



ISAG
CONFERENCE 2012, Cairns, Australia

Applied Genetics in Sheep and Goats
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STANDING COMMITTEES / WORKSHOPS Information will be posted online

Organised by a standing committee yes

Date and meeting time: July 19, 2012, 2-5:30p

Chair, name and contact email: Gesine Luehken, Gesine.Luehken@agrar.uni-giessen.de
On-Site Acting Chair: Stephen White, Stephen.White@wsu.edu

Agenda / programme attached

Number of participants at meeting: 60

Summary of the meeting including votes, decisions taken and plans for future conferences

1) Workshop Presentation List:

“The domestic sheep reference genome assembly”
Brian Dalrymple (Yu Jiang could not attend)

“Identifying genomic regions associated with production traits in Rambouillet sheep using a 50K SNP array”
Tracy Hadfield

“Identification of SNPs associated to Red Massai x Dorper resistance to gastrointestinal parasite infections”
Magda Benavides

“Novel mutations controlling ovulation rate in sheep”
Loys Bodin

“Comparison of potential traits for reducing methane emissions in sheep”
Dorothy Robinson

“SNP based parentage assignment in sheep: Application in Australian flocks”
James Kijas

“Update of the International Goat Genome Consortium projects”
Brian Sayre

COMPARISON TEST **yes**

If yes: Number of enquiries – Sheep=38 Goat=27
 Number of participants receiving samples – Sheep=36 Goat=27
 Number of samples- 20 each (SCT and GCT)
 Number of participants reporting results: Sheep=28 Goat=17

Duty laboratories: Celine Chantry-Darmon (France)- (sheep) celine.chantry@jouy.inra.fr
 Clementine Rodellar (Spain) - (goat) rodellar@unizar.es

Sheep comparison test organization presented by Lucie Genestout (representative of French duty laboratory)

Final list of 14 markers: AMEL, CSRD247, D5S2 (ETH152) , INRA005, INRA006, INRA023, INRA063, INRA172, MAF065, MAF214, McM042, MCM527, OarFCB20 and SPS113

Choice of the samples: 9 different French breeds, 20 samples, 20µl of DNAs at 50ng/µl, QiaSymphony® extractions

Participating laboratories: 38 laboratories (27 in 2010), Out of 6 labs with customs problems (Brazil), 2 didn't receive their samples, 2 labs asked for more DNA sample

Duty Lab representative for goat did not attend conference. Problems with shipment of samples to Brazilian labs were reported.

Computing Laboratory: Cecilia Penedo mctorrespenedo@ucdavis.edu

Comments: Reports were received in requested format and within deadline. Absolute and relative accuracies of labs for the ISAG panel were overall high for both sheep and goat tests. Most genotype discrepancies occurred in few laboratories and were more a result of poor adjustment to standard nomenclature than in detection of alleles. Answers to parentage questions were 93% concordant for sheep and 100% for goat test. Lab performance evaluation is summarized below.

Sheep CT – Genotyping Accuracy (20 labs)				Goat CT – Genotyping Accuracy (15 labs)			
Absolute		Relative		Absolute		Relative	
Rate	# Labs	Rate	# Labs	Rate	# Labs	Rate	# Labs
1: 100 – 98%	7	1: 100 – 98%	12	1: 100 – 98%	7	1: 100 – 98%	9
2: 98 – 95%	3	2: 98 – 95%	4	2: 98 – 95%	3	2: 98 – 95%	5
3: 95 – 90%	6	3: 95 – 90%	3	3: 95 – 90%	1	3: 95 – 90%	1
4: 90 – 80%	2	4: 90 – 80%	1	4: 90 – 80%	1	4: 90 – 80%	
5: 80 – 70%	2	5: 80 – 70%	0	5: 80 – 70%	3	5: 80 – 70%	

Decisions: Based on sequence results, it was proposed and approved for sheep marker INRA172. Previous allele “122” was renamed “126”.

List of recommended markers

Sheep: CSRD247, ETH152, INRA005, INRA006, INRA023, INRA063, INRA172, MAF065, MAF214, McM42, McM527, OarFCB20. AME

Note: SPS113 can be an additional marker of the panel.

Goat: CSRD247, ILSTS008, ILSTS019, ILSTS087, INRA005, INRA006, INRA023, INRA063, MAF065, McM527, OarFCB20, SRCRSP05, SRCRSP08, SRCRSP23.

4) Next comparison test

A discussion was engaged on the opportunity to have a comparison test for goat. This discussion concluded that no comparison test will be organised next time on STR for goat.

There is still interest to have a comparison test for sheep on STR and SNP.

As no duty lab for next sheep comparison test was defined during the workshop, a call is made for volunteers. Interested laboratories are encouraged to contact soon Gesine Luehken

(Gesine.Luehken@agrار.uni-giessen.de)

SIGNATURES

Stephen White /s/
Chair

Lucie Genestout (sheep duty lab)
Duty laboratory


Computing laboratory

PLEASE HAND IN TO THE ISAG BOOTH OR MAIL (PREFERABLY) THIS REPORT PRIOR TO THE BUSINESS MEETING DURING THE CONFERENCE TO:

ISAG SECRETARY: Ingrid Olsaker ISAGsecretary@assochq.org

FASS: Jenna Stoia JennaS@assochq.org