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2008年初海南橡胶寒害遥感监测初探(PDF)

Title: A preliminary study on remote sensing monitoring of rubber tree cold injury in Hainan Province during early 2008

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摘要： 基于海南省橡胶种植的空间分布,对2008年初强低温阴雨发生前(1月1日)、发生后(3月5日)橡胶产区的MODIS/I_{NDVI}值进行了比较,结果表明,全省橡胶植被指I_{NDVI}值降低区域占到97.2%,其中指数值下降＞0.2的占到26.7%;与上一年未遭受寒害的同期(2007年3月21日)相比,橡胶植被指数I_{NDVI}值降低的区域占79.1%,其中指数值下降＞0.2的占14.6%,因此初步认定2008年橡胶遭受了寒害影响。分析2008年初气象资料、橡胶林间调查结果,与ΔI_{NDVI}值对比结果,显示橡胶寒害验证结果与遥感监测结果大致相符,说明遥感应用于监测橡胶寒害轻、重和受害面积是可行的,遥感还可以动态监测橡胶生长情况。

Abstract: Based on the spatial distribution of planting of rubber trees in Hainan Province, the MODIS-INDVI values of rubber-producing area before(i.e. Jan 1) and after (i.e. Mar 5)the period of extreme low temperature and rainy days in 2008 were compared and analyzed. Results show that the ratio of areas with I_{NDVI} value drop account for 97.2% of the total panting areas, and in which the ratio of areas with I_{NDVI} value drop larger than 0.2 account for 26.7% in total areas. In the case of the year 2007, the ratio of areas with I_{NDVI} value drop is 79.1% and the ratio of area with I_{NDVI} value drop larger than 0.2 is 14.6%.Therefore,it can be considered that there was a rubber tree cold injury in 2008, and conclusions drawn from contrast of I_{NDVI} values agree with meteorological data and field investigation. For this reason, it is possible to apply the remote sensing data to monitoring the rubber tree cold injury. Remote sensing could also dynamically monitor the

growth situation of the rubber trees.

参考文献/REFERENCES

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