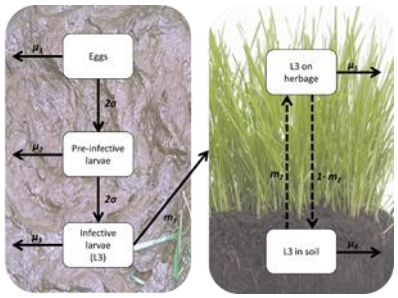

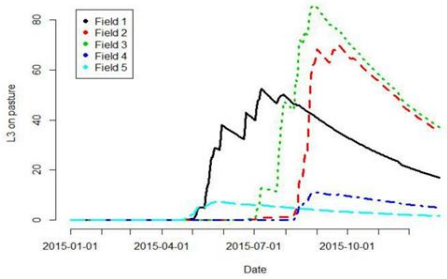

COMBAR Working Group 3 Virtual Training School - 9th-10th November 2020

Tools for epidemiological implementation of complementary control

Introduction and purpose: Alternatives to anthelmintic treatment are making increasingly important contributions to integrated helminth control. Limited and variable effects, however, mean they are not like-for-like replacements for anthelmintics. Creative ways to integrate them in complementary ways are needed in order to maximise impacts on parasite populations and to slow anthelmintic resistance. The number of possible combinations, especially across different farming systems and climates, is incalculable and there is not enough time or research funding to explore them all. This Training School aims to introduce the use of computer models as a tool to explore such interactions, and help to set outcomes of empirical work in their epidemiological context, as well as to design future experiments that are epidemiologically relevant under climate and farming system change. Examples will draw heavily from bioactive plants and nutraceuticals as complementary control tools, but also more widely. Researchers working in any area of sustainable helminth control are welcome.

Learning outcomes: By the end of this short training school (TS), attendees will be able to:

- Explain how computer models of parasite dynamics can inform control strategies, and list the key advantages and limitations of different model types;
- Convert one or more complementary control approaches of their choice into a simple model, completing the steps of conceptualisation and parameterisation, and run the model;
- Perform sensitivity analysis and interpret results in terms of model and parameter uncertainty, and implications for control under various conditions;
- Evaluate quantitatively the epidemiological implications of their own research;
- Plan further first steps towards enhancing these insights using more complex models.

Format: The TS will run on Mon 9th and Tues 10th November 2020 from 10:00-17:00 Central European Time. Teaching will comprise short online lectures and live Q&A sessions by the course instructors, interspersed with directed modelling tasks using MS Excel. The TS will end with further information on how to advance specific modelling skills and an introduction to a level 2 online WG3 TS planned for February 2021.

Eligibility and requirements: The TS is open to all members of COMBAR. Numbers for the lectures and Q&A are unlimited. Up to 20 places are available for the supervised model-building sessions (afternoon of day 1 and morning of day 2), and these will be allocated preferentially to early career researchers. No prior knowledge or experience of computer modelling is required, and no advance reading is necessary. The course is not intended to turn attendees into modellers: rather, to inform and inspire primarily empirical researchers whose work on complementary control approaches (including nutraceuticals, vaccines, selective breeding, grazing management, etc.) might be strengthened by greater appreciation of the potential, processes and limitations of parasite population modelling. The nature of modelling will be demystified as just another set of tools that can be used effectively by informed non-specialists. Teaching will be in English.

A stable internet connection will be needed, and a working version of MS Excel for the exercises.

Registration: Please register before 4th November 2020 using this link (Ctrl+Click):

https://www.surveymonkey.com/r/COMBARWG3TS

Sincerely, TS instructors (Eric Morgan, Hervé Hoste, Nadine Ravinet, Christopher McFarland, Hannah Rose Vineer)