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## Quality Characteristics of Wheat and Rice Straw Traded in Indian Urban Centres

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### Abstract

Mainly due to dietary traditions, dairy production is the most important livestock activity in South Asia. Feed may constitute over three quarters of input costs and is therefore a major constraint. On the other hand, increasing milk yields for higher productivity demands feeds with a higher concentration of nutrients. Currently, over half of all feed is contributed by crop residues. This also applies to the irrigated areas, where both human and dairy animal populations are concentrated. Here, wheat and rice straw form the most important crop residues. In order to assess the potential for improving the quality of these feeds, chopped straw samples were collected monthly over a period of one year from markets in three urban centres and characterised both by trader expertise, laboratory analysis and market data.

It appears that overall perceived quality is mainly determined by quality traits linked to harvest technology (particle length) and post-harvest factors (colour, moisture content, purity). Despite some knowledge on the quality differences between crop varieties, this information is not carried through the value chain and is therefore not considered in evaluating straw. Alone “thinness of whole straw” in rice is an important price determinant and could be linked to variety. Compared to previous analyses on a large number of rice cultivars, the average digestibility in the analysed samples is low. It is not clear whether this is due to the varieties grown or management factors. Of the investigated nutritional qualities only digestibility appears to have an effect on price, but it is weak compared to the effect of “city” on price. This can be explained by differing supply and demand developments. For instance, the degree in which the two straw types were seen as substitutes and the seasonality in straw supply varied considerably between the studied cities.

**Keywords:** Cereal straw, feed quality, fodder markets, India, price determination