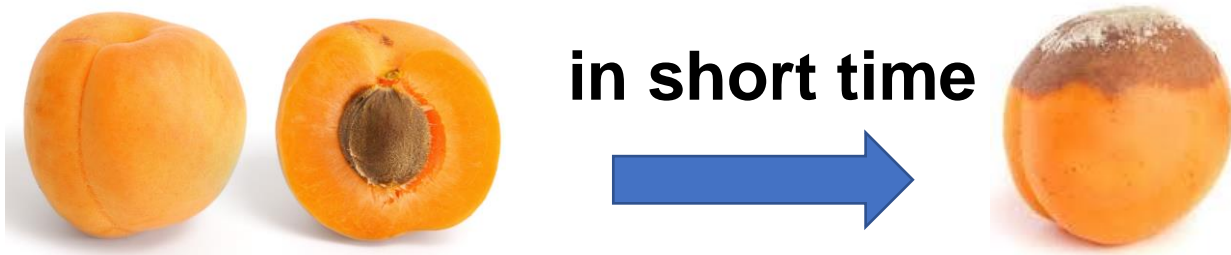


# Effect of maturity stages and 1-MCP on postharvest quality of apricot

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## 1. Introduction



Apricot is rich in various nutrients



Evaluating the effect of 1-MCP on three different maturity stages including mature-green, yellow and orange maturity stage during 6 weeks of cold storage

## 2. Materials and methods

Three different maturity stages: mature-green, yellow and light orange maturity stage



Green

Yellow

Light orange



6 groups

- Green
- Yellow
- Light orange
- 1-MCP green
- 1-MCP yellow
- 1-MCP orange

Each group had one hundred pieces.

Three groups were treated with 650 ppb gaseous 1-MCP in a sealed chamber at 1 °C for 24 h.



