

鲜切花真空预冷过程温度的红外热成像检测 Temperature Detection of Cut Flower during Vacuum Cooling with Thermal Infrared Image

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关键词: 鲜切花 真空预冷 红外热成像 热电偶

摘要: 采用红外热成像远程动态控制系统和热电偶两种温度检测方法,对非洲菊真空预冷过程中舌状花瓣、管状花瓣和茎秆3个部位的温度进行实时检测。实验结果表明,不同部位之间降温速率存在较大差异,不同部位的温度分布也不均匀;热电偶和红外热成像检测结果相比,前者比后者平均高出4.55~10.4℃。Both thermal infrared imaging and thermocouples were applied to real time measurement of cut gerbera during vacuum cooling. Surface temperatures of the ligule-shape petal, tubular petal and stem were detected. Results show that there is a significant difference of different parts in average cooling rate, and for the petal and stem, the temperature distribution is nonuniform. The average final temperature obtained with thermal images is 4.55~10.4℃ lower than the thermocouple.

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