

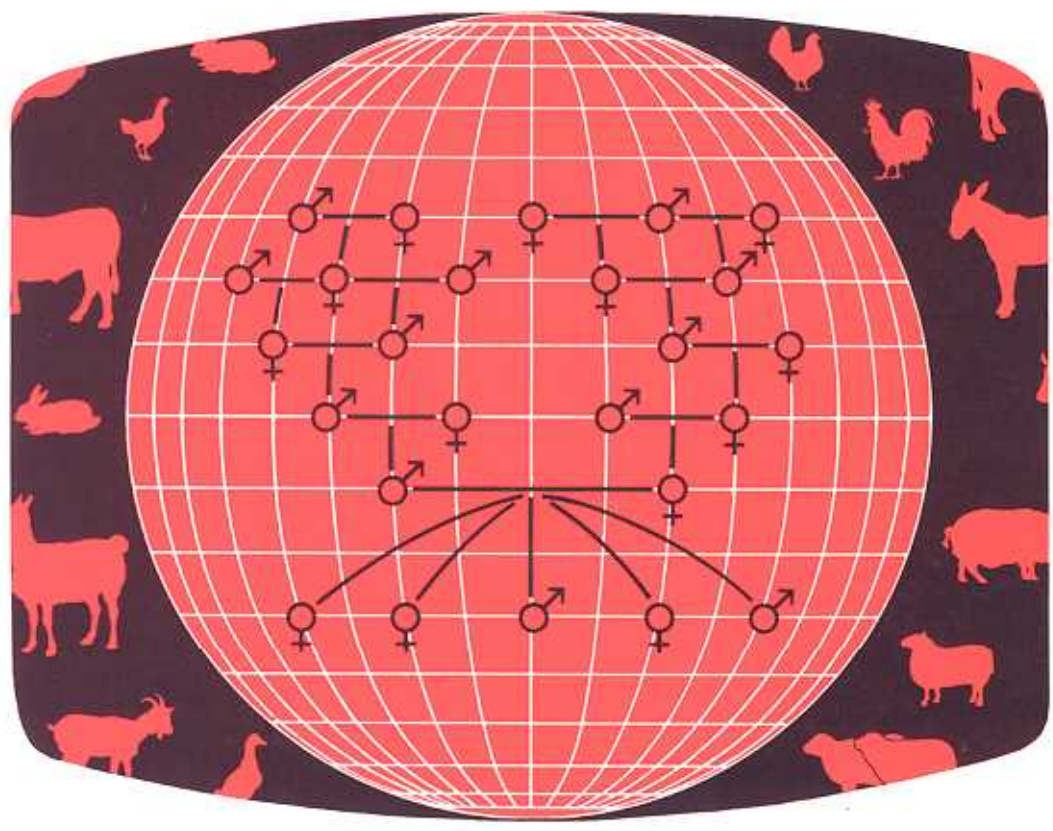
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No 59/3

Animal genetic resources data banks

3. Descriptor lists for poultry

FAO
ANIMAL
PRODUCTION
AND HEALTH
PAPER

59/3



FOOD
AND
AGRICULTURE
ORGANIZATION
OF THE
UNITED NATIONS

3. Descriptor lists for poultry

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FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS Rome, 1983

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FOREWORD

This volume is one of a series of three which together present the FAO/UNEP recommended methodology on animal genetic resources data banks. The three volumes are as follows:

1. Computer systems study
2. Descriptor lists for cattle, buffalo, pigs, sheep and goats
3. Descriptor lists for poultry.

Volumes 2 and 3 each include instructions on how to use the Descriptor Lists and how to prepare data for entry.

The material in these three volumes derives from the Trials held by FAO/UNEP in Africa, Asia and Latin America in the period 1983-85. In Africa individual scientists in both anglophone and francophone countries were involved in defining descriptors suitable for each species. In Asia and Latin America several countries carried out national projects to extract data from their own original source documents, to create descriptors, and also to enter the data into a computer system. These countries were Malaysia, Mexico, Sri

Lanka, Thailand and Venezuela. From their experiences it was possible also to define the personnel needed for the work and to calculate the time needed. A study of suitable computer systems was also undertaken using the experiences in each country, and cost estimates made for the establishment of regional data banks. These are in Volume 1.

In each region planning/evaluation meetings of all the involved personnel were held. The recommendations of these regional meetings were then appraised by an Expert Consultation held by FAO/UNEP in Rome in June 1985. At that time the experts recommended the publication of the results of the Trials as the Recommended FAO/UNEP Methodology for Animal Genetic Resources Data Banks.

Not only did the Trials make it possible to design, test and cost a method of operating regional data banks, but they also showed clearly the need for such banks as a tool for all those concerned with animal production, especially those concerned with the formulation of development projects which include components of animal breeding and genetics. It was discovered that there is a great wealth of data in source documents in developing countries which describes the experiences with different breeds of animals and their production and reproduction potentials. However, only 25-30 percent of this information is accessible to potential users, either in the country or elsewhere, for it is largely unpublished or is published in languages or journals not routinely scanned by the international abstracting organizations. This represents a great loss of valuable information and undoubtedly leads to the repetition of costly mistakes in project formulation, extension and development programmes as well as the duplication of effort in new research. The creation of a regional data bank in each of the four regions Africa, Asia, Near East and Latin America and the Caribbean was recommended by the experts, in order to serve the countries in those regions. In view of the increasing movement of animals and germplasm from one environment to another with all the hazards to their survival and productivity which are posed by more hostile climate, disease and feed resources, it is essential that genetic characterizations of the breeds and established crosses and of the environments to which they are adapted or not adapted should be available.

EXTRACTION AND PREPARATION OF DATA

1. INTRODUCTION

This chapter gives guidelines for extracting data on breed characteristics and for assembling them in an appropriate fashion for subsequent compilation into the approved Descriptor List. The person preparing data (compiler) is reminded of the role of the Data Bank (DB) and urged to keep in mind its value as a pool of information on breed characteristics within defined environments. The compiler should also keep in mind the needs of users for information relevant to the future utilization of animal genetic resources in other similar or dissimilar environments. Thus, this exercise of data extraction and presentation must include an exhaustive search of the published literature and other unpublished data sources, the evaluation of these sources and the extraction of valid genetic and associated environmental information and preparation of this information in a form suitable for entry into the Descriptor Lists.

2. WHERE TO FIND THE DATA

The data for the Data Bank will be derived from various published or unpublished sources. A Source is defined here as any document having authentic data which would add to the sum of knowledge about the genetic characteristics of a breed. The Source could have been written in any language. The likely types of Sources are listed below.

- i. published scientific papers,
- ii. papers presented in conferences with or without proceedings,
- iii. specific reports or case studies,
- iv. annual reports (livestock stations, research centres, government departments),
- v. theses, graduate and undergraduate, and vi) stores of unpublished data ('idle' data).

The Data Bank does not include individual animal records but performance statistics of groups of animals of known breed type and conditions under which these statistics were measured. They should be entered in English, using the Descriptor lists in this publication. Similar Descriptor Lists in French and Spanish are available.

3. THE WORKING GROUP

All the persons involved should understand the background objectives and the basic principles of data handling. The team leader must have the following qualifications:

- i. should be an animal geneticist by training, and should also have professional experience with the species being studied,
- ii. have a good general knowledge of animal production,
- iii. have the ability selectively to extract relevant information and be able to judge the authenticity of the source material,
- iv. have some appreciation of statistics and computerization.

The assisting members of the team should preferably have a degree in Animal Science, Veterinary Science or Biological Sciences. Non professional members could assist in restricted areas such as compilation of data on rainfall, environmental temperatures etc. for various stations covered by the Sources. It is emphasised that the team leader be closely involved in training the team members and at all stages of the data extraction.

4. A NOTE OF CAUTION TO COMPILERS

The Descriptor List is comprehensive, covering all aspects of the breed characteristics and almost all classes of livestock. It was derived from trials in different countries in Africa, Asia and Latin America, and covers all possible traits of interest and occurrence. As a result it is massive. It is therefore emphasized here that the compiler should study the general pattern and contents of the Descriptor List first. Then the mode of execution is to look and search from each source, data on genetic characterization. It is not to look at the Descriptor List each time and search for corresponding data from the source. From past experience, each source is likely to provide data for only 5 to 40 percent of the options listed in the Descriptor List.

The Descriptor List should serve as a dictionary of genetic characteristics and should be used as a format for layout of the Source Data Sheet prepared by the compiler before entering them into the system (see item 10 of these guidelines).

5. GENERAL LAYOUT OF DESCRIPTOR LIST

The Descriptor List is divided into two components.

Master Record. This record refers to physical characteristics of the breed within the species. Descriptive features have been categorised and may require the compiler to make decisions. For instance, in the case of hump size (large or medium or small) or proportion of a colour. Each species will have one Master

Record for each of its breeds or strains. This record for the strain need not necessarily be derived from a single Source, but from a number of Sources and may also include additional information supplied by the compiler himself. This will allow the compiled Master Record to consist of one complete set of information on the physical characteristics of the strain.

Slave Record. This consists of performance characteristics of a group of animals of a breed or strain within a species. It also contains provisions for entering environmental characteristics if such details are given in the Source. Every Source will result in one Slave Record. But if the Source has performance characteristics of more than one breed, than this Source will provide one Slave Record for each breed; in this case environmental details are repeated for each of these Slave Records, unless of course the breeds were raised differently. In exceptional circumstances, an author may have published two or more papers covering different traits in each paper but all derived from the same group of animals maintained over the same time period. The information from these sources could be pooled into a single Slave Record. If these papers compared several breeds, then, the resulting number of Slave Records will correspond to the total number of breeds in all these papers.

After a complete exercise, the end result is one Master Record for each breed or crossbred and a larger number of Slave Records for each breed or crossbred. Each Slave Record derives from one Source, (or from several only in exceptional circumstances when several Sources report on the same animals). On the other hand, each Source contributes a Slave Record for each breed or crossbred type reported.

6. PROCEDURE FOR MASTER RECORDS

The Master Record is made up of breed descriptive data and is qualitative in nature. Attempts have been made in the Descriptor Lists to categorise descriptors such as body colours, horn shape and size, temperament and belly shape into fixed format alternatives (e.g. straight vs. curved; short, medium or long and colour percent). Compilers need to be consistent in their subjective evaluations. For other traits, for example, resistance to diseases and parasites, format free fields for word description are allowed. It is requested that such descriptions need to be precise and short.

Usually very few publications are available which describe the physical features of a breed. Therefore, the Master Record in spite of the lack of published data, should be completed as far as possible with added information based on personal experiences. Visual examination of the animals should be necessary to reduce unfilled gaps in the record.

As some of the data in the Master Record are subjective measures, it is recommended that all Master Records for a group of breeds or crosses be completed within an uninterrupted period of time so as to ensure uniformity.

Experience shows that about three man-days are normally necessary to complete one Master Record for a breed if the breed is available in the station where the geneticist who is compiling the data is working.

7. PROCEDURE FOR SLAVE RECORDS

All Sources after 1960 should be used to develop the Data Bank. Exceptionally Sources before 1960 may be considered valuable, but it is recommended not to search for Sources before 1960 normally. The Source should first be reviewed. Subsequently, if it is found to be suitable, information can be extracted for Data Bank use.

Review of Source: Each source needs to be studied carefully and the following points noted.

- i. Reliability. The authenticity of the data in the source need to be judged and a value between 1 (most reliable) and 5 (least reliable) be given. (Item 8 in Slave Record). Various factors such as statistical results (number of observations, standard deviations), management system, feeding standards and clear presentation of experimental design or model will serve as indicators.
- ii. Documentation vs. Evaluation. The distinction between these two in each Source should be made. Documentation is simply the collation of existing data whereas Evaluation is a contemporary comparison of performance records of two or more breeds under the same environmental circumstances. Though each breed or strain within the Source will be presented in separate Slave Records, linkage between them will be maintained through the bibliographical reference field. (Item 6 in Slave Record).
- iii. Bibliographical Reference. All Sources should be referenced even if some were found not useful. In such instances only item 6 of Slave Record will be filled. This will allow users to know the material was scanned but not used. The following sample formats need to be strictly followed in quoting the Source reference.

Journal:

Johnson, S.A., T. Killer and A. Victor. 1981. The relative performance of Friesian and Brown Swiss cattle in Nigeria. *J. Anim. Sci.* 51: 2222-2275.

Proceedings:

Nanda, K. and S. Singam. 1972. Growth rate and milk yield of Selembu cattle in Malaysia. *Proc. Malaysian Society of Animal Production*, 8th Ann. Conf., p. 197-200.

Annual Report:

Black, T. and M. White. 1965. Performance of Black and White cattle in South Africa. *Ann. Rpt. No. 32. 1970*, Agric. Res. Inst., London.

Mahendra, M. and V. Buva. 1982. Factors affecting performance of Friesian crossbred cattle in Sri Lanka. *Ministry of Agriculture, Sri Lanka*, No. 3, 56 pp.

Idle data:

Hoest, R. and M.E. Berg. 1985. Unpublished data Livestock Department, Ministry of Agriculture, Kuala Lumpur, Malaysia.

Extraction of data: As much relevant information as possible must be extracted from the Sources. The Slave Record descriptor list needs to be referred to constantly especially during early stages. Generally, the extraction of data from the Sources may not be straight forward. Often a considerable amount of data editing is necessary and the following is a brief summary of types of data:

- i. Actual Data. This is the data taken directly from the Source and transferred on to Source Data Sheets (see Section 9 of this manual) such as breed average 305-day milk yield, yearling weight and the associated number of observations, standard deviation and ranges. These figures are as given in the text of the Source.
- ii. Summarised Data. Many authors give annual averages for a single trait with standard deviations and number of observations for each breed. Overall means and standard deviations need to be calculated the latter from the pooled sums of squares. An example is given in Appendix 1. A similar procedure should be followed if data are presented by herds within farm or other similar groupings.
- iii. Transformed data. Some data such as those on feeding, management and adaptive characteristics are described in Sources. These data need to be summarised and transformed into defined alternatives suitable for the standardised format of the Slave Record. For instance, grazing management may be described along with concentrate feeding giving various components. These need to be clearly defined and entered into section 18 of Slave Record.
- iv. Additional Data. This refers to data pertaining to the Source but not given in the Source. The compiler should limit such supplementary data to some environmental characteristics such as meteorological records covering the period of study in the report. If accurate management characteristics such as type of housing, could be obtained from the station or from the author, they may be included. However, caution should be taken against extrapolation, guess work or searches that involve unwarranted time. Such additional data should be minimum and undertaken only if the compiler geneticist feels that such data are absolutely necessary for understanding the results.

In the case of 'idle' data, the compiler is expected to conduct some minimum statistical analysis as required by the Slave Record. Environmental data with relevant and reliable details should also be provided.

All statistics should be given in the metric system. Conversions from inches, lb and Fahrenheit to cm, kg and Celsius respectively, are given in Appendix 1.

During the process of data extraction, some common problems may be encountered, as follows:

- i. Repeated data. There may be a few cases where part of the data in a Source is repeated in another. Only the first Source needs to be used.
- ii. Adjusted data. If both raw averages as well as adjusted data are given for the same traits, the latter is recommended. Factors for which adjustments have been made to the data, need to be mentioned in section 7 of Slave Record. If only some traits were adjusted, then these traits need also be mentioned in the same section.
- iii. Feeding trials. If some useful breed information is available from Sources that are nutrition orientated, and if the sample sizes are greater than 20 head per breed, then they could be used.
- iv. Incomplete statistics. A few Sources, though of reliable origin, may report only averages for each trait without number of animals used and/or standard deviations. These sources should also be included, and the blank spaces in the Descriptor List will indicate the lack.

8. RELEVANT DETAILS

The compiling geneticist is encouraged to be specific and accurate while transcribing data from Sources for the Data Bank. For example, if yields of a dairy herd were given and during the period of data recording the cows were herded for some days and strip grazed on other days, both of these should be indicated in Section 8.1.1 of Slave Record of Cattle Descriptors. In addition, if details are given, the compiler should include the proportion of time for each, e.g.

herded	(20%)
strip grazed	(80%)

9. PRESENTATION OF DATA FOR DATA ENTRY

The Master and Slave Records should be prepared separately. Any one Source will usually have less than 40 percent of the characteristic listed in the Descriptor Lists. Therefore, to complete a set of Descriptor List for each Source will mean bulky copies of the descriptors and many items whose contents only partially filled. Further, because of the size of the Descriptor List, the necessity of reviewing the Sources before extraction of the relevant data, the need for processing of some of the data and to allow layoff time for data collection on climate, direct entry of data from Source into the computer system is not possible. It is therefore suggested that the extracted data be written on to a sheet of paper, the Source Data Sheet. Relevant climatic details are also added to the list as these details come in. In order to maintain the meaningful link between the data and its name headings, the corresponding descriptor number that appears on the left of the descriptor list (e.g. 4.4.1.1.2) is also written alongside the data on the Source Data Sheets as tag numbers. The resulting Source Data Sheets derived from the various sources are now ready for entry into the system. An example of a Source Data Sheet for a cattle Slave Record is given below.

Tag number Source Data Sheet for a Source

1	Kedah-Kelantan
2	purebred
4	800112 - 830531
6	Mahatir, M. and S. Velu. 1970 Performance of Kedah-Kelantan cattle in Malaysia. J. Animal Sc. 32 : 1-20.
8	3
9	Malaysia
9.1	Serdang

-					
-					
18.1.1.3	Tethered				
18.1.2.2	improved				
18.1.4.1	Bracharia decumbens	60%			
18.1.4.2	Pasdalum spp.	10%			
18.1.5.1	Centrosema	30%			
18.3.1.1	Rice bran	70%			
18.3.1.2	Molasses	20%			
18.3.1.3	Urea	3%			
18.3.1.4	Mineral mixture	7%			
18.3.2	4 kg per day per head for two weeks before calving, 3 kg. per day per head from calving to end of 100 days and 1 kg per day per head until end of lactation.				
-					
-					
-					
22.1.1.1		300	18.5	3.2	16.1-20.5
22.3.2.3	12	-	113.2	7.5	109.0-118.2
		-			
		-			
		-			

$$\begin{aligned}
 N &= n_1 + n_2 + n_3 \\
 &= 20 + 30 + 51 \\
 &= 101
 \end{aligned}$$

$$\begin{aligned}
 M &= T/\sum n_i \\
 &= 2083.5/(20 + 30 + 51) \\
 &= 20.6
 \end{aligned}$$

3. Calculate annual variance, s^2

$$\begin{aligned}
 s_1^2 &= 42.25 \\
 s_2^2 &= 16.00 \\
 s_3^2 &= 7.84
 \end{aligned}$$

4. Calculate annual totals, t

$$\begin{aligned}
 t_1 &= n_1 \times \bar{x}_1 = 20 \times 20.1 = 402.0 \\
 t_2 &= n_2 \times \bar{x}_2 = 30 \times 19.5 = 585.0 \\
 t_3 &= n_3 \times \bar{x}_3 = 51 \times 21.5 = 1096.5
 \end{aligned}$$

5. Calculate overall sum of square, S

$$\begin{aligned}
 S_1 &= [s^2 (n-1)] + [x_1 t_1] \\
 &= [42.25 \times 19] + [20.1 \times 402.0] \\
 &= 8883.0 \\
 S_2 &= 11871.5 \\
 S_3 &= 23966.8 \\
 S &= S_1 + S_2 + S_3 \\
 &= 8883.0 + 11871.5 + 23966.8 \\
 S &= 44721.3
 \end{aligned}$$

6. Calculate overall variance, V and standard deviation, SD

$$\begin{aligned}
 V &= \frac{S - MT}{N-1} \\
 &= \frac{44721.3 - (20.6 \times 2083.5)}{100} \\
 &= 18.0 \\
 SD &= \sqrt{18} \\
 &= 4.2
 \end{aligned}$$

Thus the overall number of observations, mean and standard deviations are 101, 20.6 and 4.2 respectively and range 17.0 to 24.3

B. Metric Conversion

- i. To convert means and standard deviations given in lb to kg, simply divide by 2.21.
- ii. To convert means and standard deviations given in inches to cm, simply multiply by 2.54
- iii. To convert from Fahrenheit (F) to Celsius (C).

$$^{\circ}\text{C} = \frac{5}{9} (\text{F} - 32)$$

APPENDIX 2

	<u>Guideline of time required</u>	
	<u>Approximate</u> %	<u>Approximate</u> <u>man-days/source</u>
i) Search for source	40	variable
ii) Collect data for Master Record	15	3
iii) Review each Source for Slave Record	15	1/2
iv) Data extraction	25	1/2 to 7
v) Presentation for data entry	5	1

CHICKEN DESCRIPTORS MASTER RECORD

MASTER RECORD

1. Breed name (Use breed, variety, and mutant names in Somes' (1984) International Registry of Poultry Genetic Stocks, Bulletin 469, Storrs Agric. Exp. Station, Univ. of Connecticut, Storrs, CT 06268, U.S.A.)
2. Breed name synonyms
3. Strains within breed
4. General information and breed description
 - 4.1 Country and population data
 - 4.1.1 (country name 1) (Give date of census or estimate)
 - 4.1.1.1 population size
 - 4.1.1.2 census data (Categories 4.1.1.2 to 4.1.1.4 are for indicating by "Y" the type of population data)
 - 4.1.1.3 estimated value
 - 4.1.1.4 unspecified
 - 4.1.1.5 annual population trend +%; -%; unknown
 - 4.1.1.6 flock sizes

government farm	
mean	
range	
distribution	%
1-10 birds	
11-50	
51-100	
101-200	
> 200	
commercial farm	
mean	
range	
distribution	%
1-10 birds	
11-50	
51-100	
101-200	

> 200

village farm

mean

range

distribution

%

1-10 birds

11-50

51-100

101-200

> 200

communally owned

mean

range

distribution

%

1-10 birds

11-50

51-100

101-200

> 200

4.1.1.7 origin of breed

indigenous

exotic

4.1.2 (country name 2)

....

