

A ROADMAP FOR USING FERTILITY CONTROL INHIBITORS FOR DOG POPULATION MANAGEMENT

G. Massei

Food and Environment Research Agency, York, UK

The potential market for contraceptives and a growing public interest in alternatives to surgical sterilization for companion animals, wildlife and livestock have recently fostered investments in and development of fertility inhibitors. As a result, new contraceptives and sterilants have emerged and are being evaluated in dogs. Non-surgical fertility control is increasingly advocated as deserving priority for its potential to be a cost-effective, sustainable method for dog population management (DPM) and to eliminate dog-transmitted diseases such as rabies. However, the development of products has not been matched by a parallel increase in field applications. This is due to the fact that many fertility inhibitors are still at an early stage of development but also to legal and regulatory requirements concerning the registration, import and use of these products. Furthermore, very little attention has been paid to the feasibility and cost-effectiveness of using fertility inhibitors in DPM as well as to the social implications of using such a method. Before large-scale applications of fertility control to DPM can occur, many questions need to be answered. These include:

- What is the proportion of the population that must be targeted to achieve a set reduction of size or growth?
- How feasible is it to access such a proportion within a set timeframe?
- What are the long-term effects of fertility control on welfare and survival?
- Do fertility inhibitors affect behaviour?
- What are the costs?
- What are the social consequences and expectations about this method for DPM?

Identifying suitable fertility inhibitors is only one of the many steps aimed at developing a strategy based on fertility control for DPM. The main objective of this presentation is to introduce a logical framework to progress from product-specific focus to practical applications of non-surgical fertility control for dog population management.

The review emphasised that desirable characteristics of fertility inhibitors for free-roaming dogs include low cost, long duration, few side effects. The review also identified knowledge gaps in applied research on fertility control for DPM. These gaps include: data on population dynamics in specific contexts, evaluation of impact of fertility control on dog population and on disease control and social attitudes to DPM. The presentation will argue that the theoretical framework and the tools to evaluate the population effects of fertility control as well as to monitor dog behaviour can be derived from wildlife management applications.

Based on the above considerations, the presentation will offer a framework of criteria to guide stakeholders' decisions on the use of fertility inhibitors for DPM. These criteria include:

- Evaluating social acceptance of fertility inhibitors for dogs
- Addressing legal compliance for the use of fertility inhibitors

- Assessing the effort and the outcome required to implement DPM through fertility control
- Estimating the feasibility, cost and sustainability of this option for DPM

The talk will also discuss how integrating evidence-based results with practical needs from communities will lead to more efficient DPM.