عنوان مقاله:

Modeling the full flowering date of Japanese cherry tree under climate change conditions

محل انتشار:

دومین کنفرانس بین المللی مدلسازی گیاه، آب، خاک و هوا (سال: 1392)

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نویسندگان:

نوذر قهرمان - *Ph.D. student of Agrometeorology, University of Tehran, Iran*

سمیه حجابی - *Assistant Professor, Department of Irrigation and Reclamation Engineering, University of Tehran, Iran*

خلاصه مقاله:

In this paper, a case study was performed on the influence of climate change on the full floweringdate of Japanese cherry tree (FFDJC) at Kyoto. It was revealed that there was a significant positive trendfor monthly and annual air temperature. Also, the results of trend analysis showed a significant advancein occurrence of FFDJC. The results of regression analysis of FFDJC and climatic variables during ingrowing season for the study period (1946-1996) showed a significant negative correlation betweenFFDJC and the mean air temperature of March but the linear regression developed between FFDJC andaverage air temperature of March did not present a good performance during the validation period(i.e.1997-2008). In an attempt to improve the performance of the model, cumulative mean airtemperature was replaced by cumulative degree-days (CDD). The results showed that FFDJC had asignificant positive correlation with CDD. The linear regression model developed between FFDJC andCDD did a better job comparing with the other linear regression model in simulation of FFDJC with ahigher accuracy.

کلمات کلیدی:

Climate Change, Cherry, Phenology