



# MODULE 6

## Land Preparation

TRAINING OF  
TRAINERS

Manual for Better Rice Production and Marketing



DEPARTMENT OF AGRICULTURE  
**PHILRICE**  
PHILIPPINE RICE RESEARCH INSTITUTE



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## Manual for Better Rice Production and Marketing

### *Module 6: Land Preparation*

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## MODULE 6

### *Land Preparation*



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# Module 6: LAND PREPARATION

## Course Brief

### *Intended participants*

This module is designed for agriculture extension workers who support the farmers working on irrigated and lowland rice farms.

### *Context of the module*

The design of this course is based on the following assumptions about non-farming participants' knowledge and skills:

- The participants are not fully aware of the improved practices of land preparation
- They are supporting farmers who are willing to adopt appropriate machines for land preparation

### *Learning outcomes*

After attending this course, participants should be able to:

1. Narrate the benefits of proper land preparation;
2. Describe the different types of tillage;
3. Enumerate and discuss the factors that influence the choice of land preparation methods; and
4. Describe KeyCheck 2, its importance, assessment, and recommendations.

### *Course duration*

This is a 2-hour and 45-minute module.

### Content and time allocation

The following divisions of time are only suggestions. Trainers may modify the program to suit their and the participants' needs.

LESSON	TOPICS	TIME (min)	CONTENTS/SOURCE
Introduction		10	
Lesson 1	Benefits of a well-prepared field	20	
Lesson 2	Types of tillage Primary tillage Secondary tillage Wetland preparation Dryland preparation Combination of wetland and dry land	30	
Lesson 3	Factors that influence the choice of land preparation methods	30	
Lesson 4	KeyCheck2, importance, assessment, and recommendations	45	
Lesson 5	Input-output-outcome model in land preparation	20	
Conclusion		10	
<b>Total</b>		<b>2 hrs., 45 mins.</b>	

### Learning methods

The following methods will be used during the course:

- Group activity
- Lecture/discussion

### Evaluation methods

Participants' learning outcomes can be assessed as follows:

VENUE	CONTENT	METHOD
In class	Knowledge	Observation/Interaction/Exercise
	Skills	Demonstration
At Work	Skills	Demonstration/Exercise

## Note to trainers on delivery methods

Please be mindful to:


- Actively involve the participants in the learning process by asking them questions.
- Present the topic clearly at the start of each session.
- Make the sessions lively.
- Cite as many examples as possible to explain the topic being discussed.
- Keep the messages simple and concise.
- Avoid using jargon/technical words.
- Talk slowly and clearly.

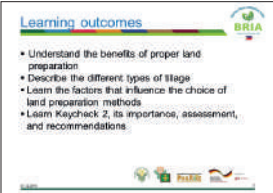
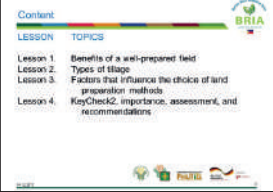

## Resource checklist

- Powerpoint presentation
- LCD Projector
- Flip chart (PalayCheck System)
- Manila/chart paper and pentel pen


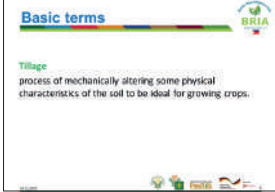
## Session Plan

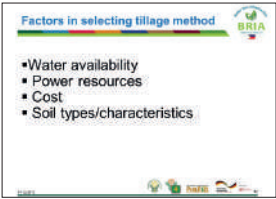
You may modify the program to suit your and your participants' needs.

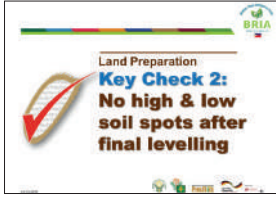
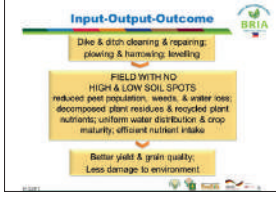
LESSONS/ TIME	ACTIVITIES	RESOURCES
<b>Welcome and Overview</b>		
<b>10 minutes</b>	Greet the participants, introduce yourself, and the topic.	 <p>Slide 1</p>
	GET ATTENTION by asking farmers: What management activity may be done to solve almost 50% of the problems in the field (barring the occurrence of extreme weather events)?	
	Collect the answers from the participants. State that proper land preparation is the answer. Explain that a well-prepared field provides good physical, chemical, and biological conditions of the soil for optimum crop growth – contributing to higher crop yields. Adequate knowledge on field preparation is therefore important in rice production.	

