

Drought and Water Use Efficiency

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Abstract

Water-scarce countries and regions cannot rapidly increase gross national income per capita without increasing the service sector (and without ignoring the preservation of the traditional employment structure). Realization of SDG 6 in the pursuit of highly efficient agriculture can occur at the expense of SDG 9, where the indicator is an increase in the number of researchers. The instantaneous WUE of soybean and walnut leaves was determined using the LCpro-SD gas analyzer (UK). In field conditions of growing soybean plants of Laduța variety, water use efficiency was 0,75 g/kg of water at seasonal precipitation of 94 mm, which is several times less than the amount of seasonal precipitation (317 mm) considered optimal for achieving the maximum value of water use efficiency in agricultural practice (0,57 kg/m³ of water). A positive linear relationship between the seed productivity of plant leaf surface and harvest index was established, when calculating the harvest index both taking into account the full seasonal leaf surface and excluding leaves and petioles. Research was carried out within the research project 25.80012.5107.12SE (Republic of Moldova).

Keywords

Soybean, drought, harvest index.