

[P2.065]

Sensory and consumer evaluation of kiwifruit (*Actinidia deliciosa* 'Hayward') produced under different pollination techniques

C. Salinero¹, P. Piñón¹, M.J. Sainz², M.A. Romero-Rodríguez², M.L. Vázquez-Odériz^{*2}, M. García-Quiroga²

¹Estación Fitopatológica do Areeiro, Spain, ²Universidad de Santiago de Compostela, Spain

Introduction

Kiwifruit producers aim to obtain a large fruit production under healthy and environmentally-friendly growing conditions, with kiwifruits weighing more than 90 g/unit but maintaining adequate sensory quality. In *Actinidia deliciosa* 'Hayward', the final size of the fruit is closely related to the number of seeds per fruit, which depends on the number of ovules in flowers and the number of pollen grains that reach the stigmatic surface. The application of hand or mechanical pollination techniques in kiwifruit orchards to improve fruit yield will be economically viable only if they improve or do not result in differences in kiwifruit quality and its acceptance by consumers.

Methods

Fruit production, sensory evaluation and consumer acceptance and preference of kiwifruit were estimated for 'Hayward' fruits produced under the following pollination treatments: control, application of dry pollen, application of liquid pollen when 60% flowers were open, and two applications of liquid pollen when 60% and 90% flowers were open, respectively. Fruits from each treatment were evaluated by quantitative descriptive analysis (QDA) with trained panellists and by an acceptance test with consumers. Data of fruit yield and from QDA were subjected to a one-way ANOVA. Friedman's non-parametric analysis was applied for consumers acceptance and a Chi-square test for preference.

Results and Discussion

Application of liquid pollen, particularly when doing twice, resulted in larger fruit production and higher number of fruits weighing more than 100 g/unit respect to the control and the application of dry pollen. However the application of pollination techniques had no effects on organoleptic characteristics of fruits with respect to the control and in consumer acceptance. The lack of differences, respect to the control, in the sensory quality of kiwifruit produced under the application of liquid pollen advises the introduction of this pollination technique in kiwifruit orchards to achieve larger economic benefits.

Keywords: consumer, kiwifruit, pollination techniques, QDA