....

4.1.n (country name n)

....

....

4.2 Type of stock

4.2.1 indigenous

4.2.2 improved indigenous

4.2.3 middle-level purebred

- 4.2.4 industrial (trade-named) layer
- 4.2.5 industrial (trade-named) broiler
- 4.2.6 other (specify)
- 4.3 Use of stock
 - 4.3.1 eggs
 - 4.3.2 meat
 - 4.3.3 meat and eggs
 - 4.3.4 ornamental or fancy
 - 4.3.5 fighting
 - 4.3.6 cultural/religious
 - 4.3.7 other (specify)
- 4.4 Origin if imported
 - 4.4.1 North America
 - 4.4.2 South America
 - 4.4.3 Europe
 - 4.4.4 U.S.S.R.
 - 4.4.5 China
 - 4.4.6 South-west Asia
 - 4.4.7 South-east Asia
 - 4.4.8 Australasia
 - 4.4.9 Africa
 - 4.4.0 other (specify)
- 4.5 Feather characteristics
 - 4.5.1 feather morphology (phenotypic frequency, %)
 - normal
 - frizzle
 - silky
 - other (specify)
 - 4.5.2 feather distribution (phenotypic frequency, %)
 - normal
 - naked neck
 - feathered shanks and feet
 - muffs and beard
 - crest

- vulture hocks
 - other (specify)
 - 4.5.3 feather growth rate (phenotypic frequency, %)
 - fast feathering (k)
 - slow feathering (K)
- 4.6 Feather color
(Fill in fixed format fields, or write description in the free format description field 4.16, or do both)
 - 4.6.1 colors in plumage (phenotypic frequency, %)
 - white
 - black
 - blue
 - red
 - wheaten
 - other (specify)
 - 4.6.2 plumage pattern (phenotypic frequency, %)
 - self-white
 - self-colored
 - Columbian (black or blue extremities with white or red body)
 - wild-type and variants
 - other (specify)
 - 4.6.3 pattern within feather (phenotypic frequency, %)
 - self-white
 - self-black
 - self-blue
 - self-red
 - self-wheaten
 - barred (sex-linked)
 - barred (autosomal)
 - laced
 - mottled
 - other (specify)
- 4.7 Skin characteristics

- 4.7.1 skin color (phenotypic frequency, %)
 - white
 - yellow
 - blue-black
 - other (specify)
- 4.7.2 shank color (phenotypic frequency, %)
 - white
 - yellow
 - blue
 - green
 - other (specify)
- 4.7.3 comb type
 - single
 - pea
 - rose
 - walnut/cushion/strawberry
 - duplex/V-shaped/double
- 4.7.4 earlobe color (phenotypic frequency, %)
 - white
 - red
 - white and red
 - other (specify)
- 4.8 Skeletal variants (phenotypic frequency, %)
 - normal
 - crested
 - polydactyl/extra toes
 - creeper
 - dwarf
 - rumpless
 - multiple spurs
 - other(specify)
- 4.9 Blood types
(Free format field; write word description)

- 4.10 Immunogenetics
(Free format field; write word description)
- 4.11 Cytogenetics
(Free format field; write word description)
- 4.12 Basic temperament
 docile
 moderately tractable
 wild
- 4.13 Heat tolerance
(Allocate grades 1-5; 1=high)
- 4.14 Resistance to disease and parasites, and tolerance of industrial housing conditions
(Free format field; write word description)
- 4.15 Conservation status
- 4.15.1 endangered
- 4.15.2 vulnerable
- 4.15.3 rare
- 4.15.4 indeterminate
- 4.15.5 out of danger
- 4.15.6 insufficiently known
- 4.15.7 not at risk (none of the above)

The first six of these categories are used by the International Union for the Conservation of Nature and Natural Resources. Their definitions, slightly amended, are as follows.

Endangered : Breeds in danger of extinction, and whose survival is unlikely if the causal factors continue operating.

Vulnerable: Breeds likely to move into the Endangered category in the near future if the causal factors continue operating.

Rare: Breeds with small populations that are not at present Endangered or Vulnerable, but are at risk.

Indeterminate : Breeds known to be Endangered, Rare or Vulnerable, but where there is not enough information to say which of the three categories is appropriate.

Out of Danger : Breeds formerly included in one of the above categories, but which are now considered relatively secure because effective conservation measures have been taken or the previous threat to their survival has been removed.

Insufficiently Known : Breeds that are suspected but not definitely known to belong to any of the above categories, because of lack of information.

- 4.16 Free format breed description field
(A description of breed characteristics may be entered here instead of in the fixed fields of sections 4.5 to 4.14, or material may be added to supplement the fixed fields)
5. Master record prepared by:
- 5.1 Name:
- 5.2 Title: (Dr., Mr., Miss, etc.)
- 5.3 Address:
- 5.4 Affiliation: (Organization, Company, Consultant, etc.)
- 5.5 Date of preparation:
6. Master record updating or editing
- 6.1 First amendment by:
- 6.1.1 Name :
- 6.1.2 Title :
- 6.1.3 Address :
- 6.1.4 Affiliation:
- 6.1.5 Date of amendment:
-
-
-
- 6.n Nth amendment by:
- 6.n.1 Name :
- 6.n.2 Title :
- 6.n.3 Address :
- 6.n.4 Affiliation:
- 6.n.5 Date of amendment:

CHICKEN DESCRIPTORS MASTER RECORD

SLAVE RECORD

1. Breed name of MASTER record
2. Breed/crossbred type of SLAVE record
(Give exact composition if possible, eg. 50% White Leghorn, 25% Rhode Island Red, 25% indigenous)
3. Strain (or distinct within-breed type)

4. Period of data

year	month	day	(eg. 1982:05:14)
------	-------	-----	------------------

 From
 To
5. Data form prepared by:
 - 5.1 Name :
 - 5.2 Title: (Dr., Mr., Miss, etc.)
 - 5.3 Address:
 - 5.4 Affiliation: (Organization, Company, Consultant, etc.)
 - 5.5 Date of preparation:
6. Bibliographical reference of source document
(Pointer to the reference stored in the bibliographical file)
7. Data type and analysis
 - 7.1 Data
 - 7.1.1 unadjusted data
 - 7.1.2 data adjusted for environmental or other factors*
 - 7.1.3 survey data
* (adjusted by the author of the original paper or document)
 - 7.2 Treatment of data
 - 7.2.1 descriptive
 - 7.2.2 analytical
 - 7.2.3 none
8. Reliability code
(Grade data subjectively on a scale of 1 to 5; 1=highly reliable, 5=low reliability)
9. Country (in which data were recorded or experiment carried out, etc.)
 - 9.1 Country subdivision(s) (province, county, district, etc.)
10. Terrestrial environment
 - 10.1 Tropical rainforest
 - 10.2 Tropical deciduous forest
 - 10.3 Tropical scrub forest
 - 10.4 Tropical savannah
 - 10.5 Desert
 - 10.6 Mediterranean woodland and scrub
 - 10.7 Middle latitude grassland
 - 10.7.1 highland grass

- 10.7.2 moorland
- 10.7.3 marshland
- 10.8 Middle latitude deciduous forest
- 10.9 Coniferous forest
- 10.10 Tundra
- 10.11 Free format terrestrial environment field
(Include information on problems associated with vegetation, eg. toxic plants)
- 11. Elevation and topography
 - 11.1 Elevation
 - mean
 - range
 - 11.2 Topography
(Free format field. The description should include the following items, when information on them is available: roughness of terrain; slope; nature of surface (rocky, sandy, stony, etc.); surface drainage (poor, seasonally wet, well-drained, etc..))
- 12. Climate
 - 12.1 Rainfall (mm)
 - 12.1.1 annual precipitation
 - mean
 - range
 - 12.1.2 seasonality
 - 12.1.2.1 non-seasonal
 - 12.1.2.2 seasonal
(input as eg. 05-07, meaning May to July)
 - 12.1.3 free format rainfall data
 - 12.2 Temperature (degrees C)
 - 12.2.1 average annual temperature
 - mean of several years
 - range of several years
 - 12.2.2 maximum temperature in year
 - mean maximum of several years
 - range of several years
 - month(s) of maximum temperature
 - 12.2.3 minimum temperature in year
 - mean minimum of several years

- range of several years
 - month(s) of minimum temperature
 - 12.2.4 free format temperature data
 - 12.3 Relative humidity (RH)
 - 12.3.1 average annual RH
 - mean of several years
 - range of several years
 - 12.3.2 maximum RH in year
 - mean maximum of several years
 - range of several years
 - month(s) of maximum RH
 - 12.3.3 minimum RH in year
 - mean minimum of several years
 - range of several years
 - month(s) of minimum RH
 - 12.3.4 free format RH data
- 13. Socio-management system
 - 13.1 Indigenous stock, extensive management
 - 13.2 Indigenous stock, intensive management
 - 13.3 Middle-level stock, extensive management
 - 13.4 Middle-level stock, intensive management
 - 13.5 Industrial stock, extensive management
 - 13.6 Industrial stock, intensive management
 - 13.7 Free format field for socio-management system
- 14. Type of farm
 - 14.1 Peasant agriculture
 - 14.2 Breeding centre
 - 14.3 Commercial production unit
 - 14.4 Experiment station
 - 14.5 Field experiment
 - 14.6 Multiplication unit
 - 14.7 Other (specify)
 - 14.8 Free format field for farm type
- 15. Degree of management supervision

- 15.1 Advisory services
- 15.2 Resident professional supervision
- 15.3 Supervision by scientific staff of investigation project
- 15.4 None
- 16. Mating method and incubation method
 - 16.1 Mating method
 - 16.1.1 uncontrolled non-seasonal natural mating
 - 16.1.2 uncontrolled seasonal natural mating
 - 16.1.3 controlled natural mating
 - 16.1.4 artificial insemination
 - 16.1.5 other (specify)
 - 16.2 Incubation method
 - 16.2.1 natural incubation
 - 16.2.2 artificial still-air incubation
 - 16.2.3 artificial forced-air incubation
 - 16.2.4 other (specify)
- 17. Flock size
 - 17.1 Number of breeding males
 - mean
 - range
 - 17.2 Number of breeding females
 - mean
 - range
 - 17.3 Number of breeding replacement males
 - mean
 - range
 - 17.4 Number of breeding replacement females
 - mean
 - range
 - 17.5 Number of females for egg production
 - mean
 - range
 - 17.6 Number of birds for meat production
 - 17.6.1 males

		mean
		range
17.6.2	females	
		mean
		range
17.6.3	mixed	
		mean
		range

18. Nutrition

18.1 Nutritional management

- 18.1.1 scavenging
- 18.1.2 scavenging with supplemental feeding
- 18.1.3 free-ranging
- 18.1.4 free-ranging with supplemental feeding
- 18.1.5 full-feeding with local feeds
- 18.1.6 full-feeding with manufactured concentrate & local feeds
- 18.1.7 full-feeding with complete manufactured feeds

18.2 Free format field for scavenging, and scavenging with supplemental feeding (estimate composition of scavenging diet; estimate composition of supplemental feed and quantities provided)

18.3 Free format field for free-ranging, and free-ranging with supplemental feeding (estimate composition and intake of free-ranging diet; estimate composition of supplemental feed and quantities provided)

18.4 Free format field for full-feeding with local feeds (estimate composition of full-feeding diet, specifying ingredients; estimate composition and quantities (kg/bird) for brooding, rearing, and adult periods)

18.5 Free format field for full-feeding with manufactured concentrate and local feeds (give formulation for concentrate used in brooding, rearing, and adult periods; estimate composition of local feeds, specifying ingredients; estimate quantities of concentrate plus local feeds (kg/bird) for brooding, rearing, and adult periods)

18.6 Free format field for full-feeding with complete manufactured feeds (give formulations and quantities (kg/bird) of complete manufactured feeds in brooding, rearing, and adult periods)

19. Housing and photoperiod

19.1 Housing

- 19.1.1 type of housing

none
shelter, unconfined

- shelter, confined at night
 confinement housing, litter floor
 confinement housing, slat or wire floor
 confinement housing, litter plus slat/wire floor
 confinement housing, cage/battery
- 19.1.2 free format field to record floor or cage space/bird, feeding space, watering space, roosting space, nesting space/bird
- 19.2 Photo period
- 19.2.1 photoperiod provided
- natural daylength
 artificial daylength
- 19.2.2 free format field to record daylength manipulation and control during brooding, rearing, adult, and breeding periods
20. Diseases and parasites, and tolerance of housing conditions
 (Free format field for noting any diseases prevalent at the time that performance data were recorded, and for noting any peculiarities in response to housing conditions)
21. Measures against diseases, parasites, and undesirable behaviors
- 21.1 Vaccination and immunization
 (Free format field to describe treatments)
- 21.2 Curative medication
 (Free format field to describe treatments)
- 21.3 Preventative medication
 (Free format field to describe treatments)
- 21.4 Behavior modification
 (Free format field to describe treatments, eg. beak trimming, dubbing, etc.)
22. Performance
- 22.1 Egg production characteristics
- | 22.1.1 | egg production and age | N | Mean | SD | Range |
|--------|--------------------------------|---|------|----|-------|
| | age at first egg, days | - | - | - | - |
| | age at 50% production, days | - | - | - | - |
| | age at peak production, days | - | - | - | - |
| | age at culling, days | - | - | - | - |
| 22.1.2 | egg numbers | N | Mean | SD | Range |
| | clutch length, days | - | - | - | - |
| | hen-day production, 0-500 days | - | - | - | - |

	hen-housed production, 0-500 days	-	-	-	-
	survivor production, 0-500 days	-	-	-	-
	hen-day production, n-n days	-	-	-	-
	hen-housed production, n-n days	-	-	-	-
	survivor production, n-n days	-	-	-	-
22.1.3	egg size	N	Mean	SD	Range
	egg size, 32 weeks of age, gm	-	-	-	-
	egg size, 52 weeks of age, gm	-	-	-	-
	egg size, 72 weeks of age, gm	-	-	-	-
	egg size, n weeks of age, gm	-	-	-	-
22.1.4	egg shape index	N	Mean	SD	Range
	length (mm) x breadth (mm)/100	-	-	-	-
22.1.5	shell color				
	white				
	brown				
	cream or tinted				
	blue				
	green				
	other (specify)				
22.1.6	shell quality	N	Mean	SD	Range
	specific gravity, 32 weeks of age	-	-	-	-
	specific gravity, 52 weeks of age	-	-	-	-
	specific gravity, 72 weeks of age	-	-	-	-
	specific gravity, n weeks of age	-	-	-	-
22.1.7	albumen quality	N	Mean	SD	Range
	Haugh units, 32 weeks of age	-	-	-	-
	Haugh units, 52 weeks of age	-	-	-	-
	Haugh units, 72 weeks of age	-	-	-	-
	Haugh units, n weeks of age	-	-	-	-
22.1.8	egg inclusion bodies	N	Mean	SD	Range

	blood spots, 52 weeks of age, %	-	-	-	-
	blood spots, n weeks of age, %	-	-	-	-
	meat spots, 52 weeks of age, %	-	-	-	-
	meat spots, n weeks of age, %	-	-	-	-
22.1.9	feed utilization	N	Mean	SD	Range
	kg feed / kg eggs	-	-	-	-
	kg feed / dozen eggs	-	-	-	-
22.2	Reproduction characteristics				
22.2.1	broodiness				
				usual	
				sometimes	
				rare	
				other (specify)	
22.2.2	fertility and hatchability	N	Mean	SD	Range
	fertility, %	-	-	-	-
	hatch of fertile eggs, %	-	-	-	-
	hatch of total eggs set, %	-	-	-	-
22.3	Growth characteristics				
23.3.1	growth rate	N	Mean	SD	Range
	body weight at hatching, gm, males	-	-	-	-
				females	-
				mixed	-
	body wt at 8 wks, gm, males	-	-	-	-
				females	-
				mixed	-
	body wt at 12 wks, gm, males	-	-	-	-
				females	-
				mixed	-
	body wt at 16 wks, gm, males	-	-	-	-
				females	-

		mixed	-	-	-	-
	body wt at 20 wks, gm,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	body wt at 32 wks, gm,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	body wt at 72 wks, gm,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	body wt at n wks, gm,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
22.3.2	body proportions		N	Mean	SD	Range
	keel length at 8 wks, mm,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	keel length at 12 wks, mm,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	keel length at 20 wks, mm,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	keel length at n wks, mm,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	shank length at 8 wks,mm,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-

	shank length at 12 wks,mm,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	shank length at 20 wks,mm,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	shank length at n wks,mm,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	breast angle at 8 wks,deg,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	breast angle at 12 wks, deg,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	breast angle at 20 wks,deg,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	breast angle at n wks,deg,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
22.3.3	carcass defects		N	Mean	SD	Range
	breast blisters, 8 wks, %,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	breast blisters,16 wks, %,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-

	breast blisters, n wks, %,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	crooked keels, 8 wks, %,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	crooked keels, 16 wks, %,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	crooked keels, n wks, %,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	roach back, 8 wks, %,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	roach back, 16 wks, %,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	roach back, n wks, %,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
22.3.4	feed utilization		N	Mean	SD	Range
	kg feed/kg gain, 0-8 wks,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	kg feed/kg gain, 8-12 wks,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-

	kg feed/kg gain, 12-16 wks,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	kg feed/kg gain, n-n wks,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
22.4	Post-hatching mortality		N	Mean	SD	Range
	mortality, 0-8 wks, %,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	mortality, 8-20 wks, %,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	mortality, 20-72 wks, %,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	mortality, n-n wks, %,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
22.5	Free format field to record performance characteristics (egg production, reproduction, growth, post-hatching mortality) not specified in 22.1 to 22.4					
23.	Physiology and stress tolerance					
23.1	Tolerance of temperature and humidity extremes (Free format field to describe temperature and humidity stress in relation to housing conditions)					
23.2	Tolerance of industrial floor pen housing (Free format field to describe reaction of stock to intensive management conditions in industrial floor housing)					
23.3	Tolerance of industrial cage housing (Free format field to describe reaction of stock to intensive management conditions in industrial cage housing)					
24.	Genetic parameters					

