



# Moisture Measurement in Bagasse

Bagasse is the fibrous leftovers of sugarcane or sorghum stalks after they are crushed for the juice; the leftovers are used for biofuel or manufacturing pulp & building materials. For every 10 tons of sugarcane crushed, nearly 3 tons of wet bagasse is produced. The moisture content of bagasse becomes important as uses are determined.

MoistTech utilizes near-infrared (NIR) technology that allows for a non-contact solution to provide accurate moisture content readings. Insensitive to material variations such as particle size, material height & color, the sensors provide a continuous, reliable reading with zero drift and no maintenance. There is a one-time calibration with a non-drift optical design allowing operational personnel to make immediate line adjustments based on real-time measurements.

Creating biofuel from bagasse is a great use of recycling and is often burned to provide energy to the sugar mills. The moisture content becomes critical as it naturally ranges from 40-50% which is detrimental to it being used as fuel. Drying the bagasse will significantly increase its energy production value and decrease the milling and boiler operation. If bagasse becomes too wet, the longer it takes to ignite and does not burn evenly; bagasse that is too dry burns too hot and produces steam.

## INSTALL

The on-line sensors can be installed at entrance of the boiler, into any hopper, silo, material line, belt or screw conveyor and the moisture results are displayed onto an external display or PC.

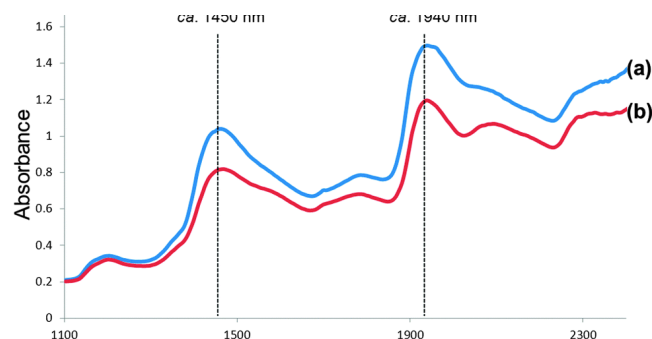
By installing a sensor at the exit of the mills and before the product enters the boiler, a manufacturer can continuously monitor the process and control the moisture content manually or automatically in an instant.

Installing a moisture measurement and control system prevents bad product due to undesirable moisture levels. Fine tuning the setup and process of the manufacturing line allows for instant improvements both in the product and in the efficiency in which it is produced.

## IMMEDIATE BENEFITS:

- Improved Product Quality
- Lower Waste & Energy Costs
- Process Optimization
- Increased Plant Efficiency
- Dryer Control
- Reduced Downtime

An ideal moisture control system accurately detects the moisture levels at different stages of the process, is easily maintained and has the ability to withstand even the harshest of manufacturing conditions. The IR-3000 series of sensors manufactured by MoistTech are specifically designed to be unaffected by ambient light or material variations to be able to provide continuous, repeatable, accurate readings to improve the manufacturing line and product.



“ The system is working very well with an efficiency improvement of 100% in moisture control. We are also looking at promoting this to a best practice suitable for out other plants and production lines”