



# Growing High Value Crops With DRIP IRRIGATION



**Ch. Muhammad Ali**  
Sheikhupura



## BENEFITS

- WATER SAVING BY 50%
- REDUCTION IN FERTILIZER USE UPTO 45%
- REDUCTION IN PRODUCTION COST UPTO 35%
- YIELD INCREASE UPTO 100%
- EARLY MATURITY OF CROP
- BETTER PRODUCE QUALITY
- CROP DIVERSIFICATION
- SUITABLE FOR UNEVEN TOPOGRAPHY

**C**limate change is resulting in rapid melting of glaciers in the Himalayas, threatening the volumetric flow rate of important rivers and increasingly volatile weather conditions in Pakistan over the past several decades. Pakistan is an agricultural country and its economy & food security is highly dependent on irrigated agriculture, that is being affected due to climate variations. Modern irrigation technologies like drip irrigation have become popular all over the world, especially in developed countries to counter such challenges. Adoption of high efficiency irrigation systems on large scale seems one of suitable interventions to cope with the effects of climate change.



**S**heikhpura is situated about 40 km northwest of Lahore. The name of the town was changed to Sheikhpura from earlier Virkgarh, deriving from a nickname of Mughal Emperor Jahangir, who was known as Sheikhu by his father Akbar the Great. Wheat, rice, sugarcane and vegetables are its important crops but it is famous for production of Basmati Rice. The Government of Punjab has launched “Punjab Irrigated-agriculture Productivity Improvement Project (PIPIP)” with the assistance of World Bank, that aims at promoting modern irrigation technologies for sustainability and promotion of irrigated agriculture, especially, high value crops. Drip irrigation is one of such technologies that has enormous potential for minimizing cost of production by reducing the input use especially water and fertilizer.

More than 2,500 farmers in the Punjab have so far been benefitted from this intervention. Chaudhary Muhammad Ali is one of those small growers who have installed drip irrigation system. He is successfully growing cucumber, capsicum, tomato and chili with drip irrigation.



Mr. Ali, while explaining his experience about drip irrigation says that :

**“Drip irrigation system is fantastic as it has many advantages over conventional irrigation methods. It requires less labor and time to irrigate the fields. Traditionally, it use to take about 15 hours to irrigate five acres (2 hectares) but now it takes about 7 hours for the same area. There is no need of making field ditches and dikes land so saved contributes in crop production.”**

Drip irrigation system is versatile in its application and provides complete control over irrigation operations by saving water upto 50% and even in some cases more than this. It can be practiced on variety of soil conditions e.g. uneven topography, odd field configurations, rolling sandy areas, long lengths of run etc.

He further explains that:

**“Unlike flood irrigation, water is provided within the root zone of plants so conveyance and application losses have been minimized that resulted in saving of precious irrigation water and fertilizer. Weed growth has also been retarded as no water or nutrient are**

**available for undesired weeds, as such my labor and weedicide expenses have almost been cut down to half.”**

Although the initial expenses on drip irrigation system are higher but its quick returns in the form of productivity enhancement and marketable quality of produce help a great in achieving the net income that compensate the investment. Optimal amounts of fertilizers and water are applied directly to the crop root zone with drip irrigation that help in better crop growth resulting not only in increased yield but also at substantially reduced production costs.

Mr. Ali states that cultivating crops with drip system is very profitable because:

<b>DRIP IRRIGATION</b>	
🔹 Irrigation Time Reduced	50 %
🔹 Fertilizer Saved	70%
🔹 Yield Increased	20 %
🔹 Labor Reduced	50 %

**“Besides water and labor saving, drip irrigation enabled me to provide fertilizers to the plants precisely. Traditionally, I used to apply more than 20 bags of fertilizer (1 bag = 50 Kg) to cucumber crop for five acres (2 hectares), whereas, the same was reduced to 5 bags when applied through drip. Similarly in case of capsicum, I used to broadcast 10 bags of fertilizer, now I use only 4 bags through fertigation with drip. Hence, about 70 percent of my fertilizer is saved.”**

One of the prominent benefits associated with drip irrigation is improvement in crop productivity and produce quality as compared to conventional farming methods.

Mr. Ali happily concludes the story of farming with drip technology as:

**“I cultivated five acres (2 hectares) of land through conventional irrigation method and got 700 bags of cucumber, 400 bags of capsicum per acre. However, when I cultivated the same land with drip irrigation, I harvested 800, 480 bags of cucumber and capsicum per acre respectively, with uniform quality of produce. Resultantly, my crop production has increased about 20 percent.”**

