The GRAPAS Award for Innovation

- Agribusiness in Africa
- Milling wheat
- Impact of dietary sodium diformate on performance and litter quality in broilers
- Phytogenic feed supplements
- Storage: 3D level sensors
- GRAINTECH EXPO Event review

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Too close to call! That was the result of the compilation of results from a panel of international judges evaluating this year’s finalists in for the GRAPAS Innovation Award in Bangkok, Thailand.

Milling & Grain magazine is Patron of the GRAPAS Awards for the cereal milling industries and announced the joint-winners at Victam Asia 2018’s Reception which was held at the city’s BITEC on the 27th of March.

In judging this year's nominations, the international judging panel gave weight to the criteria identified in the entry categories for equipment which is particularly applicable to use in cereal (wheat, rice, maize etc) milling, but could not separate the final three winners.

The features required are novel, have significant practical value and be of benefit to the user as well as being clear in terms of efficiency, safety, hygiene and cost effectiveness, say the judges.

Of the nine submissions that were short listed, two were specific products for the milling of cereals while the other seven were suitable also for wider applications in the handling of powdered and/or granular materials.

The three winners

Atta Process with PesaMill – Buhler

The ‘Atta Process with PesaMill’ took time to perfect, achieving the right amount of starch and water absorption; in the end success was achieved. It produces a higher yield and one machine can do the work more efficiently than 20 sets of millstones, saving 10 percent energy over the traditional Chakki stone mill.

This new process promises to substantially improve on the way that Atta flour is produced by enabling the replacement of the less efficient and hygienic traditional stones for particle size reduction. This innovative new process is a significant

Counterflow Electrical Dryer – Geleen

“Any attempt to reduce energy consumption and improve our CO2 footprint can only be good for the industry and importantly the planet. This air system will enable mills to dry their products without using fossil fuels and will be of significant benefit to those who use it,” says one of the judges.

“The new Geelen Counterflow Electrical Dryer, after testing in 2016/17 is due to go into production this March.

Meanwhile another judging panel adds, the approach of a combined counterflow cooler with a heat pump seems to be a trend-setting, complete-product to achieve a more efficient production. The outlet air is characterised by its ratio of saturation and its temperature. Regarding the demand of energy and water in future, the solution offered by Geelen Counterflow will be recommends it for a winning position in the GRAPAS Innovation Award 2018.

The Counterflow Electrical Dryer has benefits for petfood and aquafeed applications. The costs of drying for other industries is also of increasing concern and thus if it can be applied for the drying of grain before milling it is to be welcomed. application for the Indian subcontinent and East African regions.

Henry Simon Rollermill

The ‘Henry Simon’ rollermill is the submission for the 2018 GRAPAS award which applies most specifically to the milling of cereal grains in the broadest sense.

Although this ‘Henry Simon’ rollermill follows established principles in its fundamental design, the incorporation of advanced sensors and controls raises its operating potential to a new level.

‘Rollermills are ‘core’ machines in most milling processes and thus advances in design or operation are of particular importance.

It is to the credit of the manufacturer that they have revived a brand that pioneered the original introduction of the rollermilling process and in addition they aim to emulate the ethos of design and innovation for which it was renown.
The Highly Commended

**Pikasen FMS2000-F Optical sorter – Satake**

Optical (colour) sorters are now well established for the removal of impurities and discoloured kernels in the cleaning of cereal grain. The increasing need in the milling industry to meet ever higher food purity standards has hastened the adoption of this technology. The Pikasen takes this a step further in its ability to detect shape as well as colour in a single pass and thus will have great potential to further simplify and improve the ability to clean grain before milling.

The product is not specifically limited to milling and would therefore have wider applications for handling other materials.

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**Tubex Hopper Scale – Buhler**

In this iteration of the well-known ‘Tubex’ concept the manufacturer has taken a fundamentally sound and proven concept and raised it to a higher standard with the innovative incorporation of electromagnetics, ergonomic controls and have refined the construction to gain an improvement in hygiene.

The design and application of the product is, however, not specific to milling of cereals and could also be used for weighing a wide range of other powdered or granular materials.

The Tubex scale offers an energy saving way of weighting products at process time. Its innovative controlling and monitoring for mobile devices and seems to be easily mounted in existing process lines. By its promise of saving up to 95 percent of energy using electrical drives, a more efficient food production can be realised.

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Commended

The judges deemed the remaining five submissions ‘Commended’ for introducing innovations which could directly and indirectly benefit grain and milling processes.

**M007 Grain Dryer – Agentis Innovations**

Most cereal grain processes rely on accurate control of the grain moisture if optimum results are to be achieved in addition to the claimed reduced losses due to spoilage and mould growth. This product offers lower cost of the drying processing as well as ensuring a more reliably consistent feed to subsequent processing.

**Laser Marking integration – TMI**

Bagged products remain an important sector in the marketing and sale of milled products. For these milled products traceability and thus reliable labelling is of vital importance. The improvements in labelling offered by this product are significant for this purpose as well as reducing wastage.

**HRT 3-A Filter – Schenck**

Effective dust filtration is an essential requirement in most milling processes, often requiring time consuming upkeep and maintenance. The Shenck design will reduce the process downtime, maintain operating efficiency and improve plant hygiene standards. The filter has applications in many industries and is not confined to cereal processing.

**Stud Bolt – Sukup**

A small but significant and useful development for elimination of water ingress into bins and other structures. When you consider how many thousands of bolt wholes are needed in a grain silo, making their fixtures waterproof against moisture ingress will have a significant impact of the overall quality of stored grains for milling applications.

"All nominees are winners, winners for our industry and we should not stop encouraging innovation to progress our industry."

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