Abstract:

Pepper fruit at the mature green stage were harvested from plants treated with P1=200-200, P2=200-400, P3=300-200, P4=300-400 Kg/ha of nitrogen and potassium fertilizer, respectively. Fruit were washed, sorted and stored either uncovered or in polyethylene bags of 0.05 mm of thickness with 16 holes of 0.6 mm diameter. Three replicates for each treatment were used (one fruit per bag). Fruit were stored at 5 and 10 °C for 7, 14, 21 and 28 days for chemical and physical analysis (TSS, pH, TA, TSS/TA, color and firmness). TSS levels did not change appreciably with storage time but did show significant differences between covered and uncovered fruit stored at 10 °C. The pH increased in uncovered fruit from plants treated with high levels of potassium fertilizer and stored at 5 ° C. The titratable acidity (TA) reached maximum values in fruit from plants treated with any combination of the highest level of potassium and nitrogen fertilizer and stored at 10 °C for 21 d. Color variables showed some changes with storage time, with “L” increasing after 28 storage days. Low levels of potassium treatment resulted in lower values for Hue and Chroma, while low nitrogen levels resulted in the highest values for Hue and Chroma. A high level of potassium and nitrogen treatment resulted in the highest firmness value in pepper fruit stored in plastic bags at 10 °C.