

Characterization of bird of paradise stems and florets harvested with different diameters

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Abstract

The bird of paradise is one of the main species of tropical flowers used as cut flower in Brazil and in many other parts of the world. In previous experiments, the lack of uniformity in the diameter among stems ready to be harvested was observed, which can lead to variations in the vase life. Therefore, the purpose of this study was to characterize the differences found in cut stems and florets. Stems with the first floret open were harvested and separated in three different diameters: thin (less than 10 mm), medium (between 10 and 12 mm) and thick (bigger than 12 mm of diameter). All stems were kept in individual vase containing distilled water, which was changed every 48 h to prevent growth of microorganisms. Half of the stems were uncut at the base of the stem and the other half was recut every 48 h to prevent xylem blockage. The number of open florets, longevity, length of the sepals and bracts, fresh mass, and absorption area at the base of the stem were determined. Thicker stems that had the base of the stem cut every 48 h showed a higher number of florets opened (2.3 florets) and longevity (8 days). Immediately after harvest, thicker stems had larger size of sepals, bracts and higher fresh mass and absorption area. Inflorescences of bird of paradise flower with stem diameters bigger than 12 mm, which were recut every 48 h showed better postharvest vase life performance than the inflorescences with thinner diameter.