LESSONS/ TIME	ACTIVITIES	RESOURCES
	<p>EXPLAIN OUTCOMES: After this module, participants will be able to:</p> <ul style="list-style-type: none"> <li>• Discuss the benefits of proper land preparation;</li> <li>• Describe the different methods of land preparation;</li> <li>• Describe the different types of tillage;</li> <li>• Name the factors that influence the choice of land preparation methods; and</li> <li>• Explain Keycheck 2, its importance, assessment, and recommendations.</li> </ul>	 <p>Slide 2</p>
	<p>EXPLAIN STRUCTURE</p> <p>Lesson 1. Benefits of a well-prepared field</p> <p>Lesson 2. Types of tillage</p> <p>Lesson 3. Factors that influence the choice of land preparation methods</p> <p>Lesson 4. KeyCheck2, assessment, and recommendations</p>	 <p>Slide 3</p>
	<p>STIMULATE INTEREST by asking each participant to share what he or she hopes to learn from the module.</p> <p>WRITE their answers on the board/sheet of chart paper</p>	
<p><b>Lesson 1. Benefits of a Well-prepared Field</b></p>		
<p><b>20 minutes</b></p>	<p>GET ATTENTION by providing a picture of a field. Ask participants why they think the field in the picture is or is not ready for planting. Then ask their observations on the land (soil, weeds, etc.) that will justify their answer. You may list the observations on the whiteboard to remind them.</p> <p>If there are farmers in the group, LINK by asking the farmers how they prepare their field and how long do they take doing it. If there are no farmers in the group, ask the participants what they know of land preparation. Tell them to give you a step-by-step process from beginning until the land is ready for planting. SUGGESTION: Limit description to wetland preparation due to time considerations.</p> <p>Write the answers on the board (or chart paper). Let them look at the board and add any step they may have missed, and make your own additions as needed.</p> <p>STIMULATE INTEREST by having the group explain briefly why each step is important, e.g., removing or burning the rice straw, leveling the field, etc.</p> <p><i>SUGGESTION: In case burning the rice straw was mentioned among the steps listed, ask them why they do it. Then ask someone from the group why such practice is discouraged. Do the same for any other "wrong" practices mentioned by the participants.</i></p>	 <p>Slide 4</p>



LESSONS/ TIME	ACTIVITIES	RESOURCES
	<p>LINK by explaining that in this section, they will learn about the benefits of a well-prepared field.</p> <p>OUTCOMES: State that at the end of the lesson, the participants will be able to explain the benefits of a well-prepared field.</p> <p>STRUCTURE: Benefits of a well-prepared land</p> <p>STIMULATE INTEREST by asking participants about the benefits of a well-prepared field, reminding them of your earlier statement that proper land preparation can help solve almost 50% of the problems in the field.</p> <p>EXPLAIN the benefits of a good land preparation.</p>	 <p>Slide 5</p>
<b>Lesson 2. Types of Tillage</b>		
<b>30 minutes</b>	<p>GET ATTENTION. Now that the participants know the benefits of a well-prepared field, ask the participants how they can achieve a well-prepared field. Following this question, ask the participants, what do they do to their soil during land preparation.</p> <p>OUTCOME: At the end of the lesson, participants are expected to be able to:</p> <ul style="list-style-type: none"> <li>• Define what tillage is;</li> <li>• Describe the two types of tillage operation; and</li> <li>• Explain the difference among the three methods of preparing rice field.</li> </ul>	
	<p>DEFINE tillage.</p> <p>EXPLAIN the types of tillage operations</p> <p>EXPLAIN the difference between three methods of land preparation and its benefits.</p>	 <p>Slides 6-11</p>
	<p>OUTCOME: Summarize and confirm the outcomes of this topic with participants.</p> <p>FEEDBACK: Solicit feedback on the content and process so far.</p> <p>FUTURE: Preview the next topic</p>	