		Value	SE	Range
24.1	Heritability			
	24.1.1	trait 1	-	-
			
			
			
	24.1.n	trait n	-	-
24.2	Repeatability			
	24.2.1	trait 1	-	-
			
			
			
	24.2.n	trait n	-	-
24.3	Genetic correlation			
	24.3.1	between and	-	-
			
			
			
	24.3.n	between and	-	-
24.4	Other genetic parameters (Free format field)			
24.5	Inbreeding coefficient (Free format field)			
25.	Cytogenetics (Free format field)			
26.	Inherited abnormalities (Free format field)			
27.	Resistance to infectious diseases and parasites (Free format field; specify comparative incidence and/or mortality)			

TURKEY DESCRIPTORS

MASTER RECORD

1. Breed name
(Use breed, variety, and mutant names in Somes' (1984) International Registry of Poultry Genetic Stocks, Bulletin 469, Storrs Agric. Exp Station, Univ. of Connecticut, Storrs, CT 06268, U.S.A.)
2. Breed name synonyms

3. Strains within breed

4. General information and breed description

4.1 Country and population data

4.1.1 (country name 1) (Give date of census or estimate)

- | | | |
|---------|--|---|
| 4.1.1.1 | population size | (Categories 4.1.1.2 to 4.1.1.4 are for indicating by "Y" the type of population data) |
| 4.1.1.2 | census data | |
| 4.1.1.3 | estimated value | |
| 4.1.1.4 | unspecified | |
| 4.1.1.5 | annual population trend
+%; -%; unknown | |
| 4.1.1.6 | flock sizes | |

government farm

mean
range
distribution %
1-10 birds
11-50
51-100
101-200
> 200

commercial farm

mean
range
distribution %
1-10 birds
11-50
51-100
101-200
> 200

village farm

mean
range
distribution %
1-10 birds
11-50

- 51-100
- 101-200
- > 200
- communally owned
 - mean
 - range
 - distribution %
 - 1-10 birds
 - 11-50
 - 51-100
 - 101-200
 - > 200
- 4.1.1.7 origin of breed
 - indigenous
 - exotic
- 4.1.2 (country name 2)
- 4.1.n (country name n)
- 4.2 Type of stock
 - 4.2.1 indigenous
 - 4.2.2 improved indigenous
 - 4.2.3 middle-level purebred
 - 4.2.4 industrial (trade-named)
 - 4.2.5 other (specify)
- 4.3 Use of stock
 - 4.3.1 meat
 - 4.3.2 meat and eggs
 - 4.3.3 ornamental or fancy
 - 4.3.4 other (specify)
- 4.4 Origin if imported
 - 4.4.1 North America
 - 4.4.2 South America
 - 4.4.3 Europe
 - 4.4.4 U.S.S.R
 - 4.4.5 China
 - 4.4.6 South-west Asia
 - 4.4.7 South-east Asia
 - 4.4.8 Australasia

- 4.4.9 Africa
- 4.4.0 other (specify)
- 4.5 Feather characteristics
 - 4.5.1 feather morphology, distribution, growth rate
(phenotypic frequency, %)
 - normal
 - other (specify)
- 4.6 Feather color
(Fill in fixed format fields, or write description in the free format description field 4.16, or do both)
 - 4.6.1 feather color and pattern (phenotypic frequency, %)
 - self-white
 - self-black
 - self-grey
 - self-brown
 - self-buff
 - spotted or variegated
 - wild-type pattern
 - other (specify)
 - 4.6.2 color variants on wild-type pattern (phenotypic frequency, %)
 - wild-type bronze
 - wild-type black
 - wild-type grey
 - wild-type brown
 - wild-type buff
 - other (specify)
- 4.7 Skin characteristics
 - 4.7.1 skin color (phenotypic frequency, %)
 - white
 - yellow
 - other (specify)
 - 4.7.2 shank color (phenotypic frequency, %)
 - white
 - yellow
 - black
 - other (specify)

- 4.8 Skeletal variants (phenotypic frequency, %)
 normal
 other (specify)
- 4.9 Blood types
 (Free format field; write word description)
- 4.10 Immunogenetics
 (Free format field; write word description)
- 4.11 Cytogenetics
 (Free format field; write word description)
- 4.12 Basic temperament
 docile
 moderately tractable
 wild
- 4.13 Heat tolerance
 (Allocate grades 1-5; l=high)
- 4.14 Resistance to diseases and parasites, tolerance of industrial housing conditions, capability of natural mating or requirement for artificial insemination
 (Free format field; write word description)
- 4.15 Conservation status
- 4.15.1 endangered
- 4.15.2 vulnerable
- 4.15.3 rare
- 4.15.4 indeterminate
- 4.15.5 out of danger
- 4.15.6 insufficiently known
- 4.15.7 not at risk (none of the above)

The first six of these categories are used by the International Union for the Conservation of Nature and Natural Resources, Their definitions, slightly amended, are as follows.

Endangered : Breeds in danger of extinction, and whose survival is unlikely if the causal factors continue operating.

Vulnerable: Breeds likely to move into the Endangered category in the near future if the causal factors continue operating.

Rare: Breeds with small populations that are not at present Endangered or Vulnerable , but are at risk.

Indeterminate : Breeds known to be Endangered, Rare or Vulnerable, but where there is not enough information to say which of the three categories is appropriate.

Out of Danger : Breeds formerly included in one of the above categories, but which are now considered relatively secure because effective conservation measures have been taken or the previous threat to their survival has been removed.

Insufficiently Known : Breeds that are suspected but not definitely known to belong to any of the above categories, because of lack of information.

- 4.16 Free format breed description field
(A description of breed characteristics may be entered here instead of in the fixed fields of sections 4.5 to 4.14, or material may be added to supplement the fixed fields)
- 4.5 Master record prepared by:
- 5.1 Name :
- 5.2 Title: (Dr., Mr., Miss, etc)
- 5.3 Address :
- 5.4 Affiliation: (Organization, Company, Consultant, etc.)
- 5.5 Date of preparation:
- 6 Master record updating or editing
- 6.1 First amendment by:
- 6.1.1 Name:
- 6.1.2 Title :
- 6.1.3 Address:
- 6.1.4 Affiliation:
- 6.1.5 Date of amendment:
- 6.n Nth amendment by:
- 6.n.1 Name:
- 6.n.2 Title:
- 6.n.3 Address:
- 6.n.4 Affiliation:
- 6.n.5 Date of amendment;

SLAVE RECORD

1. Breed name of MASTER record
2. Breed/crossbred type of SLAVE record
(Give exact composition if possible, eg. 50% Broad-breasted White, 5 0% indigenous)
3. Strain (or distinct within-breed type)
4. Period of data

year	month	day	(eg. 1982:05:14)
From			
To			
5. Data form prepared by:
 - 5.1 Name:
 - 5.2 Title: (Dr., Mr., Miss, etc.)

- 5.3 Address:
- 5.4 Affiliation: (Organization, Company, Consultant, etc.)
- 5.5 Date of preparation:
- 6. Bibliographical reference of source document
(Pointer to the reference stored in the bibliographical file)
- 7. Data type and analysis
 - 7.1 Data
 - 7.1.1 unadjusted data
 - 7.1.2 data adjusted for environmental or other factors*
 - 7.1.3 survey data
*(adjusted by the author of the original paper or document)
 - 7.2 Treatment of data
 - 7.2.1 descriptive
 - 7.2.2 analytical
 - 7.2.3 none
- 8. Reliability code
(Grade data subjectively on a scale of 1 to 5; 1=highly reliable, 5=low reliability)
- 9. Country (in which data were recorded or experiment carried out, etc.)
 - 9.1 Country subdivision(s) (province, county, district, etc.)
- 10. Terrestrial environment
 - 10.1 Tropical rainforest
 - 10.2 Tropical deciduous forest
 - 10.3 Tropical scrub forest
 - 10.4 Tropical savannah
 - 10.5 Desert
 - 10.6 Mediterranean woodland and scrub
 - 10.7 Middle latitude grassland
 - 10.7.1 highland grass
 - 10.7.2 moorland
 - 10.7.3 marshland
 - 10.8 Middle latitude deciduous forest
 - 10.9 Coniferous forest
 - 10.10 Tundra
 - 10.11 Free format terrestrial environment field

- (Include information on problems associated with vegetation, eg. toxic plants)
11. Elevation and topography
- 11.1 Elevation
- mean
range
- Topography
(Free format field. The description should include the following items, when information on them is available: roughness of terrain; slope; nature of surface (rocky, sandy, stony, etc.); surface drainage (poor, seasonally wet, well-drained, etc..))
- 11.2
12. Climate
- 12.1 Rainfall (mm)
- 12.1.1 annual precipitation
- mean
range
- 12.1.2 seasonality
- 12.1.2.1 non-seasonal
seasonal
(input as eg. 05-07, meaning May to July)
- 12.1.2.2
- 12.1.3 free format rainfall data
- 12.2 Temperature (degrees C)
- 12.2.1 average annual temperature
- mean of several years
range of several years
- 12.2.2 maximum temperature in year
- mean maximum of several years
range of several years
month(s) of maximum temperature
- 12.2.3 minimum temperature in year
- mean minimum of several years
range of several years
month(s) of minimum temperature
- 12.2.4 free format temperature data
- 12.3 Relative humidity (RH)

- | | | | |
|-----|-------------------------------------|--|---|
| | 12.3.1 | average annual RH | mean of several years
range of several years |
| | 12.3.2 | maximum RH in year | mean maximum of several years
range of several years
month(s) of maximum RH |
| | 12.3.3 | minimum RH in year | mean minimum of several years
range of several years
month(s) of minimum RH |
| | 12.3.4 | free format RH data | |
| 13. | Socio-management system | | |
| | 13.1 | Indigenous stock, extensive management | |
| | 13.2 | Indigenous stock, intensive management | |
| | 13.3 | Middle-level stock, extensive management | |
| | 13.4 | Middle-level stock, intensive management | |
| | 13.5 | Industrial stock, extensive management | |
| | 13.6 | Industrial, stock, intensive management | |
| | 13.7 | Free format field for socio-management system | |
| 14. | Type of farm | | |
| | 14.1 | Peasant agriculture | |
| | 14.2 | Breeding centre | |
| | 14.3 | Commercial production unit | |
| | 14.4 | Experiment station | |
| | 14.5 | Field experiment | |
| | 14.6 | Multiplication unit | |
| | 14.7 | Other (specify) | |
| | 14.8 | Free format field for farm type | |
| 15 | Degree of management supervision | | |
| | 15.1 | Advisory services | |
| | 15.2 | Resident professional supervision | |
| | 15.3 | Supervision by scientific staff of investigation project | |
| | 15.4 | None | |
| 16 | Mating method and incubation method | | |
| | 16.1 | Mating method | |
| | | 16.1.1 | uncontrolled non-seasonal natural mating |
| | | 16.1.2 | uncontrolled seasonal natural mating |
| | | 16.1.3 | controlled natural mating |

- 16.1.4 artificial insemination
- 16.1.5 other (specify)
- 16.2 Incubation method
 - 16.2.1. natural incubation
 - 16.2.2 artificial still-air incubation
 - 16.2.3 artificial forced-air incubation
 - 16.2.4 other (specify)
- 17. Flock size
 - 17.1 Number of breeding males
 - mean
 - range
 - 17.2 Number of breeding females
 - mean
 - range
 - 17.3 Number of breeding replacement males
 - mean
 - range
 - 17.4 Number of breeding replacement females
 - mean
 - range
 - 17.5 Number of birds for meat production
 - 17.5.1 males
 - mean
 - range
 - 17.5.2 females
 - mean
 - range
 - 17.5.3 mixed
 - mean
 - range
- 18. Nutrition
 - 18.1 Nutritional management
 - 18.1.1 scavenging
 - 18.1.2 scavenging with supplemental feeding
 - 18.1.3 free-ranging
 - 18.1.4 free-ranging with supplemental feeding
 - 18.1.5 full-feeding with local feeds
 - 18.1.6 full-feeding with manufactured concentrate & local feeds
 - 18.1.7 full-feeding with complete manufactured feeds

- 18.2 Free format field for scavenging, and scavenging with supplemental feeding (estimate composition of scavenging diet; estimate composition of supplemental feed and quantities provided)
- 18.3 Free format field for free-ranging, and free-ranging with supplemental feeding (estimate composition and intake of free-ranging diet; estimate composition of supplemental feed and quantities provided)
- 18.4 Free format field for full-feeding with local feeds (estimate composition of full-feeding diet, specifying ingredients; estimate composition and quantities (kg/bird) for brooding, rearing, and adult periods)
- 18.5 Free format field for full-feeding with manufactured concentrate and local feeds (give formulation for concentrate used in brooding, rearing, and adult periods; estimate composition of local feeds, specifying ingredients; estimate quantities of concentrate plus local feeds (kg/bird) for brooding, rearing, and adult periods)
- 18.6 Free format field for full-feeding with complete manufactured feeds (give formulations and quantities (kg/bird) of complete manufactured feeds in brooding, rearing, and adult periods)
19. Housing and photoperiod
- 19.1 Housing
- 19.1.1 type of housing
- none
shelter, unconfined
shelter, confined at night
confinement housing, litter floor
confinement housing, slat or wire floor
confinement housing, litter plus slat/wire floor
confinement housing, cage/battery
- 19.1.2 free format field to record floor or cage space/bird, feeding space, watering space, roosting space, nesting space/bird
- 19.2 Photoperiod
- 19.2.1 photoperiod provided
- natural daylength
artificial daylength
- 19.2.2 free format field to record daylength manipulation and control during brooding, rearing, adult, and breeding periods
20. Diseases and parasites, and tolerance of housing conditions (Free format field for noting any diseases prevalent at the time that performance data were recorded, and for noting any peculiarities in response to housing conditions)
21. Measures against diseases, parasites, and undesirable behaviors

21.1	Vaccination and immunization (Free format field to describe treatments)				
21.2	Curative medication (Free format field to describe treatments)				
21.3	Preventative medication (Free format field to describe treatments)				
21.4	Behavior modification (Free format field to describe treatments, eg, beak trimming, desnooding, etc.)				
22.	Performance				
22.1	Egg production characteristics				
22.1.1	egg production and age	N	Mean	SD	Range
	age at first egg, days	-	-	-	-
	age at 50% production, days	-	-	-	-
	age at peak production, days	-	-	-	-
	age at culling, days	-	-	-	-
22.1.2	egg numbers	N	Mean	SD	Range
	clutch length, days	-	-	-	-
	hen-day production, 0-500 days	-	-	-	-
	hen-housed production, 0-500 days	-	-	-	-
	survivor production, 0-500 days	-	-	-	-
	hen-day production, n-n days	-	-	-	-
	hen-housed production, n-n days	-	-	-	-
	survivor production, n-n days	-	-	-	-
22.1.3	egg size	N	Mean	SD	Range
	egg size, 40 weeks of age, gm	-	-	-	-
	egg size, n weeks of age, gm	-	-	-	-
22.1.4	egg shape index	N	Mean	SD	Range
	length (mm) x breadth (mm)/100	-	-	-	-
22.1.5	shell color				
	spotted				
	other (specify)				
22.1.6	shell quality	N	Mean	SD	Range
	specific gravity, 40 weeks of age	-	-	-	-
	specific gravity, n weeks of age	-	-	-	-
22.1.7	feed utilization	N	Mean	SD	Range
	kg feed / kg eggs	-	-	-	-
	kg feed / dozen eggs	-	-	-	-

	22.1.8	other egg characteristics (free format field)					
22.2		Reproduction characteristics					
	22.2.1	broodiness					
			usual				
			sometimes				
			rare				
			other (specify)				
	22.2.2	fertility and hatchability		N	Mean	SD	Range
		fertility from natural mating, %		-	-	-	-
		fertility from A.I., %		-	-	-	-
		hatch of fertile eggs, %		-	-	-	-
		hatch of total eggs set, natural mating, %		-	-	-	-
		hatch of total eggs set, A.I., %		-	-	-	-
22.3		Growth characteristics					
	22.3.1	growth rate		N	Mean	SD	Range
		body wt at hatching, gm,	males	-	-	-	-
			females	-	-	-	-
			mixed	-	-	-	-
		body wt at 8 wks, gm,	males	-	-	-	-
			females	-	-	-	-
			mixed	-	-	-	-
		body wt at 14 wks, gm,	males	-	-	-	-
			females	-	-	-	-
			mixed	-	-	-	-
		body wt at 20 wks, gm,	males	-	-	-	-
			females	-	-	-	-
			mixed	-	-	-	-
		body wt at 26 wks, gm,	males	-	-	-	-
			females	-	-	-	-
			mixed	-	-	-	-
		body wt at 32 wks, gm,	males	-	-	-	-
			females	-	-	-	-
			mixed	-	-	-	-
		body wt at n wks, gm,	males	-	-	-	-
			females	-	-	-	-
			mixed	-	-	-	-
	22.3.2	body proportions		N	Mean	SD	Range
		keel length at 8 wks, mm,	males	-	-	-	-
			females	-	-	-	-

		mixed	-	-	-	-
	keel length at 14 wks, mm,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	keel length at 20 wks, mm,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	keel length at 26 wks, mm,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	keel length at n wks, mm,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	shank length at 8 wks,mm,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	shank length at 14 wks,ram,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	shank length at 20 wks,mm,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	shank length at 26 wks,mm,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	shank length at n wks,mm,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
22.3.3	breast angle at 8 wks,deg,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	breast angle at 14 wks,deg,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	breast angle at 20 wks,deg,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	breast angle at 26 wks,deg,	males	-	-	-	-
		females	-	-	-	-

		mixed	-	-	-	-
	breast angle at n wks,deg,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
22.3.3	carcass defects		N	Mean	SD	Range
	breast blisters, 8 wks,%,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	breast blisters, 14 wks,%,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	breast blisters, 20 wks,%,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	breast blisters, 26 wks,%,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	breast blisters, n wks,%,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	crooked keels, 8 wks, %,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	crooked keels, 14 wks, %,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	crooked keels, 20 wks, %,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	crooked keels, 26 wks, %,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	crooked keels, n wks, %,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	other carcass defects (free format field)					
22.3.4	feed utilization		N	Mean	SD	Range
	kg feed/kg gain, 0-8 wks,	males	-	-	-	-
		females	-	-	-	-

		kg feed/kg gain, 8-14 wks,	mixed	-	-	-	-
			males	-	-	-	-
			females	-	-	-	-
		kg feed/kg gain, 14-20 wks,	mixed	-	-	-	-
			males	-	-	-	-
			females	-	-	-	-
		kg feed/kg gain, 20-26 wks,	mixed	-	-	-	-
			males	-	-	-	-
			females	-	-	-	-
		kg feed/kg gain, n-n wks,	mixed	-	-	-	-
			males	-	-	-	-
			females	-	-	-	-
			mixed	-	-	-	-
22.4	Post-hatching mortality			N	Mean	SD	Range
		mortality, 0-8 wks, %,	males	-	-	-	-
			females	-	-	-	-
			mixed	-	-	-	-
		mortality, 8-14 wks, %,	males	-	-	-	-
			females	-	-	-	-
			mixed	-	-	-	-
		mortality, 14-20 wks, %,	males	-	-	-	-
			females	-	-	-	-
			mixed	-	-	-	-
		mortality, 20-26 wks, %,	males	-	-	-	-
			females	-	-	-	-
			mixed	-	-	-	-
		mortality, n-n wks, %,	males	-	-	-	-
			females	-	-	-	-
			mixed	-	-	-	-
22.5	Free format field to record performance characteristics (egg production., reproduction, growth, post-hatching mortality) not specified in 22.1 to 22.4						
23	Physiology and stress tolerance						
23.1	Tolerance of temperature and humidity extremes (Free format field to describe temperature and humidity stress in relation to housing conditions)						
23.2	Tolerance of industrial floor pen housing (Free format field to describe reaction of stock to intensive management conditions in industrial floor housing)						
23.3	Tolerance of industrial cage housing (Free format field to describe reaction of stock to intensive management						

