

## Weed control for peanut (*Arachis hypogaea*)

### Adaptability of the Technology

This technology can suit all sizes of farm, from small to large. Used by small-scale farmers, this technology needs only a small investment for mechanical weed control and cultural practices. Large-scale growers are likely to use chemical herbicides, which need a higher investment.

### The Technology

Weeds are common in peanut plantations. Weeds and peanut plants compete for water, nutrients, light and space. When competition occurs, crop growth

will be inhibited, and the yield and quality of the harvest will decline.

### The Weeds

There are ten species which are recognized as major weeds of peanut in Asia, namely, Goosegrass (*Eleusine indica*), *Digitaria ciliaris*, Bermudagrass (*Cynodon dactylon*), junglerice, *Echinochloa colona*, (Cyperus rotundus), flatsedge (*Cyperus iria*), niruri nutsedge (*Phyllanthus niruri*), common purslane (*Portulaca oleracea*), tropic ageratum (*Ageratum conyzoides*), and groundcherry (*Physalis minima*).



Fig. 1. Intercropping of peanut and corn, Indonesia

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FFTC: An international information center for  
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## Weed Control

There are three methods of weed control. These are:

### *Mechanical control*

Mechanical control of weeds can be done in three ways.

- Weeding by soil tillage. This is done at the same time as land preparation;
- Cutting weeds, using a machete and rake, 21 and 42 days after planting;
- Weeding, by pulling out and burning the weeds.

### *Control by cultural practices*

Cultural control of weeds involves the following measures:

- Make sure the seeds used for planting are free of weeds.
- Maintain intervals of 40 x 15 cm or 30 x 20 (for fertile soil) and 40 x 10 or 20 x 20 (for infertile soil) between plants.
- Apply mulches to prevent weed germination, and to kill weeds already growing.
- Use crop rotation.

### *Chemical control*

Chemical control using herbicides should follow the principles of appropriate herbicide, precise dosage, correct weeding methodology, correct application and environment-friendly practices.

Herbicides can be divided into contact herbicides and systemic herbicides. Contact herbicides kill only the part of the plant which comes into contact with the chemical. Systemic herbicides damage all plant tissues.

Effective herbicides include: Tiobencarb Prometrin (SATURIN 500/50 EC), Oxifluerfen (GOAL 2 E), Ocsadiazone (DUAL 500 EC), Bentazon (BASAGRAN 50 ML), and Glyphosate (ROUNDUP 480 AS).

Herbicides can be applied before planting (2,4 D), during germination (Nitratin), or during planting (MCPA or Propanil). Herbicides can be applied by spraying them onto leaves (Glyphosate) or onto the soil to prevent the growth of seeds, tubers or rhizomes. Some herbicides are selective and kill weeds only, while others kill the main crop, peanut, as well as weeds.

