ADVICE ON WEEDICIDES

By D.W. Kidd - Senior Lecturer Crops,
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Mr D.W. Kidd, a senior lecturer at the Highlands Agricultural College sent the following reply to a request for information on weedicides. The advice given would be useful for all people using chemicals to kill weeds.

Paraquat or Gramoxone (ICI) should cope with most weeds. This chemical burns all plant tissues above the ground.

Perennial weeds need a "systemic"* chemical to kill the root system. For broad-leafed perennial plants, try 2,4-D, and for perennial grasses try Dalapon.

Atrazine is a very effective "pre-emergent" weedicide for use in maize and sorghum. (I have got spectacular results in Mt. Hagen and it is recommended for the Markham Valley also). Accurate application is the secret of success. The effects wear off after a few months, but then the crop should shade out the weeds.

Chemicals are not the total answer to your problem. If weeds are a problem perhaps you should examine methods of mechanical control.

Check the spacings of your crop plants. Most weeds prefer sunlight, therefore if you can get your crop to cover the ground efficiently and quickly your weed problems will be almost nil.

When Using Insecticides

1. Always add some detergent to the water, Lixapol, Nonidet or Agral, to increase the spread of the chemical.
2. Treat all agricultural chemicals as "Poison".
3. Bury old containers to prevent people using them as containers for food.

*Systemic weedicides are absorbed by the plant, and move through the plant system to all parts of the plant, killing stem and roots as well as the leaves.

4. Check that operators wash their hands after using agricultural chemicals.

5. Mix chemicals and water in 45 gallon or 200 litre batches where possible to minimise mistakes and reduce the need for detailed supervision.

6. A knapsack sprayer capable of taking the Polijet weedicide nozzle should be used.

7. I suggest you read further or discuss with experienced users the various methods of weed control, i.e.

dirty seedbeds

split applications

soil sterilization of seedbeds.

Soil sterilization of seedbeds can be done by "cooking" the soil for seedboxes in an old 200 litre drum split lengthways. Cook over a wood fire with the drum supported on the bricks until a sweet potato tuber placed just under the surface is ready to eat. This kills all weeds and insects and will give things like tomatoes a good start before transplanting.

Finally for positive identification of plant species use the forms "Botanical Specimen for Identification" obtainable from Division of Botany in Lae. To ensure your samples arrive in a condition that will enable recognition, follow these instructions:

Method of preparing specimens for identification

(a) Select a specimen with leaves, flowers, and fruit if humanly possible.

(b) Allow to wilt for an hour or two.

(c) Carefully arrange and flatten leaves over a piece of absorbent paper. "Post Courier" or "Wantok" are suitable but not imported newspapers. Cover plant with absorbent paper. Press gently between flat surfaces and use a brick as weight.

(d) Change the paper daily until nearly dry to prevent mould developing.

(e) If you squeeze too hard too quickly the plant cells are ruptured and the specimen will go black and be unrecognisable.