

## **SECTION 7. LANGUAGE AND PROFESSIONAL TRAINING OF THE SPECIALIST IN AGRICULTURAL SECTOR**

### **7.1. INNOVATIVE AGRICULTURAL TERMS AS AN OBJECT OF SOCIOCOGNITIVE TERMINOLOGY**

*Tetyana Stasyuk,  
Doctor of Philology, Head of the Department of Philology,  
Dnipro State University of Agriculture and Economics*

**Abstract.** The study of agricultural terminology from the standpoint of sociocognitive terminology is relevant. Sociocognitive terminology as a new linguistic direction develops on the postulates of sociolinguistics, cognitive linguistics (cognitive semantics) and terminology, studies the origin and functioning of the term in the social context, taking into account human cognition (naive / scientific and professional knowledge, professional communication).

**Key words:** agricultural terminology, term, sociocognitive terminology, conceptualization, categorization.

Today the meaningful task is to form language and terminology culture of agrarian students to achieve high performance in professional activities. Linguistic and terminological culture is one of the components of the professional culture of an agrarian specialist, which enables his / her competitiveness on the labor market. The most relevant parameter in professional communication is terminological competence. Extension of the system of general and professional knowledge begins with the development of special terminology. The basis of professional communication is literary language, and the most important mount is terminology.

The study of communication features of students at agricultural universities at the lexical and semantic level revealed that the main means of their educational interaction is the language of the profession, an integral component of which is terminology. Terminological vocabulary is of great importance for research and professional communication, promoting its intellectualization, facilitating the process of learning and implementing them in future professional activities, deepening students' knowledge of term concepts, features of special concepts. It is a means of expanding active vocabulary.

In order to be fluent in oral and written forms of professional communication, specialists must have a considerable active vocabulary of professional terminology. Special branch terms make up more than 82% of the professional vocabulary of a specialist, the rest is occupied by general scientific terminology and commonly used tokens.

A prerequisite for the active use of scientific and professional terminology is a rational combination of communicative approach, professional context, ability to study independently, research activities, because free understanding and reading of scientific texts requires approximately 95–85% of all terms available in professional

discourse. Terminological competence of a specialist includes the ability to freely interpret professional terms in literary language; ability to choose terms for definitions or described phenomena, processes, objects; ability to compile a glossary of terms to the professional text with the addition of explanations of terms; ability to confidently retell highly specialized texts with a high density of complex terms; higher level of mastery of terminology – terminological erudition, namely – creative approaches in professional communication – term creation, term generation; ability to choose terminological synonyms, to introduce them into the professional text; knowledge of the nuances of the use of synonymous terms in professional texts; ability to make in mind hyper- and hyponymic terminological nests, lexical and semantic groups of terminological units; ability to find antonyms to terms, knowing counter-positions, inverse processes, opposite phenomena; skills in correcting professional texts, where there may be errors in the use of terminology, their interpretation, the use of terms in their uncharacteristic meaning; the ability to impromptu professional speech, presentation, explanations with a high content of accurate and complex terminology of the industry.

Virtuoso mastery of professional terminology helps the professional to feel the specifics of rare and complex concepts, to feel the nuances and transitions from normative professional speech using standardized terminology to colloquial and everyday working speech with the use of professionalisms, as well as to use such proverbs their point of view, the assurance of the employer in the benefits of employment, etc. Terminological competence of international class specialists is also manifested in their ability to translate complex specialized texts that contain terminology, standards, specific characteristics, in general, reproduce the background professional knowledge.

Terminological literacy of the specialist helps to avoid blind tracing when translating professional literature and creating professional texts, focuses on the use of normative forms of terminological tokens and professional phraseological phrases. The study of terminology in the process of forming the communicative culture of agricultural specialists involves the implementation of a number of tasks:

- 1) providing students with theoretical and practical knowledge necessary for a sufficiently free orientation in basic concepts and definitions used in terminology and terminology;

- 2) acquaintance of students with the basic ways of creation, models, types, structural and semantic features, stylistic and sociolinguistic functions of modern terms;

- 3) teaching students the basic methods and techniques of translating terms in professional texts and in the process of professional communication, as today about 50% of translation errors are errors related to terminology.

Realization of these tasks is quite possible if we take into account the motivational aspect of learning, because today the recognized fact is that the success of professional communication is largely determined by verbal communication culture, achieving a sufficient level of which is impossible without deep knowledge of laws of formation, development and terminology.

Special terminologies (ie sets of terms of specific fields) are called terminological systems, or terminological systems. Systematic terminology is due to two types of connections that give sets of terms of a systemic nature:

1) logical connections (if there are systemic logical connections between the concepts of a certain science – and they are in every science – then the terms that call these concepts must also be systemically connected);

2) linguistic connections (although terms denote scientific concepts, they remain units of natural human language, and, accordingly, they have all the connections that are characteristic of commonly used words – synonymous, antonymous, word-forming, grammatical, etc.).

