



FACCE-MACSUR

WP 1. Building and exploring datasets and climate models on climate change in relation to livestock and grassland

Task L1.1: Identification of datasets on climate change in relation to livestock productivity (production and fitness traits) and livestock infectious disease

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Table of Contents

Table of Contents.....	1
Introduction	2
Methods	2
Results.....	3

Introduction

Limited accessibility of data is a major bottleneck in the development of improved models of the relationship between grasslands, livestock production and disease and climate change. The core of this task is contributing to climate change risk assessment and GHG mitigation potential through selecting agreed datasets for model evaluation and application.

Methods

A spreadsheet for collation of information/datasets on animal and system productivity traits, animal health and disease prevalence and transmission patterns, grass growth models and their link to animal production has been developed (figure 1) and disseminated to the participants from Belgium, Germany, Norway and the United Kingdom.

	Questions	Data-set 1	Data-set 2
DATASET/RESEARCH PROJECT TITLE:			
PROJECT LEADER:	1 Project Leader		
CONTACT DETAILS:	2 Contact name		
	3 E-mail address		
	4 Telephone Number		
	5 Sponsors		
	6 Duration (start-end dates):		
	7 IP Issues		
BRIEF SUMMARY OF AVAILABLE INFORMATION:	8 Country of data generation		
	9 Timespan of data collection: Start		
	10 Timespan of data collection: Finish		
	11 Agro-climatic conditions		
	12 Livestock involved		
	13 Number of individuals involved		
	14 Housing type		
	15 Animal performance data available		
	16 Feed data		
	17 Temperature data		
	18 Humidity data		
	19 Link to local weather set (Please add details)		
	20 Disease pattern		
	21 Infectious agent(s) involved (Please add details)		
	22 Further information (Please add details)		
	23 Disease vector information (Please add details)		
	24 References (Please add relevant references)		
	25 Summary		
	26 Project link (If available)		
	27 Any other relevant information		
	28 Further information		

Figure 1. Copy of data collection sheet for task L1.1

Location	Austria	Belgium	Bulgaria	Cyprus	Czech	Denmark	Estonia	Finland
Timespan of data collection								
Agro-climatic conditions	Arid/semi-arid	Humid/Subhumid	Tropical	Temperate				
Livestock	Beef cattle	Dairy Cattle	Goats	Pigs	Sheep	Other		
Number of individuals involved		0-10	11-50	51-100	100-250	>250		
Housing	Indoors	Outdoors	Both					
Animal data	Milk Yield	Milk Composition	Meat Production	Weight gain	Insemination rate	Calving/lambing rate	Mortality	Other Morbidity parameter
Feed	Quality	Quantity	Quality and quantity					
Temperature	Maximum	Minimum	Average	All above				
Humidity	Yes	no						
Link to local weather set	Yes	no						
Disease parameters	Endemic	Exotic	Zoonotic					
Disease vector information								
References								
Summary								
Project list								

Figure 2. Examples of potential responses for questions 8 to 26

Results

Datasets from Germany and the United Kingdom containing information on geographic (European Union 27 countries), climatic, meteorological, host and infectious agents' parameters (figure 2) have been completed and are now available for preliminary analysis relating to data quality and consistency. Data set information will continue to be added over the next 12 months.

Acknowledgements

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This paper is a contribution to the FACCE MACSUR knowledge hub.