



Certificate of Participation

This is to certify that ISAG Institutional Member number 84451

**National Research Institute of Animal Production
Krakowska, Poland**

has participated in the

2011-2012 International Bovine DNA STR Typing Comparison Test

with the following results:

Absolute genotyping accuracy rank: 1

Relative genotyping accuracy rank: 1

Total number of participating labs: 70

Absolute genotyping Accuracy		Relative genotyping Accuracy	
Rank	% Labs	Rank	% Labs
1: 100% - 98%	67,1	1: 100% - 98%	72,9
2: 97,9% - 95%	12,9	2: 97,9% - 95%	15,7
3: 94,9% - 90%	8,6	3: 94,9% - 90%	5,7
4: 89,9% - 80%	7,1	4: 89,9% - 80%	1,4
5: below 80%	4,3	5: below 80%	4,3

The scoring system:

Based on 12 microsatellite markers recommended by ISAG in 2008
(BM1818 BM1824 BM2113 ETH3 ETH10 ETH225 INRA23 SPS115 TGLA53 TGLA122
TGLA126 TGLA227)

Absolute genotyping accuracy (Aga): $(Nga - Gea) / Nga$ (as percentage)
considers the total number of discrepancies, that is genotyping errors and "blanks" (no genotype reported)

Relative genotyping accuracy (Rga): $(Ngr - Ger) / Ngr$ (as percentage)
considers only genotyping errors; "blanks" are not counted as discrepancies

Nga: total number of expected genotypes (reference samples not included)

Gea: total number of genotype errors, including blanks

Ngr: *Nga* minus the number of genotypes not reported (blanks) by the laboratory

Ger: total number of genotype errors, excluding blanks

President: Ernie Bailey, PhD

Secretary: Dr. Ingrid Olsaker

ISAG is a scientific society that provides a forum for the exchange of information, methods and materials between members and for standardization of genotyping nomenclature. ISAG is not involved in the accreditation of service genotyping laboratories or institutions and ISAG does not regard participation in its Comparison Tests as indicating that a laboratory is internationally accredited. This certificate reflects the laboratory performance in the specific comparison test.