

**Title** Optimization of potassium metabisulphite treatment on cherries conservation for industrial use  
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### **Abstract**

Previous studies have suggested that the use of sodium metabisulphite isn't feasible as preservative agent on cherries setting aside for an industrial use. The purpose of this study has been based on environmental considerations, reduction of losses of weight and preservation costs reduction. Preservation process was monitored establishing that losses of metabisulphite (SO<sub>2</sub> form) took place through safety valve on preservation barrels. Different treatments were stored outdoor. Secondly, government liquids composition was settled down, replacing sodium metabisulphite by potassium metabisulphite to reduce losses and lodging the possibility of reusing government liquid for a second conservation. Peroxide hydrogen additions got to oxidize residual metabisulphite to sulphate, being given raise the precipitation of calcium sulphate. On the other hand, precipitation reduced saline concentration on government liquid. Decrease of cherries weight (between a 9-15%) takes place by the effect of sugar diffusion from the cherry (glucose and fructose) to government liquid, as well as one potassium ion. In conclusion the use of potassium salts and barrels provided with hermetic shutter should be feasible for industrial purposes avoiding extreme temperature changes.