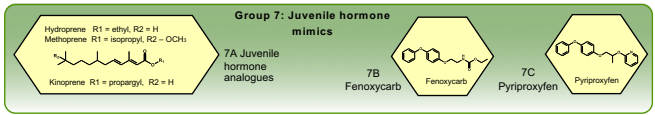
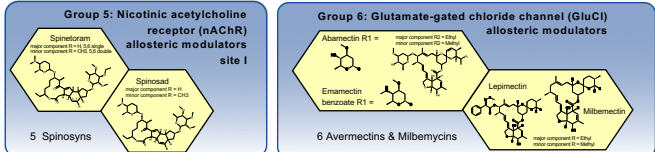
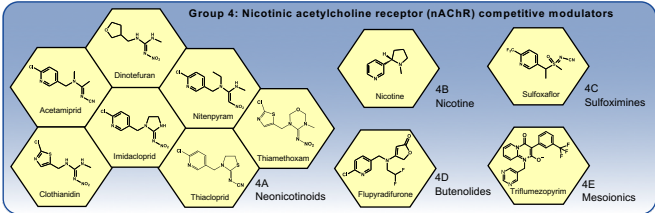
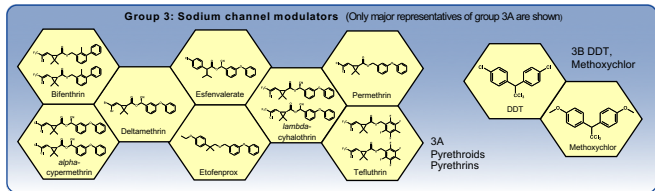
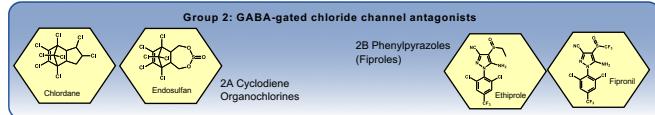
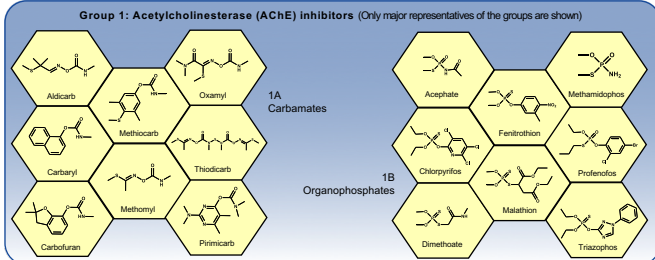


