

SNP-BASED PARENTAGE VERIFICATION AND CERTIFICATION SERVICES

This policy regulates the use of the national cooperator database and CDCB ICAR-certified services for the purposes of SNP-based parentage verification and the issuing of parentage certification was approved by the CDCB Board of Directors on 12/12/2019 (based on ISAG SNP set). Updated version using whole-genome SNP data approved by the CDCB Board of Directors on 08/19/2026

1. POLICY STATEMENT

The Council on Dairy Cattle Breeding (CDCB) performs SNP-based parentage verification and discovery services routinely at the reception every genotype. Although feedback is sent back to the nominator, this information is primarily used for validation of the information received or to correct/complete the pedigree of the animals with the objective of providing a more accurate genetic evaluation.

Since March 2019¹, CDCB has been an **ICAR-certified SNP-based parentage verification center** (also known as “DNA Data Interpretation Center”), authorized to issue parentage analysis certificates bearing the **ICAR certification logo**. ICAR certification for parentage validation centers is recognized as the international standard, and countries are gradually transitioning from microsatellite/SSR/STR-based parentage certificates to SNP-based approaches.

A CDCB-led initiative resulted in an update to the ICAR guidelines to extend parentage certification to **whole-genome SNP data** in May 2026. The updated guidelines specify that whole-genome SNP data should be preferred when such data exist.

CDCB has developed a service to issue whole-genome SNP-based parentage certificates bearing the ICAR-certified parentage verification center logo. The objective of this service is to facilitate the exchange of genetic material among CDCB collaborators and across countries.

2. PROCEDURE

The service is provided via SFTP, through which users submit a file containing the parentage information required for the analysis. Each row of the submitted file must include the 17-character ID of the target animal, as well as the corresponding sire and dam IDs.

SNP genotype data must already be loaded in the National Cooperator Database prior to submission.

In cases where multiple genotypes are available for a given animal, CDCB will consider only the genotype deemed usable for the purposes of the certification process.

¹ <https://www.icar.org/index.php/certifications/certification-and-accreditation-of-dna-genetic-laboratories/two-new-dna-based-services/dna-data-interpretation-centres/icar-accreditation-of-dna-interpretation-centres/>

3. COSTS AND USAGE RIGHTS

The parentage verification and certification services will be provided to our collaborators according to the current CDCB fee schedule. Since these animals already paid (or will pay) an initial fee to obtain an evaluation or a parentage verification, the service is intended as an extra benefit of US-based CDCB collaborators and customers.

The parentage certificates issued by CDCB can be printed and/or shared to any third-party without CDCB consent. However, for no reason and under no circumstances, collaborators are entitled to re-sell certificates, modify them in part or in full, or extract part of the information contained for any other purpose without written consent from CDCB.