KSUC-OI-066

# Using a moldboard plough for tillage a rice straw in the field after harvested installed with small tractor

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**Abstract**

In the current situation, farmers have experienced problems in managing stubble and rice straw after harvesting before farming in the next season or grow other plants causing farmers to use machine tools to cut rice stubble and rice straw from farmland. Many farmers may burn rice stubble and rice straw Farmers burned stubble. This research aims to development a moldboard plough for plowing the stubble into the paddy field after harvested by setting up with farm tractor about 34 horse power. The following methods and procedures: (1) To study the context of rice stubble management by using Ask for data collection (2) Develop a moldboard plough for plowing the stubble into the paddy field after harvested by setting up with farm tractor about 34 horse power (3) to test the ability and efficiency of the moldboard plough. The results of this study were follows: Farmers burned stubble and rice straw 67.57 percent due to the convenience, easiest way and lack of tools to manage stubble. And tractors that farmers have in the size of 30-50 horsepower. The moldboard plough, 3 type boilers are 120x156x 160 cm in size, weighing 120 kilograms. Each plow can be adjusted independently. And the results of the test were as follows: The average practice plow width was obtained around 123 cm. The average depth of the plow was obtained around 24 cm. The theoretical work capability was 2.08 rai / hour. The ability to perform the work was obtained around 1.2. rai / hour, rice stubble removal efficiency was obtained around 90.68 percent and performance was obtained around 57.69 percent.

**Keyword**: farmers, moldboard plough, ability and efficiency