A terminological system is a system of terms in a particular field, sub-branch of scientific or technical knowledge that serves a scientific theory or scientific concept. The sources of terminological systems are terminology. But, unlike terminology, the terminological system is formed not together with the formation of a particular science, but in accordance with the stages of formation of the theory of this science. However, the terminology is not necessarily based on scientific theory. Sometimes it is enough to have just a concept or generalized ideas. There are 3 stages of formation and operation of the terminology system: 1) the transition from the absence of theory to the state of its formation, ie the transition from a disordered set of terms to a terminological system; 2) the growth of knowledge within the accepted theory due to improvements, achievements of scientific and technological progress; 3) the change in theory and, as a consequence, a change in the terminology. First, the new theory is described in terms of the previous theory, then new terms are introduced that reflect new concepts. Thus form a system of concepts of a new theory, and each place in this new system occupies a new term, and together there is a new terminology. Some of the terms of the previous terminology are left, but they are already related to new concepts. So, without theory there is no terminology, without terminology there is no theory.

The terminological system is formed at a certain stage of development of a certain branch of scientific knowledge, when a scientific theory has already been created, objects and connections between them have been marked. There are several typical features of the terminology system:

1) integrity of the terminology system. For example, economic concepts, terms together constitute a holistic terminology system, which gives us a general idea of the functioning of the economy.

2) correspondence of the sum of parts to the whole. If we are dealing with a terminological system that describes the general foundations of economic development, the terms of the market, capital, wages, wages, property relations in their entirety should give a complete description of this topic.

3) a certain constancy of the terminological system. It reflects the system of views in economic theory at a certain stage, which has a certain duration.

4) structured nature of the terminology system. The structure of the terminological system can be one-level linear and hierarchical, ie with subsystems that reflect the genus-species relations, the relationship of the whole and its parts, the

relationship of cause and effect, the relationship of objects and their features.

The active formation of the terminology of the agricultural sector took place in a not so long time and depended on its extraordinary development in recent years, which makes it difficult to establish the gradual formation of its terms, their specialization, and determine the prevalence of means of expression in certain periods. The most basic concepts of agriculture appeared long before the formation of science itself. These words came into scientific circulation as a result of terminology – a device for the nomination of special concepts. The specificity of terminology is that the semantic structure of the word undergoes complete or partial modifications due to qualitative semantic transformations. The term formed in this way in the terminology acquires its own specific features, in particular the specification and detail of the scope of meaning.

The terminologisation of most commonly borrowed tokens has taken place recently, due to the need to name the active changes that have taken place in the last decade in the agricultural sector. This process has led to a different lexical combination of borrowed words, which is manifested in the presence of a clarifying noun in the genitive case or adjective, and thus generates new terms.

One of the reasons for the qualitative development of the terminology of a certain science is the emergence of a new science on the basis of the previous one, which contributes to the constant growth of new terms, which at some stage turns into the formation of terminology of this new science. This is what led to the enrichment of the terminology of the agricultural sector with a large number of terms borrowed from these donor industries, and most of all from the economic, from which it separated. The interaction of the studied terminology and economic has the following forms: 1) the functioning of basic economic terms in industry terminology with the same meaning and without changing the semantic structure; 2) narrowing the semantics of the economic term as a result of entering the terminology of the agricultural sector; 3) the involvement of economic and special terms as structural components in combination with new semantic concretizers in the formation of terminological phrases of the agricultural sector - this is the most common form.

Reterminologisation has given rise to a diverse heterogeneous composition of this terminology, which is difficult to understand which of the basic and basic terms have fully retained their original meaning, which have been modified, and which have completely changed their original meaning and specialized.

All this creates difficulties in defining the boundaries of terminology. These are mostly innovations, but their origins and stages of development are easier and more appropriate to trace in connection with the maternal economic terminology. The terminology of the agricultural sector has a small number of own terms and it is very difficult to separate them from the general continuum due to a number of extralingual and intralingual factors.

In each terminology there is a tendency to an exhaustive representation of the concepts of the relevant field of knowledge. Due to this trend, we observe a constant process of complication and detailed development of terminology, which serves as a means of advancing knowledge. On the one hand, the tendency to save mental effort

in language is obvious: it is expressed in the formation of analytical terminological forms; in the pursuit of systematic creation of terms with the predominant use of a limited number of templates (samples); in the direction of semantic clarity (intelligibility) of terms and the development of syntactic means of formation of the term, very convenient for expressing the characteristics of the concept and explicit representation. On the other hand, there is a tendency to save expression, which is manifested in the compression of terminological forms, in the conversion of phrases into complex words, and words – in affixoids, and then in – affixes, which helps to reduce the most common forms. In terminology, these two trends of the principle of economy are realized only in the case of compliance with the requirements of accuracy (ie, expressed in terms of the maximum number of characteristics of the concept) and brevity. But even more important is the knowledge of linguistic trends in the formation of terminology, because attempts to prevent the influence of natural laws are not very effective, while their conscious use allows the creation of stable terminological systems. And all this together gives rise to the choice of the most convenient and perfect form of the term for nominating the concepts of the agricultural sector.

Therefore, terminology, given its systematic nature, is generally characterized by a desire to fix certain suffixes and prefixes of certain terminological meanings, which explains the productivity of the morphological method. To denote the same type of concepts are mostly used the same type of word-formation tools.

