



Certificate of Participation

This is to certify that ISAG Institutional Member number **84451**

**National Research Institute of Animal Production
Balice near Krakow, Poland**

has participated in the

2013-2014 Cattle SNP Typing Comparison Test

with the following result:

Absolute genotyping accuracy rank: 1

Relative genotyping accuracy rank: 1

Total number of participating labs: **25**

Absolute genotyping Accuracy		Relative genotyping Accuracy	
Rank	% Labs	Rank	% Labs
1: 100% - 98%	56	1: 100% - 98%	88
2: 97,9% - 95%	24	2: 97,9% - 95%	8
3: 94,9% - 90%	4	3: 94,9% - 90%	4
4: 89,9% - 80%	8	4: 89,9% - 80%	0
5: below 80%	8	5: below 80%	0

THE SCORING SYSTEM:

Based on 100 ISAG Core SNP panel (available on the ISAG web site)

Ranking combines results from 1st and 2nd Comparison Tests of 2013-2014

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.