

PRINCIPLES OF ORGANIZATION OF INFORMATION AND SEARCH THESAURUS IN AGRICULTURAL FIELDS

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Abstract. The indexing process has been specially developed to organize a thesaurus of the agricultural sector in the scientific article and to express the purpose of searching in the databases. It is ensured that the creation and development of the thesaurus of information-search in the fields correspond to the current world level of the development of the linguistic support of the automated information-search systems.

Introduction. Thesaurus is an artificial information retrieval language specially designed to express the main content of a document for later search in databases, and in the process of indexing - expressing the information in the document in an aggregated form - the thesaurus allows the indexer to translate concepts from natural language to formalized language. helps in correct translation and thereby overcomes natural language difficulties such as synonymy, homonymy, polysemy and ambiguity [1]. Among the thesauri understood as ideographic dictionaries, information-search thesauri stand out in a special group, their emergence and development is associated with the automation of information search in the middle of the 20th century [2]. The information-search thesaurus is recognized as the most effective linguistic tool for thematic field research and is used in major international and foreign thematic databases such as AGRIS, CABI, IFIS, AGRICOLA. Creation and development of an information-search thesaurus corresponds to the modern world level of development of linguistic support of automated information-search systems.

Materials. The main functions of the agricultural thesaurus include: collecting and updating the field vocabulary used in scientific literature, as well as systematization; indexing of agricultural sector documents and sector search requests; ensure consistent, uniform and formalized presentation of information in the main data and its products; ensure the completeness and accuracy of the thematic search by implementing hierarchical relationships and synonymy relationships through software; formal-logical control of the base of indexing terms; is to structure the function of a terminological reference tool. Thus, the information-search thesaurus is a means of indexing, thematic search and presentation of the scientific terminology of the agricultural sector. An information retrieval thesaurus is a continuously updated controlled machine dictionary of scientific terms selected based on their importance and frequency of occurrence in database documents and subjected to special linguistic expertise and processing. The terms of an information-research thesaurus can be arranged according to the systematic and alphabetical principles, indicating the semantic relations between them, both hierarchical and non-hierarchical. Creating an information retrieval thesaurus is primarily about working with the terms and concepts they represent, so understanding their relationships is essential. This problem has been covered in a number of works [5].

Terms are interconnected with other terms and form a term system, terms are part of the terminological system. At the same time, the concept defined by the term is interrelated with other concepts of a certain thematic field and is an element of the system of concepts. A concept and a term are related because the term names the concept and the concept is expressed (defined) by the term.

According to L.G.Voronin, the concept is a reflection of a certain set of common and important features of the object [4]. Any term names a concept with different levels of completeness and accuracy [5]. A scientific term refers to a specific concept used in science. Semantics, which studies the semantic meanings of language units, studies the meaning of concepts. Semantic areas - a group of words that are semantically grouped and

reveal the semantic content of the topic, a group of terms that denote this topic. In other words, the semantic field is the semantic meaning of terms and concepts. Semantic studies in terminology - studies about the term include synonymy, antonymy, homonymy, polysemy, etc. [3]. When creating and/or updating an information-search thesaurus, filling its content with new terms, various interrelationships of concepts and terms are revealed, and semantic fields and semantic meanings of concepts and terms are defined and built. A number of works describe the construction [6] and use processes of information search thesaurus in information search [2]. At the Federal State Budget Scientific Institution "Central Scientific Agricultural Library", scientific work was carried out to supplement the contents of the information-search thesaurus on agriculture and food with a new dictionary. The purpose of the work was to update the polythematic information search thesaurus in order to correctly display the content of documents during the indexing process, to ensure a uniform presentation of information, an adequate description of subject areas, and to increase the search capabilities of the thesaurus.