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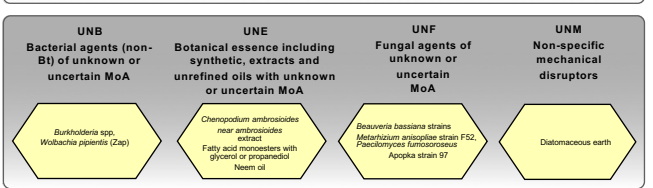
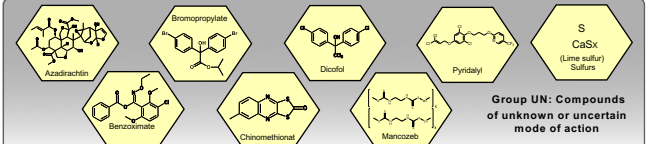
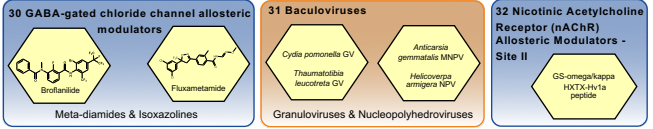
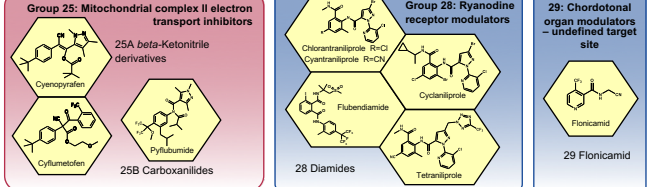
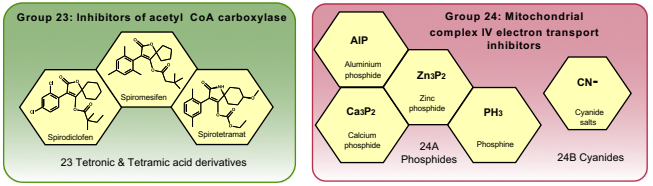
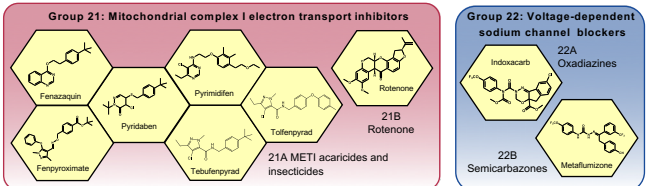
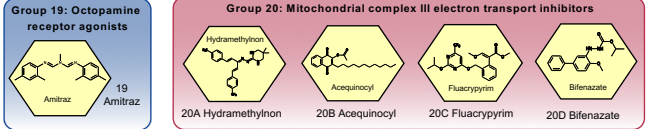
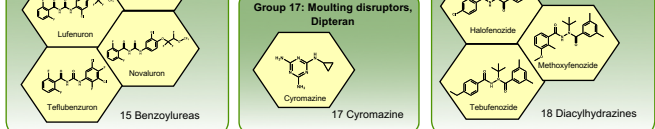
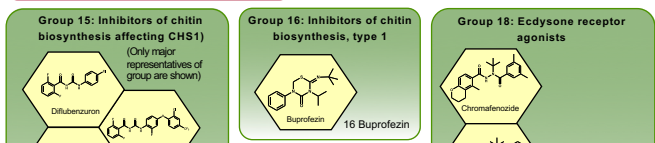
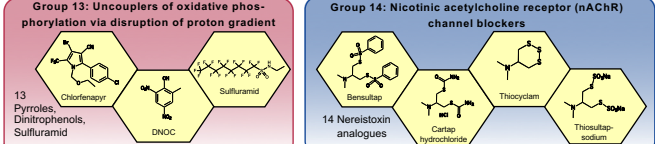
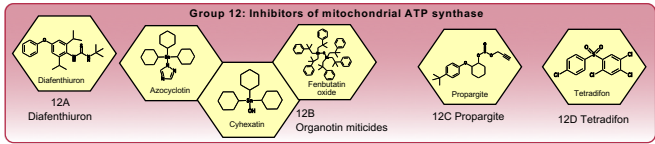
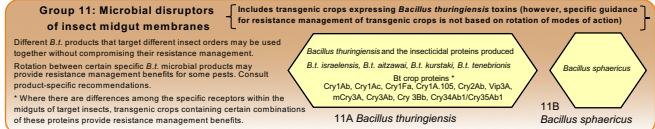
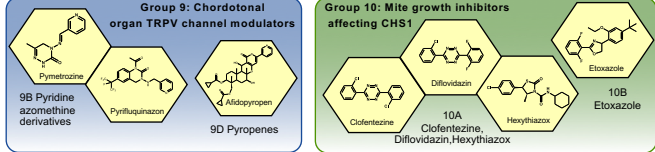
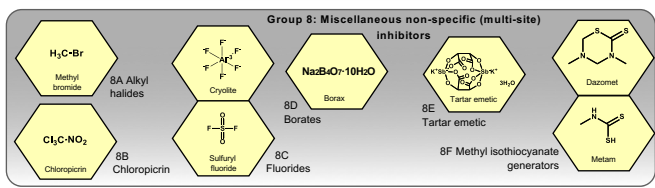
Insecticide Resistance Action Committee

Mode of Action Classification



Use of Groups and Sub-Groups:

- Alternations, sequences or rotations of compounds between MoA groups reduce selection for target site resistance.
- Applications are arranged into MoA spray windows defined by crop growth stage and pest biology.
- Several sprays of a compound may be possible within each spray window, but successive generations of a pest should not be treated with compounds from the same MoA group.
- Local expert advice should always be followed with regard to spray windows and timing.
- Groups in the classification whose members do not act at a common target site are exempt from the prescription against rotation within the group. These are, Group 8, Group 13 and all the UN groups: UN, UNB, UNE, UNF, UNM, UNP & UNV.
- Sub-groups represent distinct structural classes which are believed to have the same mode of action.
- Sub-groups provide differentiation between compounds that may bind at the same target site but are structurally different enough that risk of metabolic cross-resistance is lower than for close chemical analogs.
- Cross-resistance potential between sub-groups is higher than between groups, so rotation between sub-groups should be considered only when there are no alternatives, and only if cross-resistance does not exist, following consultation with local expert advice. These exceptions are not sustainable, and alternative options should be sought.
- Sub-group 3B: DDT is no longer used in agriculture and therefore this is only applicable for the control of insect vectors of human disease, such as mosquitoes, because of a lack of alternatives.
- Sub-group 10A: Hexythiazox is grouped with clofentezine because they exhibit cross-resistance even though they are structurally distinct. Diflovidazin has been added to this group because it is a close analogue of clofentezine and is expected to have the same mode of action.



Key to Targeted Physiology

■ Nerve & Muscle ■ Growth & Development ■ Respiration ■ Midgut ■ Unknown or Non-specific

Poster Notes:

- Groups 26 and 27 are unassigned.
- The poster is for educational purposes only. Information presented is accurate to the best of our knowledge at the time of publication, but IRAC or its member companies cannot accept responsibility for how this information is used or interpreted. Advice should always be sought from local experts or advisors, and health and safety recommendations followed.
- In some cases only representative compounds in Groups are shown where indicated.
- Please visit www.irc-online.org for the complete IRAC classification.

CropLife
protection