every 2 week

Fruit was measured: weight loss, stiffness (acoustic firmness), surface color

1 °C ± 0.5 °C for 6 weeks

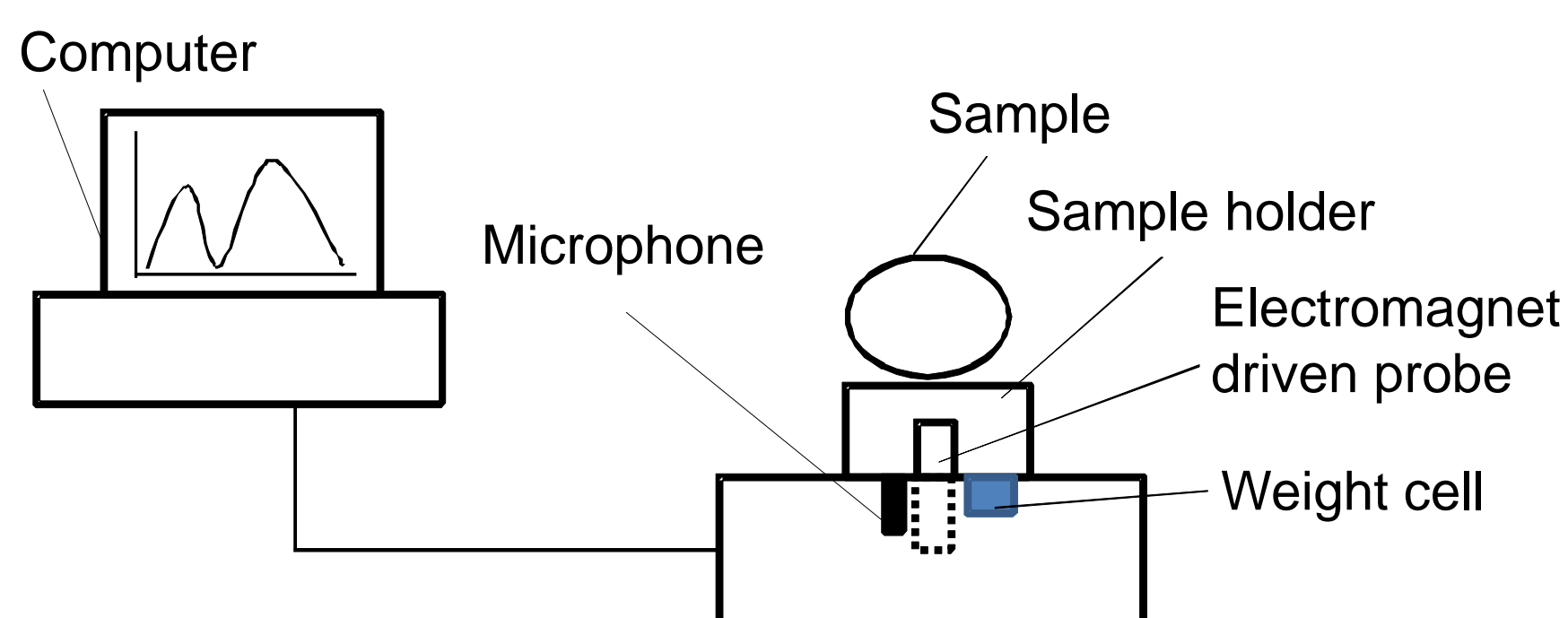


Figure 1. Schematic diagram of acoustic firmness measurement

## 3. Results

### 3. 1 Weight loss

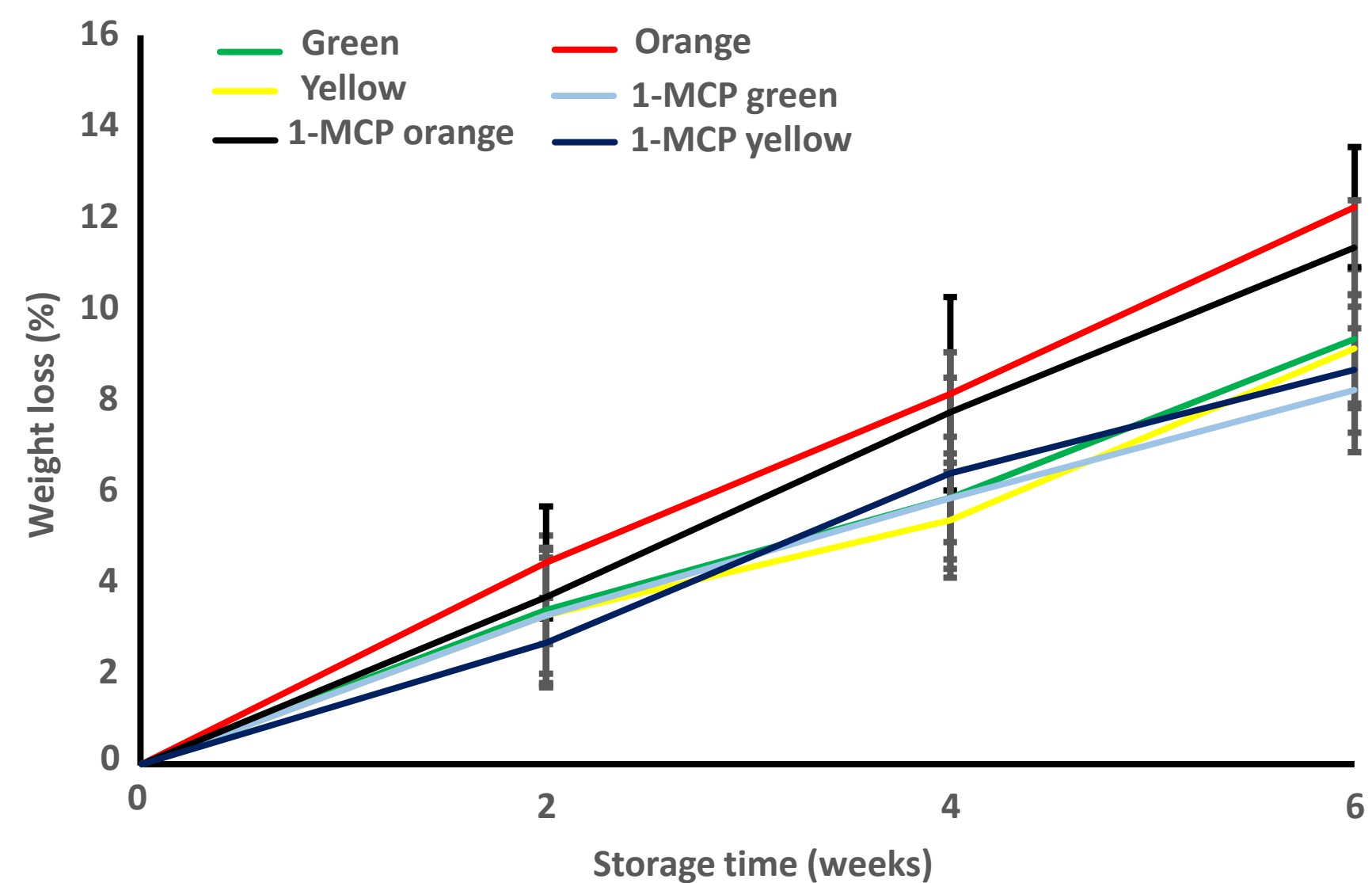


Figure 2. Weight loss during cold storage

