

# KANSAS STATE UNIVERSITY

## Bulk Solids Innovation Center

### The Kansas State University Bulk Solids Innovation Center

is the only university-based facility and staff in North America dedicated to research, testing and education of powder and bulk solids. Our mission is to support industry by improving technology and knowledge of bulk solids handling.

#### Services:

- Consulting
- Industry Short Courses
- Materials Testing
- Research

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MONTHLY NEWSLETTER!**

[bulk-solids.k-state.edu](http://bulk-solids.k-state.edu)



- Two-story 13,000 ft<sup>2</sup> (1,208 m<sup>2</sup>) building
- Six laboratories for university and industry sponsored research
- Training and conference rooms
- Material properties testing laboratory with full range of instruments
- Full scale bulk solids test bay, to verify solutions and help with Your scale-up issues



Supporting businesses across the United States and around the world in the areas of Chemicals, Plastics, Food, Pharmaceutical and Equipment Manufacturing.



### Research and Consulting Services

- Flowability Issues (poor flow from silos and bins)
- Storage (Caking, Stagnation, Spoilage)
- Conveying
- Particulate air filtration
- Trial runs
- Scale Up
- Trouble Shooting
- High energy consumption
- Particle Damage and Degradation
- Inadequate Conveying Rates
- Wear and Abrasion

### Education Short Courses

Information not taught at most colleges presented as a combination of theory and practical hands-on demonstrations with full scale equipment.

- Material Properties Testing and Results Application
- Basics of Pneumatic Conveying
- Advance Pneumatic Conveying
- Dust Hazards and Explosion
- Overview of Bulk Solids Processing, Flow and Air Filtration
- Online or in-house custom training for Your Company's Specific Needs or Topics

### Material Test Lab Services

- Characterization for powder flow, silo and hopper design parameters, conveying, air filtration, mixing, segregation, and fluidization.
- Testing includes flow functions, wall friction, shear testing, bulk and tapped density, angle of repose, terminal and can velocities, particle shape and size distribution, fluidization and wear