

PRODUCT LABELS:
INDICATION OF MOA OF
ACTIVE INGREDIENT AND
ACCOMPANYING IRM ADVICE



Insecticide Resistance Action Committee

To assist users in the selection of insecticides for use in IRM strategies employing sequences, rotations or alternations of MoA groups, IRAC is encouraging producers to clearly indicate the IRAC MoA group number and description on the product label, and to accompany this with appropriate advice of the type indicated below. Thus, in addition to the detailed product information, handling, and safety information required by local regulations, a typical label should clearly indicate the IRAC MoA Group number & description, and minimal, brief advice on IRM as indicated in the example below.

Inclusion of the IRAC group on the label is a warrant from the manufacturer that the insecticide has been classified by IRAC and is listed in Appendix 5 of this document, the only authoritative and comprehensive list of IRAC-classified insecticides. If an insecticide is not listed in Appendix 5 and falls within the scope of the IRAC classification as stated at the beginning of this document, please petition IRAC for classification of the product, as directed in Appendix 4, before drafting a label. Insecticidal materials falling outside the scope of the classification may be labeled as “Exempt from IRAC Classification”.

GROUP 15 INSECTICIDE

Product XXX

Insecticide
For the control of xxxxx in various crops.

Active ingredient: xxxxxxxxxx.....	45.2%
Other ingredients:.....	54.8%
Total	100%

KEEP OUT OF REACH OF CHILDREN
CAUTION
See additional precautionary statements
and directions inside of booklet
XOXOXOXO
12345
ABCDEF

For resistance management purposes, Product XXX insecticide is an IRAC MoA Group 15 insecticide. Any insect population may contain individuals naturally resistant to Product XXX and other Group 15 insecticides. If these insecticides are used repeatedly, the resistant individuals may eventually dominate the pest insect population. These resistant insects may not be controlled by Product XXX insecticide or by other Group 15 insecticides. To delay the development of resistance:

- Avoid exclusive repeated use of insecticides from the same chemical sub-group, (indicated by the IRAC MoA Group number).
- Alternate with products from other IRAC MoA Groups
- Integrate other control methods (chemical, cultural,

biological) into insect control programs.

For further information on resistance management and advice on IRM programmes contact your local distributor.

Labelling Specifics

It is recommended that the MoA icon is displayed in a prominent position on the label. A position at the top right of the front panel of the label is strongly recommended as shown in the example above. A clearly defined font should be used, e.g., Arial or Calibri for users of Latin script. A black and white colour scheme is recommended. The icon uses the word GROUP in capital letters in black font on a white background; the mode of action letter or numeral should be in white font on a black background; the word INSECTICIDE in capital letters in black font on a white background. Both lines, and the whole indicator, are contained within black rectangles. See example below.



The words GROUP and INSECTICIDE in capital letters which should not be less than one-quarter of the height of the largest letter or numeral on the label and be between 2 mm and 12.5 mm high. If more than one insecticide is included in a product then the icon should be written in plural e.g. INSECTICIDES not INSECTICIDE. The appropriate letter(s) or number(s) representing the Mode of Action (MoA) group(s) of each active constituent(s) are to be inserted between the words GROUP and INSECTICIDE. The width of the white line that separates the groups for the pesticides in a product with more than one active ingredient should be defined. It should be wide enough so that when the icon is printed on small packets the line is clear. The letter(s) representing the mode of action should be written in capital letters which should not be less than one-half the height of the largest letter or numeral on the label and between 4 mm and 25 mm high. The words GROUP and INSECTICIDE must be no less than half, and no more than the actual size of the group number or letter.

Note that where a product has two or more active constituents, and these are represented by two or more modes of action, you must use two or more appropriate MoA identifier letters or numbers in a single statement. Alternatively, each individual active ingredient can be placed in a stacked format (see examples below).



OR



If the product contains two or more active constituents which perform different functions, for example, an insecticide and a fungicide, you must show each function separately (that is, one indicator panel for the insecticide and another for the fungicide component). See examples below.



Where required, appropriate translation should be used to ensure MoA labels are clear to product users. Labelling should also consider the [FAO/WHO Guidelines on Good Labelling Practice for Pesticides](#). MoA labelling must follow all country regulations and may vary.

Resistance Management Language for Product Labels

In addition to mode of action number labelling, it is strongly recommended by CLI and the Resistance Action Committees (RACs) to include guidance on the management of resistance on the product label. Where possible companies will voluntarily add resistance management language to their product labels that explains how to use MoA information in resistance management recommendations.

IRAC recommends that resistance management guidelines be presented under a headed section titled: “**RESISTANCE MANAGEMENT**” on all insecticide labels and the following three IRM elements be incorporated in the text.

- The name of the active ingredient(s) and mode of action identifier (IRAC Mode of Action groups).
- A statement that the product should be rotated with different modes of action using mode of action treatment windows.
- Guidance to avoid treating consecutive generations with the same mode of action

EXAMPLE OF AN IRM RECOMMENDATION ON AN INSECTICIDE PRODUCT LABEL:

PRODUCT NAME contains the *ACTIVE INGREDIENT NAME* and is an *IRAC GROUP X* insecticide. Do not exclusively use *PRODUCT NAME* or other *GROUP X* insecticides to control the same pest throughout the season. Avoid exposing consecutive generations of a pest to the same mode of action by using the “application window” approach which rotates products from different mode of action groups.

An “application window” is the period of residual activity that a single application or sequential applications of products from the same mode of action provide. It can also be defined as the duration of an insect generation or if unknown, then use an approximate 30 day period. Rotate windows with treatments of *PRODUCT NAME* and *other Group X* products followed by windows of treatments with other effective products with different modes of action. Multiple applications (recommend no more than two) of the same MoA insecticide are acceptable if they are used within the same application window.

Reference: [*CropLife International Mode of Action Labelling Guidance*](#)
