**TITLE OF PAPER**

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**ABSTRACT**

*Phalaenopsis* Queen Beer ‘Mantefon’ is an important *Phalaenopsis* hybrid in Asia particularly in China, Japan, and Korea due to its strong, red-colored flower petal and multiple flowers in one flower spike. Despite of its increasing demand for ornamental purposes, little is known about its pollen viability which is essential for its breeding and consequently, crop improvement. The development of easy and reliable techniques such as staining of pollen to determine the functional quality of pollen, aids in assessing pollen vigor during storage, genetics and pollen-stigma interaction studies, and incompatibility and fertility studies. This study aimed to evaluate the pollen viability of *P.* Queen Beer ‘Mantefon’ collected from different flower bud sizes and physiological stages of development using 2,3,5-triphenyltetrazolium chloride (TTC) staining test. Results revealed that pollinia of flowers from eight stages of development (sepal half-open to four days after anthesis) were non-viable, while the pollinia from flower bud sizes indicated viability as shown by the TTC staining. The collected pollinia from the smallest flower bud size (13mm) showed prominent viability as revealed by heavy TTC staining. The data collected in this study provided important information that can be used for planning the best time to collect pollinia that will maximize the potential of production of viable seeds and the establishment of breeding programs of *Phalaenopsis* for the ornamental market.

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