Methods and results. The principle of creating an agricultural thesaurus is a complex terminological system, and there are various types of relationships between its elements - lexical units. "Central Scientific Agricultural Library" refers to the thesauri that distinguish descriptors and descriptors among the lexical units of the information-search thesaurus. Lexical units of an information-retrieval thesaurus are lexically significant components of a word, phrase, or natural language compound that enter the thesaurus as a descriptor or descriptor. An information-search thesaurus can include the following types of lexical units: single words (nouns, adjectives, verbs, adverbs), nominal phrases, lexically important components of compound words, words and abbreviations of phrases. The lexical units of the information-search thesaurus are divided into two main groups: descriptors - terms that are allowed to be used in indexing and descriptors (synonyms, homonyms, not descriptors) - terms that are forbidden to be used in indexing. Descriptors and semantic relationships between descriptors and descriptors determine the structure of the information-retrieval thesaurus. The main methodological principles of forming the paradigmatic structure of an information-search thesaurus are the categorization of lexical content; to the construction of classification schemes of the main concepts corresponding to its thematic framework. The dictionary entry of a descriptor may contain a lexical note, descriptors, higher terms indicating the level of the hierarchy, subordinate terms indicating the level of the hierarchy, and associative terms. Paradigmatic relationships in an information-retrieval thesaurus are defined not by linguistics but by logical relationships between objects or events. They reflect the logical relationships and psychological associations between the meanings of the lexical units of the information-search thesaurus. Paradigmatic relations go beyond the nature of the text, do not depend on the context of the document, have a multi-level character and can be part of different semantic lines.

Discussion. The semantic power and richness of the information-search thesaurus are expressed by its content composition, terminological reserve, differentiated nature of paradigmatic relations, and development of the structure. The thematic coverage of the thesaurus corresponds to the thematic coverage of the "AGROS" polythematic database, which is the main element of the thesaurus for library information retrieval. The information-search thesaurus presents and describes the fields of science: agriculture - crop production, agricultural plant and animal biology, plant protection, soil science, agriculture, agriculture reclamation, agro chemistry, animal husbandry, veterinary medicine, agricultural mechanization, economy and organization. agriculture, hunting and hunting economy, environmental protection in terms of agricultural production, forestry, fisheries, construction in agriculture, and the food industry. There are three types of semantic (paradigmatic) relations in the information search thesaurus: hierarchical, synonymous and associative relations, with the help of which the semantic meanings of terms are revealed and semantic areas of understanding are created. When creating dictionary entries, hierarchical relationships are established between concepts, the size of one of which is included in the size of the other. A broader concept (subordinate, superordinate) has a larger volume, it represents the important features of the class of objects, the processes that are part of this broader concept, are subordinate to it, or subordinate to it. Hierarchical relationships in an information retrieval thesaurus—subordination relationships such as type-type and private-integer—are important in information retrieval because they allow query customization. If there is too much information, then the introduction of general, subordinate terms allows you to narrow the search and increase the accuracy of the query, and vice versa, if there is a lack of information, the introduction of a general-level term expands the search.

In the process of identifying terms related to the topic and describing it, the synonymy of the term is determined and compiled, homonyms are analyzed, and ambiguity is eliminated. As a result, its semantic field is formed from the terms denoting a specific concept. Synonymy relations are established between the descriptor of the class of conditional equivalence and other lexical units, its synonyms, homonyms or lexical units having polysemy. For uniform indexing of documents and formation of search requests from many lexical units of the conditional equivalence class, only one lexical unit is given the status of a descriptor, it is forbidden to use other lexical units of conditional equivalence in indexing and search formation. image of the document. Association relations, in addition to synonymous relations, are any semantic relations between possible concepts in a given subject area. Associative links are established between descriptors of different hierarchical trees of the same category, between descriptors of different categories, and between descriptors meaningfully related to the same hierarchical tree to reduce the size of the thesaurus for information retrieval. The following logical connections between the terms are strictly defined: cause and effect; part-whole; subject - process; substance - it is derivative; organism - the type of use; the subject is the aspect of consideration.

