

Abstract:

Three temperature regimes, representing a cool, moderate and warm winter climate, were chosen to grow bulbs during the bulb preparation phase (year 1) and afterwards to determine the morphology and shelf life of these bulbs' inflorescences during the pot plant phase (year 2). The best temperature regimes for the bulb preparation phase were the low and moderate temperature regimes, which represent the cool and moderate winter climate in South Africa. The moderate and low temperature regime treated bulbs produced more inflorescences than those of the high temperature regime. The lower the temperature regime treatment during the bulb preparation phase the higher were the peduncle length, rachis length, floret number as well as the peduncle cross section of the primary, secondary and tertiary inflorescences during the pot plant phase. The pot plant shelf life from bulbs of all three temperature treatments averaged 24 days, however, the low temperature regime treated bulbs beared inflorescences with the longest keeping ability.