

# **“TABELA”, the Simple Tool to Enhance the Speed of Direct Planting Process and Optimize the Usage of Paddy seeds in Rice Cultivation (Rokan Hulu, Riau)**

## **Abstract**

“TABELA” is a direct planting tool which is invented by one of SPFS’s farmer in Rokan Hulu. TABELA is introduced as simple technology, use easy to find materials and no high skills needed to construct it. Moreover, it is evidenced that TABELA can maximize the farmer productivity, provides good rice quality, and finally it may improve the farmer’s income

## **Detailed Description of the Technology**

Rokan Hulu is located in Riau province, one of the main rice producers in Indonesia. The ecosystem in the area is categorized as irrigated rice cultivation. Here rice is transplanted or directly seeded in puddled soil on level fields with water control.

One of the SPFS farmers has invented simple technology/ tool called TABELA (TAnam BEnih LAngsung/ direct planting tool). Most of Rokan Hulu’s farmers now have utilized the tool for rice cultivation and it is evidenced that TABELA (Figure 1) give advantages to the farmer.

Some advantages of TABELA :

- Easy to use and No high skills needed
- Enhance the speed of direct planting.
- Optimize the usage of paddy seeds in direct planting process. In conventional seedling process, approximately 40kg of paddy seeds are needed for 1 ha. Whereas, there are only 25kg of paddy seeds needed using the TABELA.
- TABELA needs only simple maintenance. No special treatment needed for TABELA and it is suggested to wash the TABELA after used. In addition, TABELA can be kept whether in outdoor or indoor.
- There is no machine in TABELA, therefore it save for the environment and no need extra cost for petrol.



Figure 1. TABELA (TANam BENih LANGsung)

### How TABELA works?

1. Put the paddy seeds into the hole in the main pipeline (Figure 2). Each hole can keep 0.5 kg paddy seeds. There are 4 holes in the main pipeline, so totally 2kg of paddy seeds in the TABELA.



Figure 2. Put the Paddy Seeds into the Hole.

2. Close the hole with the rubber belt (Figure 3).



Figure 3. Close the Hole with Rubber Belt.

3. Then, TABELA is ready to operate. For its operation, the TABELA can be pushed or pulled. Whenever the TABELA is moved/operated, the small wooden blocks which are attached at the bottom of TABELA will make the seedling pattern for planting the paddy seeds (Figure 4).



Figure 4. The Seedling Pattern Resulted from the TABELA

4. Finally, while the TABELA make the seedling pattern, the turning wheel make the main pipeline rotating which automatically will drop some of the paddy seeds through the wholes in the main pipeline directly to the seedling pattern (Figure 5). In addition, TABELA can seed 300m along the paddy field for one time operation.



Figure 5. The paddy seeds Fall from the Wholes

TABELA has simple construction and easy to make which easily can be handled by the farmers. Moreover, the materials for TABELA is mainly from wood which is easy to find and affordable for the farmer.

These are the materials needed for TABELA :

1. Wooden board
2. Shaft
3. Pipeline
4. Rubber belt
5. Construction tolls: nails, hammer, saw, mattock, tape measure etc.

The separate instruction about the process of constructing TABELA is also available to download (Click the link at the bottom at this page).

## **Impact of the Technology**

TABELA has already used by the most of SPFS's farmer groups in Rokan Hulu. Besides it can fasten the direct planting process, TABELA can also optimize the usage of the paddy seeds in rice cultivation. TABELA is introduced as simple technology, made from easy to find materials and no high skills needed to construct it. In other words, it can be handled easily by the farmer.

Finally, It is evidenced that TABELA can maximize the farmer productivity, provide good rice quality, and finally it may improve the farmer's income

- Sources Information :
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  - Nasrun Zakaria, Rokan Hulu District Coordinator
  - Admiral, Field Technician (Fishery extension)
  - Jon Nafri Caniago Field Technician (Agricultural extension)