			Value	SE	Range
conditions in industrial cage housing)					
24.	Genetic parameters		-	-	-
	24.1	Heritability	-	-	-
		24.1.1 trait 1	-	-	-
		24.1.n trait n	-	-	-
	24.2	Repeatability	-	-	-
		24.2.1 trait 1	-	-	-
		24.2.2 trait n	-	-	-
	24.3	Genetic correlation	-	-	-
		24.3.1 between and	-	-	-
		24.3.n between and	-	-	-
	24.4	Other genetic parameters (Free format field)			
	24.5	Inbreeding coefficient (Free format field)			
25.	Cytogenetics (Free format field)				
26.	Inherited abnormalities (Free format field)				
27.	Resistance to infectious diseases and parasites (Free format field; specify comparative incidence and/or mortality)				

DOMESTIC DUCK DESCRIPTORS

MASTER RECORD

1. Breed name
2. Breed name synonyms
3. Strains within breed
4. General information and breed description
 - 4.1 Country and population data
 - 4.1.1 (country name 1) (Give date of census or estimate)
 - 4.1.1.1 population size

- 4.1.1.2 census data (Categories 4.1.1.2 to 4.1.1.4 are for indicating by "Y" the type of population data)
- 4.1.1.3 estimated value
- 4.1.1.4 unspecified
- 4.1.1.5 annual population trend +%; -%; unknown
- 4.1.1.6 flock sizes
- government farm
 - mean
 - range
 - distribution %
 - 1-10 birds
 - 11-50
 - 51-100
 - 101-200
 - > 200
 - commercial farm
 - mean
 - range
 - distribution %
 - 1-10 birds
 - 11-50
 - 51-100
 - 101-200
 - > 200
 - village farm
 - mean
 - range
 - distribution %
 - 1-10 birds
 - 11-50
 - 51-100
 - 101-200
 - > 200
 - communally owned

		mean	
		range	
		distribution	%
		1-10 birds	
		11-50	
		51-100	
		101-200	
		> 200v	
	4.1.1.7	origin of breed	
		indigenous	
		exotic	
	4.1.2	(country name 2)	
	4.1.n	(country name n)	
4.2	Type of stock		
	4.2.1	indigenous	
	4.2.2	improved indigenous	
	4.2.3	middle-level purebred	
	4.2.4	industrial (trade-named) layer	
	4.2.5	industrial (trade-named) meat duck	
	4.2.6	other (specify)	
4.3	Use of stock		
	4.3.1	eggs	
	4.3.2	meat	
	4.3.3	meat and eggs	
	4.3.4	ornamental or fancy	
	4.3.5	other (specify)	
4.4	Origin if imported		
	4.4.1	North America	
	4.4.2	South America	
	4.4.3	Europe	
	4.4.4	U.S.S.R.	
	4.4.5	China	
	4.4.6	South-west Asia	
	4.4.7	South-east Asia	

- 4.4.8 Australasia
- 4.4.9 Africa
- 4.4.0 other (specify)
- 4.5 Feather characteristics
 - 4.5.1 feather morphology, distribution, growth rate (phenotypic frequency, %)
 - normal
 - other (specify)
- 4.6 Feather color and pattern (phenotypic frequency, %) (Fill in fixed format field, or write description in the free format description field 4.16, or do both)
 - self-white
 - self-black
 - self-blue
 - self-buff
 - mallard or wild-type
 - melanistic mallard
 - dilute mallard
 - pencilled
 - fawn and white
 - other (specify)
- 4.7 Skin characteristics
 - 4.7.1 shank and skin color (phenotypic frequency, %)
 - yel low
 - white
 - other (specify)
- 4.8 Skeletal variants
 - 4.8.1 skeleton (phenotypic frequency, %)
 - normal
 - crested
 - other (specify)
 - 4.8.2 body carriage (phenotypic frequency, %)
 - upright (runner)
 - horizontal
 - intermediate
 - other (specify)
- 4.9 Blood types
(Free format field, write word description)

- 4.10 Immunogenetics
(Free format field; write word description)
- 4.11 Cytogenetics
(Free format field; write word description)
- 4.12 Basic temperament
- docile
 - moderately tractable
 - wild
- 4.13 Heat tolerance
(Allocate grades 1-5; 1=high)
- 4.14 Resistance to disease and parasites, and tolerance of industrial housing conditions
(Free format field; write word description)
- 4.15 Conservation status
- 4.15.1 endangered
 - 4.15.2 vulnerable
 - 4.15.3 rare
 - 4.15.4 indeterminate
 - 4.15.5 out of danger
 - 4.15.6 insufficiently known
 - 4.15.7 not at risk (none of the above)

The first six of these categories are used by the International Union for the Conservation of Nature and Natural Resources. Their definitions, slightly amended, are as follows.

Endangered : Breeds in danger of extinction, and whose survival is unlikely if the causal factors continue operating.

Vulnerable : Breeds likely to move into the Endangered category in the near future if the causal factors continue operating.

Rare: Breeds with small populations that are not at present Endangered or Vulnerable, but are at risk.

Indeterminate : Breeds known to be Endangered, Rare or Vulnerable, but where there is not enough information to say which of the three categories is appropriate.

Out of Danger : Breeds formerly included in one of the above categories, but which are now considered relatively secure because effective conservation measures have been taken or the previous threat to their survival has been removed.

Insufficiently Known: Breeds that are suspected but not definitely known to belong to any of the above categories, because of lack of information.

- 4.16 Free format breed description field (A description of breed characteristics may be

entered here instead of in the fixed fields of sections 4.5 to 4.14, or material may be added to supplement the fixed fields)

5. Master record prepared by:
 - 5.1 Name:
 - 5.2 Title: (Dr., Mr., Miss, etc.)
 - 5.3 Address:
 - 5.4 Affiliation: (Organization, Company, Consultant, etc.)
 - 5.5 Date of preparation:
6. Master record updating or editing
 - 6.1 First amendment by:
 - 6.1.1 Name:
 - 6.1.2 Title: (Dr., Mr., Miss, etc.)
 - 6.1.3 Address:
 - 6.1.4 Affiliation: (Organization, Company, Consultant, etc.)
 - 6.1.5 Date of preparation:
 - 6.n Nth amendment by:
 - 6.n.1 Name:
 - 6.n.2 Title: (Dr., Mr., Miss, etc.)
 - 6.n.3 Address:
 - 6.n.4 Affiliation: (Organization, Company, Consultant, etc.)
 - 6.n.5 Date of preparation:

SLAVE RECORD

1. Breed name of MASTER record
2. Breed/ crossbred type of SLAVE record (Give exact composition if possible, eg. 50% White Pekin, 50% indigenous)
3. Strain (or distinct within-breed type)
4. Period of data

	year	month	day	(eg. 1982:05:14)
From				
To				
5. Data form prepared by:
 - 5.1 Name:
 - 5.2 Title: (Dr., Mr., Miss, etc.)
 - 5.3 Address:
 - 5.4 Affiliation: (Organization, Company, Consultant, etc.)

- 5.5 Date of preparation:
6. Bibliographical reference of source document (Pointer to the reference stored in the bibliographical file)
 7. Data type and analysis
 - 7.1 Data
 - 7.1.1 unadjusted data
 - 7.1.2 data adjusted for environmental or other factors*
 - 7.1.3 survey data
* (adjusted by the author of the original paper or document)
 - 7.2 Treatment of data
 - 7.2.1 descriptive
 - 7.2.2 analytical
 - 7.2.3 none
 8. Reliability code (Grade data subjectively on a scale of 1 to 5; 1=highly reliable, 5=low reliability)
 9. Country (in which data were recorded or experiment carried out, etc.)
 - 9.1 Country subdivision(s) (province, county, district, etc.)
 10. Terrestrial environment
 - 10.1 Tropical rainforest
 - 10.2 Tropical deciduous forest
 - 10.3 Tropical scrub forest
 - 10.4 Tropical savannah
 - 10.5 Desert
 - 10.6 Mediterranean woodland and scrub
 - 10.7 Middle latitude grassland
 - 10.7.1 highland grass
 - 10.7.1 moorland
 - 10.7.1 marshland
 - 10.8 Middle latitude deciduous forest
 - 10.9 Coniferous forest
 - 10.10 Tundra
 - 10.11 Free format terrestrial environment field (Include information on problems associated with vegetation, eg. toxic plants)
 11. Elevation and topography

- 11.1 Elevation
 - mean
 - range
- 11.2 Topography (Free format field. The description should include the following items, when information on them is available: roughness of terrain, slope; nature of surface (rocky, sandy, stony, etc.); surface drainage (poor, seasonally wet, well-drained, etc.).)
- 12. Climate
 - 12.1 Rainfall (mm)
 - 1 2.1.1 annual precipitation
 - mean
 - range
 - 12.1.2 seasonality
 - 12.1.2.1 non-seasonal
 - 12.1.2.2 seasonal (input as eg. 05-07, meaning May to July)
 - 12.1.3 free format rainfall data
 - 12.2 Temperature (degrees C)
 - 12.2.1 average annual temperature
 - mean of several years
 - range of several years
 - 12.2.2 maximum temperature in year
 - mean maximum of several years
 - range of several years
 - month(s) of maximum temperature
 - 12.2.3 minimum temperature in year
 - mean minimum of. several years
 - range of several years
 - month(s) of minimum temperature
 - 12.2.4 free format temperature data

- 12.3 Relative humidity (RH)
 - 12.3.1 average annual RH
 - mean of several years
 - range of several years
 - 12.3.2 maximum RH in year
 - mean maximum of several years
 - range of several years
 - month(s) of maximum RH
 - 12.3.3 minimum RH in year
 - mean minimum of several years
 - range of several years
 - month(s) of minimum RH
 - 12.3.4 free format RH data
- 13. Socio-management system
 - 13.1 Indigenous stock, extensive management
 - 13.2 Indigenous stock, intensive management
 - 13.3 Middle-level stock, extensive management
 - 13.4 Middle-level stock, intensive management
 - 13.5 Industrial stock, extensive management
 - 13.6 Industrial stock, intensive management
 - 13.7 Free format field for socio-management system
- 14. Type of farm
 - 14.1 Peasant agriculture
 - 14.2 Breeding centre
 - 14.3 Commercial production unit
 - 14.4 Experiment station
 - 14.5 Field experiment
 - 14.6 Multiplication unit
 - 14.7 Other (specify)
 - 14.8 Free format field for farm type
- 15. Degree of management supervision
 - 15.1 Advisory services
 - 15.2 Resident professional supervision
 - 15.3 Supervision by scientific staff of investigation project

- 15.4 None
- 16. Mating method and incubation method
 - 16.1 Mating method
 - 16.1.1 uncontrolled non-seasonal natural mating
 - 16.1.2 uncontrolled seasonal natural mating
 - 16.1.3 controlled natural mating
 - 16.1.4 artificial insemination
 - 16.1.5 other (specify)
 - 16.2 Incubation method
 - 16.2.1 natural incubation
 - 16.2.2 artificial still-air incubation
 - 16.2.3 artificial forced-air incubation
 - 16.2.4 other (specify)
- 17. Flock size
 - 17.1 Number of breeding males
 - mean
 - range
 - 17.2 Number of breeding females
 - mean
 - range
 - 17.3 Number of breeding replacement males
 - mean
 - range
 - 17.4 Number of breeding replacement females
 - mean
 - range
 - 17.5 Number of females for egg production
 - mean
 - range

- 17.6 Number of birds for meat production
- 17.6.1 males
- mean
- range
- 17.6.2 females
- mean
- range
- 17.6.3 mixed
- mean
- range
- 18 Nutrition
- 18.1 Nutritional management
- 18.1.1 scavenging
- 18.1.2 scavenging with supplemental feeding
- 18.1.3 free-ranging
- 18.1.4 free-ranging with supplemental feeding
- 18.1.5 full-feeding with local feeds
- 18.1.6 full-feeding with manufactured concentrate & local feeds
- 18.1.7 full-feeding with complete manufactured feeds
- 18.2 Free format field for scavenging, and scavenging with supplemental feeding (estimate composition of scavenging diet; estimate composition of supplemental feed and quantities provided)
- 18.3 Free format field for free-ranging, and free-ranging with supplemental feeding (estimate composition and intake of free-ranging diet; estimate composition of supplemental feed and quantities provided)
- 18.4 Free format field for full-feeding with local feeds (estimate composition of full-feeding diet, specifying ingredients; estimate composition and quantities (kg/bird) for brooding, rearing, and adult periods)
- 18.5 Free format field for full-feeding with manufactured concentrate and local feeds (give formulation for concentrate used in brooding, rearing, and adult periods; estimate composition of local feeds, specifying ingredients; estimate quantities of concentrate plus local feeds (kg/bird) for brooding, rearing, and adult periods)
- 18.6 Free format field for full-feeding with complete manufactured feeds (give formulations and quantities (kg/bird) of complete manufactured feeds in brooding, rearing, and adult periods)
19. Housing and photoperiod

- 19.1 Housing
- 19.1.1 type of housing
- none
 - shelter, unconfined
 - shelter, confined at night
 - confinement housing, litter floor
 - confinement housing, slat or wire floor
 - confinement housing, litter plus slat/wire floor
 - confinement housing, cage/battery
- 19.1.2 free format field to record floor or cage space/bird, feeding space, watering space, nesting space/bird
- 19.2 Photoperiod
- 19.2.1 photoperiod provided
- natural daylength
 - artificial daylength
- 19.2.2 free format field to record daylength manipulation and control during brooding, rearing, adult, and breeding periods
20. Diseases and parasites, and tolerance of housing conditions (Free format field for noting any diseases prevalent at the time that performance data were recorded, and for noting any peculiarities in response to housing conditions)
21. Measures against diseases, parasites, and undesirable behaviors
- 21.1 Vaccination and immunization(Free format field to describe treatments)
 - 21.2 Curative medication(Free format field to describe treatments)
 - 21.3 Preventative medication(Free format field to describe treatments)
 - 21.4 Behavior modification(Free format field to describe treatments)
22. Performance
- 22.1 Egg production characteristics
- 22.1.1 egg production and age
- | | N | Mean | SD | Range |
|------------------------------|---|------|----|-------|
| age at first egg, days | - | - | - | - |
| age at 50% production, days | - | - | - | - |
| age at peak production, days | - | - | - | - |
| age at culling, days | - | - | - | - |
- 22.1.2 egg numbers
- | | N | Mean | SD | Range |
|--|---|------|----|-------|
| | | | | |

clutch length, days	-	-	-	-
hen-day production, 0-500 days	-	-	-	-
hen-housed production, 0-500 days	-	-	-	-
survivor production, 0-500 days	-	-	-	-
hen-day production, n-n days	-	-	-	-
hen-housed production, n-n days	-	-	-	-
survivor production, n-n days	-	-	-	-
22.1.3 egg size	N	Mean	SD	Range
egg size, 40 weeks of age, gm	-	-	-	-
egg size, n weeks of age, gm	-	-	-	-
22.1.4 egg shape index	N	Mean	SD	Range
length (mm) x breadth (mm)/100	-	-	-	-
22.1.5 shell color				
				cream
				green
				other (specify)
22.1.6 shell quality	N	Mean	SD	Range
specific gravity, 40 weeks of age	-	-	-	-
specific gravity, n weeks of age	-	-	-	-
22.1.7 other egg characteristics (free format field)				
22.1.8 feed utilization	N	Mean	SD	Range
kg feed / kg eggs	-	-	-	-
kg feed / dozen eggs	-	-	-	-
22.2 Reproduction characteristics				
22.2.1 broodiness				
				usual
				sometimes
				rare
				other (specify)
22.2.2 fertility and hatchability	N	Mean	SD	Range

	fertility from natural mating, %	-	-	-	-
	fertility from A.I., %	-	-	-	-
	hatch of fertile eggs, %	-	-	-	-
	hatch of total eggs set, natural mating, %	-	-	-	-
	hatch of total eggs set, A.I., %	-	-	-	-
22.2.3	domestic male x muscovy female	N	Mean	SD	Range
	fertility from natural mating, %	-	-	-	-
	fertility from A.I., %	-	-	-	-
	hatch of fertile eggs, %	-	-	-	-
	hatch of total eggs set, natural mating, %	-	-	-	-
	hatch of total eggs set, A.I., %	-	-	-	-
22.2.4	muscovy male x domestic female	N	Mean	SD	Range
	fertility from natural mating, %	-	-	-	-
	fertility from A.I., %	-	-	-	-
	hatch of fertile eggs, %	-	-	-	-
	hatch of total eggs set, natural mating, %	-	-	-	-
	hatch of total eggs set, A.I., %	-	-	-	-
22.3	Growth characteristics				
22.3.1	growth rate	N	Mean	SD	Range
	body wt at hatching, gm, males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
	body wt at 8 wks, gm, males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
	body wt at 12 wks, gm, males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
	body wt at 16 wks, gm, males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
	body wt at 20 wks, gm, males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-

body wt at 32 wks, gm,	males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
body wt at 72 wks, gm,	males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
body wt at n wks, gm,	males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
22.3.2 body proportions		N	Mean	SD	Range

keel length at 8 wks, mm,	males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
keel length at 12 wks, mm,	males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
keel length at 20 wks, mm,	males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
keel length at n wks, mm,	males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
shank length at 8 wks,mm,	males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
shank length at 12 wks,mm,	males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
shank length at 20 wks,mm,	males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
shank length at n wks,mm,	males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
breast angle at 8 wks,deg,	males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
breast angle at 12 wks,deg.	males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
breast angle at 20 wks,deg,	males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
breast angle at n wks,deg,	males	-	-	-	-
	females	-	-	-	-

22.3.4 feed utilization		N	Mean	SD	Range
kg feed/kg gain, 0-8 wks,	males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
kg feed/kg gain, 8-12 wks,	males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
kg feed/kg gain, 8-20 wks,	males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
kg feed/kg gain, n-n wks,	males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
22.3.5 feather yield		N	Mean	SD	Range
down feathers / market duckling, n wks, gm		-	-	-	-
total feathers / market duckling, n wks, gm		-	-	-	-
down feathers / kg market duckling, n wks, gm		-	-	-	-
total feathers / kg market duckling, n wks, gm		-	-	-	-
down feathers / adult duck, n wks, gm		-	-	-	-
total feathers / adult duck, n wks, gm		-	-	-	-
down feathers / kg adult duck, n wks, gm		-	-	-	-
total feathers / kg adult duck, n wks, gm		-	-	-	-
22.4	Post-hatching mortality	N	Mean	SD	Range

mortality, 0-8 wks, %,	males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
mortality, 8-12 wks, %,	males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
mortality, 12-20 wks, %,	males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
mortality, 20-72 wks, %,	males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
mortality, n-n wks, % ,	males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-

22.5 Free format field to record performance characteristics (egg production, reproduction, growth, post-hatching mortality) not specified in 22.1 to 22.4

23. Physiology and stress tolerance

23.1 Tolerance of temperature and humidity extremes (Free format field to describe temperature and humidity stress in relation to housing conditions)

23.2 Tolerance of industrial floor pen housing(Free format field to describe reaction of stock to intensive management conditions in industrial floor housing)

23.3 Tolerance of industrial cage housing(Free format field to describe reaction of stock to intensive management conditions in industrial cage housing)

24. Genetic parameters

24.1 Heritability Value SE Range

24.1.1 trait 1 - - -

....

....

....

