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BADOCAP (Database on goats): advantages and limits

P. Morand-Fehr^{1,2} and S. Giger-Reverdin^{1,2}

¹INRA, UMR 791 Modélisation Systémique Appliquée aux Ruminants,
16 rue Claude Bernard, F-75005 Paris (France)

²AgroParisTech, UMR 791 Modélisation Systémique Appliquée aux Ruminants,
16 rue Claude Bernard, F-75005 Paris (France)

Abstract. BADOCAP is a reference database of AgroParisTech enclosing 21,500 references (in December 2014) from 174 countries and dealing with all the subjects concerning the goat sector: husbandry, production, products (dairy, meat or hair) and commercial channels. Conditions to include a paper in BADOCAP are its goat specificity (more than 50% of its content must concern a goat subject) and the rigor and originality of its scientific, technical and socio-economical information. BADOCAP covers a broad diversity of subjects, allows searching references by four different methods (one is specific to BADOCAP and gives results more accurate by avoiding interferences with references out of the subject), the easiness of search and the presence of abstracts, which allows answers to a specific question to be obtained more rapidly. 73% of papers are written in English, but the rest has frequently an English abstract. Initially, a high proportion of papers (40-50%) came from “grey documentation” (papers unpublished in acknowledged international reviews) and provided original and interesting information. This proportion has declined steadily for 50 years. The quality, the rigor and the originality of the available information in BADOCAP make an essential tool for goat specialists, decision makers for agricultural policy and goat lovers.

Keywords. Database – Goats – Documentation – Methodology.

BADOCAP (Banque internationale de Documentation Caprine) : Intérêts et limites

Résumé. BADOCAP est une banque de données bibliographiques d'AgroParisTech constituée de 21 500 références (fin 2014) provenant de 174 pays et traitant tous les sujets intéressant le secteur caprin : élevage, production, produits (lait, viande et poil) et leur filière. Les conditions requises pour qu'un article entre dans BADOCAP sont sa spécificité caprine (plus de 50% du contenu de l'article doit traiter d'un thème caprin) et sa qualité reposant sur la rigueur et l'originalité de l'information scientifique, technique ou socio-économique qu'il contient. L'intérêt de BADOCAP s'exprime par la diversité de l'information qu'elle renferme, la possibilité de l'interroger par 4 méthodes différentes dont une spécifique à BADOCAP (ce qui permet des interrogations précises évitant la pollution de références parasites ou hors sujet), sa facilité d'interrogation et la présence de résumés qui permet à l'utilisateur d'obtenir des réponses rapides à son questionnement. 73% des articles sont écrits en anglais, mais le reste a souvent un résumé en anglais. Initialement, une proportion importante (40 à 50%) des références de BADOCAP provenait de la documentation grise (articles non publiés dans des revues internationales reconnues) et apportait une information originale et très intéressante. Cette proportion a régulièrement diminué en 50 ans. La qualité, la rigueur et l'originalité de l'information disponible dans BADOCAP en font un outil indispensable autant pour le spécialiste caprin que pour le décideur de la politique agricole ou l'amateur s'intéressant au secteur caprin.

Kots-clés. Banque de données – Caprin – Documentation – Méthodologie.

I – Introduction

The aim of this short paper is to inform goat specialists about BADOCAP, a data base including all subjects concerning goats, but only goats, its features, its advantages and the interest to use it.

II – What is BADOCAP?

BADOCAP is a reference database which includes all the references dealing with different subjects concerning goats: husbandry, production, products (dairy, meat or hair), commercial channels.... with various approaches: scientific, technical, sociological, economical or cultural.

The database is in a computerized form that uses the software EndnoteX7 (or later versions). A reference (one for each paper) is composed of several specific fields. Beside the usual information necessary to refer a paper in an article (list of authors, year of publication, title of the paper, where it has been published), BADOCAP may contain other characteristics as abstract, results, conclusions or geographic origin.

III – How BADOCAP was implemented?

BADOCAP was started in 1966. It was the bibliographic tool of the INRA Research Station of the Department of Animal Science of the National Institute of Agronomy (Paris) which has developed researches on goat nutrition in relationship with lactation, growth, digestion, metabolism, milk yield and milk composition, carcass and meat composition and quality, dietary requirements and feeding programs.

