

# DSE Moisture Solutions

- The complete range of models



## DSE Moisture Solutions



When using straw as a fuel or as a component for producing bioethanol – knowing the moisture is a key issue in order to secure a good business case.

The straw suppliers are requested to deliver straw within a certain level of moisture. If the moisture exceeds that level, the monetary value of their straw will go down or be rejected, when weighed and measured on the crane of the Bioenergy Plant. Often the straw supplier is baling straw, they have bought from different farmers in the region. When baling this “foreign” straw it is therefore a great advantage to be able to determine, if the moisture level of the straw is within the agreed limits. This information can be used to adjust the price of the straw between supplier and farmer, thus securing an acceptable business platform for the straw supplier.

The power- or bioethanol plant also needs to know the level of moisture in the straw for two reasons. One is when buying the straw, the moisture level determines the value of the straw and as such sets the price the plant has to pay the straw supplier.



# From field to plant



The other reason is their ability to control their own process. It is extremely important for a power plant to manage the combustion in their boilers and the only way, this is possible, is to know the content of moisture of the biofuel they are putting into the boilers. For a bioethanol plant, knowing the moisture of the straw, can increase their yield up to 5 %, meaning many tons of additional bioethanol produced, that otherwise could go lost.

DSE Test Solutions has for many years developed and produced Moisture Meters for measuring the moisture content in straw. Back in 1997 we developed the DSE4100, which is a Moisture Meter designed for the use on cranes in power plants in order to secure that the price paid for the straw is based on factual measurements of the average moisture content as well as the weight of the straw. Later on DSE Test Solutions developed the DSE4101 a model that measure the bales online and is used to control combustion in power plants or managing the boiling process when making bioethanol.



The DSE4101 also comes in an EX zone 22 version, which is approved for high explosive environments. The latest model is the DSE4200, it has been developed on request of the straw suppliers and it measures the moisture of the straw while baling, giving the operator online information of the moisture and thus enables him to make really fast decisions regarding the straw he is harvesting. The data from the straw on specific fields can later on be used as documentation, in order to determine the monetary value of the straw, when negotiating with the different farmers, the straw supplier is buying the straw from.



**DSE Test Solutions A/S** Tel: +45 75618811  
Sverigesvej 19 Fax: +45 75615895  
DK-8700 Horsens Web: www.dse.dk  
Denmark Mail: dse@dse.dk