The terms of the agricultural sector arose as a result of the following ways of nomination: terminology of commonly used words to denote a certain scientific concept; reterminologizing the finished term of the economy; use of existing word-forming types or foreign language components to form new names. However, regardless of how the terms got into the studied terminology, they denote similar agro-economic concepts and have common linguistic characteristics.

Today, sociocognitive terminology helps to solve the problem of teaching agricultural students special agricultural terms, which studies terms mainly in human speech and mental activity as a result of cognitive, intellectual and productive activity aimed at forming special names in scientific and professional communication / discourse. The new approach forms a complete and diverse idea of the essence of the term, as it takes into account cognitive processes, categorization, conceptualization of scientific or professional reality, explores the formation of individual and collective lexicon of a scientist / specialist [4].

Sociocognitive terminology uses the following metaterms [4]:

**Concept** is a unit of mental resources of human consciousness and the information structure that reflects human knowledge and experience, operational semantic unit of memory, mental lexicon, conceptual system and brain language (*lingua mentalis*), the whole picture of the world reflected in the human psyche.

**Scientific concept** is a "quantum" of knowledge determining the intentional content of a new scientific text and is the source of its meaning.

**Scientific concept** is a multidimensional, integrative unit, nominated by the term in the relevant scientific discourse, linguocognitive education and the construct

of research reflection, which can be a source of meaningful generation of scientific text and scientific discourse.

**Scientific concept** is a concept as a result of scientific knowledge, a product of cognitive activity of scientific subjects, which is actualized in scientific discourse as a set of scientific texts.

**Scientific concept** is a concept including an objective and subjective reflection of the signs of objects of knowledge, because it also depends on the individual personality traits of the scientist, creative and emotional situation, historical conditions in general.

**Scientific concept** is a linguocognitive concept (unit of scientific consciousness) embodying scientific knowledge obtained as a result of research activities and verbalized in the subtext of science.

**Scientific concept** is meta-meaning-value, or sense-importance, relevant in specific circumstances for the subject of knowledge; it is mental "reconstruction", passed through the individual personal experience, which he acquired in a particular field of his professional activity.

**Scientific concept** is a mental category that reflects the universal scientific knowledge; in its linguistic representation it reveals the features inherent in a particular language community, which determines the specific aspects of its structure and content.

**Scientific concept** is a value-semantic constant of the term, dominant of the linguistic and mental organization of the scientific text, which is a cognitive image generated by understanding, awareness and experience of the set of features of the object of knowledge, as organized in a certain way on the basis of key terms.

**Professional concept** is a concept operated by specialists in terms of professional communication, the use and understanding of which does not require its definition due to the commitment of specialists to the specifics of the subject, joint professional thinking.

**Professional concept** is mental-linguistic structure, which is an operational unit of professional knowledge (technical, technological, expert, etc.), verbalized in the appropriate terms of the specialist.

**Terminological concept [term concept]** is a localizer of scientific / professional meanings that corresponds to common situations in the scientific / professional community.

**Terminological concept [term concept]** is a constructed concept, the definition of which resembles the definition in logic.

**Terminological concept [term concept]** is a rationally meaningful operational unit of scientific, professional, expert knowledge, which has a complex structure, complex content, broader and narrower scope, reflected in a set of categorical features that are also elements of a system in a separate segment of reality.

**Terminological concept [term concept]** is a typical cognitive structure that reflects embodied in the linguistic form of knowledge and experience of specific social communities and groups.

**Terminological concept [term concept]** is a holistic fragment of the scientific

picture of the world, a rationally meaningful concept in the structure of special knowledge, the value-semantic universe of the profession or expert knowledge.

**Conceptual sphere** is a nuclear mental sphere, which, on the one hand, denotes a limited fragment of conceptual space, and on the other, is in a relationship of departure: it may itself contain another level of conceptual space.

**Scientific conceptual sphere** is conceptsphere, which consists of concepts of different fields of knowledge and is reflected in the language in the form in which it is perceived by experts.

**Scientific conceptual sphere** is a set of scientific concepts verbalized by terms that represent fragments of cognition in various fields of scientific knowledge, formalize specific scientific and empirical material.

**Scientific conceptual sphere** of special field of knowledge is a conceptual sphere, which consists of scientific concepts that reflect the characteristics of the relevant fragment of the world, both in the concepts themselves and in the principles on which the scientific picture of the world is built.

**Professional conceptual sphere** is a multilevel sphere of conceptualization of cognition, thinking, knowledge, experience, skills acquired by a person in the process of professional activity within the social division of labor.

**Professional conceptual sphere** is a set of individual, group, universal and professional concepts with an integrative feature "professional world", which represents professional knowledge, ensures its storage, transmission and understanding by a specialist as a carrier of professional mentality.

**Professional conceptual sphere** is a macro-fragment of human cognition, which reflects the reality in a certain organized set of general and professional concepts that are in one way or another, accumulating professional knowledge.

**Conceptual sphere** is the sphere of specialized knowledge of reality in a certain segment of human activity, which unfolds in the human mind in the processes of conceptualization.

