

植物保护科学

2003年江苏省小麦赤霉病大流行的天气条件分析

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摘要: 为揭示小麦赤霉病大流行的天气学原因, 分析了2003年江苏省小麦赤霉病大流行期间的气象条件和天气形势。结果表明: (1)春季多次出现连阴雨天气过程, 小麦抽穗开花期多雨、高湿、寡照是造成2003年江苏省小麦赤霉病大流行的气象原因。(2) 500hpa欧亚阻高型、北方大低涡型和北脊两槽型稳定环流形势的交替出现, 700hpa切变线的存在, 地面准静止锋在长江流域的摆动, 850hpa西南暖湿气流的水汽输送、中低层水汽的辐合上升、冷暖气流交汇对潜能释放的促进, 导致了2003年江苏省小麦抽穗开花期4次连阴雨天气过程的发生。研究结果可为小麦赤霉病发生的中短期潜势预报提供依据。

关键词: 小麦赤霉病 大流行; 连阴雨; 天气形势

Analysis of Weather Conditions on Wheat Scab Pandemic of Jiangsu in 2003

Abstract: To reveal the Synoptic-meteorological reasons of wheat scab weather pandemic, the author analyzed meteorological conditions and synoptic situation of Jiangsu Province during the period of wheat scab high prevalence in 2003. The results showed that: (1) Frequent occurrence of continuous rain synoptic processes in spring, excessive rain, high humidity, lack of sunlight during the flowering period of wheat, which resulted in wheat scab high prevalence of Jiangsu Province in 2003. (2) The alternation of stable circulation situations of blocking high in Europe and Asia, greatly low whorl in the north and northern ridge and two troughs on 500hpa; the existence of shear lines on 700hpa; the swing in Yangtze valley of quasi-static front on the ground; the water vapor transportation of southwest flow on 850hpa, the water vapor's convergence rise in the low level of Jiangsu area, the promotion caused by the intersection of cold and warm air current to the release of the latent heat, which caused four continuous rainy synoptic processes in Jiangsu Province during the flowering period of wheat in 2003. The findings may provide basis on the short and medium potential trend forecast for the occurrence of wheat scab.

Keywords: wheat scab high prevalence; continuous rain; synoptic situation

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