Impacts and Adaptation

Impact of Climate Change on Spring Wheat Yield in Yellow River Irrigation Region of Ningxia

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摘要 Temperatures from early March to early July during 1961-2004, at 10 stations in the Yellow River irrigation region of Ningxia were analyzed. The results show that the temperature during the growing season of spring wheat increased obviously. The t-test indicates that a temperature abrupt change occurred in 1989 with an average rise of 0.7℃. Over various growth stages of spring wheat, the temperature increased, but it didn't exceed the suitable range. The temperature-sensitive index of spring wheat was positive from middle March to early April and from May to early June, therefore the climate warming over the two periods was favorable to wheat growth; however it was negative from middle June to early July and from middle to late April, thus the climate warming over the two periods was unfavourable to wheat growth. Overall, the contribution of climate warming to spring wheat yield was -2.6%.

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