#### **Relevance of the methodology of sociocognitive terminology.**

Sociocognitive approach to the study of professional terminology, in contrast to traditional, complicates and deepens the understanding of the term. If in traditional terminology the subject of research is mainly linguistic characteristics of the term, then sociocognitive terminology is interested in the ratio of conceptual or categorical and linguistic structures in the scientific or professional sphere, features of conceptualization of scientifically or professionally significant objects.

Sociocognitive terminology considers the term not as a static unit, but as a unit dependent on the nature of professional communication. It is logical that the type of communication determines the form and content of language signs.

The new approach offers its interpretation of phenomena and processes in scientific / professional consciousness, language, society, and therefore it allows:

1) analysis of the term not only as the actual object of description, but also in the form in which it actually functions in cognition, discourse (various discourses), communication;

2) study of specific internal properties of the term – the content of the term

concept, the most significant semantic component, cognitive features – basic meaning-knowledge, meanings-values, meanings-rules, meanings-proofs, meanings-norms, meanings-ideals, meanings-beliefs, meanings -potencies, functional or role meanings, etc.;

3) analysis of the origin and evolution of special knowledge in a broad scientific and professional context and understanding of historical processes in special (scientific / professional) spheres, terminospheres, conceptspheres;

4) study of the dynamics of special structures of knowledge and their verbalization, i.e. diachronic analysis of changes in the content of the concept, terminated by the same term;

5) analysis of dynamic processes in terminological spheres taking into account the changing cognitive and communicative needs of people;

6) logical and rational analysis of term definitions, composition of term concept definition according to modular or target principle depending on the final type of terminological information consumption – universal minimum definition of term for explanatory dictionary, extended interpretation for encyclopedia, constructive specialized definition for scientific / professional definition for the situational user of this concept (e.g. website glossary), modular definition for computer terminology, etc.

The sociocognitive approach to the description of terminologies requires that terminological units be described conceptually (as conceptual structures) and categorically (as categorical networks).

The **terminological sphere** is a set of key terms, formed both as a set of units and as a very complex network of knowledge that can be represented by terminology, conceptual spheres and sets of categories and more.

The **sociocognitive paradigm** explains the laws as the terminology reflects the scientific / professional ideas about the world and deals with concepts, i.e. with logically meaningful concepts and naively or analytically distinguished categories that arise from the separation of essential characteristics of objects and phenomena or epistemologically, axiologically, pragmatically, socially significant meanings (with the leveling of other meanings).

The study of scientific or professional conceptual sphere by reproducing the processes of conceptualization and categorization gives an idea of the participation of structures of knowledge and human experience in special (scientific / professional) cognitive-discursive human activity.

The technique of conceptual and categorical modeling of the terminological sphere performs several functions: it limits the terminological array in the discourse; serves as a basis for the development of terminological networks; makes it possible to further use the term in the function of generic to build a short classification definition of this concept in the dictionary and multi-module definition in a special lexicographic source.

The most important principles of the methodology of conceptual and categorical modeling of the terminosphere include:

1) analysis of the conceptual organization of the conceptsphere by finding key



concepts and subspheres that profile the term space of a given conceptsphere languages;

2) study of diachronic development of term concept from concept or concept by establishing etymology of key concept, research of historical development of concept content by scientific / professional historical literature by choosing definitions of concept content from special texts, compiling chain of diachronic conceptualization;

3) analysis of the conceptualization of the term concept in lexicographic sources and normative documents by discursive choice of definitions and logical-rational selection of key concepts in the structure of definitions, modeling their relationships;

4) compilation of corpora of definitions, recomposition of the definition of the term concept on a modular or target principle depending on the needs of the user of terminological information, compilation of the minimum universal definition of the term for the glossary;

5) research of the terminosphere as a result of conceptualization in scientific / professional discourse (textbooks, manuals, reference books) by choosing term concepts and building models of their conceptual organization;

6) analysis of the conceptualization of the term concept in scientific / professional discourse (articles) by choosing prototype structures (in simple and common sentences) and highlighting derivatives and interpretations of sociocognito;

7) study of conceptualization of the term concept in the minds of scientists / specialists with the help of psycholinguistic experiment – coordinated and uncoordinated establishment of associative connections in mental and linguistic introspections of the scientific / professional world;

8) analysis of language categorization of primary (universal) and secondary (scientific and professional) knowledge through sets of naive and derived categories;

9) study of terminological representation of lexical primary (universal) categorization in the terminology;

10) research of terminological representation of lexical secondary (scientific and professional) categorization in the terminology;

11) analysis of the processes and results of foreign language borrowing, import of term concepts, semantic specialization of concepts, term generation and concept formation in the terminology sphere.

