An account of the coverage, abstracting, and editing procedures relating to the publication of the quarterly Animal Breeding Abstracts of the Commonwealth Bureau of Animal Breeding and Genetics is presented.

Commonwealth Bureau of Animal Breeding and Genetics is one of the 14 bureaux and institutes forming the complex of Commonwealth Agricultural Bureaux (CAB). The Bureau is housed in a wing of the Animal Breeding Research Organisation, King’s Buildings, Edinburgh, a unit of the Agricultural Research Council of the United Kingdom. The research organisation is closely associated with the Institute of Animal Genetics, also located in the King’s Buildings, a host of the Bureau from its inception in 1929 until 1965.

The Bureau acts as a clearing house for all types of information connected with Animal Breeding and Genetics, and caters to the needs of the specialists in that field. It publishes an abstracting journal "Animal Breeding Abstracts" (ABA), which covers literature of interest to the animal breeders. It also compiles bibliographies on request for the animal breeders, and brings out occasional publications of topical interest to them and also deals with technical enquiries in the field of animal breeding.

Animal Breeding Abstracts

The Publication is brought out every three months, the dates of publication being 1st of March, June, September, and December. Each issue contains an author index, while the subject index is issued annually for the whole volume at the end of each year. The aim of the journal is to be comprehensive in the field of breeding of economically important animals. However, if once a particular paper is left out for some reasons and is over 3 years old, it is not abstracted usually, unless the results are significantly important to the readers. About 400 documents are covered in each quarterly issue.

Nature of the material covered

This is divided as follows:

(1) by animals
(2) by subjects

By animals

The emphasis is on animals of economic importance and the effect of breeding on their productivity. In addition to farm animals, the coverage extends to such animals as the elephant, camel, reindeer, llama, alpaca, vicuna, elk, yak, cats and dog, fur bearers including wild fur bearers of economic value (reproductive and genetic aspects only) and laboratory animals. Wild species closely related to farm animals e.g. Bos, Equus, Ovis, Sus, Capra spp. are included. Poultry of all kinds is covered. Wild species related to domestic poultry e.g. Gallus, Anas, Anser spp. are included. Aquatic mammals, however, are excluded from the coverage.

By subjects

The subjects covered in ABA are those which are of direct interest to the animal breeders and are divided under the following headings:

(1) Livestock industry of countries and other regions of importance, statistics of livestock numbers and productivity. Breeds and breeding methods, importation and development of new breeds.

(2) Methods of breeding and improvement of livestock and poultry e.g.
inbreeding, linebreeding, cross-breeding, hybridisation, backcrossing, selection and grading up, etc.

(3) Breeds, races, varieties, strains and lines of domestic livestock.

(4) Genetics - particularly its application to livestock and poultry improvement, including some theoretical and statistical genetics in order to keep readers informed of basic fundamental research, inheritance and heritability of both favourable and unfavourable characters, productivity, disease resistance or susceptibility, selection and progeny testing, blood groups, and biochemical polymorphism.

(5) Sex physiology and physiology of reproduction. Artificial insemination and semen characters.

(6) Physiology of lactation, physiology of the egg, growth, performance, tests, and records.

(7) Post-natal growth particularly in relation to economic characters.

(8) Production of milk, meat, eggs, wool (wool yield and fleece characters), hair, skins, fur and feathers and other animal products.

(9) Working ability, including performance and endurance tests - draft, racing and trotting, saddle and pack.

Items of passing interests are included only in the News and Notes section.

B. Subjects normally included by title only

(1) Scientific review articles

(2) Reproductive anatomy and histology

(3) Important dissertations

(4) Less important and borderline papers, where the title is self-explanatory.

Subjects excluded

(i) Write-ups, popular articles, pious hopes, opinions, advice and trivialia

(ii) Experimental interference involving factors, substances or techniques not likely to occur under practical or natural breeding conditions e.g. drugs and other non-hormonal exogenous substances, hypophysectomy, etc.

(iii) Nutrition, except its effect on certain reproductive phenomena.

(iv) Disease, except inheritance or breed differences in disease resistance or susceptibility.

(v) Statistics and descriptive accounts referring to single farms and small geographical areas.

(vi) Embryology.

ABA compilation

There are distinct steps in the publication of the ABA. They are as follows:

(i) Procurement of documents: Publications covered in the ABA are acquired by the joint library of the Animal Breeding Research Organisation (ABRO) and the Animal Breeding Bureau. The ABRO looks after the procurements of books and certain periodicals and the Bureau is responsible for the acquisition of rest of the periodicals. One copy of each periodicals published in a member Commonwealth country and dealing with agricultural sciences is received by the Bureau, free of cost under the agreement between the CAB and the member countries. Part of the book collection is received as review copies. Critical reviews of books are published quarterly in each issue of ABA. The books are reviewed by researchers fully conversant with the subject of the book. The reviewer usually gets an honorarium for his review and not the book, and thus the book goes into the collection of the library.

