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### **Reuse of Treated Municipal Waste Water in Irrigation: A Case Study from Lebanon and Jordan**

In this study, we present the results of scenarios where secondary-treated municipal wastewater was used for table grapes irrigation in the region of Ablah, Bekaa valley in Lebanon, and fodder crops irrigation (vetch and barley) in the region of Ramtha in Jordan. In Lebanon, we carried out experiments to assess the response of drip-irrigated table grapes grown under two water quality regimes (Freshwater (FW) and treated wastewater (TW) and two water levels (100% of evapotranspiration (ETc) and 75% of ETc). While in Jordan, we carried out experiments to assess the response of drip irrigated fodder crops considering 4 irrigation levels (Q1: Rain fed; Q2: 80% of ETc; Q3: 100% of ETc; Q4: 120% of ETc) and three crop patterns (C1: Barley 100%; C2: Vetch 100%; C3: Mix 50% barley and 50% vetch). Based on the production and quality components, table grapes were successfully grown on plots supplied with TW. Fodder crops were successfully grown using TW with

remarkable increase in biomass and grain yield production for the irrigated treatments.

#### **Biography**

Majida Mcheik obtained a PhD on earth and environmental sciences from University of Naples and Lebanese University and a Masters in Agricultural engineering from Lebanese University. She is currently the head of the program department at the Ministry of Agriculture in Lebanon. And she was a Senior Adviser to the Minister of Agriculture for three years. She was also IFAD governor in Lebanon. And she is the Focal point for Food Security Sector from the Ministry of Agriculture. She is a national coordinator for a number of development projects at the Ministry of Agriculture. She is a Member of the Administrative Board of Lebanese Woman Affairs Association. She has published different studies on the use of treated waste water in irrigated agriculture and plant protection.

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