### **The origins of the concept of sociocognitive terminology.**

Certain concepts of sociocognitive terminology are presented in the studies of the Belgian terminologist R. Temmerman [5,6], who:

1) combines terminological meaning with communicative attitudes and human interests; emphasizes the diversity of terminological meaning and the risk of distortion of understanding of the term in terms of its standardization, fixation of one or a limited number of meanings;

2) considers the essence of the term as a linguistic, semiotic, sociological, cognitive, communicative, pragmatic phenomenon; explores the construction of the definition of the term (the degree of its detail / generalization, specialization,

selection of more significant / less significant features) depending on the target user of the term; refers to the concept as a set of cognitive categories; allocates terminology instead of artificial terminology;

3) emphasizes the importance of training terminologists who can create templates for terminological representation of professional knowledge, develop matrices for describing terms, know methods of analysis of textual corpora (professional discourse);

4) studies the perception and transmission of terms by specialists and non-specialists, analyzes the processes of term and term use in the field of natural sciences (biology, biochemistry, biotechnology, microbiology, immunology, physiology, genetics, molecular genetics, ecology, etc.);

5) analyzes the term through the prism of human consciousness, reason, erudition, competence, experience, motives, culture, profession, and therefore studies the functioning of the term in the social environment;

6) brings to a new methodology of terminology analysis, explains new principles of construction of terminological matrices, knowledge bases, software, which are based on the sociocognitive approach in terminology;

7) proves the socio-cultural conditionality of terminology;

8) emphasizes the need to study texts, discourse, analyzes the variability and situationality of term use as a cognitive potential of terminology in professional discourse, in communicative environments.

The introduction of the provisions of cognitive semantics to the general theory of the term has caused contradictions in the theoretical postulates, which were previously considered basic. Consider the controversy over key aspects of terminology, in which we observe significant differences depending on which of them the researcher adheres to.

Thus, the Belgian researcher R. Temmerman notes that the term concept is a relative category, and there are no clearly defined fields or areas of knowledge. If we take a closer look at the ideas of this provision, it becomes quite logical to deny a fixed definition of the term (it should be one for a non-specialist and another for a specialist), and the issue of term polysemy, and, of course, the dynamics of understanding and using the term.

In addition, Western terminologists offer different interpretations of the five basic principles declared by traditional terminology, including Wuster, from radical denial to the assumption that the application of a particular principle can be useful "only in a certain case."

Thus, the new paradigm led to the emergence of new concepts and concepts, which, in turn, led to some changes in the traditional theory of terminology. However, the fundamental questions still remain: what is the term, what does it mean, how does it mean, what is the limit and depth of the denoted; what is the definition of the term, how it is formed; what is reality, can it be systematized or better categorized; how the term is verbalized representation, and so on. In the same work, R. Temmerman draws parallels between the principles of traditional and sociocognitive terminology, which she presents in opposition [6]. Note that the

researcher, describing the principles of traditional terminology, uses traditional terminology in this area – the concept, logical conceptual structure, ontological conceptual structure, special definition of the term, substantive definition of the term, hyponymic term; describing the principles of sociocognitive terminology, involves the metalanguage of cognitivism – a unit of understanding (special knowledge), cognitive model, prototype structure, intracategorical structure, intercategorical structure, verbalization of information in the definition. In addition, the researcher's interpretations fully involve the views of cognitivism, which are implemented in the provisions on the prototype structure of terminological concepts, the structure of the understanding process, the dynamics of the term, the dynamic structure of the definition of the terminological concept depending on the needs of communicators.

Thus, the issues of unambiguity and related issues of synonymy, homonymy, figurative language are key in the theory of terminology, on which scholars differ. Sociocognitive terminology argues that the term can be ambiguous in synchrony and diachrony, and always changes meaning in diachrony, because the process of cognition and rethinking of reality is continuous, and therefore the dynamics of the internal meaning of the term is constant. Terms show the ability to make synonymous connections, because synonymy is an objective phenomenon that reflects different perspectives on understanding the object denoted by the term. Imagery of thinking is another important aspect that the Belgian scientist touches upon, discovering a new side of scientific interests in terminology. The field of research, cognition, interpretation of reality uses figurative thinking – moving and living, which affects the formation of terminology, which is not recognized at all in traditional terminology. Concepts of foreign and Ukrainian scholars turn to nuclear processes and concepts for the anthropocentric linguistic paradigm: studying the essence of the term through the prism of the scientist / specialist, identifying the most important patterns of terminology, formation of terminospheres in connection with generating knowledge and experience in new fields, study of professional languages (LSP), attention to the social conditionality of the development of professional languages, sociocognitive factors of term generation and term use [4]. Studies of the nature of the term in terms of cognition, sociology, ontology, axiology, pragmatics, etc. are becoming promising; properties of the term as a verbalized means of categorizing the world around (metaphor, metonymy, polysemy, synonymy, variability, etc.); the role of the term in professional cognition, in expert and professional human activity [4]. Sociocognitive approach contributes to: understanding of new, deep problems of the term, including the attitude of man to the environment and his desire to mark in language the results of scientific analysis and interpretation, as well as transformations and processes of professional activity; analysis of the process of origin of the term, identification of the current at the time of nomination "view" of native speakers on a particular fragment of reality; new understanding of the term as a dynamic unit that is born in the process of cognition (sometimes specified - in discourse), develops as knowledge deepens and becomes more or less stable as a verbalized special concept only after the formation of a theory describing the relevant field of knowledge and (or) activities; development of a comprehensive method of

terminology research, which represents modeling as a way to systematize special knowledge in conjunction with thesaurus description of terminology, sociocognitive and semantic-communicative analysis as a way to describe representations of special knowledge [4].

