ICAR Parentage Recording Working Group

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Members of Parentage Recording WG

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Terms of Reference

- 1. Review current procedures for parentage recording ✓
- 2. Define possible alternatives for optimal parentage recording ✓
- 3. Possible tools for measuring the quality of recording
- 4. How to share results on this topic? ✓
- 5. To produce an ICAR Guideline which provides a format for SNP information which is of broadest use to members ✓
- 6. Draw up guidelines for laboratories accreditation for applying the results of genotype identification.



2014 New Guidelines for the supervision of parentage...

- Blood typing for determining parentage verification
- Microsatellite or SNP parentage analysis.
- Parentage verification procedure
- Reconstruction of Micro Satellites for missing parents
- Visual inspection of the progeny

These new guidelines were ratified by the ICAR Council and General Assembly on Wednesday



Latest news...

- New accreditation
 - At the WG meeting this week the new accreditation for applying the results of genotype
 analysis was discussed at length and a beginning was made on the requirements for this
 accreditation. It will be open to any organisation that wishes to apply the results of genotype
 analysis for parentage verification. It is concerned with utilising the numbers that are
 delivered by the labs from DNA sample analysis and so is a database function
- INTERBULL GENOEX (International Genotype Exchange Platform)
 - One service from this initiative will be to develop a mechanism so that parentage SNPs are easily available internationally for parentage recording
- Questions arising from the discussion about accreditation and GENOEX
 - Should this accreditation be available to only ICAR organisations?
 - Should being a member of ICAR be a prerequisite?
 - Would ICAR insist upon accreditation before allowing uploading and downloading of genotype to GENOEX
 - Who will have access to parentage SNPs?



Where we are going next ...

- New ToR WG tasked with defining an ICAR accreditation for Parentage analysis
- Developing new guidelines for
 - imputing parentage microsatellites from special additional high density SNPs
 - using microsatellite and SNP genotyping to verify parentage
 - Parentage discovery
- Using SNPs to define the breeds
 - Work done by USDA identifying breeds by using homozygous alleles
- Review basic parentage protocols
- Look at other species



Thank you for your attention



