



Correlation between Annual Corn Crop per Hectare in Croatia and Drought Indices for Zagreb-Gric Observatory

Kreso Pandzic and Tanja Likso
Meteorological and Hydrological Service, Zagreb, Croatia

Correlation coefficients between annual corn crop per hectare in Croatia and 9-month Standardized Precipitation Index (SPI) and Palmer Drought Severity Index (PDSI) for Zagreb – Gric for August are shown as significant. The results indicate that there is also a significant correlation between those drought indices and drought damages. Thus a forecast of the indices for August could be used for estimation e.g. annual corn crop per hectare in Croatia. Better results could be expected if statistical relationship between annual corn crops per hectare will be considered on county level instead the whole Croatia and indices calculated for weather stations for the same county. Effective way for reduction of drought damages is irrigation which need to be significantly improved in future in Croatia