### 3. 2 Stiffness

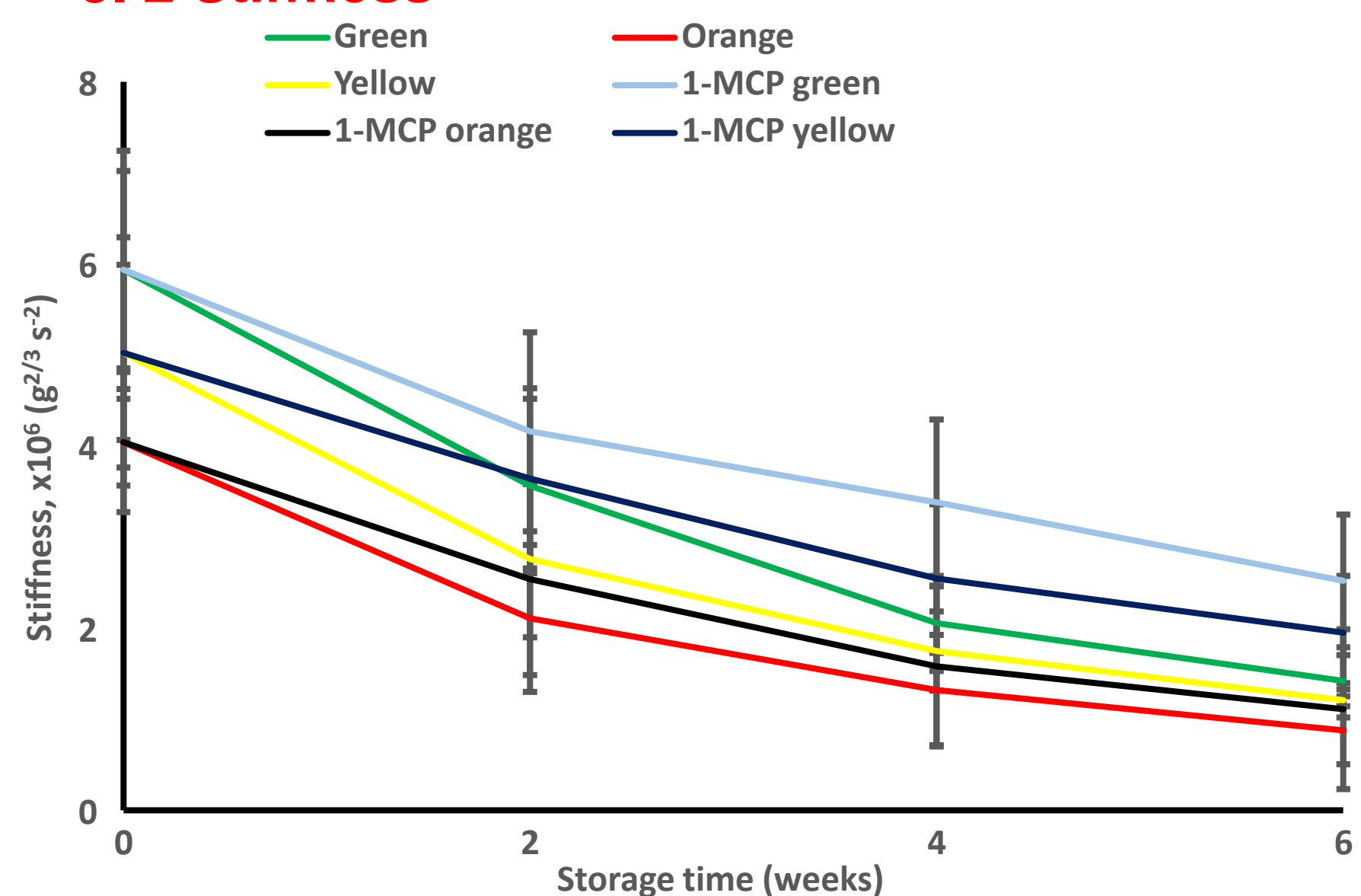


Figure 3. Stiffness of samples during cold storage

### 3. 3 Hue angle value

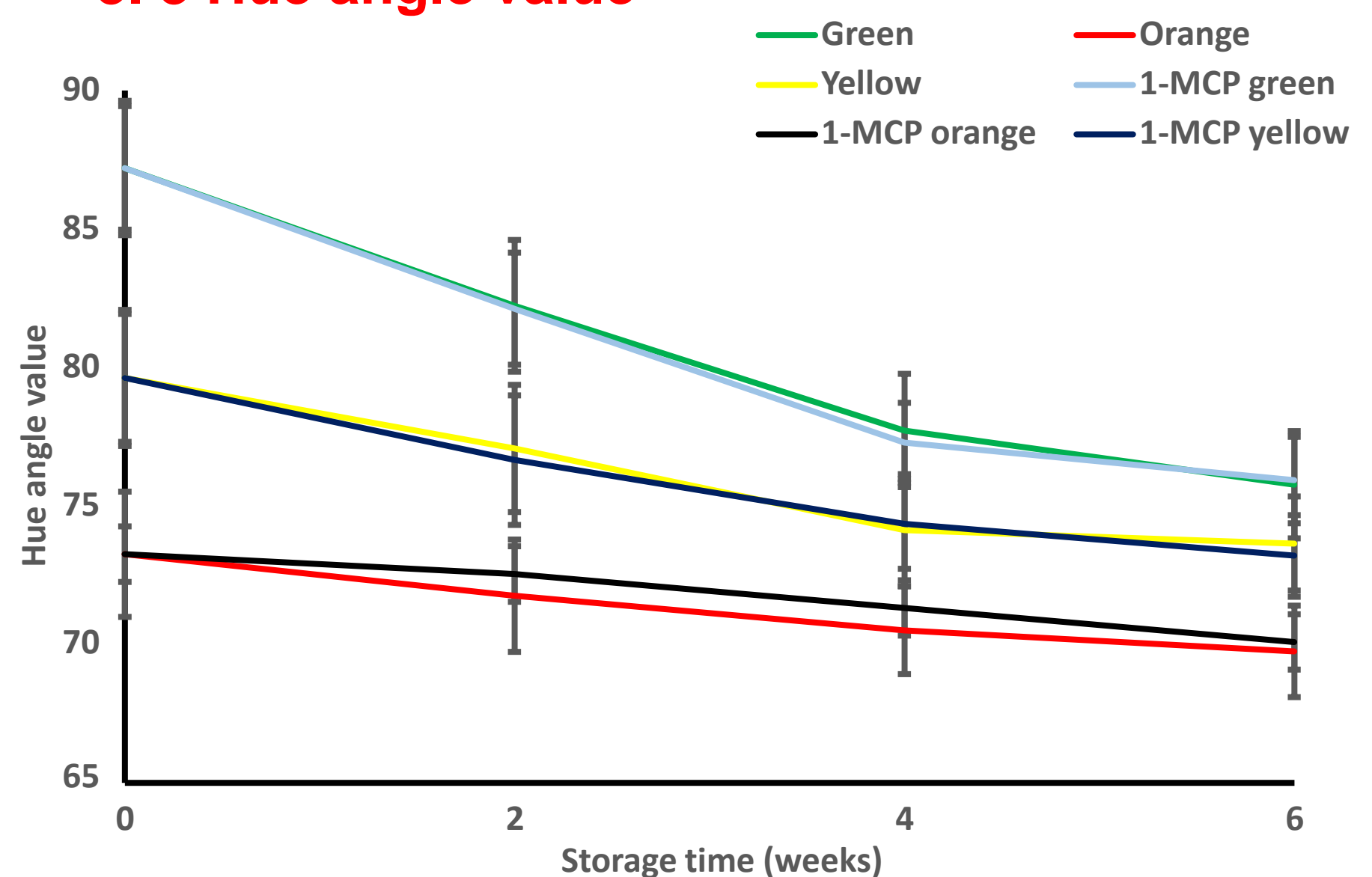


Figure 4. Hue angle value of samples during cold storage

## 4. Conclusion

The weight loss of light orange ripeness stage fruit increased rapidly compared to others during storage. Both maturity and 1-MCP affected the stiffness of apricot. The 1-MCP could delay the softening of fruit. The green and yellow maturity stages retained higher values in stiffness compared to light orange. No significant difference in hue angle values was observed between 1-MCP treated and control fruit, however hue angle value decreased strongly in mature-green harvested fruit.