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“Filling gaps and removing traps
for sustainable resource management”

Farmer's Perception Regarding Effectiveness of Drip Irrigation System in Attock, Pakistan

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Abstract

Agriculture is consigned as the most important element of Pakistan. It contributes 20.9 % to GDP and almost 43.5 % of the entire labour of the country is involved in this sector. It supplies total 60 % of its contribution in the economy by exports and provides raw materials for different industries. Pakistan has abundant water resources, but the misery is that we are not getting proper benefit from these resources. The only way to overcome this situation is to increase water productivity by adopting modern and efficient technologies for sustainable agriculture, which can lead to poverty reduction, profitability and improved food safety with job opportunities. Drip irrigation, water is supplied to the soil with the help of mechanical devices called as the emitters (located on water pipes along selected points). The two types of methods used in drip irrigation technique are surface drip irrigation system (water is delivered at or near the root zone of plants, drop by drop) and subsurface drip irrigation system. We aimed at obtaining information about the awareness of farmers regarding new techniques of irrigation system use in Pakistan. In the year 2015 the questionnaire data was gathered from 120 farmers who came mainly from the Attock district (89.2 %), region Punjab. Their analysis was carried out using SPSS Software. About 45.0 % of farmers were old aged (>50 years old). About one-third of respondents (34.2 %) had a bachelor's degree. More than one quarter (28.3 %) had five years of farming experience. One-third (33.3 %) reported sand and clay type of soil in their field. The majority (69.2 %) were small farmers (< 12.5 acres) and only 3.3 % had large farm (>25 acres) size. The vast majority of respondents (84.2 %) believed that the drip irrigation system should be accepted. One third of respondents (38.3 %) said their work ratio was reduced to 1: 3 while less than one-third (32.5 %) of respondents said their work ratio had dropped to one quarter. In Pakistan agriculture this would be advisable because it minimises evaporation and water drainage. Through this system fertilisers can be delivered which helps in improving yields.

Keywords: Irrigation, Pakistan, questionnaire, sustainable development, water use