24. 1.n trait n	-	-	-
24.2 Repeatability			
24.2.1 trait 1	-	-	-
		
		
		
24.2.n trait n	-	-	-
24.3 Genetic correlation			
24.3.1 between and	-	-	-
		
		
		
24.3.n between and	-	-	-
24.4 Other genetic parameters (Free format field)			
24.5 Inbreeding coefficient (Free format field)			
25. Cytogenetics (Free format field)			
26. Inherited abnormalities (Free format field)			
27. Resistance to infectious diseases and parasites (Free format field; specify comparative incidence and/or mortality)			

MUSCOVY DUCK DESCRIPTORS

MASTER RECORD

1. Breed name
2. Breed name synonyms
3. Strains within breed
4. General information and breed description
 - 4.1 Country and population data
 - 4.1.1 (country name 1) (Give date of census or estimate)
 - 4.1.1.1 population size
 - 4.1.1.2 census data (Categories 4.1.1.2 to 4.1.1.4 are for indicating by "Y" the

4.1.1.3 estimated value (type of population data)

4.1.1.4 unspecified

4.1.1.5 annual population trend

+%; -%; unknown

4.1.1.6 flock sizes

government farm

mean

range

distribution %

1-10 birds

11-50

51-100

101-200

> 200

commercial farm

mean

range

distribution %

1-10 birds

11-50

51-100

101-200

> 200

village farm

mean

range

distribution

1-10 birds

11-50

51-100

101-200

> 200

communally owned

mean

range

distribution

1-10 birds

11-50

51-100
101-200
> 200

4.1.1.7 origin of breed

indigenous
exotic

- 4.1.2 (country name 2)
.....
.....
- 4.1.n (country name n)
.....
.....
- 4.2 Type of stock
- 4.2.1 wild
 - 4.2.2 feral
 - 4.2.3 indigenous
 - 4.2.4 improved indigenous
 - 4.2.5 middle-level purebred
 - 4.2.6 industrial (trade-named)
 - 4.2.7 other (specify)
- 4.3 Use of stock
- 4.3.1 eggs
 - 4.3.2 meat
 - 4.3.3 meat and eggs
 - 4.3.4 ornamental or fancy
 - 4.3.5 other (specify)
- 4.4 Origin if imported
- 4.4.1 North America
 - 4.4.2 South America
 - 4.4.3 Europe
 - 4.4.4 U.S.S.R
 - 4.4.5 China
 - 4.4.6 South-west Asia
 - 4.4.7 South-east Asia
 - 4.4.8 Australasia
 - 4.4.9 Africa
 - 4.4.0 other (specify)
- 4.5 Feather characteristics

- 4.5.1 feather morphology, distribution, growth rate
(phenotypic frequency, %)
 - normal
 - other (specify)
- 4.6 Feather color and pattern (phenotypic frequency, %)
(Fill in fixed format field, or write description in the free format description field 4.16, or do both)
 - self-white
 - self-black
 - self-blue
 - self-brown
 - white-headed black
 - variegated
 - other (specify)
- 4.7 Skin characteristics
 - 4.7.1 shank and skin color (phenotypic frequency, %)
 - white
 - other (specify)
- 4.8 Skeletal variants (phenotypic frequency, %)
 - normal
 - other (specify)
- 4.9 Blood types
(Free format field, write word description)
- 4.10 Immunogenetics
(Free format field, write word description)
- 4.11 Cytogenetics
(Free format field; write word description)
- 4.12 Basic temperament
 - docile
 - moderately tractable
 - wild
- 4.13 Heat tolerance
(Allocate grades 1-5; 1=high)
- 4.14 Resistance to disease and parasites, and tolerance of
industrial housing conditions
(Free format field; write word description)
- 4.15 Conservation status
 - 4.15.1 endangered
 - 4.15.2 vulnerable
 - 4.15.3 rare

- 4.15.4 indeterminate
- 4.15.5 out of danger
- 4.15.6 insufficiently known
- 4.15.7 not at risk (none of the above)

The first six of these categories are used by the International Union for the Conservation of Nature and Natural Resources. Their definitions, slightly amended, are as follows.

Endangered : Breeds in danger of extinction, and whose survival is unlikely if the causal factors continue operating.

Vulnerable : Breeds likely to move into the Endangered category in the near future if the causal factors continue operating.

Rare: Breeds with small populations that are not at present Endangered or Vulnerable, but are at risk.

Indeterminate : Breeds known to be Endangered, Rare or Vulnerable, but where there is not enough information to say which of the three categories is appropriate.

Out of Danger : Breeds formerly included in one of the above categories, but which are now considered relatively secure because effective conservation measures have been taken or the previous threat to their survival has been removed.

Insufficiently Known: Breeds that are suspected but not definitely known to belong to any of the above categories, because of lack of information.

Free format breed description field

- 4.16 (A description of breed characteristics may be entered here instead of in the fixed fields of sections 4.5 to 4.14, or material may be added to supplement the fixed fields)

5. Master record prepared by:

- 5.1 Name:
- 5.2 Title: (Dr., Mr., Miss, etc.)
- 5.3 Address:
- 5.4 Affiliation: (Organisation, Company, Consultant, etc.)
- 5.5 Date of preparation:

6. Master record updating or editing

- 6.1 First amendment by:
 - 6.1.1 Name
 - 6.1.2 Title:
 - 6.1.3 Address :
 - 6.1.4 Affiliation :
 - 6.1.5 Date of amendment

6.n Nth amendment by:

- 6.n.1 Name:
- 6.n.2 Title :
- 6.n.3 Address :
- 6.n.4 Affiliation:

6.n.5 Date of amendment:

SLAVE RECORD

1. Breed name of MASTER record
Breed/crossbred type of SLAVE record
2. (Give exact composition if possible, eg. 50% indigenous muscovy male x 50% indigenous domestic duck female)
3. Strain (or distinct within-breed type)
4. Period of data

	year	month	day	
				(eg. 1982:05:14)

From
To
5. Data form prepared by:
 - 5.1 Name:
 - 5.2 Title: (Dr., Mr., Miss, etc.)
 - 5.3 Address:
 - 5.4 Affiliation: (Organization, Company, Consultant, etc.)
 - 5.5 Date of preparation:
6. Bibliographical reference of source document
(Pointer to the reference stored in the bibliographical file)
7. Data type and analysis
 - 7.1 Data
 - 7.1.1 unadjusted data
 - 7.1.2 data adjusted for environmental or other factors*
 - 7.1.3 survey data
*(adjusted by the author of the original paper or document)
 - 7.2 Treatment of data
 - 7.2.1 descriptive
 - 7.2.2 analytical
 - 7.2.3 none
8. Reliability code
(Grade data subjectively on a scale of 1 to 5; 1=highly reliable, 5=low reliability)
9. Country (in which data were recorded or experiment carried out, etc.)
 - 9.1 Country subdivision(s) (province, county, district, etc.)
10. Terrestrial environment
 - 10.1 Tropical rainforest

- 10.2 Tropical deciduous forest
- 10.3 Tropical scrub forest
- 10.4 Tropical savannah
- 10.5 Desert
- 10.6 Mediterranean woodland and scrub
- 10.7 Middle latitude grassland
 - 10.7.1 highland grass
 - 10.7.2 moorland
 - 10.7.3 marshland
- 10.8 Middle latitude deciduous forest
- 10.9 Coniferous forest
- 10.10 Tundra
- 10.11 Free format terrestrial environment field
(Include information on problems associated with vegetation, eg. toxic plants)
- 11. Elevation and topography
 - 11.1 Elevation
 - mean
 - range
 - Topography
 - 11.2 (Free format field. The description should include the following items, when information on them is available: roughness of terrain, slope; nature of surface (rocky, sandy, stony, etc.); surface drainage (poor, seasonally wet, well-drained, etc..))
- 12. Climate
 - 12.1 Rainfall (mm)
 - 12.1.1 annual precipitation
 - mean
 - range
 - 12.1.2 seasonality
 - 12.1.2.1 non-seasonal
 - 12.1.2.2 seasonal
(input as eg. 05-07, meaning May to July)
 - 12.1.3 free format rainfall data
 - 12.2 Temperature (degrees C)
 - 12.2.1 average annual temperature
 - mean of several years
 - range of several years
 - 12.2.2 maximum temperature in year

- mean maximum of several years
 - range of several years
 - month(s) of maximum temperature
 - 12.2.3 minimum temperature in year
 - mean minimum of several years
 - range of several years
 - month(s) of minimum temperature
 - 12.2.4 free format temperature data
- 12.3 Relative humidity (RH)
 - 12.3.1 average annual RH
 - mean of several years
 - range of several years
 - 12.3.2 maximum RH in year
 - mean maximum of several years
 - range of several years
 - month(s) of maximum RH
 - 12.3.3 minimum RH in year
 - mean minimum of several years
 - range of several years
 - month(s) of minimum RH
 - 12.3.4 free format RH data
- 13. Socio-management system
 - 13.1 Indigenous stock, extensive management
 - 13.2 Indigenous stock, intensive management
 - 13.3 Middle-level stock, extensive management
 - 13.4 Middle-level stock, intensive management
 - 13.5 Industrial stock, extensive management
 - 13.6 Industrial stock, intensive management
 - 13.7 Free format field for socio-management system
- 14. Type of farm
 - 14.1 Peasant agriculture
 - 14.2 Breeding centre
 - 14.3 Commercial production unit
 - 14.4 Experiment station
 - 14.5 Field experiment
 - 14.6 Multiplication unit

- 14.7 Other (specify)
- 14.8 Free format field for farm type
- 15. Degree of management supervision
 - 15.1 Advisory services
 - 15.2 Resident professional supervision
 - 15.3 Supervision by scientific staff of investigation project
 - 15.4 None
- 16. Mating method and incubation method
 - 16.1 Mating method
 - 16.1.1 uncontrolled non-seasonal natural mating
 - 16.1.2 uncontrolled seasonal natural mating
 - 16.1.3 controlled natural mating
 - 16.1.4 artificial insemination
 - 16.1.5 other (specify)
 - 16.2 Incubation method
 - 16.2.1 natural incubation
 - 16.2.2 artificial still-air incubation
 - 16.2.3 artificial forced-air incubation
 - 16.2.4 other (specify)
- 17. Flock size
 - 17.1 Number of breeding males
 - mean
 - range
 - 17.2 Number of breeding females
 - mean
 - range
 - 17.3 Number of breeding replacement males
 - mean
 - range
 - 17.4 Number of breeding replacement females
 - mean
 - range
 - 17.5 Number of females for egg production
 - mean
 - range
 - 17.6 Number of birds for meat production
 - 17.6.1 males

- mean
 - range
 - 17.6.2 females
 - mean
 - range
 - 17.6.3 mixed
 - mean
 - range
- 18. Nutrition
 - 18.1 Nutritional management
 - 18.1.1 scavenging
 - 18.1.2 scavenging with supplemental feeding
 - 18.1.3 free-ranging
 - 18.1.4 free-ranging with supplemental feeding
 - 18.1.5 full-feeding with local feeds
 - 18.1.6 full-feeding with manufactured concentrate & local feeds
 - 18.1.7 full-feeding with complete manufactured feeds
 - Free format field for scavenging, and scavenging with supplemental feeding (estimate composition of scavenging diet; estimate composition of supplemental feed and quantities provided)
 - 18.2
 - Free format field for free-ranging, and free-ranging with supplemental feeding (estimate composition and intake of free-ranging diet; estimate composition of supplemental feed and quantities provided)
 - 18.3
 - Free format field for full-feeding with local feeds
 - 18.4
 - (estimate composition of full-feeding diet, specifying ingredients; estimate composition and quantities (kg/bird) for brooding, rearing, and adult periods)
 - Free format field for full-feeding with manufactured concentrate and local feeds (give formulation for concentrate used in brooding, rearing, and adult periods; estimate composition of local feeds, specifying ingredients; estimate quantities of concentrate plus local feeds (kg/bird) for brooding, rearing, and adult periods)
 - 18.5
 - Free format field for full-feeding with complete manufactured feeds
 - 18.6
 - (give formulations and quantities (kg/bird) of complete manufactured feeds in brooding, rearing, and adult periods)
- 19. Housing and photoperiod
 - 19.1 Housing
 - 19.1.1 type of housing
 - none
 - shelter, unconfined
 - shelter, confined at night
 - confinement housing, litter floor

- confinement housing, slat or wire floor
 confinement housing, litter plus slat/wire floor
 confinement housing, cage/battery
- 19.1.2 free format field to record floor or cage space/bird, feeding space, watering space, nesting space/bird
- 19.2 Photoperiod
- 19.2.1 photoperiod provided
- natural daylength
 artificial daylength
- 19.2.2 free format field to record daylength manipulation and control during brooding, rearing, adult, and breeding periods
- Diseases and parasites, and tolerance of housing conditions
20. (Free format field for noting any diseases prevalent at the time that performance data were recorded, and for noting any peculiarities in response to housing conditions)
21. Measures against diseases, parasites, and undesirable behaviors
- 21.1 Vaccination and immunization
(Free format field to describe treatments)
- 21.2 Curative medication
(Free format field to describe treatments)
- 21.3 Preventative medication
(Free format field to describe treatments)
- 21.4 Behavior modification
(Free format field to describe treatments)
22. Performance
- 22.1 Egg production characteristics
- | 22.1.1 | egg production and age | N | Mean | SD | Range |
|--------|-----------------------------------|---|------|----|-------|
| | age at first egg, days | - | - | - | - |
| | age at 50% production, days | - | - | - | - |
| | age at peak production, days | - | - | - | - |
| | age at culling, days | - | - | - | - |
| 22.1.2 | egg numbers | N | Mean | SD | Range |
| | clutch length, days | - | - | - | - |
| | hen-day production, 0-500 days | - | - | - | - |
| | hen-housed production, 0-500 days | - | - | - | - |
| | survivor production, 0-500 days | - | - | - | - |
| | hen-day production, n-n days | - | - | - | - |
| | hen-housed production, n-n days | - | - | - | - |
| | survivor production, n-n days | - | - | - | - |

22.1.3	egg size	N	Mean	SD	Range
	egg size, 40 weeks of age, gm	-	-	-	-
	egg size, n weeks of age, gm	-	-	-	-
22.1.4	egg shape index	N	Mean	SD	Range
	length (mm) x breadth (mm)/100	-	-	-	-
22.1.5	shell color				
	cream				
	green				
	other (specify)				
22.1.6	shell quality	N	Mean	SD	Range
	specific gravity, 40 weeks of age	-	-	-	-
	specific gravity, n weeks of age	-	-	-	-
22.1.7	other egg characteristics (free format field)				
22.1.8	feed utilization	N	Mean	SD	Range
	kg feed / kg eggs	-	-	-	-
	kg feed / dozen eggs	-	-	-	-
22.2	Reproduction characteristics				
22.2.1	broodiness				
	usual				
	some times				
	rare				
	other (specify)				
22.2.2	fertility and hatch liability	N	Mean	SD	Range
	fertility from natural mating, %	-	-	-	-
	fertility from A.I., %	-	-	-	-
	hatch of fertile eggs, %	-	-	-	-
	hatch of total eggs set, natural mating, %	-	-	-	-
	hatch of total eggs set, A.I., %	-	-	-	-

		N	Mean	SD	Range
22.2.3	domestic male x muscovy female				
	fertility from natural mating, %	-	-	-	-
	fertility from A.I., %	-	-	-	-
	hatch of fertile eggs, %	-	-	-	-
	hatch of total eggs set, natural mating, %	-	-	-	-
	hatch of total eggs set, A.I., %	-	-	-	-
22.2.4	muscovy male x domestic female	N	Mean	SD	Range
	fertility from natural mating, %	-	-	-	-
	fertility from A.I., %	-	-	-	-
	hatch of fertile eggs, %	-	-	-	-
	hatch of total eggs set, natural mating, %	-	-	-	-
	hatch of total eggs set, A.I., %	-	-	-	-
22.3	Growth characteristics				
22.3.1	growth rate	N	Mean	SD	Range
	body wt at hatching, gm, males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
	body wt at 8 wks, gm, males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
	body wt at 12 wks, gm, males	-	-	-	-
	females	-	-	-	-

		mixed	-	-	-	-
	body wt at 16 wks, gm,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	body wt at 20 wks, gm,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	body wt at 32 wks, gm,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	body wt at 72 wks, gm,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	body wt at n wks, gm,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
22.3.2	body proportions		N	Mean	SD	Range
	keel length at 8 wks, mm,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	keel length at 12 wks, mm,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	keel length at 20 wks, mm,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	keel length at n wks, mm,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	shank length at 8 wks, mm,	males	-	-	-	-

		females	-	-	-	-
		mixed	-	-	-	-
	shank length at 12 wks, mm,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	shank length at 20 wks, mm,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	shank length at n wks, mm,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	breast angle at 8 wks, deg,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	breast angle at 12 wks, deg,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	breast angle at 20 wks, deg,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	breast angle at n wks,deg,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
22.3.3	carcass defects		N	Mean	SD	Range
	breast blisters, 8 wks, %,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	breast blisters, 12 wks, %,	males	-	-	-	-
		females	-	-	-	-

	mixed	-	-	-	-
breast blisters, n wks, %,	males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
crooked keels, 8 wks, %,	males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
crooked keels, 12 wks, %,	males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
crooked keels, n wks, %,	males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
other carcass defects (free format field)					
22.3.4		N	Mean	SD	Range
feed utilization					
kg feed/kg gain, 0-8 wks,	males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
kg feed/kg gain, 8-12 wks,	males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
kg feed/kg gain, 8-20 wks,	males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
kg feed/kg gain, n-n wks,	males	-	-	-	-
	females	-	-	-	-

		mixed	-	-	-
22.3.5			N	Mean	SD
	feather yield				Range
			-	-	-
	down feathers / market duckling, n wks, gm		-	-	-
			-	-	-
	total feathers / market duckling, n wks, gm		-	-	-
			-	-	-
	down feathers / kg market duckling, n wks, gm		-	-	-
			-	-	-
	total feathers / kg market duckling, n wks, gm		-	-	-
			-	-	-
	down feathers / adult duck, n wks, gm		-	-	-
			-	-	-
	total feathers / adult duck, n wks, gm		-	-	-
			-	-	-
	down feathers / kg adult duck, n wks, gm		-	-	-
			-	-	-
	total feathers / kg adult duck, n wks, gm		-	-	-
22.3.6			N	Mean	SD
	fatty liver yield				Range
			-	-	-
	flatty liver / market duckling, gm		-	-	-
			-	-	-
	fatty liver / kg market. duckling, gm		-	-	-
			-	-	-
	atty liver / adult duck, gm		-	-	-
			-	-	-
	fatty liver / kg adult duck, gm		-	-	-

22.4		N	Mean	SD	Range
Post-hatching mortality					
mortality, 0-8 wks, %,	males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
mortality, 8-12 wks, %,	males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
mortality, 12-20 wks, %,	males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
mortality, 20-72 wks, %,	males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
mortality, n-n wks, %,	males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
Free format field to record performance characteristics					
22.5 (egg production, reproduction, growth, post-hatching mortality) not specified in 22.1 to 22.4					
23. Physiology and stress tolerance					
Tolerance of temperature and humidity extremes					
23.1 (Free format field to describe temperature and humidity stress in relation to housing conditions)					
Tolerance of industrial floor pen housing					
23.2 (Free format field to describe reaction of stock to intensive management conditions in industrial floor housing)					
Tolerance of industrial cage housing					
23.3 (Free format field to describe reaction of stock to intensive management conditions in industrial cage housing)					
24. Genetic parameters					
24.1	Heritability		Value	SE	Range
24.1.1	trait 1	-	-	-	-

			
			
			
	24.1.n trait n	-	-	-
24.2	Repeatability			
	24.2.1 trait 1	-	-	-
			
			
			
	24.2.n trait n	-	-	-
2 4.3	Genetic correlation	Value	SE	Range
	24.3.1 between and	-	-	-
			
			
			
	24.3.n between and	-	-	-
24.4	Other genetic parameters (Free format field)			
24.5	Inbreeding coefficient (Free format field)			
25.	Cytogenetics (Free format field)			
26.	Inherited abnormalities (Free format field)			
27.	Resistance to infectious diseases and parasites (Free format field; specify comparative incidence and/or mortality)			

GOOSE DESCRIPTORS

MASTER RECORD

1. Breed name
2. Breed name synonyms
3. Strains within breed
4. General information and breed description

4.1 Country and population data

4.1.1 (country name 1) (Give date of census or estimate)

4.1.1.1 population size

4.1.1.2 census data (Categories 4.1.1.2 to 4.1.1.4 are for indicating by "Y"
the type of population data)

4.1.1.3 estimated value

4.1.1.4 unspecified

4.1.1.5 annual population trend
+%; -%; unknown

4.1.1.6 flock sizes

government farm

mean

range

distribution %

1-10 birds

11-50

51-100

101-200

> 200

commercial farm

mean

range

distribution %

1-10 birds

11-50

51-100

101-200

> 200

village farm

mean

range

distribution %

1-10 birds

11-50

51-100

101-200

> 200

communally owned

mean

range

distribution %

1-10 birds

11-50

51-100

101-200

> 200

4.1.1.7 origin of birds

indigenous

exotic

4.1.2 (country name 2)

....