We compare the definition and interpretation of the term from different sources. For example, V. Ivashchenko emphasizes the following main features of the term unit within the cognitive aspect of its study [3]:

- the term represents a special concept that comes into relationship with other concepts in the general structure of scientific or professional field;
- denotes a sign that can be a dynamic piece of information within a special subject area;
- able to represent a special concept in the form of a model (template, stereotype, scheme);
- can verbalize a special concept, and a set of terms – the conceptual sphere of a field of knowledge;
- manifests itself as a means of structuring information, the transfer of special knowledge in scientific, professional texts;
- denotes cognitive structures based on the experience of a scientist, specialist, which provide a high level of understanding in professional communication;
- depends on the thematic context, the place in the system of special concepts of the industry, etc .;
- the term has a specific semantic structure.

The paper also highlights the following features of the term [3]:

- the term can encode information about different types of thinking;
- may be a kind of correlate of mental operation that occurs in the mind of the researcher;
- can have subjective properties, represent the subjective world of its creator;
- can represent different forms of organization of special knowledge: the format of the definition, hierarchy of terms, scientific concept or conceptual structure as a fragment of cognition;
- can form scientific text, scientific episteme, gnosema, frame;
- it is born in discourse and forms its meaning in the process of cognition, and only later is it fixed or not fixed during written fixation in texts, etc.

An in-depth analysis of the cognitive nature of the term was made by O. Golovanova [2], who presented the following definitions of the terminological unit:

- the implementation of mechanisms of knowledge of a field of knowledge or activity, representation of special knowledge structures. activities of specialists;
- an integral cognitive structural unit of the language of specialists, the language of professional orientation;
- verbalized result of professional experience;
- the most important mental objects of professional activity (those that have a referent and those that have an abstract nature), verbalize the logical model of a particular system of knowledge or activity and function as the main cognitive

landmarks within these systems.

Cognitive functions of the term are analyzed by M. Volodin [4; 34–36], who notes that the term is:

- a special cognitive-informational structure, which accumulates expressed in a particular language form of professional scientific knowledge accumulated by mankind throughout its existence;
- the bearer of collective professional and scientific knowledge that optimizes the cognitive and transformative activities of people;
- a kind of record of professional and scientific knowledge.

Its content is objectified in a special sense, which represents not only the object of knowledge, but also the mental process associated with it.

According to S. Mishlanova [4; 34–36], terms are language signs, the formation of which occurs in the activities of the individual and has a cognitive-discursive nature. Therefore, the laws of terminology, the essential properties, function and structure of the term as a linguistic sign are determined by the laws of discourse and the laws of development of professional language personality. It is the basic unit of science, special branches of knowledge and areas of human activity, designed to nominate objects and processes and at the same time serve as a means of learning about the world around us.

A. Lemov [4; 34–36] singles out similar features of the term, noting that the term is a linguistic unit (word or phrase) of predominantly substantive nature, which is conventionally related to the concept and subject of the professional sphere and serves to concentrate, record, store and transmit information.

V. Leichyk [4; 34–36] qualifies the term as a dynamic phenomenon that is born, formed, deepened in the process of cognition (cognition), the transition from a concept as a mental category to a verbalized concept associated with a theory, a concept that comprehends a particular another area of knowledge and (or) activity.

However, this approach seemed incomplete. The concept of a term within cognitive terminology is much broader. It not only contains certain information about a certain meaning, phenomenon, process, but also relies on a set of knowledge, experience gained by mankind.

The formation of a cognitive approach in terminology has developed a new view of the term as a representative of scientific knowledge, a means of obtaining, storing and accumulating professional and scientific information. Within this approach, the basic unit of science is considered as a verbalized result of professional thinking, because language objectifies the results of cognitive activity of people.

The study of the organization and dynamics of language categories reveals not only the complex system structure of language, but also the influence of consciousness and other cognitive structures on any structure in language and discourse. The object of research is not so much the category itself, but the inner side of mental representation, the features of structuring the immediate human experience.

In our opinion, it is important to find out which concepts (in terms of structure, content and degree of specificity) underlie the terminological nomination and contribute the most to the fixation, storage and transfer of knowledge. In the

paradigm of cognitive terminology, the term is understood as an information-cognitive structure that accumulates special knowledge needed in professional activities. In the ontological aspect, a term that functions in any subtext is a unit that arose as a result of secondary, terminological categorization and conceptualization at the "superordination level", as a result of which the subject of speech (referent) in a scientific text is a class of phenomena generalized in scientific terms, concept as a "structure of knowledge representation that reflects the content of experience" [4; 34–36].

Thus, the cognitive nature of the term is manifested in the following aspects: the term reflects the processes of cognition, conceptualization and categorization, is a verbalizer of a fragment of knowledge of various volumes, a kind of means of obtaining, storing and accumulating professional scientific information. In this regard, it can be argued that the main function of the term is to conceptualize as accurately as possible a fragment of the scientific or professional picture of the world, to categorize diverse meanings.

