

Article Info

 Open Access

Citation: Arshad, I., 2019. Impact of High Density Orchards in Crop Efficiency, High Yield and Fruit Quality. PSM Biol. Res., 4(2): 87-88.

Received: January 6, 2019

Accepted: April 5, 2019

Online first: April 9, 2019

Published: April 29, 2019

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Impact of High Density Orchards in Crop Efficiency, High Yield and Fruit Quality

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Engr. Imran is a young multi-disciplinary development professional with rich background in Agricultural Land and Water Management. He holds a Master's Degree in "Irrigation & Hydraulics Engineering" with 1st class 1st position. Currently, Imran is associated with SAA Technical & Specialized Services Establishment in Abu Dhabi, UAE; and working in a Technical Extension Services Division of a client ADFSC as an "Extension Officer".

Imran is a result oriented, Gulf experienced & highly qualified professional who has an exceptional skill in the field of research and development pertaining to crop growth and the factors that affect their mortality and development rate such as climate conditions, soil, temperature, humidity, etc.; an expert in the study of date palm protection and open field / greenhouse cultivation. Competent to work successfully as part of a team or as an individual; able to lead and motivate the team to achieve operational objectives and adopt in using proactive & optimistic approach to any given situation, ability to manage operations within budgetary constraints.

He has a strong interaction with the regular and potential grower/ farmer in order to encourage them to adopt modern agricultural techniques to enhance crop yields for better economic results.

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OPINION

The gardening, flowering, and orchards planting are an integral part of Islamic culture and civilization, which can be still seen in different cities of Pakistan and around the globe. It seems cogent to remind that in this divine look of Muslim various fruits like Apple, Grapes, Dates, and Pomegranate, etc. has been discussed along with their nutrition values. Apart from it in Islam horticulture, tree plantations have been described as an act of worship as it entails in mankind betterment (Nawaz *et al.*, 2007). The cultivation of fruit plants is a thin edge of increase in Pakistan with every passing day. The orchards of grapes, Apple, Peach, Guava, Apricot, Mangoes, and dates are available around in Pakistan at various ranges.

As Pakistan is a good producer of fruits so it is to be pointed out that about 8 – 9 Lac hectares of agricultural land of Pakistan has been covered by orchards from which we obtain 72 Lac tons of fruits yearly. In Pakistan our basic problem is that our growers are not fully conversant with the most modern, intensive cropping, and harvesting techniques due to which our per acre yield is adversely affected which limits to 8.23 Tons per acre in comparison to 20 – 25 Tons per acre of western countries which is very low (Nasir *et al.*, 2006).

The agricultural experts, on the basis of their research, knowledge and experience pointed out the weaker areas for low productivity i.e. more or extraordinary distance between plants, sowing of potentially less yield varieties, less immunity against any attack or infection, less use of rootstock and pre and post-harvest losses (Monga *et al.*, 2011).

According to agricultural experts in order to increase the per acre yield of orchards, apart from traditional agricultural practices we have to adopt modern techniques for the production enhancement (Athani *et al.*, 2009). The experts suggested few modern strategies i.e. more use of dwarf varieties fruit plants, reducing the interplant distance in order to transplant

maximum plants, excellent use of rootstock, minimize pre and post-harvest losses, reliable and most efficient transportation routes for supply chain, and dense cropping (Bassal, 2009). In European countries, by adopting these techniques many farmers are planting 5000 to 9000 per acre in order to enhance their fruit productivity (Zekri, 2000). As the number of fruit plants increases, the productivity gets a boost due to less height and the fruit season starts earlier which increases the farmer income thrice, which is an ultimate gain.

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