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**GOVERNMENT NOTICES  
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**DEPARTMENT OF AGRICULTURE  
DEPARTEMENT VAN LANDBOU**

**No. R. 4**

**5 January 2007**

**ANIMAL IMPROVEMENT ACT, 1998  
(ACT No. 62 of 1998)**

**ANIMAL IMPROVEMENT SCHEMES**

I, Lulama Xingwana, Minister of Agriculture and Land Affairs, acting under section 20 (1) of the Animal Improvement Act, 1998 (Act No. 62 of 1998), hereby establish the Animal Improvement Schemes set out in the Schedule.

**L. XINGWANA,  
MINISTER OF AGRICULTURE AND LAND AFFAIRS**

## SCHEDULE

### Definitions

1. In this Scheme, any word or expression to which a meaning has been assigned in the Act and the Regulations shall have that meaning and, unless the context otherwise indicated -

**“animal”** means a kind of animal or an animal of a specified breed of such kind of animal which has in terms of section 2 been declared as an animal for the purposes of the Act;

**“animal breeders’ society”** means a group of persons promoting the breeding, the recording or registration, the genetic improvement and the use of a kind of animal or an animal of a specified breed of such kind of animal, determining and applying breed standards, recommending in its sole discretion the recording or registration of an animal or a specified breed of a kind of animal bred in or imported into the Republic, and who is registered in terms of section 8 (7) (a) (i) of the Act;

**“animal improvement”** means the -

- (a) scientifically based identification of genetically superior animals by means of the integrated registration and genetic information system or in a manner approved by the registrar; and
- (b) the discerning use thereof to improve the production or performance ability of the animal population in the interest of the Republic;

**“breed”** means a population of animals which produces progeny possessing a high degree of genetic stability as evidenced by identifiable uniformity in breed standards and performance;

**“breeder”** means the owner of a breeding female animal at the time of natural or artificial conception or at the birth of progeny;

**“centre”** means premises registered in terms of section 8 (6) (b) of the Act for the collection, evaluation, processing, packing, labelling, storing and sale of semen, embryos or ova, as the case may be, of certain kinds of animal;

**“department”** means the Department of Agriculture in the national government;

**“donor animal”** means an animal which has been approved in terms of section 8 (6) (c) of the Act for the collection of genetic material;

**“genetic material”** means ova, embryos, semen and any other material originating from an animal through which the hereditary factors of such animal can be transferred;

**“integrated registration and genetic information system”** (INTERGIS) means the computer system that has been established in co-operation with the Department to integrate the pedigrees and performance data of animals and serve as the National Databank for animal recording and improvement;

“**landrace**” means a specified breed of a kind of animal indigenous to or developed in the Republic;

“**Manager**” means an officer appointed to manage a Scheme as per section 20 (3) (a) and (b) of the Act;

“**registering authority**” means an animal breeders’ society or a group of animal breeders’ societies which is registered as such in terms of section 8 (7) (a) (ii) of the Act;

“**Scheme**” means a Scheme established in terms of section 20 of the Act;

“**the Act**” means the Animal Improvement Act (Act 62 of 1998);

“**the Registrar**” means the officer designated as Registrar of Animal Improvement in terms of section 3 of the Act; and

“**the Regulation**” means a regulation made under this Act.

### Acronyms

<b>AnGR</b>	Animal Genetic Resources
<b>ARC</b>	Agricultural Research Council
<b>FAO</b>	Food and Agriculture Organisation of the United Nations
<b>ICAR</b>	International Committee for Animal Recording
<b>INTERGIS</b>	Integrated Registration and Genetic Information System
<b>KyD</b>	Kaonafatso ya Dikgomo
<b>NBRIS</b>	National Beef Recording and Improvement Scheme
<b>NMRIS</b>	National Milk Recording and Improvement Scheme
<b>NPIRIS</b>	National Pig Recording and Improvement Scheme
<b>NPORIS</b>	National Poultry Recording and Improvement Scheme
<b>NSSRIS</b>	National Small Stock Recording and Improvement Scheme

### Names of Schemes

2. These Schemes shall be known as the Animal Improvement Schemes.

### Categories of Schemes

3. (1) The Schemes are divided into the following categories -
- (a) Kaonafatso ya Dikgomo
  - (b) National Beef Recording and Improvement Scheme;
  - (c) National Milk Recording and improvement Scheme;
  - (d) National Pig Recording and Improvement Scheme;
  - (e) National Poultry Recording and Improvement Scheme; and

(9) National Small Stock Recording and Improvement Scheme.

