

Tips & Tidbits

Geranium or Flowery Smell in Wine



Geranium-like aroma is caused by bacterial decomposition of sorbitol.

The action of Sorbic Acid on yeast is considerably reinforced by the simultaneous presence of SO₂. At the recommended dose, Sorbic Acid displays no anti-bacterial properties. While it prevents the activation of fermentation in sweet wines, it prevents neither acetic bacteria growth nor the various bacterial actions on lactic acid. The degradation of sorbic acid is ever present with the consequent appearance of the disagreeable order akin to the smell of geraniums.

Sorbic acid is only effective when in association with a certain percent of alcohol and SO₂. It reinforces the action of SO₂, but can not replace it.

The activity of Sorbic Acid depends on pH. Its effectiveness is halved between pH of 3.1 and 3.5. Above pH of 3.5, the recommended dose is inefficient.

Sorbic acid is relatively insoluble in water, so by preference, the more soluble potassium sorbate is the additive of choice. It must be added with vigorous agitation.

In recapitulation, sorbic acid aids in the yeast stabilization of wine if the following conditions are observed:

- Observe the proper pH
- Wine should be clarified (yeast population below 1000 per cubic centimeter)
- A rapid and thorough mixture is accomplished

- The wine is already protected by sufficient free SO₂ to prevent oxidation and bacterial growth

Excessive Potassium Sorbate can produce a flowery or geranium smell in wine.

Potassium Sorbate plays an important role in winemaking: It prevents wine from refermenting when sugar is added to sweeten the wine after fermentation.

The geranium character can also be the result of a spoilage problem in the formation of lactic acid bacteria specifically from the *Pediococcus* genera. These bacteria form in wines with a pH above 3.7, in wines with very low levels of SO₂, or in wines that had a problem fermenting to dryness. This spoilage problem is best avoided by prevention, through careful vinification.