(ii) The library also borrows or gets publications on automatic loan either from National Lending Library, Boston, Spa, Yorkshire or from CAB...
(iii) Some of the periodicals are scanned and abstracted by the bureau's abstractors who visit the outside libraries.


In all about 750 primary and secondary periodicals, 120 reports from Government Departments and other organisations are scanned annually for ABA. A list of periodicals and reports from Government Departments covered in ABA is issued quinquennially. These publications are in 38 different languages of the world.

Journal List

Each periodical is provided with a 'Journal List'. The journal list is a foolscap paper sheet on which the full history of the journal is recorded. Each time an issue of a journal is scanned an entry is made on the journal list indicating which papers were abstracted, if none, a "nil" entry is made. In case the paper is covered for ABA, the entry comprises starting page of the article, authors' names, brief title, followed by 'A' if abstracted, 'T' if title only has been given, 'AS' if 'author's summary' has been used, the abstractor's initials, and the volume and issue of ABA in which it will appear.

There are two types of journal lists. The one is of journals which are scanned regularly and is termed as 'JL' and the other is of journals which are not scanned regularly and are usually borrowed after references to relevant papers in them are picked up from a secondary source. This latter type of journal list is called as 'Special List' or 'SL'. A specimen of the journal list is given in Appendix 1.

The Director or the Assistant Director goes through the journal lists periodically and transfers the title from 'SL' to 'JL' if the policy of the journal changes and not many good papers for ABA appear in it.

Bibliographical Details

Each abstract is serially numbered. An entry in ABA consists of two parts - bibliographical details and abstract proper. Different units of information in the bibliographical details are given in the following order:

(i) Author and initials. Where there are more than 6 authors only the first author's name is given followed by et al.

(ii) Year of publication.

(iii) Title in heavy type (if in a foreign language, translation of title in square brackets).

(iv) Name of journal or source, abbreviated according to the 'World List' system, in italics.

(v) Volume.

(vi) If references number 40 or over, it is denoted by [B].

(vii) Pagination.

(viii) Language of the paper, plus a note of any summaries.

(ix) Authors' address, if there are more than one author of a paper, only the address of the first author is given.

(x) If publication is a stencilled one, it is denoted by [Mimeograph], at the end of the source.

(xi) Price (if given).

Reproduction of finished abstracts with bibliographical details has been given towards the end of the paper. See Appendix 2.

Abstracting

Each member of the scientific staff is responsible for scanning and abstracting specific journals, allocated mainly on a language basis. Abstracts are written with a slant towards animal breeding. Some time an
author abstract or a summary contained in the original document is modified to suit ABA, but such cases are only 20-25%. Most of the abstracting is done by the scientific staff of the bureau itself, however 1-1.5% of the abstracts are done by panel abstractors. Documents containing original information in the form of periodical articles, conference papers, letters to the editors are given informative abstracts, review articles and preliminary reports either get a title entry, an indicative abstract, or a short exposition.

After the abstractor has written an abstract (Manuscript, MS), two copies of it are then typed by the typist on quarto sheets (25 cm x 20 cm); the top copy goes to the printer and on the carbon copy the editing is done. A card (15 cm x 10 cm) for the author card catalogue is also typed. Bibliographical details are set out by the abstractor himself.

These are returned with the MS to the abstractor to check and assign it to the proper ABA section and sub-section. Any correction or addition is done on the carbon copy only. The abstractor then initials his/her abstracts.

An abstractor maintains a record of his journals in card forms (12.5 cm x 7.5 cm). These cards are kept in an alphabetical order in a box. Each time an issue of a periodical is scanned, an entry is made on the card for its date of publication and the number scanned. The abstractor goes through the cards periodically and asks the librarian to send a reminder for a particular issue of a journal if it is overdue. A new card is made for every new title added to the list of journals scanned. The location of the periodical and its regularity is indicated on the top right hand corner of each card. A specimen of the card is reproduced below:

<table>
<thead>
<tr>
<th>J. Dairy Sci., U.S.A.</th>
<th>Regular</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Location: CBABG</td>
</tr>
<tr>
<td>1971</td>
<td>53</td>
</tr>
<tr>
<td></td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>6</td>
</tr>
<tr>
<td>1971</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>4</td>
</tr>
<tr>
<td>1972</td>
<td>55</td>
</tr>
</tbody>
</table>

Classification

Abstracts in ABA are first grouped by Animals and under each animal by breeds, production, growth, progeny and performance tests, genetics, reproduction and sex, artificial insemination and semen characters. Then they are alphabetically arranged by the author's surname. A paper dealing with more than one subject is classified under the paramount heading and cross referred by see also cross references from the less important headings for that paper.