LESSONS/ TIME	ACTIVITIES	RESOURCES
<b>Lesson 3. Factors that Influence the Choice of Land Preparation Methods</b>		
<b>30 minutes</b>	<p>GET ATTENTION by asking if you can use wetland preparation if we don't have water source? Can we use tractor without money to buy fuel? Can we do transplanting if dry land preparation was done? (Expected answer: NO)</p> <p>LINK by stating that four factors are highly important in determining the type of land preparation to be done.</p> <p>OUTCOMES: At the end of the lesson, participants will be expected to be able to:</p> <ul style="list-style-type: none"> <li>• Name the factors that influence the choice of land preparation methods; and</li> <li>• Explain how each of the factors influence the choice of land preparation methods.</li> </ul> <p>STRUCTURE: The different factors influencing the method of land preparation are:</p> <ul style="list-style-type: none"> <li>• Water availability</li> <li>• Power resources</li> <li>• Cost</li> <li>• Soil types/characteristics</li> </ul> <p>STIMULATE by asking: Are you ready to listen for the topic? Then call on volunteers to explain how each of the factors (water availability, power resources, etc.) influence the choice of land preparation methods.</p> <p>OUTCOME: Summarize and confirm the outcomes of this topic with participants.</p> <p>FEEDBACK: Solicit feedback and observations from participants regarding the content and process so far.</p> <p>FUTURE: Preview the next topic</p>	 <p>Slides 12-15</p>
<b>Lesson 4. KeyCheck 2 – Importance, Assessment, and Recommendations</b>		
<b>45 minutes</b>	<p>GET ATTENTION by asking do you want to solve your problems in the fields? Do you want to save cost on production? Do you want to reduce the use of pesticides? And other "...icides"?</p> <p>LINK by explaining that if they want to increase their yield, they have to listen to the next topic.</p> <p>STIMULATE INTEREST by telling the participants "Do you want to know the secrets to gain more with less cost?"</p>	

LESSONS/ TIME	ACTIVITIES	RESOURCES
	<p>EXPLAIN KeyCheck2 of the PalayCheck System; its importance, assessment, and recommendations.</p>	 <p>Slides 16-24</p>
	<p>OUTCOME: Summarize and confirm the outcomes of this topic with participants, that they should have been able to:</p> <ul style="list-style-type: none"> <li>• Define KeyCheck 2 of the PalayCheck system;</li> <li>• Explain the importance of KeyCheck 2 in rice production; and</li> <li>• Assess the particular condition of a farm vis-à-vis recommendations under KeyCheck 2.</li> </ul> <p>FEEDBACK: Solicit feedback and observations from participants regarding the content and process so far</p> <p>FUTURE: Preview the next topic</p>	
<p><b>Summary: Input-Output-Outcome Model in Land Preparation</b></p>		
<p><b>15 minutes</b></p>	<p>GET ATTENTION by asking if participants believe that what one sows is what one reaps. You may digress a bit to cite and elaborate on this principle from the Bible, e.g., if you plant love you will harvest love? If you sow anger you will harvest hatred? Now related to rice production, if you plant and prepare your land properly what do you expect to harvest?</p> <p>LINK by explaining that through the KeyCheck2 we can solve about 50% of the most occurring problems in the field.</p>	
	<p>STIMULATE INTEREST by asking participants whether they would like to learn the secrets on how to solve most of the problems in the field?</p>	
	<p>EXPLAIN the input-output-outcome model in land preparation.</p>	 <p>Slide 25</p>

LESSONS/ TIME	ACTIVITIES	RESOURCES
<b>Conclusion</b>		
<b>10 minutes</b>	<p>GET ATTENTION by asking how much about land preparation the participants are able to remember – 100%? 90%? 75%? 50%? Lower?</p> <p>OUTCOME: Review the module learning objectives</p> <p>FEEDBACK: Ask if anyone has any remaining questions or expectations that have not been covered throughout the day's sessions.</p> <p>LINK to the next activity by telling them that we will now assess how much they can remember of the key information that was covered.</p>	
	<p>TELL participants to stand and form a circle.</p> <p>SHOW participants the ball and explain that whoever has the ball has the right to speak.</p> <p>EXPLAIN that you will pass the ball to the first person. That person will answer your question, and then pass the ball to anyone else in the circle. Continue until everyone has had the chance to speak.</p> <p>FUTURE: Let the participants think about everything they have learned in this course. Ask each one to share with the group one new thing from today's lessons that s/he would really want start doing in his or her own farm.</p>	
	<p>FUTURE: Congratulate the farmers on what they would like to accomplish.</p> <p>SUMMARIZE by showing the summary slide</p> <p>THANK the participants for their time.</p> <p>Welcome other questions or comments after the course.</p>	

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