0.54	0.005
CD at 5%	0.29	0.051	0.21	0.10	0.09	1.73	2.92	1.56	0.015

CONCLUSION

All the pruning intensities and nutrient application of treatments were found better than control in terms of yield and physical characteristics of fruit. The yield parameters of the fruits was found superior with the 20 cm pruning intensity and the nutrient application (2% Urea + 0.4% Zn + 0.4% B) individually. Among the interaction the combination of both the factors *i.e.*, 20 cm pruning intensity along with the application of 2% Urea + 0.4% Zn + 0.4% B was found superior. The physical parameters of the fruits was found superior with the 60 cm pruning intensity and the nutrient application (2% Urea + 0.4% Zn + 0.4% B) individually. Among the interaction the combination of both the factors *i.e.*, 60 cm pruning intensity along with the application of 2% Urea + 0.4% Zn + 0.4% B was found superior. Hence it should be practiced in pomegranate crop to produce fruits with better quality, good size and weight and better colour with excellent taste.

FUTURE SCOPE

The lack of awareness on scientific management practices for pomegranate has one of the hindrances in realizing the production potential of this crop in the vast tract of arid and semi-arid region. As it is a light loving plant and reacts negatively to excessive shading. But direct sunlight and considerable heating often causes harmful effect on fruits leading to sun-burns. Awareness and knowledge about balance between vegetative and reproductive growth may help to have less wood and more fruit on plant. Moreover, foliar application of nutrient increases the nutrient efficiency in terms of yield and quality of fruits.

Acknowledgments. The authors are highly thankful for the facilities and funds provided by the Department of Horticulture, College of Agriculture, Jawaharlal Nehru Krishi Vishwa Vidyalaya (JNKVV), Jabalpur, Madhya Pradesh, India.

Conflicts of Interest. None.

REFERENCES

Anonymous (2018). Horticulture Statics at a Glance, Horticulture Statistic Division Department of Agriculture, Cooperation and Farmers Welfare Ministry of Agriculture and Farmer Welfare Government of India.140. http://www.nhb. gov. in.

Bajpai, P. N., Shukla, H. S. and Chaturvedi, A. M. (1973). Effect of pruning on growth, yield and quality of guava (*Psidium guajava* L.) cv. Allahabad Safeda. *Progressive Horticulture, 5*(1): 73079.

Bhuva, S. K., Chovatia, R. S. and Baladha, R. F. (2018). Standardization of severity of pruning and crop load on growth and yield in pomegranate (*Punica granatum* L.), cv. Bhagwa. *International Journal of Chemical Studies, 6*(6): 2900-2902.

Chandra, R., Jadhav, V. T. and Sharma, J. (2010). Global scenario of pomegranate (*Punica granatum* L.) culture with special reference to India. *Fruit Vegetable Cereal Science Biotechnology, 4*(2): 7-18.

Choudhary, K. and Dhakare, B. B. (2018). Influence of pruning intensities on growth, yield and fruit attributes of custard apple. *International Journal of Current Microbiology and Applied Sciences, 3*(5): 5311-5315.

Dahapute, V. M., Joshi, P. S., Tayade, S. A. and Nagre, P. K. (2018). Effect of severity of pruning on growth, yield and quality of custard apple. *International Journal of Chemical Studies, 6*(2): 1606-1609.

Ghatul, I. D., Jagtap, V. S., Padekar, V. D. and Ghorpade, S. B. (2019). Effect of different levels of pruning on quality of pomegranate (*Punica granatum* L.) cv. Super Bhagwa. *International Journal of Chemical Studies, 7*(5): 2899-2902.

Gill, K. S. and Bal, J. S. (2006). Influence of pruning severity and time on yield and fruit quality of ber cv. Umran., Department of Horticulture. PAU, Ludhiana.

Gupta, N. and Gill, M. S. (2015). Effect of intensity of pruning on yield and fruit quality of ber (*Zizyphus mauritiana* L.) cv. Umran. *International Journal of Agriculture Environment and Biotechnology, 8*(1): 69-73.

Gurjar, D. T., Patel, N. L., Panchal, B. and Chaudhari, D. (2015). Effect of foliar spray of micronutrients on flowering and fruiting of Alphanso Mango. (*Mangifera indica* L.) *Biosan, 10*(3): 1053-1056.

Hasani, M., Zamani, Z., Savaghebi, G. and Fatahi, R. (2012). Effects of zinc and manganese as foliar spray on pomegranate yield, fruit quality and leaf minerals. *Journal of Soil Science and Plant Nutrition, 12*(3), 471-480.

Hiremath, A., Patil, S. N., Hipparagi, K., Gandolkar, K. and Gollagi, S. G. (2018). Influence of pruning intensity on growth and yield of pomegranate (*Punica granatum* L.), cv. Super Bhagwa under organic conditions. *Journal of Pharmacognosy and Phytochemistry, 7(*2): 1027-1031.

Jagtap, V. M., Patel, H. C., Nehete, D. S. and Godage, S. S. (2013). Effect of foliar application of plant growth regulators and micronutrient on yield and quality of acid lime (*Citrus aurantifola* Swingle). *Asian Journal of Horticulture, 8*(1): 57-59.

Kumar, A., Pande, N. C. and Tripathi, V. K. (2005). Influence of pruning severity on the flowering and fruiting of peach. *Farm Science Journal 14*(1): 12-13.

Radha, T. and Madhew, L. (2007). Fruit Crops. Horticulture Science Series vol. 3.

Sashtri, A. and Pawar, S. (2014). Antioxidant property analysis of pomegranate peels in ayurvedic formulations. *International Journal of Advanced Science and Technology, 2*(9): 890-894.

Sharma, D. P., & Chauhan, J. S. (2003, October). Response of pruning intensities and fertilizer treatments on yield, fruit quality and photosynthetic efficiency of peach. In *VII International Symposium on Temperate Zone Fruits in the Tropics and Subtropics 662* (pp. 237-241).

Sharma, D. P. and Singh, Niranjan (2018). Effect of rejuvenation pruning on the growth, productivity and disease incidence in declining trees of pomegranate (*Punica granatum* L.) cv. Kandhari Kabuli. *J. Appl. & Nat. Sci. 10*(1): 358–362.

Sharma, D. P. Chakma, J., Sharma, N. and Singh, N. (2017). Effect of different orchard management practices on the growth and production of rejuvenated of pomegranates (*Punica granatum* L.) cv. Kandhari Kabuli. *Journal of Applied and Natural Science, 9*(1): 577 – 581.

Singh, G. and Dhaniwal, G. S. (2004). Effect of different pruning levels on vegetative growth, flowering and fruiting in sardar guava. *Haryana Journal of Horticulture Science, 33*(3): 175-177.

Warade, S. D., Joshi, V. R., Masalkar, S. D. and Kulkarni, S. R. (2009). Effect of different mulches on yield and quality of pomegranate. 2nd International Symposium on "Pomegranate and minor including mediterrenean fruits", University of Agricultural Sciences, Dharwad. P 104.

Wiedenhoeft, A. C. (2006). Micronutrients in plant nutrition. Chelsea house publication, pp: 14-36.

Yang, Y., Wang, R., Li, G. and Ruan, X. (2009). Observation of persimmon anthracnose in the national field genebank for persimmon. Acta Horticulture, *833*: 109-112.

How to cite this article: Yuvraj Yadav, Rajnee Sharma and T.R. Sharma (2022). Influence of Pruning Intensities and Foliar Spray of Nutrients on Yield and Physical Parameters of Pomegranate (*Punica granatum* L.) cv. Bhagwa. *Biological Forum – An International Journal*, *14*(3): 608-612.