Sociological aspect of the study of the term until the beginning of the XXI century revealed, that the term was considered in isolation, mainly in the field of fixation. At the same time, the attention of scholars was drawn to the fact that the texts (and language), the semantic core of which was terminology, were qualitatively different from the common language. Stylistic differences between the language of universal, general literary communication and the languages of professional communication seemed obvious. One of the main ways to express or "write" a special concept are terms that are created by professionals to communicate in the process of professional activity. Let's compare the definitions of the term in which its sociological nature is actualized.

O. Golovanova formulates the opinion that the term is a verbalized result of professional thinking, a significant linguistic and cognitive means of orientation in the professional sphere and an important element of professional communication [2].

M. Volodina suggests that the terms by which specialists in a particular field communicate are special cognitive structures, frames that require appropriate behavior, dictated by specific knowledge; they are one of the main ways of linguistic expression of special knowledge. Terms are created to provide an opportunity to communicate in the process of professional and scientific activities and optimize the development of human cognition [4; 37–38].

For our part, we can offer the following observations on the social nature of the terminological unit: the term is realized in a social context; adapts and modifies in a scientific / professional context; actively engages in the practice of everyday use; is influenced by the cultural and pragmatic factor of communication; may be influenced by the economic or political context of its operation, evolve according to the needs of the community, embody information on how, by whom and under what circumstances it is used.

Thus, the term reflects the sociological aspect in the process of cognition and interaction in the scientific / professional environment, the desire of scientists / professionals to share their skills and experience with others, to pass their knowledge to students, interns, like-minded people. It turns out that the main function of this unit

is to conceptualize a fragment of scientific or professional picture of the world, categorize diverse meanings, and the main task to ensure the effectiveness of scientific / professional communication by fixing the basic properties of recognizable objects or phenomena and disclosing their most important features.

It is known that communication is a process of exchanging information (facts, ideas, views, etc.) between two or more persons, which ensures their mutual understanding. We can interpret scientific / professional communication as the use of special language tools and especially terminology, which allows to determine the functional load of terms in various communicative processes, because terminology as a separate subsystem of vocabulary provides the most important social function of language – transfer of [scientific / professional] knowledge. Scientific / professional communication involves the intensive use of terms, so now it seems quite relevant to study this unit in action, in real terms. If the set of terms, and consequently the concepts they denote, forms the basic knowledge of a field or scientific discipline, then understanding the terms that name the concept is the basis of scientific / professional communication, the main means of mutual understanding between professionals. Thus, sociocognitive terminology today is an independent field of research, which is a synthesis of socioterminology and cognitive linguistics. The subject of study are "living" processes of generation of new terminological units, term use in the real environment, selection and use of terminology in the sociolinguistic professional community, reproduction in terminology of knowledge, experience, stereotypes, professional thinking. As a result of studying the theoretical basis for the development of sociocognitive terminology, changing its issues, expanding its prospects, we concluded that a new definition of the term [4], which we would formulate as follows: the term is, on the one hand, a unit of scientific / professional language. terminological concept, which is the result of conceptualization of the scientific / professional world; language means of concentration, recording, storage and transmission of scientific / professional concepts in scientific / professional texts; on the other hand, it is a verbal representative of scientific / professional thinking, an instrument of cognition of the scientific / professional world, an element of scientific / professional communication that accumulates special experience of a scientist / specialist.

Let's consider the examples innovative terms in agriculture and their concepts.

#### **Agroecology [7].**

Agroecology can be defined broadly or narrowly. "Loosely defined, agroecology often incorporates ideas about a more environmentally and socially sensitive approach to agriculture, one that focuses not only on production, but also on the ecological sustainability of the productive system. [This definition] implies a number of features about society and production that go well beyond the limits of the agricultural field.

#### **Alternative Farming / Alternative Agriculture [7].**

These are essentially synonymous terms encompassing a vast array of practices and enterprises, all of which are considered different from prevailing or conventional agricultural activities. "They include:

- nontraditional crops, livestock, and other farm products;
  - service, recreation, tourism, food processing, forest/woodlot, and other enterprises based on farm and natural resources (ancillary enterprises);
  - unconventional production systems such as organic farming or aquaculture;
- or
- direct marketing and other entrepreneurial marketing strategies.

### **Agrobiodiversity [7].**

Agrobiodiversity "is a fundamental feature of farming systems around the world. It encompasses many types of biological resources tied to agriculture, including:

- genetic resources – the essential living materials of plants and animals;
- edible plants and crops, including traditional varieties, cultivars, hybrids, and other genetic material developed by breeders; and
- livestock (small and large, lineal breeds or thoroughbreds) and freshwater fish;
- soil organisms vital to soil fertility, structure, quality, and soil health;
- naturally occurring insects, bacteria, and fungi that control insect pests and diseases of domesticated plants and animals;
- agroecosystem components and types (polycultural/monocultural, small/large scale, rainfed/irrigated, etc.) indispensable for nutrient cycling, stability, and productivity; and
- 'wild' resources (species and elements) of natural habitats and landscapes that can provide services (for example, pest control and ecosystem stability) to agriculture.

