

## LOCAL FOOD ACIDS ARE A BETTER BET

Food manufacturers have much to gain from using locally-produced malic and frutaric acids to enhance the taste of their products instead of merely opting for the cheaper citric acid imported from China.

Addressing industry leaders at the SAAFoST (SA Association for Food Science and Technology) Expo in Pretoria, Robert Fowlds, MD of Isegen SA, the Durban-based food acidulant manufacturer, pointed out that the company's products are already exported to 43 countries and to many multinational groups.

He called on the delegates to support local industry "instead of being one-dimensional and always looking to use citric acid, mainly from China, because it is the cheapest".

Isegen uses local technology and raw materials to manufacture malic and frutaric acids.

Frutaric acid is unique to Isegen and has been patented. It is a single, composite granule containing malic, fumaric and tartaric acids and used primarily to enhance taste and stabilise flavour. When combined, the special characteristics of the individual acids merge, providing an enhanced product with properties that significantly outweigh those of citric acid.

"Fruitaric acid has an excellent flavour, resembling a natural fruit taste. Because it also combines better with flavourants to enhance the taste of a product, less added flavourant is required. It can also be specially tailored to suit a client's specific needs," said Fowlds.

He pointed out that field trials in Argentina showed a 100% preference for fruitaric and fruitaric/citric combinations over citric acid. He also pointed out that although China was now by far the largest manufacturer of citric acid in the world, Isegen still managed to export sizeable quantities of malic acid to China. The manufacturers of food products there understood the synergy of combining different food acids to achieve enhanced flavour development and retention in their products. Hopefully South African manufacturers would follow this trend to provide their customers with an improved end product while at the same time supporting a local world-class food acid manufacturer.

Malic acid, he pointed out, is different to other food acids in its effect on taste sensations. In many formulations up to 20% less malic acid is required than citric acid monohydrate. Malic acid also remains tarter for longer, has a lower melting point and, because of its unique granular formulation developed by Isegen, is dust free, free-flowing and does not cake like citric acid.

"By substituting malic acid for all or even some of the citric acid in their food formulations, food processors and manufacturers will achieve a better end-product at minimal extra cost.

"In addition, the lingering tartness of malic acid outlasts and masks the bitter aftertaste, or intense sweetness, of many high-intensity sweeteners.

"Potential niche applications exist in the following markets for malic acid and frutaric acid: powder soft drinks, fruit juice beverages, sport drinks, chewing gum, sweets, snack foods, sauces, ice-creams and sorbets."

The company has three local plants – at Isipingo and Umgeni in KwaZulu-Natal, and at Germiston, Gauteng – and recently announced plans to establish an additional maleic anhydride (MA) and food acids plant in Trinidad.

Apart from food acids, Isegen is currently the only local producer in South Africa of phthalic anhydride (PA) and plasticiser esters from MA and PA used in the paint, resins and PVC industries.

More information can be obtained from Isegen's web site:

[www.isegen.co.za](http://www.isegen.co.za)

END

GRAPH 1

Fruitaric vs. other acids: tartness and taste retention

## GRAPH 2

Malic vs citric: masking effect in high-intensity sweeteners

acids/1

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