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Effect of Mobile Drip and Linear Irrigation System on Sugar Beet Yield

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Abstract : The biggest input of agricultural production is irrigation, water and energy. Although it varies according to the conditions in drip and sprinkler irrigation systems compared to surface irrigation systems, there is a significant amount of energy expenditure. However, this expense not only increases the user's control over the irrigation water but also provides an increase in water savings and water application efficiency. Thus, while irrigation water is used more effectively, it also contributes to reducing production costs. The Mobile Drip Irrigation System (MDIS) is a system in which new technologies are used, and it is one of the systems that are thought to play an important role in increasing the irrigation water utilization rate of plants and reducing water losses, as well as using irrigation water effectively. MDIS is currently considered the most effective method for irrigation, with the development of both linear and central motion systems. MDIS is potentially more advantageous than sprinkler irrigation systems in terms of reducing wind-induced water losses and reducing evaporation losses on the soil and plant surface. Another feature of MDIS is that the sprinkler heads on the systems (such as the liner and center pivot) can remain operational even when the drip irrigation system is installed. This allows the user to use both irrigation methods. In this study, the effect of MDIS and linear sprinkler irrigation method on sugar beet yield at different irrigation water levels will be revealed.

Keywords : MDIS, linear sprinkler, sugar beet, irrigation efficiency
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