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

Annex V

Form for ICAR laboratory certification for SNP-based genotyping required for Parentage Analysis 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 .....
- ☐ Master of Science in .....
- ☐ Bachelor 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 inquiry the applicant laboratory for details about the operations).

☐ ISO 17025 certification

.....

☐ Other certification

.....

☐ No certification (No need to continue application in this case)

NOTE:

1. Please also be aware that from 2021 onwards, for ICAR certification of SNP-based Parentage Verification, the ICAR Parentage Analysis Certification for DNA Data Interpretation Centres must be requested.

For the complete instructions for applying to the ICAR certification, please browse the following page available here: _____

a. 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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b. Equipment services. Please provide an updated equipment services (date of revision) of the equipment used to generate the SNP genotypes if ISO17025 certification is not available. E.g.:

1. Scanners e.g. iScan, Gene Titans
2. NGS Sequencers, e.g. HiSeq, MiSeq, IonS5 …
3. Any other instrumentation generating genotypes

Type of equipment	Date of purchase

c. Genotyping technique (describe)

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SECTION 2. PARTICIPATION AND PERFORMANCE IN RING TESTS

5. 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 .....

6. PERFORMANCE IN THE MOST RECENT INTERNATIONAL RING TEST

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

  Number of samples .....

  Number of SNP markers .....

  Number of correct genotypes .....

  Number of missing genotypes .....

  Number of incorrect genotypes .....

- In the most recent ISAG ring test, the laboratory achieved the following result for the Typing Comparison Test:

  ☐ Absolute genotyping accuracy rank 1
  ☐ Absolute genotyping accuracy rank 2
  ☐ Absolute genotyping accuracy rank 3 to 5

- While in the previous ISAG ring test, the laboratory achieved the following result for the Typing Comparison Test:

  ☐ Absolute genotyping accuracy rank 1
  ☐ Absolute genotyping accuracy rank 2
  ☐ Absolute genotyping accuracy rank 3 to 5

7. PREVIOUS INTERNATIONAL RING TEST (TICK AND DESCRIBE)

☐ ISAG

☐ Other (describe number of markers, samples, participating countries)

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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

8. 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 2022: .....

in 2023: .....

in 2024: .....

In 2025: .....

In 2026 (estimates) .....