

Abstract:

Veltheimia bracteata is a bulbous plant indigenous to South Africa. Under natural growing conditions it is evergreen and flowers during June to September. It was found that dormancy and flowering was influenced by storage temperature in the Netherlands where it is grown as a dormant bulb which is planted in summer to flower from December to February. Plants of three different clones were lifted, defoliated, dried off for three weeks under greenhouse conditions, then stored at four different constant temperatures for eight weeks, after which the bulbs were planted and grown under greenhouse conditions. The dates of first emergence of new vegetative growth, first emergence of the inflorescence and opening of the first flower were recorded. Due to limited material only two storage temperature treatments were assigned to each clone. Storage at 15o C and 20o C retarded emergence by five and three weeks respectively; storage at 25o C slightly accelerated emergence, while storage at 30o C accelerated emergence but caused damage to the bulbs as was evidenced by loss of almost 50 percent of the bulbs. Emergence of the inflorescence of the defoliated controls only occurred in clone 'Lemon Flame' and was retarded compared to untreated controls. The only treated bulbs to flower were those of 'Lemon Flame' stored at 15o C, which flowered 3,28 weeks after the untreated control. The severe difference in reaction of the different clones has resulted in the trial being repeated with 'Lemon Flame' this season in order to clarify the results.