

BAU improves plough design

By A Staff Reporter

An improved plough has been developed for the poorest farmers of the country at the Department of Farm Power and Machinery of Bangladesh Agricultural University (BAU).

The innovators claim the new plough will be inexpensive, easy to maintain and good for all weather. They said farm level experiments have shown that the new plough can reduce draught-power requirements and at the same time cultivate at increased depths. The plots used in the experiments were planted with soyabeans, sweet potatoes, chillis and wheat. Deeper cultivation resulted in increased yields, they said.

The new tool enables the ploughman to change the angle of pull and, therefore, the working depth, by changing the position of the attachment of the pole to the plough to the desired level by adjusting the cross-connector beam. The large mild steel curved mouldboard type share is 25 cm wide at the front edge, but is designed to cut a gradually widening furrow as the plough moves forward. This eliminates the unploughed strip which results when ploughing with the traditional country plough. Mr R I Sarker and Mr D Burton who innovated the tool said in their research report, they pointed out that it works similarly to the conventional mouldboard plough, that is, uprooting weeds and burying them under the furrow slice.

They said unlike the traditional plough, the new design does not require the plough's wood to come from a very special tree branch. Two pieces of common hardwood can be joined together at a required angle to form the handle and the bottom. Spare parts for the bottom and share can be fitted easily, whereas the bottom and share of the traditional plough are not replaceable after they have worn down as the handle and bottom are constructed from a single piece of wood.

FARMERS' REACTION

In general, the farmers were impressed with the plough's performance. Because of deeper ploughing, less tilling was required to prepare a seedbed for rabi crops, the report said.

The farmers also pointed to same weaknesses of the new technology and later several modifications were made to remove the weaknesses.

Though the new plough has been proved to be of considerable advantages in the field test in Noakhali, further test is required to assess which crops will respond best to deeper ploughing, the researchers said.