

Africa Spice CEO Zev Krengel was hobbling on crutches after a knee op when I visited his City Deep factory recently. But he soon had me chasing after him as we headed towards the newest addition to his business: a state-of-the-art, Swiss-made steam sterilization plant that is revolutionising the purity of spices – naturally.

Krengel's excitement was palpable as he and new product development manager Emil Caddie took me on the "grand tour" of the brand-new, purpose-built facility.

Africa Spice has grown from humble beginnings (it was started by Krengel's grandfather) into a leading player in the SA spice sector, with blue-chips like Nando's and Famous Brands as key clients.

Last year, says Krengel, he decided to up his food safety game and look for alternatives to irradiation because client/consumer demand for natural/clean solutions was increasing.

After much research, he opted for the BioSteam system from Swiss company Imtech-Steri, which has been specialising in steam sterilization since the 1980s. It's core business is the pharmaceutical sector, but in recent years has expanded to include the food sector as well.

In effect, the implementation of the BioSteam system has enabled Africa Spice to produce "pharmaceutical grade" herbs and spices using a 100% natural solution. It means spices treated this way are validated/export-grade to even the toughest food-safety markets.

Imtech installed the system last November and Africa Spice has been building up its skills in managing the process. Krengel says they are already receiving approaches from other companies to use the technology and he expects the third-party business opportunity to increase as companies come to recognise the value of such



Bugs vs The Clean, Mean Steam

Africa Spice declares war on pathogens with Swiss precision

By Bruce Cohen

"clean label" technology.

Imtech, with typical Swiss fastidiousness, did not simply build and then install the system in Jo'burg; it also monitors it continuously through a fibre-optic link back to its Swiss headquarters.

The software generates detailed reporting on all phases of the sterilization process and has been programmed with specific parameters for various spices to ensure optimum results (typically, a spice will need to be treated at around 80-90 degrees C for three-five minutes).

And the results, says Krengel, have been impressive. "We've run microbials on the treated spices and have seen dramatic drops in bug count," he says, pointing to a recent test on African bird's eye chilli: the spice arrived with a total plate count of 750 000 and came out of the BioSteam chamber at below 4 000. To achieve the same result with irradiation would have required intensive exposure of the spice to ionising

