



To be returned by e-mail to: DNA@icar.org

Annex V

Questionnaire for ICAR laboratory accreditation by SNP-based parentage testing in cattle

SECTION 1. GENERAL INFORMATION

1. ADDRESS DETAILS (fill out)

Country:
 Laboratory name:
 Contact person:
 Address:
 Telephone:
 E-mail:

2. BILLING INFORMATION (fill out)

Name :
 Address.....
 VAT Number
 Contact person and email.....

3. EDUCATION, TRAINING, AND EXPERIENCE OF SUPERVISOR /OPERATORS

- a. Level of education of the head of the laboratory (tick the box and describe)
- Ph.D. in
 - Masters of Science in
 - Bachelors of Science in.....
 - Other
 - None
- b. Experience of senior operator (tick)
- More than 5 years
 - More than 2 years but less than 5 years
 - Less than 2 years

4. CERTIFICATION, LABORATORY PROCEDURES, AND EQUIPMENT

- a. Certification (tick the box, describe, and send a copy of the certification, with a copy of its English translation, to the ICAR Secretariat. Please note that no certification is required by ICAR at the moment. In case that no Certification is provided, it is possible that ICAR may inquire the applicant laboratory for details about the operations).
- International certification (ISO)
.....
 - National certification
.....
 - No certification (**certification will be a minimum requirement in the future**)



b. If you have no certification, describe briefly:

Procedure for handling of samples from arrival to disposal

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Procedure for storing and retrieving information

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Procedure for control of cross-contamination

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Procedure for error and repeatability checking

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.....
.....

c. Equipment services. Please provide an updated equipment services (date of revision) of the equipment for the SNP analysis

Type of equipment	Date of purchase	Date of last revision

d. Genotyping technique (describe)

.....
.....
.....
.....



SECTION 2. PARTICIPATION AND PERFORMANCE IN RING TESTS

a. Participation and performance in international ring (comparison) tests (tick where appropriate)

- ≥ 2 international ring tests
- < 2 international ring tests

Most recent international ring test (tick and describe)

- ISAG
- Other (describe number of markers, samples, participating countries)

.....
.....
.....

Year of the most recent international ring test

Performance in the most recent international ring test

1. Provide a copy of your ISAG certificate, and describe only the results obtained with the ISAG recommended SNPs;

2. to clarify the meaning of “number of genotypes,” a ring test on 20 individuals analysed with 96 SNPs produces 1,920 genotypes)

Number of samples

Number of SNP markers

Number of correct genotypes

Number of missing genotypes

Number of incorrect genotypes

- In the last ISAG ring test (2018), the laboratory achieved the following result for the Typing Comparison Test:
 - Absolute genotyping accuracy rank 1
 - Absolute genotyping accuracy rank 2
- While in the previous ISAG ring test (2016), the laboratory achieved the following result for the Typing Comparison Test:
 - Absolute genotyping accuracy rank 1
 - Absolute genotyping accuracy rank 2

b. Previous international ring test (tick and describe)

- ISAG
- Other (describe number of markers, samples, participating countries)

.....
.....
.....

Year of previous international ring test

Performance in the previous international ring test

Number of samples

Number of SNP markers

Number of correct genotypes

Number of missing genotypes

Number of incorrect genotypes



National ring tests

- ≥ 2 national ring tests
- < 2 national ring tests

Most recent national ring test description

Country of the ring test

Year of most recent national ring test

Number of participants

Performance in most recent national ring test

Number of samples

Number of SNP markers

Number of correct genotypes

Number of missing genotypes

Number of incorrect genotypes

Previous national ring test description

Country of the previous ring test

Year of previous ring test

Number of participants

Performance in the previous national ring test

Number of samples

Number of SNP markers

Number of correct genotypes

Number of missing genotypes

Number of incorrect genotypes

No ring test participation

c. Marker set and nomenclature

• **Use of ISAG or other marker sets (please tick box and provide list of SNPs)**

- ISAG SNP marker set
- Additional SNP markers (please specify)

.....

.....

• **Nomenclature (please tick box and eventually describe)**

- ISAG
- Other (please specify)

.....

.....

Number of animals typed with these markers

in 2014:

in 2015:

in 2016:

in 2017:

2018 (estimates ?)



- **Power of exclusion (PE; 1 parent) for the SNP markers used (please send table in a separate file):**

Number of animals and breed used for the calculation of PE (1 parent)

.....
.....
.....

Method (formula and reference) used to calculate PE (1 parent)

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.....

Combined power of exclusion

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- **Power of exclusion (2 parents) for the SNP markers used (please send table in a separate file):**

Number of animals and breed used for the calculation of PE (2 parents)

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Method (formula and reference) used to calculate PE (1 parent)

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Combined power of exclusion

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