Although 78.3% of the agricultural areas of Şanlıurfa-Harran District remain within Harran Plain irrigation areas, agricultural production is provided by underground waters in areas where water is insufficient. This situation is caused sinkholes by the excessive use of underground waters which are already limited to the region. In this study, fifteen villages of Harran District where underground water resources used for agricultural activities that were analyzed economically in terms of water use in fruit and vegetable growing in 2016, considering production pattern. By using Irrigated Crop Evapotranspiration Guide in Turkey based on water consumption of pistachios, pomegranates, olives, peppers and garlic plants were identified. In a production season, pistachio 10,293 m³/ha, pomegranate 8,387 m³/ha, olive 6,400 m³/ha, pepper 8,314 m³/ha and garlic 6,992 m³/ha of water are needed. The accepted water transport efficiency was 98% and water application efficiency was 86% in the research field. Water needs based on these assumptions would be for pistachio 12,213 m³/ha, pomegranate 9,951 m³/ha, olive 7,594 m³/ha, pepper 9,865 m³/ha and garlic 8,297 m³/ha. The yields for these products are pistachio 2142 kg/ha, pomegranate 43316 kg/ha, olive 1800 kg/ha, pepper 20000 kg/ha and garlic 25000 kg/ha. In the case of water insufficiency, the increase in the yield values of irrigation products will decrease with the yield values calculated in dry conditions, depending on the value of 117% for fruit and 134% for vegetable for irrigation conditions. In this study, the evaluation was given in terms of relative income and GPV for comparison of irrigated and dry conditions.