

WAAVP Guidelines: Combinations of anthelmintics for livestock

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Background: Pressure to obtain maximum performance in livestock production has guided the use of anthelmintics in recent decades. A probably unavoidable consequence of intensive chemotherapeutic use is the selection of drug-resistant parasite populations. Such populations have been detected in livestock within a few years of the introduction of new anthelmintic classes. The increased frequency of resistance to broad-spectrum anthelmintics, in the absence of suitably broad-spectrum replacements, initially led to the introduction of combination products to attain the previously achieved therapeutic coverage. Now combination products are recognized by some, but not all, scientific groups as being essential to delaying the emergence of drug resistant populations. The aim of the proposed guidelines is to assess the scientific basis for regulating the introduction of combination anthelmintics globally, e.g., enhanced efficacy, synergistic effects, delaying and/or combating resistance. Other relevant questions that will be considered are: (1) what are the data-based reasons to restrict approval of anthelmintic combinations for routine use? (2) what circumstances would change the current regulatory status of combinations? (3) should combinations, particularly for new drug classes, be preferred in order to retard the development of resistance? (4) what data package would be required to justify regulatory approval of anthelmintic combinations? and (5) is it possible to develop and implement globally-applicable harmonized guidelines for such products?

Methods: Review the relevant literature including the use of drug combinations in other therapeutic areas; combination products or regimens are routinely used in many areas of chemotherapy.

Results: The options to justify combinations of anthelmintics, and possible concerns and potential arguments against combinations, are reviewed.

Conclusion/Summary: WAAVP guidelines for combinations of broad-spectrum anthelmintics are urgently needed.
