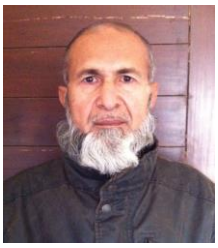
# Success Story of
# HEIS Ambassador Farmer Maqsood Ul Hassan
# On Drip Irrigation System

## Farmer Introduction

Major Maqsood Ul Hassan Maikan is well educated farmer and is well aware of modern technologies and always take initiatives in adopting them.



He is owner of 64 acres of Citrus orchard (35 years old). He took initiative of installing drip irrigation system on his farm because he has limited amount of canal water which came on weekly basis and only irrigate around  acres on each turn. His tube well water is not of good quality.

Due to limited canal water and severe summer in Sargodha in order to overcome this shortage he mixes canal water with Tubewell water to irrigate his citrus orchard. His orchard was in good health before drip system but after using drip on his orchard for 2 years his citrus orchard fruit quality has improved every year and he is very satisfied by its result.

## Farm Particulars

- **Farm Location:** Mouza Gul Muhammad Wala, Tehsil Shahpur, and District Sargodha
- **Irrigation Schedule:** Drip Irrigation System
- **Topography:** Plain

## System Price

| | |
|---|---|
| Total System Price (PKR) | **Rs. 1,748,694** |
| Farmer Share (PKR) | **Rs. 699,478** |
| Farmer Share per Acre (PKR) | **Rs. 46,632** |

## Salient Features of Drip Project.

| | |
|---|---|
| Total Area Under Drip | **15 acres** |
| Year of Drip Installation | **2014-15** |
| Subsidy Scheme | **PIPIP** |
| Crop under Drip System | **Citrus** |
| Soil Type: | **Clay** |
| Water Source | **Canal** |
| Power Source | **Diesel Engine** |

## Water Saving comparison

| | |
|---|---|
| Irrigation Application by Conventional Flood System in 1 year crop tenure | **2836 m3** |
| Irrigation Application by Drip System in 1 year crop tenure | **1800 m3** |
| **Water Saving = 37%** | |

## Diesel Consumption comparison

| | |
|---|---|
| **Diesel Consumption through flood in one year** | Rs =1800 |
| **Diesel consumption through Drip in one year** | Rs = 8050 |
| **Diesel Consumption increases Drip vs Non Drip = 78%** *Diesel consumption is more in drip because in flood Tubewell is mostly used in May and June Only and in other months they only use canal water for irrigation so that's why less diesel consumption is in flood.* | |

## Fertilizer Comparison

| | Drip Irrigation | | | | Flood Irrigation | | | |
|---|---|---|---|---|---|---|---|---|
| **PARTICULARS** | **Unit** | **Rate/Unit ( acre)** | **QTY** | **AMOUNT (Rs.)** | **Unit** | **Rate/ Unit (acre)** | **QTY** | **AMOUNT (Rs.)** |
| **Manures & Fertilizers** | **NPK @ 64:44:16 Kg/ acre** | | | | **NPK @ 64:44:16 Kg/ acre** | | | |
| **Nitrogen** | **Urea Bag (46-0-0)** | **1500** | **2** | **3000** | **Urea Bag (46-0-0)** | **1500** | **2** | **3000** |
| **Phosphorus** | **Soluphos (18-44-0)** | **4500** | **4** | **18000** | **Soluphos (18-44-0)** | **4500** | **4** | **18000** |
| **Potassium** | **WS SOP bags ( 0-0-50)** | **4000** | **1.25** | **5000** | **WS SOP bags ( 0-0-50)** | **4000** | **1.25** | **5000** |
| **Complex Fertilizer** | **Zinc** | | | | **Zinc** | | | |
| **Mechanical Hoeing (Intercultural)** | **Rs/acre** | | | | | | | **-** |
| **SUB TOTAL** | | | | **26,000** | | | | **26,000** |
| **Fertilizer saving Drip vs Non Drip = Equal** *Farmer gave same fertilizers to drip and flood plants* | | | | | | | | |

## Yield Comparison

| | Drip Irrigation | | | | Flood Irrigation | | | |
|---|---|---|---|---|---|---|---|---|
| **PARTICULARS** | **Unit** | **Rate/Unit ( acre)** | **QTY** | **AMOUNT (Rs.)** | **Unit** | **Rate/ Unit (acre)** | **QTY** | **AMOUNT (Rs.)** |
| **Yield** | **Mounds/acre** | 700 | 250 | **175,000** | **Mounds/acre** | 700 | 210 | **147,000** |
| **Yield Increase Drip vs Non Drip =19%** | | | | | | | | |

## Benefits of Drip System

Drip Irrigation is the ultimate Crop Management technology. It turns plant root zone in to Field Capacity *(Water)* giving Grapevines the required essential nutrients & enabling it:

- Water saving (Now farmer only uses canal water for irrigating his orchard because through flood irrigation he was only able to irrigate ¼th of his area.
- Quality and shining of fruit is increased.
- Fertilizer efficiency improved
- Fruit shedding was decreased in summer.
- Increase in income.
- Due to underground lateral there is no problem in ploughing the field and dripper are in fixed position saving cost of aligning drip line as compared to open system.

# Maqsood Ul Hassan Farm Pictures

**Better Quality fruit**

**Fruit with desired size**

**Healthy Crop**

**Quality and shining of fruit is increased.**