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Jasmonates and Salicylates: Mechanisms, Transport and Signalling During Abiotic Stress in Plants

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Abstract Population across the globe are increasing at an alarming rate. UN Population Division currently (2020) expects that the world population is now 7.8 billion, which will be reached 10.9 billion (the median line) at the end of the twenty-first century. To meet the food demand of increasing population cereal equivalent food demand needs to be increased by about 10,094 million tons by the year 2030 and 14,886 million tons in 2050. At the same time, climate change will impact on agricultural productivity, as a result of the extreme events of abiotic stresses. For example, on an average, about 50% yield losses of several crops are occurred mostly due to high temperature (20%), low temperature (7%), salinity (10%), drought (9%) and other abiotic stresses (4%). Other earlier studies, estimated that a large enhancement of biomass and grain yield loss (83% on average) of wheat was observed when salinity was combined with drought stress. Global wheat production is estimated to fall by 6% for each °C temperature increase further and will be become more variable over space and time. To alleviate the antagonistic effect of abiotic stresses, generally, plants take numerous adaptive mechanisms. Among them, several phytohormones play an

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