In 70's, requests for information from ITOVIC (French Technical Institute on Small Ruminants) and the closed relationships between the two institutes induced to expand the subjects of articles accepted by BADOCAP.

In 80's, the information needs of the FAO – CIHEAM Research Network on Sheep and Goats and International Goat Association induced BADOCAP to expand its field of investigation and above all, to become an international database interested in all topics involving goats and their productions throughout the world.

Initially, BADOCAP consisted of sheets filled by hand or typed. Around 1980, the database has been computerized using several softwares. Finally in the late 90's, the software Endnote has been adopted and it is still used in 2015.

IV – How are papers accepted in BADOCAP?

Whatever their geographic origin, all the subjects on goats, their products or their commercial channels may enter BADOCAP since 1975-1980.

Lots of papers concern ruminants, but only those where 50% of contents deal with goat subjects or where information on goats is interesting and original can enter BADOCAP; if not, it would lose its specificity and the reference number would increase threefold.

The main criterion for selection of papers to enter BADOCAP is their quality. For example, a paper with a poor experimental design, a poor statistical interpretation or conclusions not consistent with experimental results is automatically discarded and cannot be included in BADOCAP. On the opposite, the rigor of the reasoning and the quality of information upon which the conclusions are based are elements that promote the acceptance of articles. Finally, originality and topicality of the subjects and the interest of the results are important for the article to be included. In fact over the years, research teams and authors are known mostly by the specialists in charge of BADOCAP.

V – What is the originality of BADOCAP?

BADOCAP therefore contains references selected on the quality of the items evaluated by recognized experts about goats, which secures the quality of papers included in BADOCAP. It also has the advantage of containing a large number of references published before the computerization of the documentation and many items belonging to the gray literature which includes articles not published in recognized international journals. During the first years of BADOCAP, the papers dealing with goats were in some cases not accepted for publication in these journals. Towards the years 70-80 years, the articles of “grey literature” were often more interesting and sometimes more original than the ones published in international journals. Nowadays, they are fewer and their importance has diminished somewhat.

BADOCAP concerns a wide range of stakeholders in the goat sector: scientists, lecturers, students, farmers, technicians, veterinarians, decision-makers of agricultural policy and planning, actors in goat products (milk, meat and hair etc...).

BADOCAP allows them to get accurate, well-targeted and often original information and to respond to their concerns for the following reasons:

- The diversity of the information enclosed in BADOCAP.
- The possibility to question all the information included in each reference as methodology used, nationality of authors or the place where work reported was made.
- The ability to query by four different methods.
- The fast, flexible and easy methods of query.
- The accuracy of the interrogation by avoiding some parasites or inadequate responses.
- Information on each reference to know where to get full texts.

VI – What are the characteristics of the reference list?

In December 2014, BADOCAP contains 21,500 references from 174 countries. In 1970, 60% of selected references were from developed countries, mainly from Europe and United States while their numbers of goat heads accounted for only 7% of global population. In 2014, it is the opposite: 75% of references originate in emerging or developing countries, particularly China, India, Brazil, Nigeria, Turkey, Bangladesh and Pakistan and 25% industrialized countries which less 4% of global livestock goats.

73% of the articles are written in English, 21% in French and 6% in another language. Approximately, 59% of the articles have a summary in English. The others have no summary in English because the authors have not written one or a summary in another language or finally it was not possible to recover the computationally executive summary.

60% of papers contain key-words chosen by authors or librarians as some papers have been published without key-words. However, all papers of BADOCAP were characterized by the specialists in charge of BADOCAP with “ descriptors” included in the “Label” field. They are coded with numbers from 1 to 6 figures except for country descriptors which have been coded with their FAO code in 3 letters.

VII – Advantages and limits of each of the four interrogation methods

The four methods of possible queries in BADOCAP are:

- Method 1: on the title words of the paper,
- Method 2: on the words of the summary,
- Method 3: on the key-words of the “Keywords” field,
- Method 4: using the descriptors of the “Label” field.

