

Processing

Flexible production of different particle sizes

The ability to produce different particle sizes in animal feeds is currently of great interest to feed manufacturers all over the world. While a growing number of farmers demand specific animal feed consistency and structure for their businesses, more and more animal feed manufacturers have come to appreciate the advantages of being able to produce animal feeds to different particle sizes on their production lines. The innovative Magi-Mill concept can do that.

By Ingrid van der Sterren*

Sharply increased demand for animal feeds with different, coarser particle sizes is a recent market trend, which has been fuelled by efforts to improve the digestibility of animal feeds. Animals require different feed particle sizes at different phases in their lifecycle in order to absorb nutrients with maximum efficiency. Farmers can boost profits by applying this principle effectively. This has



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led to increased demand for feed with specific particle sizes and encouraged animal feed producers to look for ways of satisfying this new requirement. As a result, the ability to produce feed quickly and efficiently to the right particle size in existing production lines has become an item of major interest. Dinnissen Process Technology (based in Sevenum, the Netherlands) has developed a new and extremely innovative solution (Magi-Mill) that allows the production of different particle sizes in an efficient and quick way.

Energy saving and waste reduction

In addition to optimising feed digestibility by milling to the right particle size, more and more producers want to save energy and reduce process waste by being able to vary the particle size. After all, why grind animal feed ingredients down to an unnecessarily small particle size if that has no added value for the animal? Fine-milling animal feeds require more energy during the milling and production process and creates greater levels of feed dust contamination during transportation in bulk tankers and feed delivery systems. Moreover, animals create less spillage



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when eating coarser feed and are able to absorb coarser types of feed better than finely ground feedstuffs. Thus, milling animal feeds to the correct particle size not only improves digestibility, it also achieves cost savings and reduces waste.

Flexible mixing

Magi-Mill is a new and unique milling concept from Dinnissen Process Technology that allows manufacturers to mill and mix animal feed ingredients with enormous flexibility. The concept combines existing, well-proven milling technology with a whole range of innovative process solutions so that feed producers can switch between, combine and vary their milling processes. This solution is capable of producing *and* combining an almost unlimited number of particle sizes, meaning that producers can now satisfy any demand for a given feed particle size and mix consistency. It is possible to mill different feed ingredients to an individually specified particle size and subsequently mix them together at a later stage in the production process to create a balanced animal feed that satisfies highly specific customer requirements. And the opposite is also true. When used to produce existing feed types to proven quality standards, the Magi-Mill's highly efficient milling action saves energy and keeps waste and contamination to a minimum. Even when processing small quantities. In addition to the ability to switch between, combine and vary milling techniques, Dinnissen Process Technology's Magi-Mill milling concept incorporates the company's Pegasus Rapid Mixer as standard. This allows rapid mixing of solids and fluids (20 to 30 batches of 5 to 7 tonnes per hour) to produce a totally homogeneous final product (<4% variation coefficient). ●

**Ingrid van der Sterren is a free-lance journalist*