....

4.1.n (country name n)

....

....

4.2 Type of stock

4.2.1 indigenous

4.2.2 improved indigenous

4.2.3 middle-level purebred

4.2.4 industrial (trade-named)

4.2.5 other (specify)

4.3 Use of stock.

4.3.1 eggs

4.3.2 meat including fatty livers

4.3.3 meat and eggs

4.3.4 feathers and down

4.3.5 weeding crops

4.3.6 guarding

4.3.7 ornamental or fancy

4.3.8 other (specify)

- 4.4 Origin if imported
 - 4.4.1 North America
 - 4.4.2 South America
 - 4.4.3 Europe
 - 4.4.4 U.S.S.R.
 - 4.4.5 China
 - 4.4.6 South-west Asia
 - 4.4.7 South-east Asia
 - 4.4.8 Australasia
 - 4.4.9 Africa
 - 4.4.0 other (specify)
- 4.5 Feather characteristics
 - 4.5.1 feather morphology, distribution, growth rate (phenotypic frequency, %)
 - normal
 - curly (Sebastopol)
 - other (specify)
- 4.6 Feather color and pattern (phenotypic frequency, %)
(Fill in fixed format field, or write description in the free format description field 4.16, or do both)
 - self-white
 - self-grey
 - self-buff
 - patterned brown
 - white male, grey female
 - skane (harlequin or spotted)
 - other (specify)
- 4.7 Skin characteristics
 - 4.7.1 shank and foot color (phenotypic frequency, %)
 - orange/pink
 - black
 - other (specify)
 - 4.7.2 beak color (phenotypic frequency, %)

- orange/pink
- black
- other (specify)
- 4.7.3 skin color (phenotypic frequency, %)
 - white
 - other (specify)
- 4.8 Skeletal variants (phenotypic frequency, %)
 - normal
 - crested
 - knob on forehead
 - other (specify)
- 4.9 Blood types
(Free format field, write word description)
- 4.10 Immunogenetics
(Free format field, write word description)
- 4.11 Cytogenetics
(Free format field; write word description)
- 4.12 Basic temperament
 - docile
 - moderately tractable
 - wild
- 4.13 Heat tolerance
(Allocate grades 1-5; 1=high)
- 4.14 Resistance to disease and parasites, and tolerance of industrial housing conditions
(Free format field; write word description)
- 4.15 Conservation status
 - 4.15.1 endangered
 - 4.15.2 vulnerable
 - 4.15.3 rare
 - 4.15.4 indeterminate
 - 4.15.5 out of danger
 - 4.15.6 insufficiently known
 - 4.15.7 not at risk (none of the above)

The first six of these categories are used by the International Union for the Conservation of Nature and Natural Resources. Their definitions, slightly amended, are as follows.

Endangered : Breeds in danger of extinction, and whose survival is unlikely if the causal factors continue operating.

Vulnerable : Breeds likely to move into the Endangered category in the near future if the

causal factors continue operating.

Rare: Breeds with small populations that are not at present Endangered or Vulnerable, but are at risk.

Indeterminate : Breeds known to be Endangered, Rare or Vulnerable, but where there is not enough information to say which of the three categories is appropriate.

Out of Danger : Breeds formerly included in one of the above categories, but which are now considered relatively secure because effective conservation measures have been taken or the previous threat to their survival has been removed.

Insufficiently Known : Breeds that are suspected but not definitely known to belong to any of the above categories, because of lack of information.

4.16 Free format breed description field

(A description of breed characteristics may be entered here instead of in the fixed fields of sections 4.5 to 4.14, or material may be added to supplement the fixed fields)

5. Master record prepared by:

5.1 Name:

5.2 Title: (Dr., Mr., Miss, etc.)

5.3 Address:

5.4 Affiliation: (Organization, Company, Consultant, etc.)

5.5 Date of preparation:

6. Master record updating or editing

6.1 First amendment by:

6.1.1 Name:

6.1.2 Title:

6.1.3 Address:

6.1.4 Affiliation:

6.1.5 Date of amendment:

.....

.....

.....

6.n Nth amendment by:

6.n.1 Name:

6.n.2 Title:

6.n.3 Address:

6.n.4 Affiliation:

6.n.5 Date of amendment:

GOOSE DESCRIPTORS

SLAVE RECORD

1. Breed name of MASTER record
2. Breed/crossbred type of SLAVE record
(Give exact composition if possible, eg. 50% White Chinese, 50% indigenous)
3. Strain (or distinct within-breed type)
4. Period of data

year	month	day	(eg. 1982:05:14)
From			
To			
5. Data form prepared by:
 - 5.1 Name:
 - 5.2 Title: (Dr., Mr., Miss, etc.)
 - 5.3 Address:
 - 5.4 Affiliation: (Organization, Company, Consultant, etc.)
 - 5.5 Date of preparation:
6. Bibliographical reference of source document
(Pointer to the reference stored in the bibliographical file)
7. Data type and analysis
 - 7.1 Data

7.1.1	unadjusted data
7.1.2	data adjusted for environmental or other factors *
7.1.3	survey data
	* (adjusted by the author of the original paper or document)
 - 7.2 Treatment of data

7.2.1	descriptive
7.2.2	analytical
7.2.3	none
8. Reliability code
(Grade data subjectively on a scale of 1 to 5; 1=highly reliable, 5=low reliability)
9. Country (in which data were recorded or experiment carried out, etc.)
 - 9.1 Country subdivision(s) (province, county, district, etc.)
10. Terrestrial environment
 - 10.1 Tropical rainforest

- 10.2 Tropical deciduous forest
- 10.3 Tropical scrub forest
- 10.4 Tropical savannah
- 10.5 Desert
- 10.6 Mediterranean woodland and scrub
- 10.7 Middle latitude grassland
 - 10.7.1 highland grass
 - 10.7.2 moorland
 - 10.7.3 marshland
- 10.8 Middle latitude deciduous forest
- 10.9 Coniferous forest
- 10.10 Tundra
- 10.11 Free format terrestrial environment field
(Include information on problems associated with vegetation, eg. toxic plants)
- 11. Elevation and topography
 - 11.1 Elevation
 - mean
 - range
 - 11.2 Topography
(Free format field. The description should include the following items, when information on them is available: roughness of terrain, slope; nature of surface (rocky, sandy, stony, etc.); surface drainage (poor, seasonally wet, well-drained, etc.) .)
- 12. Climate
 - 12.1 Rainfall (mm)
 - 12.1.1 annual precipitation
 - mean
 - range
 - 12.1.2 seasonality
 - 12.1.2.1 non-seasonal
 - 12.1.2.2 seasonal
(input as eg. 05-07, meaning May to July)
 - 12.1.3 free format rainfall data
 - 12.2 Temperature (degrees C)
 - 12.2.1 average annual temperature

- mean of several years
 - range of several years
 - 12.2.2 maximum temperature in year
 - mean maximum of several years
 - range of several years
 - month(s) of maximum temperature
 - 12.2.3 minimum temperature in year
 - mean minimum of several years
 - range of several years
 - month(s) of minimum temperature
 - 12.2.4 free format temperature data
- 12.3 Relative humidity (RH)
 - 12.3.1 average annual RH
 - mean of several years
 - range of several years
 - 12.3.2 maximum RH in year
 - mean maximum of several years
 - range of several years
 - month(s) of maximum RH
 - 12.3.3 minimum RH in year
 - mean minimum of several years
 - range of several years
 - month(s) of maximum RH
 - 12.3.4 free format RH data
- 13. Socio-management system
 - 13.1 Indigenous stock, extensive management
 - 13.2 Indigenous stock, intensive management
 - 13.3 Middle-level stock, extensive management
 - 13.4 Middle-level stock, intensive management
 - 13.5 Industrial stock, extensive management
 - 13.6 Industrial stock, intensive management
 - 13.7 Free format field for socio-management system

14. Type of farm
 - 14.1 Peasant agriculture
 - 14.2 Breeding centre
 - 14.3 Commercial production unit
 - 14.4 Experiment station
 - 14.5 Field experiment
 - 14.6 Multiplication unit
 - 14.7 Other (specify)
 - 14.8 Free format field for farm type
15. Degree of management supervision
 - 15.1 Advisory services
 - 15.2 Resident professional supervision
 - 15.3 Supervision by scientific staff of investigation project
 - 15.4 None
16. Mating method and incubation method
 - 16.1 Mating method
 - 16.1.1 uncontrolled non-seasonal natural mating
 - 16.1.2 uncontrolled seasonal natural mating
 - 16.1.3 controlled natural mating
 - 16.1.4 artificial insemination
 - 16.1.5 other (specify)
 - 16.2 Incubation method
 - 16.2.1 natural incubation
 - 16.2.2 artificial still-air incubation
 - 16.2.3 artificial forced-air incubation
 - 16.2.4 other (specify)
17. Flock size
 - 17.1 Number of breeding males
 - mean
 - range
 - 17.2 Number of breeding females
 - mean

- | | | | |
|------|--|---------|-------|
| | | range | |
| 17.3 | Number of breeding replacement males | mean | |
| | | range | |
| 17.4 | Number of breeding replacement females | mean | |
| | | range | |
| 17.5 | Number of females for egg production | mean | |
| | | range | |
| 17.6 | Number of birds for meat production | | |
| | 17.6.1 | males | mean |
| | | | range |
| | 17.6.2 | females | mean |
| | | | range |
| | 17.6.3 | mixed | mean |
| | | | range |
18. Nutrition
- 18.1 Nutritional management
- | | |
|--------|--|
| 18.1.1 | scavenging |
| 18.1.2 | scavenging with supplemental feeding |
| 18.1.3 | free-ranging |
| 18.1.4 | free-ranging with supplemental feeding |
| 18.1.5 | full-feeding with local feeds |
| 18.1.6 | full-feeding with manufactured concentrate & local feeds |
| 18.1.7 | full-feeding with complete manufactured feeds |
- 18.2 Free format field for scavenging, and scavenging with supplemental feeding (estimate composition of scavenging diet; estimate composition of supplemental feed and quantities provided)
- 18.3 Free format field for free-ranging, and free-ranging with supplemental feeding (estimate composition and intake of free-ranging diet; estimate composition of supplemental feed

and quantities provided)

- 18.4 Free format field for full-feeding with local feeds
(estimate composition of full-feeding diet, specifying ingredients; estimate composition and quantities (kg/bird) for brooding, rearing, and adult periods)
- 18.5 Free format field for full-feeding with manufactured concentrate and local feeds (give formulation for concentrate used in brooding, rearing, and adult periods; estimate composition of local feeds, specifying ingredients; estimate quantities of concentrate plus local feeds (kg/bird) for brooding, rearing, and adult periods)
- 18.6 Free format field for full-feeding with complete manufactured feeds (give formulations and quantities (kg/bird) of complete manufactured feeds in brooding, rearing, and adult periods)
19. Housing and photoperiod
- 19.1 Housing
- 19.1.1 type of housing
- none
shelter, unconfined

shelter, confined at night
confinement housing, litter floor
confinement housing, slat or wire floor
confinement housing, litter plus slat/wire floor
confinement housing, cage/battery
- 19.1.2 free format field to record floor or cage space/bird, feeding space, watering space, nesting space/bird
- 19.2 Photoperiod
- 19.2.1 photoperiod provided
- natural daylength
artificial daylength
- 19.2.2 free format field to record daylength manipulation and control during brooding, rearing, adult, and breeding periods
20. Diseases and parasites, and tolerance of housing conditions
(Free format field for noting any diseases prevalent at the time that performance data were recorded, and for noting any peculiarities in response to housing conditions)

21. Measures against diseases, parasites, and undesirable behaviors

21.1 Vaccination and immunization
(Free format field to describe treatments)

21.2 Curative medication
(Free format field to describe treatments)

21.3 Preventative medication
(Free format field to describe treatments)

21.4 Behavior modification
(Free format field to describe treatments)

22. Performance

22.1 Egg production characteristics N Mean SD Range

22.1.1	egg production and age				
	age at 1st egg, 1st year, days	-	-	-	-
	age at 1st egg, nth year, days	-	-	-	-
	duration of laying, 1st year, days	-	-	-	-
	duration of laying, nth year, days	-	-	-	-
	age at culling dams, years	-	-	-	-
	age at culling sires, years	-	-	-	-

22.1.2	egg numbers	N	Mean	SD	Range
	eggs, 1st year of lay, no.	-	-	-	-
	eggs, 2nd year of lay, no.	-	-	-	-
	eggs, 3rd year of lay, no.	-	-	-	-
	eggs, 4th year of lay, no.	-	-	-	-
	eggs, 5th year of lay, no.	-	-	-	-
	eggs, 6th year of lay, no.	-	-	-	-
	eggs, nth year of lay, no.	-	-	-	-

22.1.3	egg size	N	Mean	SD	Range
	egg size, 1st year of lay, gm.	-	-	-	-

	egg size, 2nd year of lay, gm.	-	-	-	-
	egg size, 3rd year of lay, gm.	-	-	-	-
	egg size, nth year of lay, gm.	-	-	-	-
22.1.4	egg shape index	N	Mean	SD	Range
	length (mm) x breadth (mm)/100	-	-	-	-
22.1.5	shell color				
	white				
	other (specify)				
22.1.6	shell quality	N	Mean	SD	Range
	specific gravity, 1st year of lay	-	-	-	-
	specific gravity, 2nd year of lay	-	-	-	-
	specific gravity, 3rd year of lay	-	-	-	-
	specific gravity, nth year of lay	-	-	-	-
22.1.7	other egg characteristics (free format field)				
22.1.8	feed utilization	N	Mean	SD	Range
	kg feed / kg eggs	-	-	-	-
	kg feed / dozen eggs	-	-	-	-
22.2	Reproduction characteristics				
22.2.1	broodiness				
	usual				
	sometimes				
	rare				
	other (specify)				
22.2.2	fertility and hatchability	N	Mean	SD	Range
	fertility, 1st year of lay, %	-	-	-	-
	hatch of fertile eggs, 1st yr, %	-	-	-	-
	hatch of total eggs set, 1st yr, %	-	-	-	-

fertility, 2nd year of lay, %	-	-	-	-
hatch of fertile eggs, 2nd yr, %	-	-	-	-
hatch of total eggs set, 2nd yr, %	-	-	-	-
fertility, 3rd year of lay, %	-	-	-	-
hatch of fertile eggs, 3rd yr, %	-	-	-	-
hatch of total eggs set, 3rd yr, %	-	-	-	-
fertility, nth year of lay, %	-	-	-	-
hatch of fertile eggs, nth yr, %	-	-	-	-
hatch of total eggs set, nth yr, %	-	-	-	-

22.3 Growth characteristics

22.3.1

growth rate		N	Mean	SD	Range
body wt at hatching, gm, males		-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
body wt at 8 wks, gm, males		-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
body wt at 14 wks, gm, males		-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
body wt at 20 wks, gm, males		-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
adult body wt, gm, males		-	-	-	-

		females	-	-	-	-
		mixed	-	-	-	-
	body wt at n wks, gm,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
22.3.2	body proportions		N	Mean	SD	Range
	keel length at 8 wks, mm,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	keel length at 14 wks, mm,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	keel length at 20 wks, mm,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	keel length at n wks, mm,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	shank length at 8 wks,mm,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	shank length at 14 wks,mm,	males	-	-	-	-
		females	-	-	-	-

		mixed	-	-	-	-
	shank length at 20 wks,mm,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	shank length at n wks,mm,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	breast angle at 8 wks,deg,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	breast angle at 14 wks,deg,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	breast angle at 20 wks,deg,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	breast angle at n wks,deg,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
22.3.3	carcass defects		N	Mean	SD	Range
	breast blisters, 8 wks, %, males		-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-

breast blisters,14 wks, %, males	-	-	-	-
females	-	-	-	-
mixed	-	-	-	-
breast blisters,20 wks, %, males	-	-	-	-
females	-	-	-	-
mixed	-	-	-	-
breast blisters, n wks, %, males	-	-	-	-
females	-	-	-	-
mixed	-	-	-	-
crooked keels, 8 wks, %, males	-	-	-	-
females	-	-	-	-
mixed	-	-	-	-
crooked keels, 14 wks, %, males	-	-	-	-
females	-	-	-	-
mixed	-	-	-	-
crooked keels, 20 wks, %, males	-	-	-	-
females	-	-	-	-
mixed	-	-	-	-
crooked keels, n wks, %, males	-	-	-	-
females	-	-	-	-
mixed	-	-	-	-

other carcass defects (free format field)

22.3.4

feed utilization

N Mean SD Range

	kg feed/kg gain, 0-8 wks, males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
	kg feed/kg gain, 8-14 wks,	-	-	-	-
	males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
	kg feed/kg gain, 14-20 wks,	-	-	-	-
	males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
	kg feed/kg gain, n-n wks, males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
22.3.5	feather yield	N	Mean	SD	Range
	down feathers / market				
	gosling, n wks, gm	-	-	-	-
	total feathers / market				
	gosling, n wks, gm	-	-	-	-
	down feathers / kg market				
	gosling, n wks, gm	-	-	-	-
	total feathers / kg market				
	gosling, n wks, gm	-	-	-	-
	down feathers / adult				
	goose, n wks, gm	-	-	-	-

	total feathers / adult				
	goose, n wks, gm	-	-	-	-
	down feathers / kg adult				
	goose, n wks, gm	-	-	-	-
	total feathers / kg adult				
	goose, n wks, gm	-	-	-	-
22.3.6	fatty liver yield	N	Mean	SD	Range
	fatty liver / market gosling, gm	-	-	-	-
	fatty liver / kg mkt gosling, gm	-	-	-	-
	fatty liver / adult goose, gm	-	-	-	-
	fatty liver / kg adult goose, gm	-	-	-	-
22.4	Post-hatching mortality	N	Mean	SD	Range
	mortality, 0-8 wks, %,				
	males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
	mortality, 8-14 wks, %,				
	males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
	mortality, 14-20 wks, %,				
	males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
	mortality, n-n wks, %,				
	males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-

adult mortality / year, %,	males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
22.5 Free format field to record performance characteristics (egg production, reproduction, growth, post-hatching mortality) not specified in 22.1 to 22.4					
23. Physiology and stress tolerance					
23.1 Tolerance of temperature and humidity extremes (Free format field to describe temperature and humidity stress in relation to housing conditions)					
23.2 Tolerance of industrial floor pen housing (Free format field to describe reaction of stock to intensive management conditions in industrial floor housing)					
23.3 Tolerance of industrial cage housing (Free format field to describe reaction of stock to intensive management conditions in industrial cage housing)					
24. Genetic parameters			Value	SE	Range
24.1 Heritability					
24.1.1	trait 1	-	-	-	-
				
				
				
24.1.n	trait n	-	-	-	-
24.2 Repeatability					
24.2.1	trait 1	-	-	-	-
				
				
				
24.2.n	trait n	-	-	-	-
24.3 Genetic correlation					
24.3.1	between and	-	-	-	-
				
				
				

government farm

mean
range
distribution %
1-10 birds
11-50
51-100
101-200
> 200

commercial farm

mean
range
distribution %
1-10 birds
11-50
51-100
101-200
> 200

village farm

mean
range
distribution %
1-10 birds
11-50
51-100
101-200
> 200

communally owned

mean
range
distribution %
1-10 birds
11-50
51-100
101-200
> 200

- 4.1.2 (country name 2)

- 4.1.n (country name n)

- 4.2 Type of stock.
 Note - there are two species of domestic guinea fowl . Numida meleagris is native to West Africa, Morocco, Cape Verde Islands, and southwest Arabia; it is the usual species under domestication. Numida ptilorhynca is native to East Africa; it is distinguished by blue wattles and a brush of hair-like feathers at the base of the beak. It is not certain whether the two species can hybridize and whether hybrid stocks exist.
- 4.2.1 species origin
 Numida meleagris
 Numida ptilorhynca
 species hybrid
 other (specify)
- 4.2.2 kind of stock
 wild
 feral
 indigenous domestic
 improved indigenous
 middle-level purebred
 industrial (trade-named)
 other (specify)
- 4.3 Use of stock
- 4.3.1 eggs
- 4.3.2 meat
- 4.3.3 eggs and meat
- 4.3.4 other (specify)
- 4.4 Origin if imported
- 4.4.1 North America
- 4.4.2 South America
- 4.4.3 Europe
- 4.4.4 U.S.S.R.
- 4.4.5 China
- 4.4.6 South-west Asia
- 4.4.7 South-east Asia
- 4.4.8 Australasia

- 4.4.9 Africa
- 4.4.0 other (specify)
- 4.5 Feather morphology, distribution, growth rate (phenotypic frequency, %)
 - normal
 - other (specify)
- 4.6 Feather color (phenotypic frequency, %)
 - self -white
 - self-violet
 - self -lilac
 - self-buff
 - self-isabelle
 - spotted-violet or wild-type
 - spotted-lilac
 - spotted-buff
 - spotted-isabelle
 - other (specify)
- 4.7 Skin characteristics
 - 4.7.1 shank and skin color (phenotypic frequency, %)
 - normal
 - other (specify)
 - 4.7.2 wattle/helmet color
 - white/red
 - blue
 - other (specify)
- 4.8 Skeletal variants (phenotypic frequency, %)
 - normal
 - other (specify)
- 4.9 Blood types
(Free format field; write word description)
- 4.10 Immunogenetics
(Free format field; write word description)
- 4.11 Cytogenetics
(Free format field; write word description)
- 4.12 Basic temperament
 - docile
 - moderately tractable
 - wild
- 4.13 Heat tolerance

(Allocate grades 1-5; 1=high)

4.14 Resistance to disease and parasites, and tolerance of industrial housing conditions
(Free format field; write word description)

4.15 Conservation status

4.15.1 endangered

4.15.2 vulnerable

4.15.3 rare

4.15.4 indeterminate

4.15.5 out of danger

4.15.6 insufficiently known

4.15.7 not at risk (none of the above)

The first six of these categories are used by the International Union for the Conservation of Nature and Natural Resources. Their definitions, slightly amended, are as follows.

