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PRESS RELEASE

Do shape and size matter?

Particle shape and size can have a significant impact on many aspects of food, influencing processability and ingredient functionality as well as product taste, appearance, texture and stability. As part of its £1.4m worth of investment in analytical and processing equipment, Campden BRI has installed a new particle analyser that can measure the shape and size distribution of particles from two microns up to three centimetres. Mervin Poole explains:

"Knowledge of how the shape and size of ingredients affect products could enable manufacturers to significantly improve processing efficiency and effectiveness, and product quality. Because of the unique way in which the machine operates we can analyse the overall shape of particles, not just their apparent shape in one particular orientation, allowing statistically reliable data to be obtained. We can also analyse wet as well as dry products – so can look at things like emulsions.

Amongst the products we have already looked at are salt, sugar and coffee granules, confectionery decorations, and composite instant drink powders - in which three different ingredients are mixed together. The ability to characterise particle shape and size so precisely, in ways not previously available, opens up opportunities not just for monitoring and controlling the quality of the ingredients themselves, but also to investigate which particular factors are important. Significantly, once a sample has been passed through the machine, post-testing analysis of the data can be carried out to explore all sorts of features of the sample."

This latest acquisition complements our long-standing expertise in image analysis and related techniques.

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*** Ends ***

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Notes to editors

1. An accompanying photograph is available from Mrs. Sue Hocking, Campden BRI, Station Road, Chipping Campden, Glos. GL55 6LD, UK. s.hocking@campden.co.uk +44(0)1386 842225

2. Campden BRI specialises in the practical application of technical excellence to support the food and allied industries through analysis and testing, operational support, research and innovation, and knowledge management. It is the world's largest membership-based food research organisation, with nearly 400 staff based at its three sites: Chipping Campden (Headquarters), Nutfield (Surrey - brewing division), and Budapest (Hungary).

3. Its activities include assuring the safety of food and drinks, food processing and manufacturing support, food analysis and testing, training and publishing. Each year it hosts hundreds of business visits and trains around 6,000 people from food and drink companies worldwide. Further information on its activities can be found at www.campden.co.uk

4. Expertise at Campden BRI includes:

    a. manufacturing technologies - food processing (heating, chilling, freezing), aseptic technology, microwave heating, malting and brewing, milling, baking and extrusion technology, and process control and instrumentation, packaging technology

    b. safety assurance - including hygiene and sanitation, microbiology and preservation, processing technologies, analysis and testing (microbiological, chemical), and quality and safety management,

    c. product development and quality, consumer studies, market insights, sensory science, authenticity testing, shelf-life evaluation, labelling and legislation

    d. agri-food production, ingredients, raw materials, raw material technology,

    e. underpinning science - cereal science, microbiology, chemistry and biochemistry, molecular biology

5. Facilities at Campden BRI include:

    a. 3,000 sq m of laboratories for food and drink microbiology, hygiene, chemistry, biochemistry, molecular biology, brewing and cereal science, and packaging technology

    b. 3,500 sq m food process hall and pilot plant including malting and brewing, retorting, chilling, milling, baking, hygiene and packaging

    c. 800 sq m of dedicated training and conference facilities