**Objectives of the Schemes**

4. (I) The objectives of these Schemes are to implement -
- (a) animal recording for individual animal management -
    - (i) to monitor each animal's performance and the use of that information in normal, day-to-day farm management.
    - (ii) must represent the integration of objective performance data into the farm management process and permits more effective decision making at farm level and on an on-going basis.
  - (b) animal recording to compare specific production system -
    - (i) In order to achieve feeding strategies, sources of genetic materials and other management variables.
  - (c) animal recording for genetic improvement -
    - (i) to acquire the information needed to permit sustained genetic change toward an objectively defined bio-economic development goal;
    - (ii) to focus on the breed as a whole rather than an individual animal.
    - (iii) to achieve maintenance of detailed records of parentage and of genetic relationships within the animals that are being recorded.
    - (iv) to ensure sustainable recording program over time or animal generations and the consistency thereof.

**Scope of the Schemes**

5. (I) The Schemes shall ensure-
- (a) Objectivity and accurate data measurement and recording will ensure that;-
    - (i) data recording procedures that ensure the accurate recording of events in an animal's life.
    - (ii) all recorded data must be submitted to the Integrated Registration and Genetic Information System (INTERGIS).
    - (iii) participants understand the importance of accurate record keeping.
  - (b) Importance of data collected is to:

- (i) ensure that reasons for a particular animal recording activity be clearly stated and that the measurements taken must be those that are necessary to support programme goals.
  - (ii) to restrict the amount of data to be collected in the early stages of the programme to only the most important items, with expansion to more detailed data collection as the experience and enthusiasm of the participants increase.
- (c) Use of collected data and information derived to make management decisions,
- (i) to improve production, productivity or product quality.
- (d) Appropriate use of animal recording data relies upon -
- (i) an understanding of the value and utility of the measurements taken;
  - (ii) timely and appropriate processing of data to make it understandable and useful;
  - (iii) technical support at the farm level to assist in interpretation of the processed data;
  - (iv) feedback mechanisms to document the benefits gained from use of the data; and
  - (v) an organisational structure at the farmer level to provide for -
    - interaction-among, and feedback from, programme participants.

### **Kaonafatso ya Dikgomo (KyD)**

6. The objective of the Scheme is -

- (a) to empower emerging beef farmers for economical sustainable beef production through a process of continuous improvement and innovation; and
- (b) to enable emerging farmers to become participants of the National Beef Recording and Improvement Scheme.

### **Scope of the Scheme**

7. The Scheme shall comprise of the following phases -

- (a) Animal Identification and General Management Practices (Phase AO)
  - (i) Training and assistance on individual animal identification and reproduction recording.
  - (ii) Continuous improvement and innovation to increase and

sustain profitability.

(b) Suckling Phase (Phase A2)

- (i) Mothering ability and efficiency of the cows, and the pre-weaning growth rate of their calves shall be evaluated by means of the cow weights and pre-weaning and weaning weights of their calves.

(c) On-Farm Recordings (Phase B)

- (i) Post weaning growth rate of young heifers, bulls and oxen shall be evaluated under normal farming conditions by means of their weights at 12 and 18 months age.

### **Participants of the Scheme**

8. All emerging beef farmers may participate in the Scheme.

### **Requirements for participating in the Scheme**

9. The requirements for participation in the Scheme are as set out in the Rules made in accordance with the provisions of Section 44(3) of the Scheme.

### **Register of responsible persons and herds**

10. An up to-date register of participants, herds and animal particulars must be kept on INTERGIS.

### **National Beef Recording and Improvement Scheme (NBRIS)**

11. The objective of this Scheme is to provide the South African livestock industry with professional and internationally recognised beef recording and genetic improvement services in order to enhance the biological and economic efficiency of the national beef population.

### **Scope of the Scheme**

12. ~~(1)~~ The Scheme shall be applied in accordance with internationally recognized recording standards and norms as reflected in the guidelines of the Scheme.