The contents page of any issue of the ABA gives the main subject sections and sub-sections under which the documents are classified.

Indexing

An author index is provided with each issue of ABA, while a subject index is provided at the end of each volume. The author index is cumulated after the end of each year, and Annual author and subject indexes are issued as a separate fascicule along with the last issue of each volume of ABA.

The annual subject index is divided into 3 parts:

i. Livestock
ii. Poultry and other birds
iii. General—covering other animals and general subjects.
Three persons in the scientific staff share the indexing. One person is responsible for indexing livestock section, second for poultry and the third for the rest of the field i.e. fur bearers, laboratory mammals, general papers on reproduction and sex, general genetics. The MS, and the two typed copies of the abstracts (all three clipped together) with the carbon copy at the top, followed by the top copy, and MS are passed on to the appropriate indexer.

The indexes are compiled from the title as well as from the abstract of each paper and are entered on separate slips, on perforated, gummed paper (7 1/4 cm x 3 3/4 cm) which is supplied in a roll. The average number of index entries are three, but it may go up to twenty. 'In relation to' is denoted by 'X' throughout the index. These entries or strips of slips are then stuck on the back of the carbon copy so that the slips with entries remain free. These slips remain attached to the carbon copy until after the editing. The references from the indexes are made to the serial number of the abstracts. Entries with titles only are denoted by asterisks (*).

The abstracts and MSS are then filed alphabetically by author in card boxes under their ABA sections until the editing begins. The author cards are filed separately until the editing is finished.

Author Index

The author index is prepared from the carbon copies. Names of the authors are typed on slips and the slips are arranged alphabetically.

For single issue the alphabetised slips are handed over to the printers, but for the annual index the entries are typed out on foolscap paper. Entries with titles only are denoted by asterisks (*).

Editing

Editing is done on the carbon copies and is carried out by three section editors. Each editor is responsible for about 400 abstracts. The editor often irons out the doubts in consultation with the abstractors, and by looking into the original article. This sometimes involves even the re-borrowing of a journal. The problem of re-borrowing can best be solved by editing the abstracts of borrowed journals soon after the abstracts have been written out and before the journals are returned to the lending libraries.

The edited carbon copies are then passed on to the Director for final editing and decision on any outstanding matters. Each section is then passed on to the typing-pool which transfer all alterations to the printer's copy ('top copy'). These are then checked for corrections by a junior scientific staff.

After the editing is over, the sections are finally checked for correct alignment. The abstract numbers are stamped with an automatic stamping machine on the printer's copy, carbon copy and on two of the index slips. The stamping machine can only stamp up to four repeat numbers, thus index entries in excess of two are filed in by hand by one of the clerical staff at a later stage. Cross references between sections and between abstracts are then filed in. The pages of the printer's copy are numbered and sent to the press. Four weeks from start to finish are allowed for the editing.

After sending the 'top copy' to the printer, the numbering of the Subject Index slip on the back of the carbon copy is completed. These subject slips are then detached from the carbon copy and filed in a box, and joined by those for the next issues of the volume. The preparation and editing of the Subject Index begins after the fourth and final part of ABA is sent to the printer in October. Unlike the abstract sections galley proofs are checked in case of indexes. The annual Author and Subject index appear as a separate fascicule along with the final part, or soon after it.

Staff position

The staff of the Bureau consists of a Director, an Assistant Director, 4 Scientific Information Officers (SIO) and 3 part-time SIOs, 5 Clerks, a Librarian and an Assistant Librarian.

The library staff also carries out the interlibrary loan and procures the periodicals needed by the technical staff from time to time. After the periodicals are received in the library and are processed (acccessioned,
entered in the Kardex and stamped); the assistant librarian then takes out their 'Journal Lists' and delivers them at the SIO's desk. As soon as SIO finishes with a particular journal and the abstracts are typed out, the journals are returned to the library for display on the shelves for being used in the library. It usually takes about 7 days from the time the journal is received in the library and displayed on shelves.

Card Indexes

A permanent author index on cards is maintained. The cards are filed in a steel cabinet. Each year after the completion of an ABA volume, the author cards are incorporated in the existing master index, and it keeps growing thus. Cross references are provided freely and one can easily glance into to find out the number of papers contributed by a given author. On the same pattern a cumulative subject index on cards is also maintained. The index is restricted to the fields of poultry and livestock at present. It helps in locating all the papers published during the years on a specific subject. While compiling subject bibliographies, or answering technical enquiries, this subject index is of great help. It is proposed to transfer all this information on a magnetic tape at the time of automation.

