Press Release

Current information on anthelmintic resistance in ruminants
Website for the PARASOL-Project online: **www.parasol-project.org**

In February 2006, PARASOL, an international research project designed to investigate the potential for using Targeted Selective Treatments (TST) to develop sustainable, low-input methods for internal parasite control in ruminants was launched. A new website containing information on the project and the project partners as well as current information on anthelmintics and the state of anthelmintic resistance has been developed and is available online, along with a list of publications and a recent progress report from the project..
The project "Novel solutions for the sustainable control of nematodes in ruminants" is more widely known under its acronym PARASOL (Parasite Solutions). PARASOL is coordinated by Professor Jozef Vercruysse of the Faculty of Veterinary Medicine, University of Gent and has been funded for a period of three years. It involves 12 academic partners and 5 business ventures from 7 EU countries as well as Africa and is funded by the European Union Framework 6 Program (2.9 Million Euro). One of the key aims for PARASOL is the development of sustainable, low-input methods for internal parasite control in ruminants, based upon the use of targeted selective treatments (TST) in which only those animals at greatest risk of disease and/or implicated in its transmission are treated. TST strategies will not only minimise the rate of development of anthelmintic resistance by maintaining an untreated parasite population (*in refugia*) they will also reduce the risk of residues in food and the environment. "By the end of the project, PARASOL will provide farmers, veterinarians and advisors with clear guidance and protocols for sustainable, low-input, user and consumer-friendly nematode control", said Professor Vercruysse. These protocols and other results of the research project will be published in veterinary and agricultural journals and made available on the project website.

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Notes for the editor:
1. European Framework 6 Program (FP6): The Framework Program (FP) is the European Union's main instrument for funding research in Europe. Six Framework Programs (FPs) have been implemented since 1984, each covering a period of five years with the last year of one FP and the first year of the following FP overlapping. The current sixth FP (FP6) aims to contribute to the creation of a true "European Research Area" (ERA). ERA is a vision for the future of research in Europe, an internal market for science and technology. It fosters scientific excellence, competitiveness and innovation through the promotion of better co-operation and coordination between relevant actors at all levels. The biggest part of FP budget will be spent on fo-

cussing and integrating future research activities on seven thematic priority areas such as Food Quality and Safety.

2. Gent University, Faculty of Veterinary Medicine, Laboratory of Parasitology, Merelbeke, Belgium

The Laboratory of Parasitology of the Gent University, Faculty of Veterinary Medicine, employs a total of about 22 veterinarians, biotechnologists and laboratory technicians with expertise ranging from parasite epidemiology and immunology to helminth molecular biology. The research group has extensive experience with the epidemiology and control of gastrointestinal nematode infections in cattle and small ruminants in Belgium and the tropics and strong expertise in a broad range of biochemical and molecular techniques including anthelmintic resistance. Laboratory techniques such as ELISA, (Real-Time) PCR, polymorphism and proteomic techniques, recombinant protein production and chromatography are applied routinely.

3. Faculty of Veterinary Science, University of Pretoria, Departments of Veterinary Tropical Diseases and Large Animal Production, 0110 Onderstepoort, South Africa

The main role of the Departments of Veterinary Tropical Diseases and Large Animal Production of the South African Faculty of Veterinary Science is development of TST systems for controlling helminths in small ruminants in a subtropical environment, and for divising methods of Technology Transfer for developing countries.
The Departments are pioneers in the TST approach to worm control, concentrating on prevention and control of infectious and parasitic animal diseases to improve sustainable socio-economic development in the subcontinent. About 40 international postgraduate students are employed at present. Due to the wide range of tropical infectious diseases and inimical conditions for small ruminant production in the region, the Departments are very well placed for research in this field. Their dynamism can be judged from production of more scientific papers in refereed journals than the total of the rest of the Faculty. With a staff of about 50 persons (40% academic), they are well equipped for modern research, including cutting-edge research on molecular biology on tropical diseases and parasitology, and are renowned for their wide-ranging international teamwork which includes joint funding (e.g. a present EU grant for external parasites, coordinated from The Netherlands). The research team has extensive experience in the field of parasitology (particularly epidemiology, anthelmintic resistance and sustainable Integrated Parasite Management - IPM) and knowledge of the sheep industry. The instigators and developers of the original method for targeted selective treatment (TST) for haemonchosis (FAMACHA method) and pioneers as regards using body condition scoring (BODCON) for TST, they were the first to report resistance of nematodes to closantel, rafoxanide, disophenol and nitroxynil and the first case of a helminth population resistant simultaneously to all five the available activity groups. The present global focus on the phenomenon of refugia in relation to selection for anthelmintic resistance and sustainable helminth control was also largely stimulated by inputs from this research team.

4. National Wool Growers' Association, P.O. Box 2242, Noordeinde, 6056 Port Elizabeth, South Africa

The NWGA, under general management of Mr Leon de Beer, is an SME with a strong infrastructure and the prime function of technology transfer to all walks of

farmers in South Africa. Particularly dramatic results have already been obtained with the limited funds at their disposal, in uplifting a large number of resource-poor farmers in the East Cape Province by improving wool production through the provision of infrastructure like wool shearing sheds, training of the farmers concerned in animal breeding, in wool classing and handling, and in marketing of the finished product. This is underlined by recent funding, after a comprehensive investigation of the NWGA, from the prestigious ComMark Trust (DFID South Africa, for the poor, with the declared dictum: “Translating research into action”).
The NWGA has a long record of close collaboration with the two departments of the South African Faculty of Veterinary Science