

# WEEDS

# PEST rivialia!

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# Did you know?

*Not all grasses are weeds and not all weeds are grasses*

**Grasses**



***Echinochloa colona***

Jungle rice

pulang puit, dukayang

**Sedges**



***Cyperus iria***

Rice flatsedge

sud-sud, alinang

**Broadleaves**



***Monochoria***

***vaginalis***

Pickerel weed

Gabing uwak

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# TYPES OF WEEDS



## GRASS

Has round or flattened-hollow or “flat” stem, with nodes, parallel leaf venation and groups of two leaf characteristics



## SEDGE

Has triangular stem ,without nodes, parallel leaf venation and groups of threeleaf characteristics



## BROADLEAF

Has round or square stems, with net-like veins leaf venation and typically found in clusters or bunches with one or more leaflets.


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# When is the best time to control weeds?

In the first 30% of the life cycle of rice, 30-40 days after transplanting or seeding.

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# Crop Weed

# COMPETITION

## Critical period of competition

- when weeds are most likely to reduce crop growth and yield;
- 1/3 of the life cycle of the crop;
- Control at seedling stage to the closure of the canopy;
- Yield reduction: 40-96% across rice ecosystems.

## Critical threshold level

- maximum density of weeds which the crop can tolerate without causing significant yield/biomass reductions;
- Rice can tolerate below 250/sqm *Cyperus sp.*;
- *Echinochloa* at 5/sqm caused 9% yield reduction.

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# INTEGRATED WEED MANAGEMENT



is a deliberate selection, integration and implementation of effective weed control measures with due consideration of economic, ecological and sociological consequences (Buchanan, 1976 as cited by Mortimer, 1997).

# PEST MANAGEMENT RECOMMENDATIONS

When to control weeds

·Control the weeds within the first 40 days from the day of planting because these are the periods when the corn is very vulnerable to weed competition.

## Cultural Methods

·Thorough land preparation;  
·Square method of planting or “dama-dama” enables farmers to off-bar twice at right angles to each other.

## Physical/Mechanical Control

·Inter-row cultivation with native plow or spike-toothed harrow drawn by draft animals;  
·Off-barring and hilling-up; Off-barring should be carried out at 14-18 days after planting, hilling-up at 26-34 days after planting.

## References

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# Chemical Control

- Use of herbicides

- Pre-emergence herbicide application is sometimes followed by non-selective herbicide applied 3-4 weeks as a direct spray to weeds;
- 2,4-D and MCPA as post-emergence application, if most of the weeds are broadleaf, should be timed when weeds are susceptible, and corn plants are tolerant to herbicide (usually when plants are 2-3 weeks old).

- ***Problems with herbicides***

Applying herbicides early may injure the root system of the crop; late application makes corn stem brittle and therefore causes damage to the plants if strong winds occur shortly after spraying.

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