Endangered : Breeds in danger of extinction, and whose survival is unlikely if the causal factors continue operating.

Vulnerable : Breeds likely to move into the Endangered category in the near future if the causal factors continue operating.

Rare : Breeds with small populations that are not at present Endangered or Vulnerable, but are at risk.

Indeterminate : Breeds known to be Endangered, Rare or Vulnerable, but where there is not enough information to say which of the three categories is appropriate.

Out of Danger : Breeds formerly included in one of the above categories, but which are now considered relatively secure because effective conservation measures have been taken or the previous threat to their survival has been removed.

Insufficiently Known : Breeds that are suspected but not definitely known to belong to any of the above categories, because of lack of information.

4.16 Free format breed description field

(A description of breed characteristics may be entered here instead of in the fixed fields of sections 4.5 to 4.14, or material may be added to supplement the fixed fields)

5. Master record prepared by:

5.1 Name:

5.2 Title: (Dr., Mr., Miss, etc.)

5.3 Address:

5.4 Affiliation: (Organization, Company, Consultant, etc.)

5.5 Date of preparation:

6. Master record updating or editing

6.1 First amendment by:

6.1.1 Name:

- 6.1.2 Title:
- 6.1.3 Address:
- 6.1.4 Affiliation:
- 6.1.5 Date of amendment:
- 6.n Nth amendment by:
 - 6.n.1 Name:
 - 6.n.2 Title:
 - 6.n.3 Address :
 - 6.n.4 Affiliation:
 - 6.n.5 Date of amendment:

SLAVE RECORD

1. Breed name of MASTER record
Breed / crossbred type of SLAVE record
2. (Give exact composition if possible, eg. 50% trade-named industrial,
50% indigenous)
3. Strain (or distinct within-breed type)
4. Period of data

year	month	day	(eg. 1982:05:14)
From			
To			
5. Data form prepared by:
 - 5.1 Name:
 - 5.2 Title: (Dr., Mr., Miss, etc.)
 - 5.3 Address:
 - 5.4 Affiliation: (Organization, Company, Consultant, etc.)
 - 5.5 Date of preparation:
6. Bibliographical reference of source document
(Pointer to the reference stored in the bibliographical file)
7. Data type and analysis
 - 7.1 Data
 - 7.1.1 unadjusted data
 - 7.1.2 data adjusted for environmental or other factors*
 - 7.1.3 survey data
*(adjusted by the author of the original paper or document)
 - 7.2 Treatment of data

- 7.2.1 descriptive
- 7.2.2 analytical
- 7.2.3 none
- 8. Reliability code
(Grade data Subjectively on a scale of 1 to 5; 1=highly reliable, 5 = low reliability)
- 9. Country (in which data were recorded or experiment carried out, etc.)
 - 9.1 Country subdivision(s) (province, county, district, etc.)
- 10. Terrestrial environment
 - 10.1 Tropical rainforest
 - 10.2 Tropical deciduous forest
 - 10.3 Tropical scrub forest
 - 10.4 Tropical savannah
 - 10.5 Desert
 - 10.6 Mediterranean woodland and scrub
 - 10.7 Middle latitude grassland
 - 10.7.1 highland grass
 - 10.7.2 moorland
 - 10.7.3 marshland
 - 10.8 Middle latitude deciduous forest
 - 10.9 Coniferous forest
 - 10.10 Tundra
 - 10.11 Free format terrestrial environment field
(Include information on problems associated with vegetation, eg. toxic plants)
- 11. Elevation and topography
 - 11.1 Elevation
 - mean
 - range
 - 11.2 Topography
(Free format field. The description should include the following items, when information on them is available: roughness of terrain; slope; nature of surface (rocky, sandy, stony, etc.); surface drainage (poor, seasonally wet, well-drained, etc.).)
- 12. Climate
 - 12.1 Rainfall (mm)
 - 12.1.1 annual precipitation
 - mean
 - range
 - 12.1.2 seasonality

- 12.1.2.1 non-seasonal
 - 12.1.2.1 seasonal
(input as eg. 05-07, meaning May to July)
 - 12.1.3 free format rainfall data
- 12.2 Temperature (degrees C)
 - 12.2.1 average annual temperature
 - mean of several years
 - range of several years
 - 12.2.2 maximum temperature in year
 - mean maximum of several years
 - range of several years
 - month(s) of maximum temperature
 - 12.2.3 minimum temperature in year
 - mean maximum of several years
 - range of several years
 - month(s) of maximum temperature
 - 12.2.4 free format temperature data
- 12.3 Relative humidity (RH)
 - 12.3.1 average annual RH
 - mean of several years
 - range of several years
 - 12.3.2 maximum RH in year
 - mean maximum of several years
 - range of several years
 - month(s) of maximum RH
 - 12.3.3 minimum RH in year
 - mean minimum of several years
 - range of several years
 - month(s) of minimum RH
 - 12.3.4 free format RH data
- 13. Socio-management system
 - 13.1 Indigenous stock, extensive management
 - 13.2 Indigenous stock, intensive management
 - 13.3 Middle-level stock, extensive management
 - 13.4 Middle-level stock, intensive management

- 13.5 Industrial stock, extensive management
- 13.6 Industrial stock, intensive management
- 13.7 Free format field for socio-management system
- 14. Type of farm
 - 14.1 Peasant agriculture
 - 14.2 Breeding centre
 - 14.3 Commercial production unit
 - 14.4 Experiment station
 - 14.5 Field experiment
 - 14.6 Multiplication unit
 - 14.7 Other (specify)
 - 14.8 Free format field for farm type
- 15. Degree of management supervision
 - 15.1. Advisory services
 - 15.2 Resident professional supervision
 - 15.3 Supervision by scientific staff of investigation project
 - 15.4 None
- 16. Mating method and incubation method
 - 16.1 Mating method
 - 16.1.1 uncontrolled non-seasonal natural mating
 - 16.1.2 uncontrolled seasonal natural mating
 - 16.1.3 controlled natural mating
 - 16.1.4 artificial insemination
 - 16.1.5 other (specify)
 - 16.2 Incubation method
 - 16.2.1 natural incubation
 - 16.2.2 artificial still-air incubation
 - 16.2.3 artificial forced-air incubation
 - 16.2.4 other (specify)
- 17. Flock size
 - 17.1 Number of breeding males
 - mean
 - range
 - 17.2 Number of breeding females

- mean
 - range
- 17.3 Number of breeding replacement males
 - mean
 - range
- 17.4 Number of breeding replacement females
 - mean
 - range
- 17.5 Number of females for egg production
 - mean
 - range
- 17.6 Number of birds for meat production
 - 17.6.1 males
 - mean
 - range
 - 17.6.2 females
 - mean
 - range
 - 17.6.3 mixed
 - mean
 - range
- 18. Nutrition
 - 18. 1 Nutritional management
 - 18. 1.1 scavenging
 - 18. 1.2 scavenging with supplemental feeding
 - 18. 1.3 free-ranging
 - 18. 1.4 free-ranging with supplemental feeding
 - 18. 1.5 full-feeding with local feeds
 - 18. 1.6 full-feeding with manufactured concentrate & local feeds
 - 18. 1.7 full-feeding with complete manufactured feeds
 - 18. 2 Free format field for scavenging, and scavenging with supplemental feeding (estimate composition of scavenging diet; estimate composition of supplemental feed and quantities provided)
 - 18. 3 Free format field for free-ranging, and free-ranging with supplemental feeding (estimate composition and intake of free-ranging diet; estimate composition of supplemental feed and quantities provided)

- 18. 4 Free format field for full-feeding with local feeds
(estimate composition of full-feeding diet, specifying ingredients; estimate composition and quantities (kg/bird) for brooding, rearing, and adult periods)
- 18. 5 Free format field for full-feeding with manufactured concentrate and local feeds (give formulation for concentrate used in brooding, rearing, and adult periods; estimate composition of local feeds, specifying ingredients; estimate quantities of concentrate plus local feeds (kg/bird) for brooding, rearing, and adult periods)
- 18. 6 Free format field for full-feeding with complete manufactured feeds (give formulations and quantities (kg/bird) of complete manufactured feeds in brooding, rearing, and adult periods)
- 19. Housing and photoperiod
 - 19.1 Housing
 - 19.1.1 type of housing
 - none
 - shelter, unconfined
 - shelter, confined at night
 - confinement housing, litter floor
 - confinement housing, slat or wire floor
 - confinement housing, litter plus slat/wire floor
 - confinement housing, cage/battery
 - 19.1.2 free format field to record floor or cage space/bird, feeding space, watering space, roosting space, nesting space/bird
 - 19.2 Photoperiod
 - 19.2.1 photoperiod provided
 - natural daylength
 - artificial daylength
 - 19.2.2 free format field to record daylength manipulation and control during brooding, rearing, adult, and breeding periods
- 20. Diseases and parasites, and tolerance of housing conditions
(Free format field for noting any diseases prevalent at the time that performance data were recorded, and for noting any peculiarities in response to housing conditions)
- 21. Measures against diseases, parasites, and undesirable behaviors
 - 21.1 Vaccination and immunization
(Free format field to describe treatments)
 - 21.2 Curative medication
(Free format field to describe treatments)

21.3	Preventative medication (Free format field to describe treatments)				
21.4	Behavior modification (Free format field to describe treatments, eg. beak trimming)				
22.	Performance				
22.1	Egg production characteristics				
22.1.1	egg production and age	N	Mean	SD	Range
	age at first egg, days	-	-	-	-
	age at 50% production, days	-	-	-	-
	age at peak production, days	-	-	-	-
	age at culling, days	-	-	-	-
22.1.2	egg numbers	N	Mean	SD	Range
	clutch length, days	-	-	-	-
	hen-day production, 0-500 days	-	-	-	-
	hen-housed production, 0-500 days	-	-	-	-
	survivor production, 0-500 days	-	-	-	-
	hen-day production, n-n days	-	-	-	-
	hen-housed production, n-n days	-	-	-	-
	survivor production, n-n days	-	-	-	-
22.1.3	egg size	N	Mean	SD	Range
	egg size, 40 weeks of age, gm	-	-	-	-
	egg size, n weeks of age, gm	-	-	-	-
22.1.4	egg shape index	N	Mean	SD	Range

	length (mm) x breadth (mm)/100	-	-	-	-
22.1.5	shell color				
		brown			
		other (specify)			
22.1.6	shell quality	N	Mean	SD	Range
	specific gravity, 40 weeks of age	-	-	-	-
	specific gravity, n weeks of age	-	-	-	-
22.1.7	feed utilization	N	Mean	SD	Range
	kg feed / kg eggs	-	-	-	-
	kg feed / dozen eggs	-	-	-	-
22.1.8	other egg characteristics (free format field)				
22.2	Reproduction characteristics				
22.2.1	broodiness				
		usual			
		sometimes			
		rare			
		other (specify)			
22.2.2	fertility and hatchability	N	Mean	SD	Range
	fertility from natural mating, %	-	-	-	-
	fertility from A.I., %	-	-	-	-
	hatch of fertile eggs, %	-	-	-	-
	hatch of total eggs set, natural mating, %	-	-	-	-
	hatch of total eggs set,- A.I. , %	-	-	-	-

22.3 Growth characteristics

22.3.1 growth rate

body wt at hatching, males gm,		N	Mean	SD	Range
	females	-	-	-	-
	mixed	-	-	-	-
body wt at 8 wks, gm,	males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
body wt at 14 wks, gm,	males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
body wt at 20 wks, gm,	males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
body wt at 32 wks, gm,	males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
body wt at n wks, gm,	males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-

22.3.2 body proportions

		N	Mean	SD	Range
keel length at 8 wks, mm,	males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
keel length at 14 wks, mm,	males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-
keel length at 20 wks, mm,	males	-	-	-	-
	females	-	-	-	-
	mixed	-	-	-	-

	keel length at n	males	-	-	-	-
	wks, mm,	females	-	-	-	-
		mixed	-	-	-	-
	shank length at 8	males	-	-	-	-
	wks, mm,	females	-	-	-	-
		mixed	-	-	-	-
	shank length at 14	males	-	-	-	-
	wks, mm,	females	-	-	-	-
		mixed	-	-	-	-
	shank length at 20	males	-	-	-	-
	wks, mm,	females	-	-	-	-
		mixed	-	-	-	-
	shank length at n	males	-	-	-	-
	wks, mm,	females	-	-	-	-
		mixed	-	-	-	-
	breast angle at 8	males	-	-	-	-
	wks, deg	females	-	-	-	-
		mixed	-	-	-	-
	breast angle at 14	males	-	-	-	-
	wks, deg	females	-	-	-	-
		mixed	-	-	-	-
	breast angle 20 at	males	-	-	-	-
	wks, deg	females	-	-	-	-
		mixed	-	-	-	-
	breast angle at n	males	-	-	-	-
	wks, deg	females	-	-	-	-
		mixed	-	-	-	-
22.3.3	carcass defects		N	Mean	SD	Range
	breast blisters, 8	males	-	-	-	-
	wks, %	females	-	-	-	-
		mixed	-	-	-	-
	breast blisters, 14	males	-	-	-	-
	wks, %	females	-	-	-	-
		mixed	-	-	-	-

	breast blisters, 20 wks, %	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	breast blisters, n wks, %	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	crooked keels, 8 wks, %	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	crooked keels, 14 wks, %	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	crooked keels, 20 wks, %	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	crooked keels, n wks, %	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	other carcass defects (free format field)					
22.3.4	feed utilization		N	Mean	SD	Range
	kg feed/kg gain, 0-8 wks,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	kg feed/kg gain, 8-14 wks,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	kg feed/kg gain, 14-20 wks,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	kg feed/kg gain, n-n wks,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
22.4	Post-hatching mortality		N	Mean	SD	Range

mortality, 0-8 wks, males	-	-	-	-
%,				
females	-	-	-	-
mixed	-	-	-	-
mortality, 8-14 wks, %,	-	-	-	-
males	-	-	-	-
females	-	-	-	-
mixed	-	-	-	-
mortality, 14-20 wks, %,	-	-	-	-
males	-	-	-	-
females	-	-	-	-
mixed	-	-	-	-
mortality, n-n wks, %,	-	-	-	-
males	-	-	-	-
females	-	-	-	-
mixed	-	-	-	-

22.5 Free format field to record performance characteristics (egg production, reproduction, growth, post-hatching mortality) not specified in 22.1 to 22.4

23. Physiology and stress tolerance

23.1 Tolerance of temperature and humidity extremes
(Free format field to describe temperature and humidity stress in relation to housing conditions)

23.2 Tolerance of industrial floor pen housing
(Free format field to describe reaction of stock to intensive management conditions in industrial floor housing)

23.3 Tolerance of industrial cage housing
(Free format field to describe reaction of stock to intensive management conditions in industrial cage housing)

24. Genetic parameters

24.1	Heritability	Value	SE	Range
24.1.1	trait 1	-	-	-
			
			
			
24.1.n	trait n	-	-	-
24.2	Repeatability			
24.2.1	trait 1	-	-	-
			
			
			
24.2.n	trait n	-	-	-

		Value	SE	Range
24.3	Genetic correlation			
	24.3.1 between and	-	-	-
			
			
			
	24.3.n between and	-	-	-
24.4	Other genetic parameters (Free format field)			
24.5	Inbreeding coefficient (Free format field)			
25.	Cytogenetics (Free format field)			
26.	Inherited abnormalities (Free format field)			
27.	Resistance to infectious diseases and parasites (Free format field; specify comparative incidence and/or mortality)			

COTURNIX QUAIL DESCRIPTORS

MASTER RECORD

1. Breed name
(Use breed, variety, and mutant names in Somes' (1984) International Registry of Poultry Genetic Stocks, Bulletin 469, Storrs Agric. Exp. Station, Univ. of Connecticut, Storrs, CT 06268, U.S.A.)
2. Breed name synonyms
3. Strains within breed
4. General information and breed description
 - 4.1 Country and population data
 - 4.1.1 (country name 1) (Give date of census or estimate)
 - 4.1.1.1 population size (Categories 4.1.1.2 to 4.1.1.4 are for indicating by "Y" the type of population data)
 - 4.1.1.2 census data
 - 4.1.1.3 estimated value
 - 4.1.1.4 unspecified

4.1.1.5 annual population trend
+%; -%; unknown

4.1.1.6 flock sizes

government farm

mean

range

distribution %

1-10 birds

11-50

51-100

101-200

> 200

commercial farm

mean

range

distribution %

1-10 birds

11-50

51-100

101-200

> 200

village farm

mean

range

distribution %

1-10 birds

11-50

51-100

101-200

> 200

communally owned

mean

range

distribution %

1-10 birds

11-50

51-100

101-200

> 200

- 4.1.1.7 origin of breed
 - indigenous
 - exotic
- 4.1.2 (country name 2)
 -
 -
 -
- 4.1.n (country name n)
 -
 -
- 4.2 Type of stock
 - 4.2.1 subspecies origin
 - Coturnix coturnix japonica
 - other (specify)
 - 4.2.2 kind of stock
 - wild
 - indigenous domestic
 - improved indigenous
 - middle-level purebred
 - industrial (trade-named)
 - other (specify)
- 4.3 Use of stock
 - 4.3.1 eggs
 - 4.3.2 meat
 - 4.3.3 eggs and meat
 - 4.3.4 ornamental or fancy
 - 4.3.5 other (specify)
- 4.4 Origin if imported
 - 4.4.1 North America
 - 4.4.2 South America
 - 4.4.3 Europe
 - 4.4.4 U.S.S.R.
 - 4.4.5 China
 - 4.4.6 South-west Asia
 - 4.4.7 South-east Asia
 - 4.4.8 Australasia
 - 4.4.9 Africa

- 4.4.0 other (specify)
- 4.5 Feather morphology, distribution, and growth rate
(phenotypic frequency, %)
 - normal
 - other (specify)
- 4.6 Feather color (phenotypic frequency, %)

(Fill in fixed format fields, or write description in the free format description field 4.16, or do both)

 - white
 - albino
 - wild-type
 - other (specify)
- 4.7 Skin and shank characteristics (phenotypic frequency, %)
 - normal
 - other (specify)
- 4.8 Skeletal variants (phenotypic frequency, %)
 - normal
 - other (specify)
- 4.9 Blood types
(Free format field; write word description)
- 4.10 Immunogenetics
(Free format field; write word description)
- 4.11 Cytogenetics
(Free format field; write word description)
- 4.12 Basic temperament
 - docile
 - moderately tractable
 - wild
- 4.13 Heat tolerance
(Allocate grades 1-5; 1=high)
- 4.14 Resistance to diseases and parasites, and tolerance of
industrial housing conditions
(Free format field; write word description)
- 4.15 Conservation status
 - 4.15.1 endangered
 - 4.15.2 vulnerable
 - 4.15.3 rare
 - 4.15.4 indeterminate
 - 4.15.5 out of danger
 - 4.15.6 insufficiently known

4.15.7 not at risk (none of the above)

The first six of these categories are used by the International Union for the Conservation of Nature and Natural Resources. Their definitions, slightly amended, are as follows.

