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Title: Research on chilling damage of maize in northeast China

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关键词: 玉米; 低温冷害; 时空分布

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摘要: 以东北地区10km×10km的气象要素插值资料以及作物发育期资料为基础,通过计算每个网格点上热量指数和热量指数临界值,得到每个网格点上低温冷害指标值。在此基础上对低温冷害指标进行经验正交分解和小波分析,得到其时空变化规律及多时间尺度特征。玉米冷害3个空间分布型时间系数的分析表明,东北地区玉米低温冷害存在如下规律:第1模态在1971-1992年,呈现准8a的周期变化规律,第2模态没有呈现很好的周期性规律,第3模态在1963-1974年,呈现准2a的周期变化规律。热量指数变异系数低值区主要分布在平原地区,中值区和高值区主要分布在大兴安岭、小兴安岭、长白山地区以及吉林省白城市沙地,山地和沙地的变异系数要高于平原地区。

Abstract: This study was based on 10 km×10 km data of meteorological factors and corn growth phases,and via calculating critical heat indices on every grid point,obtained the chilling damage indices on the grid points.By experience orthogonal resolution and wavelet analysis of chilling damage indices,the spatial-temporal variation regularity and multiple-time-scale characteristics were obtained.The time coefficient analysis of spatial distribution mode

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of maize chilling damage shows that the first mode presents a quasi-8 years periodic variation regularity,the second mode does not presents regular periodicity and the third mode presents a quisi-2 years periodic variation regularity.In relation to heat index variation coefficent,the region with low value distributes mainly in plain area,the region with middle and high values distributes mainly in Daxing，an Mountain,Xiaoxing，an Mountain,Changbai Mountain areas and sandland of Baicheng City of Jilin Province.The variation coefficient in mountain land and sandland is larger than that in plain area.

参考文献/REFERENCES

[1] 徐祥德,王馥棠,萧永生,等.农业气象防灾调控工程与技术系统[M].北京:气象出版社,2002.
[2] 王书裕.农作物冷害的研究[M].北京:气象出版社,1983.
[3] 阎洪.薄板光顺样条插值与中国气候空间模拟[J].地理科学,2004,24(2):163-169.
[4] 郭建平,高素华.东北地区农作物热量年型的划分及指标的确定[M]//王春乙,郭建平.农作物低温冷害防御技术.北京:气象出版社,1999:158-164.