

ANNEX III

PERFORMANCE TESTING AND GENETIC EVALUATION REFERRED TO IN ARTICLE 25

PART 1

General requirements

Where breed societies or breeding operations, or third parties designated by those breed societies or breeding operations in accordance with Article 27(1)(b), carry out performance testing or genetic evaluation, they shall establish and use methods for performance testing or genetic evaluation which shall be scientifically acceptable according to established zootechnical principles and shall take into account, where they exist:

- (a) the rules and standards established by the relevant [^{F1}United Kingdom reference centres provided for in Article 29(1) of this Regulation]; or
- (b) ^{F2}... the principles agreed by ICAR.

Textual Amendments

- F1** Words in Annex 3 Pt. 1 substituted (31.12.2020) by [The Animal Breeding \(Amendment\) \(EU Exit\) Regulations 2019 \(S.I. 2019/117\)](#), regs. 1, **17(a)** (as amended by [S.I. 2020/1388](#), regs. 1(2)(a), **28(16)**); 2020 c. 1, **Sch. 5 para. 1(1)**
- F2** Words in Annex 3 Pt. 1 omitted (31.12.2020) by virtue of [The Animal Breeding \(Amendment\) \(EU Exit\) Regulations 2019 \(S.I. 2019/117\)](#), regs. 1, **17(b)**; 2020 c. 1, **Sch. 5 para. 1(1)**

PART 2

Requirements for performance testing

1. Performance testing shall be carried out on the basis of one or more of the following performance testing schemes set up in accordance with the methods referred to in Part 1:
 - (a) individual performance testing of breeding animals themselves or of breeding animals based on their progeny, siblings ('sib') or collaterals at test stations;
 - (b) individual performance testing of breeding animals themselves or of breeding animals based on their progeny, siblings ('sib'), collaterals and other relatives on farms;
 - (c) performance testing through survey data collected by farms, points of sale, points of slaughter or other operators;
 - (d) performance testing of contemporary groups of breeding animals (contemporary group comparison);
 - (e) any other performance testing scheme carried out in accordance with the methods referred to in Part 1.

The performance testing schemes shall be set up in such a way to allow a valid comparison between the breeding animals. The progeny, siblings or collaterals to be tested at test stations

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or on farm shall be chosen in an unbiased manner and not be treated selectively. In the case of on-farm testing, they shall be distributed amongst farms in such a way as to allow a valid comparison between the tested breeding animals.

Breed societies and breeding operations carrying out those performance testing schemes at test stations shall in accordance with the methods referred to in Part 1 lay down, in a test protocol, the terms of admission of breeding animals, information on the identity and relevant previous test results of the participating animals, the traits to be recorded, the test methods used and any other relevant information.

2. Breed societies and breeding operations shall define in their breeding programmes approved in accordance with Article 8(3), and, where applicable, Article 12, the traits to be recorded in relation to the selection objectives set out in those breeding programmes.
3. Where milk production traits are to be recorded, data shall be recorded on milk production, milk composition traits and other relevant traits set out in the methods referred to in Part 1. Additional data may be recorded on other milk or milk quality traits.
4. Where meat production traits are to be recorded, data shall be recorded on meat production traits and other relevant traits set out in the methods referred to in Part 1. Additional data may be recorded on other meat or meat quality traits.
5. Where other traits than those referred to in points 3 and 4 of this Part are to be recorded, those traits shall be recorded in accordance with the methods referred to in Part 1. They may include species and breed specific traits such as body conformation, fertility, ease of parturition, health related traits, viability of progeny, longevity, fibre quality, feed efficiency, docility, sustainability traits and any other relevant traits in relation to the selection objectives of the breeding programme approved in accordance with Article 8(3), and, where applicable, Article 12.
6. Data collected on the traits referred to in points 3, 4 and 5 shall only be included in the genetic evaluation where that data is generated on the basis of a recording system specified in the breeding programme approved in accordance with Article 8(3), and, where applicable, Article 12.
7. For each of the traits recorded referred to in points 3, 4 and 5 information on the applied performance testing schemes, the applied test protocol, and, where relevant, the applied method for the validation of the test results, shall be specified in the breeding programme approved in accordance with Article 8(3), and, where applicable, Article 12.
8. Where genetic evaluation is carried out on the traits referred to in points 3, 4 and 5, the recording of those traits shall ensure that, at the end of the testing, reliable breeding values can be estimated for those traits.
9. Survey data referred to in point 1(c) of this Part may only be recorded and included in the genetic evaluation where that data has been validated in accordance with the methods referred to in Part 1.

