**Pre-harvest Rice Management**

### Maturity Indices for Rice for Harvesting

Time from planting to harvesting varies from 4 to 6 months. Rice is ready for harvesting when:

- Grains are hard when chewed, turning yellow/brown.
- About 80% of the grains have changed color from green to straw color. The rest of the grains being in the hard dough stage.
- Grain moisture content is 20-22%.
- When hand-dehulled, grain is clear and hard.
- Grain should be firm but not crumbly when pressed between the teeth.

### Timeliness of harvest

- Proper timing is important factor in rice harvesting as it affects field losses, grain quality and marketability.
- Early harvesting results in more quantity of immature paddy, leading to increased broken rice during milling, and more chances of disease attack during storage.
- Delayed harvesting exposes the grain to attack by rodents, birds and insects; and leads to grain shattering during harvesting, cracking during threshing, and breakages during milling (Table 1).
- Delayed harvesting also increases risks of lodging, which complicates harvesting.

### Preparations for the harvest

- Drain all water from the paddy fields at least 7 days before harvesting.
- Scare birds from destroying the mature crop.
- Ensure that equipment for harvest and postharvest activities are available and in good condition.
- Decide where activities such as drying and threshing will take place.
- Have enough clean gunny bags for the harvested crop (30-36 bags per acre).
- Ensure that grain stores and sacks have been thoroughly cleaned.
- The new harvest should never be mixed with grain from the previous season to prevent transfer of pests from old to new harvest.

### Timeliness of harvest

<table>
<thead>
<tr>
<th>Maturity date</th>
<th>Harvest time (weeks)</th>
<th>Losses (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>-1</td>
<td>0*</td>
<td>0.8</td>
</tr>
<tr>
<td>+1</td>
<td>+2</td>
<td>3.4</td>
</tr>
<tr>
<td>+2</td>
<td>+3</td>
<td>5.6</td>
</tr>
<tr>
<td>+3</td>
<td>+4</td>
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<tr>
<td>+4</td>
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<td>40.7</td>
</tr>
<tr>
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<td>60.5</td>
</tr>
</tbody>
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**Contact experts:** Wayua, F (Francis.Obuoro@kalro.org); Olipa M; Wasilwa, L; Changalwa, C; Mutiga, S. (BeCA ILRI); Nyongesa. O. (IRRI); Mugambi; C; Kimani; J; Ochieng, V; Ngari, B; Zhou, B (IRRI); Mitchell T. (OSU); Wang, G. L. (OSU); Were, V (TSL); Ouedraogo, I. (INERA); Rotich, F (UoEm); Correll, J. C. (UARK) and Talbot, N. J. (TSL). *E-Guide for Rice Production in East Africa (2019)*