

### Abstract:

Fruit quality of different strawberry (*Fragaria x ananassa*) cultivars was evaluated in Tucuman (Argentina) from June to August (2001), a period when fruit prices are above the average values of the season. Cold-stored (frigo) plants (FGP) of 'Aromas', 'Camarosa', 'Gaviota' and 'Selva', and fresh plants (FHP) of 'Camarosa', 'Earlibrite', 'Gaviota', 'Rosa Linda', 'Sweet Charlie' and 'Tud New' were grown in a winter production system. Fruit were harvested periodically and samples of 15 fruit (>75% red color) per cultivar were analyzed during June and July (FGP) and August (FHP). Fruit quality was evaluated in terms of fruit weight, external and juice color ( $L^*$ ,  $a^*$ ,  $b^*$ , chroma), firmness, soluble solids (SSC) and ascorbic acid contents, acidity and ratio (SSC/acidity). Within FGP, 'Camarosa' and 'Selva' had the highest external chroma values, while 'Gaviota' and 'Aromas' had intermediate and the lowest external chroma values, respectively. Levels of acidity were different within cultivars, with 'Camarosa' being the most acid of the group. Within FHP, 'Tud New' had high fruit weight, firmness, ascorbic acid content, and low  $a^*$ , which is desirable in terms of quality; however,  $L^*$  (external and juice), SSC and ratio were low. 'Camarosa' had relatively high values of firmness, SSC and acidity, and was low in external and juice  $a^*$ . 'Earlibrite' had relatively high values of fruit weight, firmness, SSC, acidity and ascorbic acid. 'Sweet Charlie' had high SSC, intermediate firmness, and low acidity and ratio. Although production patterns of FGP and FHP were not the same and both groups were not fruiting simultaneously, 'Camarosa' and 'Gaviota', which were included in both groups, produced smaller fruit from FGP than from FHP, but firmness and SSC in FGP were the highest. These differences could be related to the particular background of each kind of plant and/or to environmental conditions during the fruiting season.