Endangered : Breeds in danger of extinction, and whose survival is unlikely if the causal factors continue operating.

Vulnerable : Breeds likely to move into the Endangered category in the near future if the causal factors continue operating.

Rare : Breeds with small populations that are not at present Endangered or Vulnerable, but are at risk.

Indeterminate : Breeds known to be Endangered, Rare or Vulnerable, but where there is not enough information to say which of the three categories is appropriate.

Out of Danger : Breeds formerly included in one of the above categories, but which are now considered relatively secure because effective conservation measures have been taken or the previous threat to their survival has been removed.

Insufficiently Known: Breeds that are suspected but not definitely known to belong to any of the above categories, because of lack of information.

4.16 Free format breed description field

(A description of breed characteristics may be entered here instead of in the fixed fields of sections 4.5 to 4.14, or material may be added to supplement the fixed fields)

5. Master record prepared by:

5.1 Name:

5.2 Title: (Dr., Mr., Miss, etc.)

5.3 Address:

5.4 Affiliation: (Organization, Company, Consultant, etc.)

5.5 Date of preparation:

6. Master record updating or editing

6.1 First amendment by:

6.1.1 Name:

6.1.2 Title:

6.1.3 Address:

6.1.4 Affiliation:

6.1.5 Date of amendment:

.....

.....

.....

6.n Nth amendment by:

6.n.1 Name:

- 6.n.2 Title:
- 6.n.3 Address:
- 6.n.4 Affiliation:
- 6.n.5 Date of amendment:

SLAVE RECORD

1. Breed name of MASTER record
2. Breed/crossbred type of SLAVE record
(Give exact composition if possible, eg. 50% trade-named industrial, 50% improved indigenous)
3. Strain (or distinct within-breed type)
4. Period of data

year	month	day	(eg. 1982:05:14)
------	-------	-----	------------------

From

To
5. Data form prepared by:
 - 5.1 Name:
 - 5.2 Title: (Dr., Mr., Miss, etc.)
 - 5.3 Address:
 - 5.4 Affiliation: (Organization, Company, Consultant, etc.)
 - 5.5 Date of preparation:
6. Bibliographical reference of source document
(Pointer to the reference stored in the bibliographical file)
7. Data type and analysis
 - 7.1 Data
 - 7.1.1 unadjusted data
 - 7.1.2 data adjusted for environmental or other factors*
 - 7.1.3 survey data
*(adjusted by the author of the original paper or document)
 - 7.2 Treatment of data
 - 7.2.1 descriptive
 - 7.2.2 analytical
 - 7.2.3 none
8. Reliability code
(Grade data subjectively on a scale of 1 to 5; 1=highly reliable, 5=low reliability)
9. Country (in which data were recorded or experiment carried out, etc.)
 - 9.1 Country subdivision(s) (province, county, district, etc.)

10. Terrestrial environment
 - 10.1 Tropical rainforest
 - 10.2 Tropical deciduous forest
 - 10.3 Tropical scrub forest
 - 10.4 Tropical savannah
 - 10.5 Desert
 - 10.6 Mediterranean woodland and scrub
 - 10.7 Middle latitude grassland
 - 10.7.1 highland grass
 - 10.7.2 moorland
 - 10.7.3 marshland
 - 10.8 Middle latitude deciduous forest
 - 10.9 Coniferous forest
 - 10.10 Tundra
 - 10.11 Free format terrestrial environment field
(Include information on problems associated with vegetation, eg. toxic plants)

11. Elevation and topography
 - 11.1 Elevation
 - mean
 - range
 - 11.2 Topography
(Free format field. The description should include the following items, when information on them is available: roughness of terrain; slope; nature of surface (rocky, sandy, stony, etc.); surface drainage (poor, seasonally wet, well-drained, etc.).)

12. Climate
 - 12.1 Rainfall (mm)
 - 12.1.1 annual precipitation
 - mean
 - range
 - 12.1.2 seasonality
 - non-seasonal
 - seasonal
(input as eg. 05-07, meaning May to July)
 - 12.1.3 free format rainfall data
 - 12.2 Temperature (degrees C)
 - 12.2.1 average annual temperature
 - mean of several years

- range of several years
 - 12.2.2 maximum temperature in year
 - mean maximum of several years
 - range of several years
 - month(s) of maximum temperature
 - 12.2.3 minimum temperature in year
 - mean minimum of several years
 - range of several years
 - month(s) of minimum temperature
 - 12.2.4 free format temperature data
- 12.3 Relative humidity (RH)
 - 12.3.1 average annual RH
 - mean of several years
 - range of several years
 - 12.3.2 maximum RH in year
 - mean maximum of several years
 - range of several years
 - month(s) of maximum RH
 - 12.3.3 minimum RH in year
 - mean minimum of several years
 - range of several years
 - month(s) of minimum RH
 - 12.3.4 free format RH data
- 13. Socio-management system
 - 13.1 Indigenous stock,.extensive management
 - 13.2 Indigenous stock, intensive management
 - 13.3 Middle-level stock, extensive management
 - 13.4 Middle-level stock, intensive management
 - 13.5 Industrial stock, extensive management
 - 13.6 Industrial stock, intensive management
 - 13.7 Free format field for socio-management system
- 14. Type of farm
 - 14.1 Peasant agriculture
 - 14.2 Breeding centre
 - 14.3 Commercial production unit
 - 14.4 Experiment station
 - 14.5 Field experiment
 - 14.6 Multiplication unit
 - 14.7 Other (specify)

- 14.8 Free format field for farm type
- 15. Degree of management supervision
 - 15.1 Advisory services
 - 15.2 Resident professional supervision
 - 15.3 Supervision by scientific staff of investigation project
 - 15.4 None
- 16. Mating method and incubation method
 - 16.1 Mating method
 - 16.1.1 uncontrolled non-seasonal natural mating
 - 16.1.2 uncontrolled seasonal natural mating
 - 16.1.3 controlled natural mating
 - 16.1.4 artificial insemination
 - 16.1.5 other (specify)
 - 16.2 Incubation method
 - 16.2.1 natural incubation
 - 16.2.2 artificial still-air incubation
 - 16.2.3 artificial forced-air incubation
 - 16.2.4 other (specify)
- 17. Flock size
 - 17.1 Number of breeding males
 - mean
 - range
 - 17.2 Number of breeding females
 - mean
 - range
 - 17.3 Number of breeding replacement males
 - mean
 - range
 - 17.4 Number of breeding replacement females
 - mean
 - range
 - 17.5 Number of females for egg production
 - mean
 - range
 - 17.6 Number of birds for meat production
 - 17.6.1 males
 - mean
 - range
 - 17.6.2 females

- mean
 - range
 - 17.6.3 mixed
 - mean
 - range
- 18. Nutrition
 - 18.1 Nutritional management
 - 18.1.1 scavenging
 - 18.1.2 scavenging with supplemental feeding
 - 18.1.3 free-ranging
 - 18.1.4 free-ranging with supplemental feeding
 - 18.1.5 full-feeding with local feeds
 - 18.1.6 full-feeding with manufactured concentrate & local feeds
 - 18.1.7 full-feeding with complete manufactured feeds
 - 18.2 Free format field for scavenging, and scavenging with supplemental feeding (estimate composition of scavenging diet; estimate composition of supplemental feed and quantities provided)
 - 18.3 Free format field for free-ranging, and free-ranging with supplemental feeding (estimate composition and intake of free-ranging diet; estimate composition of supplemental feed and quantities provided)
 - 18.4 Free format field for full-feeding with local feeds (estimate composition of full-feeding diet, specifying ingredients; estimate composition and quantities (kg/bird) for brooding, rearing, and adult periods)
 - 18.5 Free format field for full-feeding with manufactured concentrate and local feeds (give formulation for concentrate used in brooding, rearing, and adult periods; estimate composition of local feeds, specifying ingredients; estimate quantities of concentrate plus local feeds (kg/bird) for brooding, rearing, and adult periods)
 - 18.6 Free format field for full-feeding with complete manufactured feeds (give formulations and quantities (kg/bird) of complete manufactured feeds in brooding, rearing, and adult periods)
- 19. Housing and photoperiod
 - 19.1 Housing
 - 19.1.1 type of housing
 - none
 - shelter, unconfined
 - shelter, confined at night
 - confinement housing, litter floor
 - confinement housing, slat or wire floor
 - confinement housing, litter plus slat/wire floor
 - confinement housing, cage/battery

- 19.1.2 free format field to record floor or cage space/bird, feeding space, watering space, roosting space, nesting space/bird
- 19.2 Photoperiod
- 19.2.1 photoperiod provided
 natural daylength
 artificial daylength
- 19.2.2 free format field to record daylength manipulation and control during brooding, rearing, adult, and breeding periods
20. Diseases and parasites, and tolerance of housing conditions
 (Free format field for noting any diseases prevalent at the time that performance data were recorded, and for noting any peculiarities in response to housing conditions)
21. Measures against diseases, parasites, and undesirable behaviors
- 21.1 Vaccination and immunization
 (Free format field to describe treatments)
- 21.2 Curative medication
 (Free format field to describe treatments)
- 21.3 Preventative medication
 (Free format field to describe treatments)
- 21.4 Behavior modification
 (Free format field to describe treatments, eg. beak trimming)
22. Performance
- 22.1 Egg production characteristics
 Note - although egg and sperm production of Coturnix quail can remain high for a full year, fertility and hatchability decline very markedly after 6 months of age; where reproduction is an important function, it is desirable to replace breeding stocks at intervals of 6 months. A data recording interval, equivalent to the 0-500 day interval widely used in chicken breeding, is 0-196 days; it comprises 4 weeks for brooding and rearing, and 24 weeks for adult production, and it provides a 1 week 'empty' period between adult flocks.
- | 22.1.1 | egg production and age | N | Mean | SD | Range |
|--------|------------------------------|---|------|----|-------|
| | age at first egg, days | - | - | - | - |
| | age at 50% production, days | - | - | - | - |
| | age at peak production, days | - | - | - | - |
| | age at culling, days | - | - | - | - |
| 22.1.2 | egg numbers | N | Mean | SD | Range |
| | clutch length, days | - | - | - | - |
| | hen-day | - | - | - | - |

	production, 0-196 days				
	hen-housed production, 0-196 days	-	-	-	-
	survivor production, 0-196 days	-	-	-	-
	hen-day production, 0-365 days	-	-	-	-
	hen-housed production, 0-365 days	-	-	-	-
	survivor production, 0-365 days	-	-	-	-
	hen-day production, n-n days	-	-	-	-
	hen-housed production, n-n days	-	-	-	-
	survivor production, n-n days	-	-	-	-
22.1.3	egg size	N	Mean	SD	Range
	egg size, 10 weeks of age, gm	-	-	-	-
	egg size, 20 weeks of age, gm	-	-	-	-
	egg size, n weeks of age, gm	-	-	-	-
22.1.4	egg shape index	N	Mean	SD	Range
	length (mm) x breadth (mm)/100	-	-	-	-
22.1.5	shell color				
	spotted or blotched				
	white				
	other (specify)				
22.1.6	shell quality	N	Mean	SD	Range

		specific gravity, 10 weeks of age	-	-	-	-
		specific gravity, 20 weeks of age	-	-	-	-
		specific gravity, n weeks of age	-	-	-	-
22.1.7		albumen quality	N	Mean	SD	Range
		Haugh units, 10 weeks of age	-	-	-	-
		Haugh units, 20 weeks of age	-	-	-	-
		Haugh units, n weeks of age	-	-	-	-
22.1.8		egg inclusion bodies	N	Mean	SD	Range
		blood spots, 20 weeks of age, %	-	-	-	-
		blood spots, n weeks of age, %	-	-	-	-
		meat spots, 20 weeks of age, %	-	-	-	-
		meat spots, n weeks of age, %	-	-	-	-
22.1.9		feed utilization	N	Mean	SD	Range
		kg feed / kg eggs	-	-	-	-
		kg feed / dozen eggs	-	-	-	-
22.2		Reproduction characteristics				
	22.2.1	broodiness				
		usual				
		sometimes				
		rare				
		other (specify)				
22.2.2		fertility and hatchability	N	Mean	SD	Range
		fertility to 6 months of age, %	-	-	-	-
		fertility after 6 months of age, %	-	-	-	-

		hatch of fertile eggs to 6 months of age, %	-	-	-	-
		hatch of fertile eggs after 6 months of age, %	-	-	-	-
		hatch of total eggs set to 6 months of age, %	-	-	-	-
		hatch of total eggs set after 6 months of age, %	-	-	-	-
22.3	Growth Characteristics					
	23.3.1	growth rate	N	Mean	SD	Range
		body wt at males hatching, gm,	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
		body wt at 4 wks, gm	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
		body wt at 6 wks, gm,	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
		body wt at males 10 wks, gm,	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
		body wt at males 28 wks, gm,	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-

	body wt	males	-	-	-	-
	at n wks,					
	gm,	females	-	-	-	-
		mixed	-	-	-	-
22.3.2	body proportions		N	Mean	SD	Range
	keel	males	-	-	-	-
	length at					
	4 wks,	females	-	-	-	-
	mm,	mixed	-	-	-	-
		males	-	-	-	-
	keel					
	length at	females	-	-	-	-
	6 wks,	mixed	-	-	-	-
	mm,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	keel	males	-	-	-	-
	length at					
	10 wks,	females	-	-	-	-
	mm,	mixed	-	-	-	-
		males	-	-	-	-
	keel					
	length at	females	-	-	-	-
	n wks,	mixed	-	-	-	-
	mm,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	shank	males	-	-	-	-
	length at					
	4	females	-	-	-	-
	wks,mm,	mixed	-	-	-	-
		males	-	-	-	-
	shank					
	length at	females	-	-	-	-
	6	mixed	-	-	-	-
	wks,mm,	males	-	-	-	-

		females	-	-	-	-
		mixed	-	-	-	-
	shank	males	-	-	-	-
	length at					
	10					
	wks,mm,					
		females	-	-	-	-
		mixed	-	-	-	-
	shank	males	-	-	-	-
	length at					
	n					
	wks,mm,					
		females	-	-	-	-
		mixed	-	-	-	-
	breast	males	-	-	-	-
	angle at 4					
	wks,deg,					
		females	-	-	-	-
		mixed	-	-	-	-
	breast	males	-	-	-	-
	angle at 6					
	wks,deg,					
		females	-	-	-	-
		mixed	-	-	-	-
	breast	males	-	-	-	-
	angle at					
	10					
	wks,deg,					
		females	-	-	-	-
		mixed	-	-	-	-
	breast	males	-	-	-	-
	angle at n					
	wks,deg,					
		females	-	-	-	-
		mixed	-	-	-	-
22.3.3	carcass defects		N	Mean	SD	Range
	breast	males	-	-	-	-
	blisters, 4					
	wks, %,					
		females	-	-	-	-

		mixed	-	-	-	-
	breast blisters, 6 wks, %,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	breast blisters, 10 wks, %,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	breast blisters, n wks, %,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	crooked keels, 4 wks, %,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	crooked keels, 6 wks, %,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	crooked keels, 10 wks, %,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	crooked keels, n wks, %,	males	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
	other carcass defects (free format field)					
22.3.4	feed utilization	N	Mean	SD	Range	

		kg feed/kg males gain, 0-4 wks,	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
		kg feed/kg males gain, 4-6 wks,	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
		kg feed/kg males gain, 6- 10 wks,	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
		kg feed/kg males gain, n-n wks,	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
22.4	Post-hatching mortality		N	Mean	SD	Range
		mortality, males 0-4 wks, %,	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
		mortality, males 4-6 wks, %,	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
		mortality, males 6-10 wks, %,	-	-	-	-
		females	-	-	-	-
		mixed	-	-	-	-
		mortality, males 4-28 wks, %,	-	-	-	-

		females	-	-	-	-
		mixed	-	-	-	-
		mortality, males	-	-	-	-
		28-52				
		wks, %,				
		females	-	-	-	-
		mixed	-	-	-	-
		mortality, males	-	-	-	-
		n-n wks,				
		%,				
		females	-	-	-	-
		mixed	-	-	-	-
22.5	Free format	field to record performance characteristics (egg production, reproduction, growth, post-hatching mortality) not specified in 22.1 to 22.4				
23.	Physiology and stress tolerance					
23.1	Tolerance of temperature and humidity extremes (Free format field to describe temperature and humidity stress in relation to housing conditions)					
23.2	Tolerance of industrial floor pen housing (Free format field to describe reaction of stock to intensive management conditions in industrial floor housing)					
23.3	Tolerance of industrial cage housing (Free format field to describe reaction of stock to intensive management conditions in industrial cage housing)					
24.	Genetic parameters					
24.1	Heritability		Value	SE	Range	
	24.1.1	trait 1	-	-	-	
					
					
					
	24.1.n	trait n	-	-	-	
24.2	Repeatability					
	24.2.1	trait 1	-	-	-	
					
					
					
	24.2.n	trait n	-	-	-	
24.3	Genetic correlation					
	24.3.1	between and	-	-	-	
					

-

 24.3.n between and - - -
 24.4 Other genetic parameters
 (Free format field)
 24.5 Inbreeding coefficient
 (Free format field)
 25. Cytogenetics
 (Free format field)
 26. Inherited abnormalities
 (Free format field)
 27. Resistance to infectious diseases and parasites
 (Free format field; specify comparative incidence and/or mortality)

FAO TECHNICAL PAPERS

FAO ANIMAL PRODUCTION AND HEALTH PAPERS:

1. Animal breeding: selected articles from World Animal Review, 1977 (C* E* F* S*)
2. Eradication of hog cholera and African swine fever, 1976 (E* F* S*)
3. Insecticides and application equipment for tsetse control, 1977 (E*/ F*)
4. New feed resources, 1977 (E/F/S*)
5. Bibliography of the criollo cattle of the Americas 1977 (E/S*)
6. Mediterranean cattle and sheep in crossbreeding, 1977 (E* F*)
7. Environmental impact of tsetse chemical control, 1977 (E* F*)
- 7 Environmental impact of tsetse chemical control, 1980 (E* F*)
- Re
- v.
8. Declining breeds of Mediterranean sheep, 1978 (E* F*)
9. Slaughterhouse and slaughterslab design and construction, 1978 (E* F* S*)
10. Treating straw for animal feeding, 1978 (E* F*)
11. Packaging, storage and distribution of processed milk, 1978 (E*)
12. Ruminant nutrition: selected articles from World Animal Review, 1978 (C* E* F* S*)
13. Buffalo reproduction and artificial insemination, 1979 (E**)

14. The African trypanosomiasis, 1979 (E* F*)
15. Establishment of dairy training centres, 1979 (E*)
16. Open yard housing for young cattle, 1981 (E* F* S*)
17. Prolific tropical sheep, 1980 (E*)
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