

## Guti Urea

# Mechanization relieves work hardship and improves productivity

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Arman Hossain, a day laborer from Kestopur village in the Bagharpara upazila, lived the same life as his father, a sharecropper, for 25 years. His father could grow crops on loans and then pay his lenders back after harvest, keeping just enough for the sustenance of his family and for Arman's education at the village school. Eventually, his father could no longer take on loans to invest in sharecropping and had to give up his farming and work instead as a day laborer. Arman's father tried his best to maintain the family and Arman's education. However, the situation worsened, and he was unable to support his son's schooling. Eventually, Arman had to leave school after only four years of education. Before he was 15, Arman became the second breadwinner of the family.

*Arman is very happy with the mechanization of Guti urea application as it has relieved much of the hardship and suffering associated with fertilizing by hand.*

For almost seven years, Arman has worked as a day laborer for a land owner, Golam Mostafa, in his village. His employment was seasonal and included, seed bed preparation, transplantation, intercultural care, and harvesting rice. On off days

Arman worked some for other land owners or not at all.



During one boro season, Arman was employed to apply urea briquettes (Guti urea fertilizer) in boro fields. It was Arman's first experience with Guti urea application. He satisfied his employer by keeping the Guti urea application instructions in mind: deep placing Guti urea in the center of four rice hills manually. That season he applied Guti urea in 2.3 acres of rice fields. He was delighted with the extra earning of a week's pay (he could deep place 0.30 acre a day manually) by applying Guti urea. The work was as hard as rice transplantation and, strained his back. But for Arman, a day's pay was much more important for the livelihood of his family than comfort. He learned not to think about the pain of the job. Arman's wife, child, and his parents, all depended on his income.

In the subsequent year's boro season, the number of Guti urea users in the village increased substantially. As such, a Guti urea

injector applicator was introduced to expedite Guti urea application in the rice fields. The Guti urea applicator was less arduous and faster than applying Guti urea by hand. Over the course of the boro season, Arman was able to apply Guti urea in about a 12 acre rice area, earning him about 24 days of pay (0.5 acres a day with the early injector applicator model). In the next boro season, and even better applicator was introduced which was much more user-friendly than the first model. With this newer injector applicator model, Arman applied Guti in 16.5 acres during a period of 22 days (0.75 acres a day). Arman trained two other day laborers from his village, Jewel and Habib, to use the injector from the prior boro season. Jewel and Habib applied Guti urea in about 20 acres of rice fields during the boro season.



There are about 20 day laborers who applied Guti urea in about 76 acres of Boro rice fields in and around the Kestopur, Mirzapur and Sadipur villages during the 2015 season. Seven day-laborers applied Guti urea with the injector applicator in around 44 acres across those three villages.

Arman is very happy with the mechanization of Guti urea application as it

has relieved much of the hardship and suffering associated with fertilizing by hand. Arman hopes for more innovations and an improved livelihood for agricultural laborers, who are integral to agricultural development.