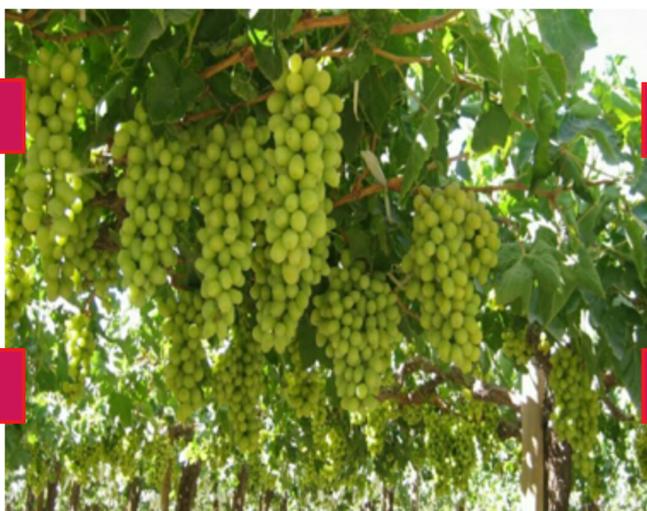




Drip Irrigation Transforming Punjab's Agriculture

Grapes orchard require long, warm & dry summers and cool winters for better growth. Such climatic conditions exist in Northern and Central Punjab. However, the prolonged monsoon season at ripening stage may cause crop failure. Only early varieties are successful under these conditions. Most suitable varieties are King Ruby, Pearlet, Flame Seedless, Vetrobalck, Thomson and Sultania. These Grape varieties are well adapted to climate and variety of soils in the Punjab, ranging from gravelly sands to heavy clays, from shallow to deep and from low to high fertility level. For good production, fertile soils with good structure which permit sufficient root growth should be selected.

Mr. Abass Ali Kahloon, resident of a remote village of tehsil Sammundri, district Faisalabad installed drip irrigation system and started growing Grapes instead of Sugarcane and Wheat. Within two years, an ordinary farm of Mr. Abass Ali Khloon turned into a model farm of Grapes that produces superior quality Grapes. He has grown North Black, King Ruby and Sultania varieties on 6.5 acres out of 10 acres land. The first harvest provided him little profit as most of the fruit was of poor quality during 2017, but during the next year (2018), he got 6,220 kg per acre yield with total gross income of Rs.435,400 per acre. Mr. Kahloon grew grapes successfully after training on Vineyard management arranged by Water Management Training Institute at Faisalabad which included grapes cultivation with drip irrigation such as canopy management, vine pruning, irrigation and fertigation. During current year (2018), the buyers purchased/booked 75% of his farm produce, even before harvest. According to Mr. Abass Khloon, he would have not been successful without technical support by OFWM staff.



Gross Income

Rs. 435,400 per acre

Mr. Shafique and Mr. Yaqoob are other small farmers, who were cultivating grape orchards traditionally in their native villages Chak 242/GB and Chak 222/GB, respectively but were not very successful. They consulted with the OFWM staff and desired to shift from traditional to modern irrigation method "Drip Irrigation" due to water scarcity issues in their villages. They installed drip irrigation and harvested about 20 kg grapes per plant with an income of Rs.175,000 per acre. Mr. Muhammad shafique shared that "the other progressive growers/ innovate farmers have also planned to grow high value crops/ orchards with drip irrigation due to increasing water shortage day by day.

Dr. Muhammad Asif, Deputy Director Agriculture (OFWM), Faisalabad explained the main reasons for success of grapes cultivation in Faisalabad as: Firstly, precision irrigation thorough drip irrigation reduces ambient humidity which is good for grapes as warm and dry season is required for better fruit development. Over or under irrigation during flowering and ripening may delay fruit maturity, reduces fruit size and increases shedding of flowers. Secondly, the drip irrigation increased grapes yield and improved quality by eliminating both water stress and excessive humidity. Lastly, drip irrigation facilitates uniform and balanced nutrition that improves flower retention, fruits setting and size enhancement.

Muhammad Yaqoob further elaborated that precision fertigation and irrigation deliver required amount of nutrients directly to the roots of each plant. The farmers can, therefore, use fertilizer and water more efficiently and get the higher/ maximum returns per acre with lesser inputs. No doubt, it is drip irrigation that has made grapes cultivation successful and profitable cash crop in the entire Punjab.

