Introduction

Weeds are a major production constraint in rice production (refer to weeds factsheets for further information); and weeding is commonly practiced for their management. Various weeding methods can be practiced in rice fields:

1. Manual weeding:
   (i) Hand weeding
   • Involves hand removal of weeds. Weeds removed are heaped outside the field, and can be composted or fed to livestock.
   • Hand weeding is labour intensive, time consuming and tedious.
   • Hand weeding is eco-friendly because no chemicals are utilised.

   Fig 1. Hand weeding in a rice field
   Source: Rice knowledge bank IRRI, 2019

   (ii) Hand hoeing:
   • Involves using a hoe to remove weeds. The rice field is dried up prior to hand hoeing to prevent re-establishment of the weeds.
   • Hand hoeing is possible only in line-planted rice.
   • Hand hoeing is eco-friendly because no chemicals are utilised.
   • It is an effective method for controlling difficult weeds. This method is used in combination with hand weeding to remove weeds that are within plants along the rows.
   • Hand hoeing takes shorter time than hand weeding.

   Fig 2. Hand hoeing in a rice field
   Source: Rice management portal, 2019
   http://www rkmp.co.in/

2. Mechanical
   Manually operated rotary
   • This involves using a rotary weeder between the rows of rice plants. This method of weeding is only possible in line-planted rice.
   • The field is first irrigated to make the soil soft and allow for easy movement of a rotary weeder along the rows. The rotary weeder can be adjusted to desired spacing and depth.
   • The rotary weeder is pushed along the rows to uproot and bury weeds under the water.
   • Rotary weeding is effective for young weed, and is more efficient than manual weeding.
   • This method of weeding is eco-friendly because no chemicals are utilised.

   Fig 3. Rotary weeding in a rice field
   Source: Rodale institute, 2019