

## **Research Experience**

## (Research Station: Drainage and Reclamation Institute of Pakistan (DRIP), PCRWR, Tando Jam, Hyderabad)

Mango is the second-largest fruit crop in Pakistan, predominantly grown in Sindh and Punjab. Traditional flooding methods waste over 60% of applied water, exacerbating waterlogging and salinity issues. Sindh faces water shortages, waterlogging, and salinity due to its geography and irrigation practices. Over-irrigation and canal seepage raise groundwater levels, causing waterlogging and salinity. DRIP introduced the ring basin irrigation system for orchards at their research station, wherein the size of the basin was maintained according to the canopy of the plant. These basins start with a 0.5-meter radius at transplantation, expanding to 1.0 meter in the second year and growing larger as the plant matures. The method has shown enhanced efficiencies of water and nutrients resulting in increased production.