

## Control of Fungal Growth in Sweet Orange and Mango Juices by *Justica flava* and *Aframomum melegueta* Extracts

**Authors :** Adferotimi Bansa

**Abstract :** A laboratory investigation was conducted to determine the effect of *Justica flava* and *Aframomium melegueta* on the growth of *Aspergillus niger*, *Rhizopus stolonifer* and *Fusarium* species in sweet orange and mango juices. Aqueous extract (3%v/v) of *Justica flava* and *Aframomium melegueta* reduced the growth of the fungi, a combination of 2% (v/v) each of *Justica flava* and *Aframomium melegueta* extracts reduced the growth better. Partial purification of aqueous extracts of *Justica flava* and *Aframomium melegueta* showed that ethyl acetate fraction of the extracts exhibited the highest level of inhibition of growth of the test fungi compared with diethyl ether and n-hexane fractions. The results suggest that extracts of *Justica flava* and *Aframomium melegueta* may be important substitutes for conventional chemical preservatives in the processing of fruit juices.

**Keywords :** aqueous, fraction, mango, orange, purification, sweet

**Conference Title :** ICBFS 2016 : International Conference on Biotechnology and Food Science

**Conference Location :** Kuala Lumpur, Malaysia

**Conference Dates :** February 11-12, 2016