The advantages and limits of these four methods are:

Method 1: It can be applied on all items of BADOCAP. If the query is done in English, only 76% of papers can be taken into account. If it is done in English and French, 98% of papers are taken into account, which is satisfactory but complicates the query. It is a little longer to query in 2 languages and we can meet some difficulties concerning deceptive cognates of words: you are exposed to the difficulties of false friends between the two languages and the words which do not have the same meaning in English and French. Generally the title words are not sufficient to mention all the interesting aspects of a paper.

Method 2: It can be performed only on items with summaries. Same as for Method 1, it can be applied in 2 languages for querying more papers. This method is a satisfactory one when the summaries are well written, which is not always the case.

Method 3: It can only be applied on items with key-words (65%). Generally, even if the full text of the paper is not written in English, the authors write an English summary with English key-words. They are generally well chosen.

Method 4: It can be applied to all the articles of the data base. The descriptors are coded with numbers or letters (see chap. V). Consequently, there is no language difficulty. The descriptors cover areas as diverse as science, techniques or current queries. They are chosen by goat specialists and not by librarians.

VIII – What are the different steps of a query? Advices to carry out an inquiry correctly

A query on BADOCAP consists of the following steps:

– Define the question and write it (Step 1)

The question must be as accurate as possible without ambiguous words. For example, an inaccurate question would be: “Effects of diet composition on the performances of young goats”. The more accurate question on the same topic to find adequate key-words should be: “Influence of the level of concentrate in diets on the growth and nutritional efficiency of weaned young goats”.

– Select key-words or descriptors (Step 2)

The second step is to choose the key-words or descriptors corresponding to all the aspects of the question. This requires a sufficient knowledge of the list of key-words or descriptors used in BADOCAP.

There is often an interest in limiting the subject of the question to a given period or geographic area. If, for example, a methodology appeared after 1990, the query should be made only on items published after 1990. On the other hand, it can may be appropriate on a subject concerning Angora goats to select items from countries that have experience in the production of haired Angora: South Africa, Turkey and United States.

– Design of the query (Step 3)

Specifically, it fills the interrogation device with a maximum capacity to question key-words or descriptors depending of the EndNote Version. In the last ones, it is possible to query on a subset of the database. Like in other databases, Boolean operators are used: “and”, “not” and “or”.

The result of the query is presented as a reference list of articles that answer the question. They can be included easily in a word file with a specified output form.

– Control and possible improvement of the result of the query (Step 4)

Analysis of selected references may be evaluated to assess whether the result is satisfactory. It often happens that the first approach gives references either inadequately selected or precise or contaminated with parasites or irrelevant. In this case, we must return to step 2 by modifying descriptors.

– Analysis of result references of the query response (Step 5)

At this stage, it is a classical literature review articles that should be done. The method to use depends on research objectives. If for example, the purpose is simply to find the average value of vitamin E in goat milk reading of several papers summaries may be sufficient. However, knowing the factors influencing the content of this vitamin in goat milk requires a thorough analysis of full papers dealing with the subject.

To get the full text of papers, the easiest way is to ask either the corresponding author (especially when his e-mail address is contained in the database) or visit the site of the journal in which they were published. Some of them are open-access, others accept to open the access 12 months after publication. In fact, the access to full texts depends on the policy of each journal.

Last but not least, the EndNote program is compatible with Word. References used to write a paper can be directly integrated and the author can cite them as requested by the publisher.

IX – Conclusions

BADOCAP database is operational at Paris (UMR INRA-AgroParisTech MoSAR), but not available to outsiders. However, due to its interest for goat specialists, BADOCAP should be available in the Documentation Centres of Institutions interested by small ruminants as the one of the Mediterranean Agronomic Institute of Zaragoza, especially for members of the FAO-CIHEAM Network of Cooperative Research for Sheep and Goats and for the participants of the seminars organized by the network. This is justified since some of the information in BADOCAP originated from the work and review articles achieved by the members of the network for over 30 years. The authors of this short paper are ready to help them so that their use of BADOCAP will be efficient by taking into account their specific objectives.