In the process of updating the information-search thesaurus on agriculture and food, the following works were carried out: filling the content of the information-search thesaurus with a new dictionary; establishing and developing hierarchical relationships between terms (building hierarchical trees), taking into account logical relationships outside the context between the concepts they represent; defining and introducing new terms-synonyms, establishing synonymy relations to the existing lexical units of the thesaurus, eliminating ambiguity of terms; in connection with the introduction of new lexical units, establishing associative relations between terms, editing hierarchical connections, replacing them with associative connections in order to rationally expand them; commenting on complex or unclear concepts; remove obsolete and erroneous terms, replace them, correct spelling errors of terms. Lexical units of the thesaurus refer to the so-called relevant information, in particular the English language equivalents in the international agricultural thesauri CABI and AGROVOC, as well as official dictionaries and reference books in English. The research enriched the content of the information search thesaurus with a new vocabulary and the following thematic areas: plant protection, zoology, animal husbandry, forestry, food industry, genetics and breeding, and agricultural chemistry, and created semantic directions. In the terminological field of "Plant Protection", work was continued to complete the wide and extremely important family of leafworms from an economic and economic point of view, most of which are dangerous pests of crops and forest species.

Conclusion. Thus, the content of the information-search thesaurus has been updated with a new vocabulary and hierarchical trees in the following thematic areas: plant protection, zoology, animal husbandry, forestry, food industry, genetics and breeding, agriculture farm chemistry, veterinary medicine. An updated version of the thesaurus with a total volume of 76,895 lexical units representing various fields of knowledge related to agriculture, food and processing industry, including semantic fields of new terminology, sufficient description of the subject areas, correct disclosure of the subject allows. It is an effective tool for content and indexing and thematic search during the scientific processing of the document. The creation and development of the "Central Scientific Agricultural Library" information-search thesaurus corresponds to the current level of development of the thesaurus. The volume of information-search thesauri, the development of dictionary entries in it, the semantic relations of the terms contained in it allow a sufficiently complete description of the fields of science related to agriculture, food industry and related sciences. The new version of the information-search thesaurus is included in the technological cycle of scientific processing of the Federal State Budget Scientific Institution "Central Scientific Agricultural Library".

Bibliography:

1. M.J.Ashirmatova Terminology at the Agrarian University in Russian // International scientific journal Theoretical and practical science // Philadelphia, USA -2021-№ 1.-P. 201-203
2. Ashirmatova M.D. Methodology formation and system of communication ability of university students in the classes of the Russian language [Электронныйресурс]// Мироваянаука.-2021.-№10(55) (10.2021).
3. A.M. Jumanbaevna Development of oral and written speech in the study of the russian language in an agrarian university ACADEMICIA: An International Multidisciplinary ..., 2021

4. Jumanbaevna A. M. Activity and communication aspects of Russian speaking competence of a future specialist in agrarian university. – 2022.
5. U.M.Bazarova, M.J.Ashirmatova, R.K.Alibekova (2022) The content and pedagogical conditions of moral and aesthetic education of the younger generation. // International Journal of Early Childhood Special Education (INT-JECS) ISSN: 1308-5581 Vol 14, Issue 03.
6. Bazarova U.M. The Role of Spiritual and Moral Education of Students of Technical University in the Lessons of Foreign Languages // Philadelphia, USA-2019.-614-616s.
7. Bazarova U.M. The state of the problem of moral and aesthetic education of students by means of a foreign language at the present stage // International scientific journal "Scientific Horizons" No. 1 / Moscow 2019
8. U.M.Bazarova Improvement of mechanisms of moral and aesthetic education of students in foreign language lessons of a technical university//Asian Journal of Research in Social Sciences and Humanities 11(11), 2021
9. Y.G.Bakhtiyorovna Relationship of student activity with creative development in German language lessons - Thematics Journal of Social Sciences, 2021
10. Bakhtiyarovna Y.G., Muradkozievna R.D. The role of field-related terms in the development of students 'creative activity //International Journal of Early Childhood Special Education. – 2022. – T. 14. – №. 7.