



## On-the-go urea spraying system of baler for enhancing the nutritional quality of paddy straw

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### Abstract

Urea treatment of straw is generally done manually in conventional practice, which needs a lot of time, labour and storage area. To overcome these problems, a urea solution spraying system for paddy straw baler (rectangular type) was developed. This system was used as the go spraying of urea solution on loose paddy straw during conveying to compression chamber of the baler. The nutritive values of straw *viz.*, crude protein, *in vitro* dry matter digestibility and metabolizable energy were improved as compared to the untreated straw. The crude protein in untreated paddy straw was 6.61%, which was increased to 12.28% after urea treatment. The value of metabolizable energy was also improved by 3% and *in vitro* dry matter digestibility by 6% as compared to untreated straw.

**Keywords:** Nutritional value, Paddy straw, Straw baler, Urea treatment