

Quality traits of some cauliflower cultivars grown in the "Valle dell' Ofanto" area (Italy) as affected by postharvest storage

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Abstract

Some quality characteristics of the "Valle dell'Ofanto" cauliflower, that has been recently appointed the certification of collective brand, were investigated at Gaudio (41°03'N; 15°42'E, Southern Italy, Basilicata Region). Six white head cauliflower cultivars, characterized by a different length of the crop cycle (2 early, 2 medium and 2 late), were studied. The above cultivars were transplanted in open field at the middle of August 2004 and harvested from the middle of October 2004 to the end of March 2005. At harvest time, yield traits and head sizes of cauliflowers were measured. Among the qualitative traits, color, weight loss, total soluble solids, nitrate and vitamin C content were assessed on the fresh florets and after a storage period lasting 15 days at 0°C and 95% R.H. The "Valle dell'Ofanto" cauliflower was characterized by a high content in sugars and vitamin C, even if significant differences in some qualitative parameters (e.g., vitamin C and nitrate content) were affected by cultivars and crop cycle length. On the other hand, the storage at controlled temperature and R.H. did not substantially change the qualitative characteristics of the heads, but caused only a slight increase of dry matter and soluble solids levels, especially in those cultivars more susceptible to weight loss.