PART 3

Requirements for genetic evaluation

1. The genetic evaluation of breeding animals shall include the relevant production and non-production traits referred to in Part 2 in relation to the selection objectives set out in the breeding programmes approved in accordance with Article 8(3), and, where applicable, Article 12.
2. The genetic evaluation shall only include traits referred to in Part 2 in respect of which the recording is carried out as specified in the breeding programme approved in accordance with Article 8(3), and, where applicable, Article 12.
3. Breeding values of breeding animals shall be estimated in accordance with the methods referred to in Part 1 on the basis of:
 - (a) data collected on breeding animals through performance testing, referred to in Part 2;
 - (b) genomic information collected on breeding animals;
 - (c) data generated by any other method in accordance with the methods referred to in Part 1; or
 - (d) a combination of the information and data, referred to in points (a), (b) and (c).
4. The statistical methods applied for the genetic evaluation shall comply with the methods referred to in Part 1. Those statistical methods shall guarantee a genetic evaluation that is not biased by the main environmental effects and data structure, and that takes into account all information available for the breeding animal, its progeny, siblings, collaterals and other relatives depending on the performance testing scheme.
5. The reliabilities of the estimated breeding values shall be calculated in accordance with methods referred to in Part 1. When publishing the estimated breeding values for breeding animals, the reliabilities of those published breeding values and the date of evaluation shall be indicated.
6. Male purebred breeding animals of the bovine species of which the semen is intended to be used for artificial insemination shall be subject to genetic evaluation. That genetic evaluation shall be carried out on the main production traits in relation to the breeding programme as set out in the methods referred to in Part 1 and may be carried out on other relevant production and non-production traits set out in the methods referred to in Part 1. Where for those traits a genetic evaluation is carried out on male purebred breeding animals of the bovine species of which the semen is intended to be used for artificial insemination, the breeding values relating to those traits shall be published at the exception of those relating to animals referred to in Article 21(1)(g) (unproven bulls).
7. For male purebred breeding animals of the bovine species of which the semen is intended to be used for artificial insemination, the minimum reliability of the breeding values shall be at least:
 - (a) in the case of bulls belonging to dairy breeds (including dual-purpose breeds), 0,5 for the main milk production traits or for the main composite indexes combining breeding values estimated for several individual traits;

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- (b) in the case of bulls belonging to beef breeds (including dual-purpose breeds), 0,3 for the main meat production traits or for the main composite indexes combining breeding values estimated for several individual traits.
8. The requirements on minimum reliability values referred to in point 7 shall not apply to male purebred breeding animals of the bovine species which are:
- (a) used for the purpose of testing within the quantity limits necessary for a breed society to carry out such tests as referred to in Article 21(1)(g) (unproven bulls); or
 - (b) participating in a breeding programme which requires performance testing and genetic evaluation and which has as its aim the preservation of the breed or the preservation of the genetic diversity within the breed.
9. Genomically evaluated male purebred breeding animals of the bovine species shall be considered suitable for artificial insemination if their genomic evaluation is:
- (a) validated in accordance with the methods referred to in Part 1 for each genomically evaluated trait;
 - (b) revalidated for each of those traits at regular intervals and at any time when there are major changes either in the genomic evaluation or in the genetic evaluation or in the reference population.
10. The breed society or the breeding operation, or, at the request of that breed society or breeding operation, the third party designated by that breed society or breeding operation in accordance with Article 27(1)(b), shall make publicly available the information on the genetic defects and genetic peculiarities of breeding animals which are related to the breeding programme.

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