Information Sheet

10. WEEDS

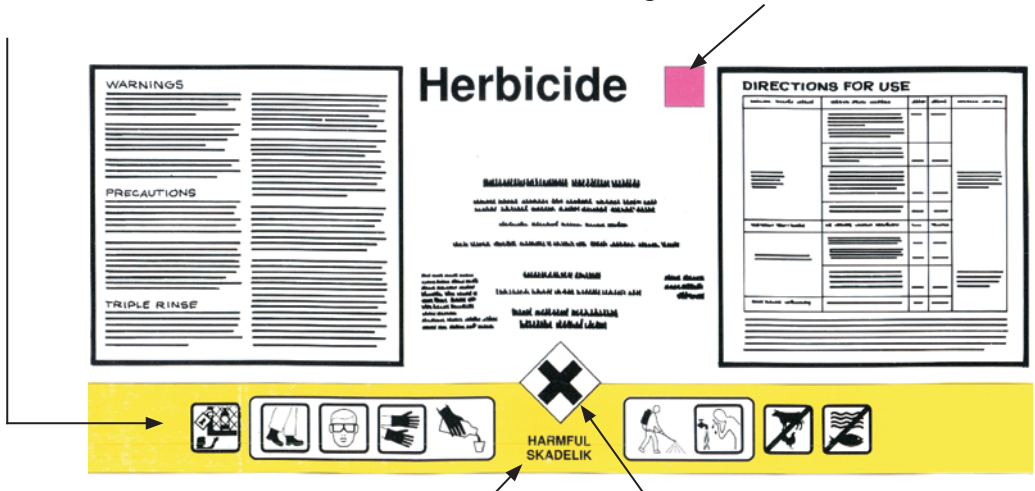
10.6 Understanding the label on herbicide containers

The herbicide container label provides essential information about the purpose and safe and effective use of the herbicide. Product container labels are usually made up of three panels with the centre or sales panel flanked by two ancillary side panels for precautions, instructions, etc. To cater for illiterate people, pictograms (illustrated instructions) are included on their product labels to communicate key safety information.

Pesticides are grouped according to the toxicity hazard group to which they belong, and each has a different colour code. This has been adapted from the World Health Organisation (WHO) classification of agricultural remedies. The herbicides used in South Africa fall into three of these groups, depending on their potential to harm the user and the environment. This is gauged by the product's toxicity from both oral and dermal absorption into the body, measured as the LD_{50}. This value of a chemical is the amount of active ingredient required to kill 50% of a sample population of rats. Red, yellow, blue and green bands on labels represent varying degrees of danger, with red being the most hazardous and green the least (see Table 1). For further infomation on herbicides and their use in the sugar industry refer to the **'Herbicide Guide'** published by SASRI.

A colour coded band containing pictograms is situated underneath the panels.

All herbicide labels have a purple square so that the user can easily identify the product as belonging to this group of agricultural chemicals.



The yellow and blue band labels also have hazard warning statements "HARMFUL/SKADELIK" and "CAUTION/VERSIGTIG" respectively.

Herbicide labels of products falling into the yellow band category also have a hazard symbol for extra precaution (St. Andrew's cross). A skull and crossbones appears on red label pesticides (e.g. Temik).

Table 1. Some currently used herbicides in the South African sugar industry. Products are allocated to a colour coded group according to their hazard potential.

Group 1A	Group 1B	Group 2		Group 3	Group 4
No herbicides registered for sugarcane in this group Some pesticides fall into groups 1A & B	Some paraquats	Alachlor Ametryn Atrazine Basta Eptam Super Falcon Gold Fusilade Forte Garlon 4 Gramoxone	Lumax MCPA Metribuzin MSMA Pendimethalin Tebusan Tolla Velpar DF Voloxytril	Acetochlor Authority Claw Extreme Plus Terbo Touchdown Forte Some glyphosates	Diuron Merlin Servian Some glyphosates

DECREASING HAZARD POTENTIAL

The pictograms in the colour bands cover the basic do's and don'ts of handling, application and storage of chemicals. The pictograms within a box to the **left** of centre (see **A**) advise on the handling of the concentrated product. The pictograms in a box to the immediate **right** of centre (see **B**) advise on the application of the diluted spray mixture. Further pictograms for storage advice (**C**), and other specific warnings (**D**) are located to the extreme left and right in the colour band respectively.

A full list of pictogram descriptions is given below. NB: Growers are reminded that the container label acts only as a basic guide to the user, and that it is essential to read the technical information supplied as well.

(Information for this article has been supplied by AVCASA)

Group Two (Yellow band products)

Group Three (Blue band products)

Group Four (Green band products)


Keep locked away and out of reach of children.


Wear gloves.


Wear eye protection.


Wash after use.


Wear boots.


Handling liquid concentrate.


Handling dry concentrate.


Application.


Wear protection over nose and mouth.


Wear respirator.


Dangerous/ harmful to animals and birds.


Dangerous/ harmful to animals and birds.


Dangerous/ harmful to animals.


Dangerous/ harmful to animals.


Dangerous/ harmful to birds.


Dangerous/ harmful to birds.


Dangerous/ harmful to fish and water bodies.


Not for aerial application.

Updated by Graeme Leslie (Principal Entomologist)
August 2014