Appendix 1

Periodicity: Alternate month

<table>
<thead>
<tr>
<th>Year</th>
<th>Volume</th>
<th>No.</th>
<th>Page</th>
<th>Author and Short Title</th>
<th>ABA Vol (No)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1971</td>
<td>54</td>
<td>1</td>
<td>199</td>
<td>Keown et al: Selection on test-day fat percentage and milk production.</td>
<td>39(4) FS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2</td>
<td>420</td>
<td>Hafs: Fertility of bull semen with added β-glucuronidase.</td>
<td>39(4) FS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>423</td>
<td></td>
<td>Farrell et al: Verification of the occurrence of the asi case in A allele in Red Danish Cattle.</td>
<td>39(4) AS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3</td>
<td>544</td>
<td>Lamb et al: Semilethal abnormality of lambs in Jersey Cattle.</td>
<td>39(4) AS</td>
</tr>
</tbody>
</table>
Appoxm 2. Portion of a page from the ABA

**ANIMAL BREEDING ABSTRACTS**

**Hybrids (continued)**
- **cattle x yak** chromosome measurements 2775
- **goat x sheep**. allaged 2695
- **domestic x wild 647**
- **pig, domestic x wild 6845**
- **chromosomes 4935**
- **sheep, Karakul x Karakul 4769**

**Hypophysia:** see Pituitary

**Immunogenetics** see also Blood Groups

- histocompatibility loci, pig 1701
- hemyocyte antigens, pig 773
- in Czechoslovakia 1400
- s breeding 2708
- size of ears, pig 2157
- parental, pig 2132

**Improvement 4208**
- genetic contributions of different generations, cattle 3112
- dissemination through livestock industry 4195
- meat production, cattle 3138
- in France x meat production, cattle 118
- German Democratic Republic, cattle 3153
- Great Britain, meat production, cattle 4208
- Ireland, pig 4911
- Trinidad and Tobago, pig 2061
- U.S.S.R., pig 3227
- daily performance, cattle 2099
- meat production, cattle 2919
- milk production, book, cattle 5377
- meat production x breeding 4108
- x animal production 1296
- fertility, pig 2143
- inbreeding and selection, pig 2159
- livestock, cattle 2003
- livestock shows 6
- meat production, pig 2005
- performance, sheep 499
- reproduction, sheep 614
- testing method, pig 2128

**Inbreeding (continued)**
- x t对话, cattle 377

**Industry:** see GEOGRAPHICAL INDEX

**Infertility:** see Fertility, Sterility

**Inheritance** see also Genes, Genetics, Heritability, Immunogenetics

- abnormalities and pathological conditions
- achondroplasia, cattle 1650
- atrophic rhinitis, pig 3699
- cagatia of H. cattle 309
- interdigital hyperplasia (Limax), cattle 4745
- lameness, cattle 6473
- lethal trait A46, cattle 3645
- microphthalmia, sheep 1979
- urinary oedema, cattle 1652
- prostatic hyperplasia (pelvic head), cattle 4140
- rickets, pig 2152
- semi-lethal limb defect, cattle 4499
- allinism, cattle 1714
- albinoid type, sheep 1761
- blood groups, sheep 561
- carcass characters x parental type, pig 4939
- colour, horse 61
- Karakul 1981
- sheep 3297
- Soi, Karakul 4653
- congenital, pig 6744
- constitutional type, sheep 1901
- double muscling, cattle 1118
- dwarf lambs, cattle 1118
- enzymes, carbohydrate anhylate types, cattle 4497
- E.C.P. types, as 4226
- cattle 335
- tetra, eucarcin types x hybridisation, horse 4325
- fat tail, sheep 3187
- fertility, cattle 1790
- fleece weight, sheep 1992
- intersexuality, pig 5417
- litter size, sheep 4732
- milk composition, cattle 1715
- ovulation, sheep 3330

**Appendix 3. Portion of a page from Subject Index**
WORK-FLOW OF THE ABA

Source Material
1) belong to the Bureau/ABRO
2) received on loan
3) scanned in outside libraries

Abstracting → Typing → Checking and giving section headings → Indexing & pasting index entries at the back of carbon copies

Alphabetising by author under ABA sections

Animal Breeding Abstracts

Checking Proofs → Printing → Compiling Annual index → Checking Section headings and Serializing entries

Compiling author index → Editing

Printing author index