

Dates: 21-24 January, 2020

Venue: INRA Marocco, Beni Mellal city, Morocco

Teachers:

Wageningen Research, The Netherlands

- Jack Windig
- Sipke Joost Hiemstra

University of Natural Resources and Life Sciences, Austria

- Gabor Meszaros

French National Institute for Agricultural Research, France

- Michèle Tixier-Boichard
- Gwendal Restoux
- Philippe Monget
- Julie Demars

Maroccan National Institute for Agricultural Research, Marocco

- Badr Benjelloun
- Bouchra ElAmiri

University of Edinburgh, United Kingdom

Dominic Moran

Day 1: Tuesday 21st January 2020		
09:00 - 10:30	Lecture 1: Introduction to genetic diversity in Livestock species. Domestication, local adaptation, diversification of livestock species.	Badr Benjelloun & Michèle Tixier Boichard
10:30-11:00	Coffee break	
11:00 - 12:30	Lecture 2: Conservation strategies (in situ, ex situ).	Sipke-Joost Hiemstra
12:30-13:30	Lunch	
13:30 - 15:00	Lecture 3: Building genebank collections and using stored material.	Sipke-Joost Hiemstra
15:00-15:30	Coffee break	
15:30 - 17:00	Lecture 4: Advances in cryoconservation technologies.	Philippe Monget & Bouchra El Amiri
17:00-19:00	Forming groups	
19:30	Dinner	
Day 2: Wednesday 22nd January 2020		
09:00 - 10:30	Lecture 5: Genome neutral and adaptive diversity.	Gwendal Restoux & Badr Benjelloun
10:30-11:00	Coffee break	
11:00 - 12:30	Exercise: Introduction to Linux and Measures of genomic diversity from SNP data	Badr Benjelloun & Gwendal Restoux
12:30-13:30	Lunch	
13:30 - 15:00	Lecture 6: Functional genomics.	Julie Demars
15:30 - 17:00	Exercise: Neutral/Adaptive diversity and decisions for balancing conservation/production.	Gwendal Restoux, Badr Benjelloun & Jack Windig.
17:00-19:00	Group work	
19:30	Dinner	

Day 3: Thursday 23rd January 2020		
09:00 - 10:30	Lecture 7: Equipment and infrastructure and quality management.	Michèle Tixier Boichard & Bouchra El Amiri
10:30-11:00	Coffee break	
11:00 - 12:30	Lecture 8: Economic assessment of diversity and gene banking policies.	Dominic Moran
12:30-13:30	Lunch	
13:30 - 16:30	Field trip: visit of Sardi herds in Tadla area.	Sipke-Joost Hiemstra
16:30-17:00	Coffee break	
17:00-19:00	Group work: Decision on conservation in a given situation: Moroccan goats	Philippe Monget & Bouchra El Amiri
19:30	Dinner	
Day 4: Friday 24th January 2020		
09:00 - 10:00	Lecture 9: Current solutions on genotyping/sequencing and advances - Potential of nanopore technologies for genotyping for instance - IMAGE multispecies DNA chip.	Michèle Tixier Boichard & Badr Benjelloun
10:00- 11:15	Lecture 10: Adaptive/productive introgression - genome editing e.g. Introgression of blue egg in poultry.	Michèle Tixier Boichard
11:15-11:30	Coffee-break	
11:30 - 12:30	Lecture 11: Legal issues, property of the cryopreserved material, Nagoya Protocol.	Michèle Tixier Boichard
12:30-13:30	Lunch	
13:30 - 16:00	Exercise: Neutral/Adaptive diversity and decisions for balancing conservation/production.	Gwendal Restoux, Badr Benjelloun & Jack Windig.
17:00-19:00	Debate on a draft of "Moroccan sheep and goats' conservation ex-situ program".	
19:30	Dinner	
Day 5: Saturday 25th January, 2020: Pleasure trip in the Atlas area (optional)		