(2) The Scheme comprises seven phases, namely -

(a) Reproduction Phase (Phase A1)

- (i) Reproduction and ease of calving traits of cows and bulls shall be evaluated through mating and calving data.

(b) Suckling Phase (Phase A2)

- (i) Mothering ability and efficiency of the cows, and the pre-weaning growth rate of their calves, shall be evaluated by means of the

cow weights and pre-weaning and weaning weights of their calves.

- (c) On-Farm Recordings (Phase B)
  - (i) Post weaning growth rate of young heifers, bulls and oxen shall be evaluated under normal farming conditions by means of their weights at 12 and **18** months age.
- (d) Central Performance Tests (Phase C) shall comprise of -
  - (i) C1: Standardised tests at ARC test centres;
  - (ii) C2: Standardised tests at private test centres; and
  - (iii) C3: Central non-standardised tests at ARC.
  - (iv) Post weaning growth rate and feed conversion ratio of young bulls (and heifers in Phase C3) shall be evaluated by means of performance tests under standardized conditions excluding Phase C3 at central bull testing centres where animals are fed individually.
- (e) On-Farm performance Tests (Phase D) shall comprise of -
  - (i) D1: Single herd tests; and
  - (ii) D2: Multiple herd tests.
  - (iii) Post weaning growth rate of young bulls shall be evaluated by means of performance tests under controlled conditions on the farm of a member or a private organization.
- (9)** Feedlot Recordings (Phase E1)
  - (i) Post weaning growth rate of young bulls, oxen and heifers shall be evaluated by means of weights under feedlot conditions.
- (g) Slaughter Phase (Phase E2)
  - (i) Carcass and meat quality traits shall be evaluated by means of carcass data from abattoirs and laboratory analysis of the prime rib cut.

### **Participants of the Scheme**

13. All beef farmers, stud breeders, commercial and emerging farmers may participate in the Scheme.

### **Requirements for participating *in* the Scheme**

14. The requirements for participation in the Scheme are as set out in the Rules made in accordance with the provisions of Section 44 (3) of the Scheme.

#### **Register of responsible persons and herds**

15. An up to-date register of participants, herd and animal particulars must be kept on INTERGIS.

#### **National Milk Recording and Improvement Scheme (NMRIS)**

16. The objective of this scheme is to provide the South African livestock industry with professional and internationally recognised milk recording and genetic improvement services in order to enhance the biological and economic efficiency of the national milk population.

#### **Scope of the Scheme**

17. The Scheme shall be applied in accordance with internationally recognized recording standards and norms as reflected in the Rules of the Scheme -

- (a) Recording of mating and birth events shall form the cornerstone of the Scheme and will assist in the assessment of productivity of dairy animals
- (b) Basic milk recording shall be done in accordance with the guidelines of the International Committee for Animal Recording (ICAR) and is based on owner samples (ICAR type B tests) but could also accommodate sampling by approved technicians or other officials (ICAR type A tests).
  - (i) Milk analyses shall be conducted by approved laboratories.
  - (ii) The basic milk recording analyses shall include butterfat, protein and lactose content.
  - (iii) Other properties, such as milk urea, somatic cell content and any other property of value can be included.
  - (vi) Bulk tank analyses and volume shall also be compared to the analyses and milk production of individual cows in participating herds.
- (c) The Scheme shall also provides for the recording of other traits related to the productivity of milk producing animals such as body condition scores, functional body traits (usually scored on a linear scale), body weight and other measurements.



### **Participants of the Scheme**

18. Any milk breeder or producer may participate in the Scheme.

### **Requirements for participating in the scheme**

19. The requirements for participation in the Scheme are as set out in the Rules made in accordance with the provisions of Section 44 (3) of the Scheme.

(2) The applicant must -

- (a) comply with minimum health standards of the Scheme; and
- (b) record all animals in the herd and no selective recording is allowed.

### **Register of responsible persons and herds**

20. An up to-date register of participants, herds and animal particulars must be kept on INTERGIS.

### **National Small Stock Recording and Improvement Scheme (NSSRIS)**

21. The objective of this Scheme is to provide the South African livestock industry with professional and internationally recognised small stock recording and genetic improvement services in order to enhance the biological and economic efficiency of the national sheep and goat population.

