

What is Mechanical Weeding?

Weeds are controlled using a rotating hoe (rotary or conical weeder) to cultivate, uproot and bury emerging young weeds between rows of rice plants. Mechanical weeding is a part of integrated weed management that refers to the integrated use of cultural, manual, mechanical and/or chemical control methods.

**More Weeds
equals
Less PROFIT!**

Why control weeds?

- Prevent yield loss due to weed competition.
- Maintain purity and/or quality and market price of harvested grain.
- Prevent buildup of weed seeds in soil.
- Prevent weeds that may attract insects or rodents (rats) or act as a host for diseases.
- Prevent clogging of field irrigation channels to facilitate water flow.
- Reduce time and cost of land preparation and weeding operations.

Why mechanically weed?

- Nonchemical and ecologically sound.
- Less labor needed and costs less than hand weeding.
- Less drudgery and stress than in hand weeding.

Limitations of Mechanical weeding:

- Only suitable for row planted crops.
- Difficult in hardened soil or where water is limited.
- Difficult to remove weeds within crop rows.
- Only effective with young weeds (2 to 4leaf stage).
- Needs more labor (68 person days per ha per weeding) than chemical weed control.
- Still some drudgery and stress on labor (if rotating hoe is motorized, it will help).

How to mechanically weed?

1. Weeds need to be controlled from planting until the crop canopy closes.
2. With 23 cm of water in the field, start using a rotating hoe when emerged weeds are young (3 to 4leaf stage).
3. Repeat the hoeing one to two more times at 20 22 and 3032 DAT or 3032 and 4042 DAS.
4. Remove the weeds near the plants by hand.
5. Generally hoeing follows the row direction up the field and back. If the field is uniformly transplanted on a regular square pattern, it may be possible to hoe in perpendicular directions.
6. Use good land leveling and standing water to reduce weeds.
7. Plant in straight rows for mechanical weeding.