### **Scope of the Scheme**

22. The Scheme must be applied in accordance with internationally recognised recording standards and norms as reflected in the Rules of the Scheme -

- (a) Individual and group mating as well as birth, weaning (weaning weight) and death events must be recorded and forms the cornerstone of net reproduction rate and total weight of lamb weaned per ewe.
- (b) Weaning weight as well as post weaning weights (270 and 365 days of age) must be recorded under natural production environments in order to evaluate growth efficiencies and adaptability.
- (c) Traits recorded must be in accordance with the economical importance of sheep and goat production systems, and include fleece weight, fibre diameter, staple length, crimp frequency, coefficient of variation and clean yield.
- (d) Rams of different flocks must be tested centrally under natural conditions with provisions for standardizing pre-test conditions like an appropriate adaptation period and minimum requirements for weight differences and growth rate.

**Participants of the Scheme**

23. To qualify for participation in the Scheme, any small stock breeder or producer can participate in the Scheme.

**Requirements for participating in the Scheme**

24. (1) The requirements for participation in the Scheme are as set out in the Rules made in accordance with the provisions of Section 44 (3) of the Scheme.
- (2) The applicant must-
- (a) record all animal in the herd and na selective recording is allowed

**Register of responsible persons and herds**

25. An up to-date register of participants, herds and animal particulars must be kept on INTERGIS.

**National Pig Improvement Scheme (NPIRIS)**

26. The objective of the Scheme is to provide the South African livestock industry with professional and internationally recognised pig recording and genetic improvement services in order to enhance the biological and economic efficiency of the national pig population.

**Scope of the Scheme**

27. The Scheme must be applied in accordance with internationally recognized recording standards and norms as reflected in the Rules of the Scheme -
- (a) Phase D - On-farm Testing an integral part of genetic improvement within the National Pig Recording and Improvement Scheme.
- (i) On-farm testing shall involve the testing of boars and gilts measuring growth rate, ultrasonic back fat measurements and, where applicable, feed intake and feed conversion.
- (ii) This procedure is flexible and thus makes provision for group and individual testing.
- (b) Phase B - The Central Testing phase of pigs: Random sample from every
- (c) breeder participating in performance testing and carcass evaluation at any of the official testing centres under the standardized conditions.

### **Participants of the Scheme**

28. Any pig breeder or producer may participate in the Scheme.

#### **Requirements for participating in the scheme**

29. (1) The requirements for participation in the Scheme are as set out in the Rules made in accordance with the provisions of Section 40 (3) of the Scheme.

(2) The applicant must -

(a) comply with minimum housing and sanitation standards of the Scheme; and

(b) record all pigs in the herd and no selective recording is allowed.

### **Register of responsible persons and herds**

30. An up to-date register of participants, herds and animal particulars must be kept on INTERGIS.

### **National Poultry Recording and improvement Scheme (NPORIS)**

31. (I) The Scheme shall comprise of the following -

(a) Eggs 2000™ Computer Programme for layers

(b) GALLUS™ Computer Programme for broilers

### **Objectives of the Scheme**

32. The objective of the Scheme is to expose and equip egg and broiler producers with the latest technology and science in the field of computerized/electronic farming, thus enabling egg and broiler producers to operate efficiently and profitably.

### **Application and Scope of the Scheme**

33. The Scheme shall have the following characteristics -

(a) More than 20 production parameters shall be monitored.

(b) More than 13 egg grades shall be included, allowing international clients to use the programme as well.

(c) The NPORIS also has wide application with consultants, nutritionists, feed representatives, extensions officers, researchers and the academic fraternity.

(d) Eggs 2000™ shall be fully internationalized to expose local producers opportunities on the global market and internet.

(e) The Scheme shall be involved with small farmers projects and to measure the efficiency of their enterprise with Eggs 2000™ and GALLUS™.

**Participants of the Scheme**

34. Any poultry producer (egg or broiler) can participate in the Scheme, provided they comply with the Rules of the Scheme.

**Requirements for joining the scheme**

35. (1) (a) Participants must own or have access to all the computer requirements as stipulated in the rules of the Scheme.
- (b) The requirements for participation in the Scheme are as set out in the Rules made in accordance with the provisions of Section 40 (3) of the Scheme.

**Register of responsible persons and herds**

36. An up to-date register of participants, herd and animal particulars must be kept on INTERGIS.

**Admission to a Scheme**

37. (1) Farmers may, on application, be admitted to a Scheme with the view to participate in accredited performance recording and improvement.
- (2) Such an application shall be made on a form, which is obtainable from the ARC Animal Production Institute at Irene or one of its representatives, at Provincial Departments of Agriculture, accredited Registering Authorities, the ARC's regional offices in the provinces, or from the office of the Registrar.
- (3) An applicant shall, in addition to the particulars to be furnished on such a form, furnish such further particulars and provide such documents as the responsible official or technician may require.

**Measures relating to a participating herd**

38. (1) Each person or organisation admitted to the Scheme must, in addition to any other conditions determined by the responsible Manager of the scheme in a particular case -
- (a) render all reasonable assistance required by the technician, officer or authorized person who collects the specimens or data concerned;
- (b) apply all applicable control measures relating to any controlled animal diseases in terms of Animal Disease Act, 1983 (Act 43 of 1983) in respect of the animals on the property; and
- (c) mark all animals in his/her herd to the satisfaction of the responsible

officer or technician in order that each animal shall be individually identifiable in terms of Animal Identification Act, 2000 ( Act No. 6 of 2000) as prescribed by the guidelines of each individual Scheme.

- (2) Non compliance to the rules of a Scheme will be dealt with in accordance with steps stipulated in such rules.

#### **Renewal of participation certificates**

39. (1) A participant to whom a certificate has been issued in terms of participation in a Scheme is be eligible for renewal of such a certificate if -
- (a) he or she, to the satisfaction of the manager of the Scheme, complies in every respect with the requirements of such a Scheme relating to individual identification, objective accurate measurements, accurate record keeping, unbiased comparisons among animals or any other specific requirement.
  - (2) A certificate thus renewed *is* valid up to and until the date indicated thereon as the date on which the herd concerned has to be re-assessed, and an application for the further renewal thereof is made in accordance with the provisions of subsection (1)(a).

#### **Lapsing of certificates**

40. (1) A certificate issued in terms of the requirements of a Scheme or renewed as contemplated in section 39 of this Scheme will lapse -
- (a) when participation in the accredited herd programme has lapsed or been cancelled as contemplated; or
  - (b) when the recording or management practices, by the discretion of the Manager of the Schemes, or his/her representative, if the particular herd do no longer conform to the rules for a specific Scheme.
- (2) The Manager of the Schemes may issue a new certificate in terms of the rules of a specific Scheme in respect of a herd -
- (a) which was transferred to other property; or
  - (b) of which the ownership has changed as a result of its being sold as a whole to one person or which has been transferred to the successor in title of the previous owner.
  - (c) If he/she is satisfied that the land on which it is being kept or will probably be kept complies with the requirements referred to relating to the particular Scheme and that the new owner of such herd will comply with the requirements of the Scheme relating to the keeping, care, treatment and proper recording of that herd.

**Exemption from payment of fees**

41. The Minister may exempt certain groups of people from paying the fees under the Schemes.

**Return of certificates**

42. A certificate issued or renewed in terms of section 39 of this Scheme must within **14** days of the date on which it has lapsed as contemplated in section **40** of this Scheme, be returned by hand or registered mail to the responsible Manager of the Scheme by the responsible person concerned.

**Restrictions on the use of certificates and declarations**

43. No person can use a declaration issued in terms of the Scheme, in connection with the advertising of sale of the animals in respect of which it was issued, in a manner which implies or purport to imply that the animals concerned are free from any genetic defects at the time of such advertisement or sale.

**Management of the Schemes**

**44.** (1) The Schemes will be managed by the Agricultural Research Council (ARC) a statutory body established in terms of Section **2** of the Agricultural Research **Act, 1990** (Act No. 86 of 1990)

(2) The Agricultural Research Council will exercise the powers and perform duties conferred to it in terms of the Schemes.

(3) The Agricultural Research Council may make rules relating to the Schemes in consultation with the Department.

**Commencement of Scheme**

The Schemes shall come into operation on the date of publication in the Government Gazette.