### **Agri-environmental indicator [7].**

An agri-environmental indicator measures change either in the state of environmental resources used or affected by agriculture, or in farming activities that affect the state of these resources. Examples of sustainable agriculture processes monitored by such indicators are soil quality, water quality, agroecosystem biodiversity, climatic change, farm resource management, and production efficiency.

### **Biodiversity [7].**

At its simplest level, biodiversity is the sum total of all the plants, animals, fungi and microorganisms in the world, or in a particular area; all of their individual variation; and all the interactions between them.

Agrobiodiversity "is a fundamental feature of farming systems around the world. It encompasses many types of biological resources tied to agriculture, including:

- genetic resources - the essential living materials of plants and animals;
- edible plants and crops, including traditional varieties, cultivars, hybrids, and other genetic material developed by breeders; and
- livestock (small and large, lineal breeds or thoroughbreds) and freshwater fish;
- soil organisms vital to soil fertility, structure, quality, and soil health;
- naturally occurring insects, bacteria, and fungi that control insect pests and



diseases of domesticated plants and animals;

- agroecosystem components and types (polycultural/monocultural, small/large scale, rainfed/irrigated, etc.) indispensable for nutrient cycling, stability, and productivity;

- 'wild' resources (species and elements) of natural habitats and landscapes that can provide services (for example, pest control and ecosystem stability) to agriculture.

Agrobiodiversity therefore includes not only a wide variety of species, but also the many ways in which farmers can exploit biological diversity to produce and manage crops, land, water, insects, and biota.

### **Biological Farming/Ecological Farming [7].**

Biological and Ecological Farming are terms commonly used in Europe and developing countries. Although sometimes strictly defined, e.g., Biological farming is a system of crop production in which the producer tries to minimize the use of 'chemicals' for control of crop pests.

### **Combining Data for Agriculture [8].**

Occasionally Crop Monitoring has to mash various data sets in order to get valuable insights for your fields. For a start, the user is able to compare the performance of his field with the average performance of all fields in the given district. To face this challenge, multiple datasets obtained from all of the fields in your district are compared. For now, such comparisons are only available using the NDVI vegetation index, but in the near future we will expand the analytical opportunities of the Platform by adding new indices.

The next valuable feature that employs numerous data sets is weather data analysis. It is comprised of the following options:

- “Winter kill” notifies you about low temperatures that threaten your winter crops.

- “Cold stress” highlights the days when the temperature dropped below  $-6^{\circ}\text{C}$  to assess the damage to early crops from frost.

- “Heat stress” reflects the days with temperatures above  $+30^{\circ}\text{C}$  to assess the damage from heat stress.

- The feature provides the ability to monitor precipitation and temperature as well.

### **Conservation Buffer Strips [7].**

Conservation Buffer Strips are areas or strips of land maintained in permanent vegetation, designed to intercept pollutants and erosion. Placed around fields, they can enhance wildlife habitat, improve water quality, and enrich aesthetics on farmlands. Various types of buffers include Contour Buffer Strips, Filter Strips, Riparian Forest Buffers, Field Borders, Windbreaks/Shelterbelts, Hedgerows, Grassed Waterways, and Alley Cropping.

### **Conservation Tillage [7].**

Conservation Tillage is a term that covers a broad range of soil tillage systems that leave residue cover on the soil surface, substantially reducing the effects of soil erosion from wind and water. These practices minimize nutrient loss, decreased water

storage capacity, crop damage, and decreased farmability. The soil is left undisturbed from harvest to planting except for nutrient amendment. Weed control is accomplished primarily with herbicides, limited cultivation, and with cover crops.

#### **Data From The Sky – Drones for Ariculture [8].**

With the assistance of drones farmers have an opportunity to define crop biomass, plant height, the presence of weeds, and water saturation on certain field areas with high precision. They deliver better and more accurate data with higher resolution in comparison to satellites. When they are locally operated, they provide valuable information even faster than scouts. Drones are also considered to be unrivaled aides in the battle against insects; the invasion is prevented by applying the insecticide on the hazard areas using drones, all while reducing the likelihood of direct exposure leading to chemical poisoning.

Despite the fact that drones are easy to use and are capable of collecting large amounts of data within short time frames, there are still challenges when using them on a constant basis as they don't come cheap. Drones are almost helpless where mapping or monitoring of large areas is required, and it is better to complement the technology with satellite monitoring among already mapped areas, where specific zones need to be cross-checked.

#### **Eco-label [7].**

A seal or logo indicating that a product has met a set of environmental or social standards. Labels that identify a preference for a product or service, within a specific product/service category, based on the environmental impact of the product or service throughout its life. In contrast to 'green' symbols or claim statements developed by manufacturers and service providers, an eco-label is awarded to specific products or services by an impartial third party based on defined environmental leadership criteria.

#### **EOS Crop Monitoring for Ariculture [8].**

To simplify field observation, EOS has designed Crop Monitoring – a digital Platform that employs satellite monitoring in order to speed up a farmer's decision-making so that he does not miss a crucial point of field treatment. Crop Monitoring allows the use of the Normalized Difference Vegetation Index (NDVI) for tracking crop health. This index monitors the amount of chlorophyll in plants which makes it possible to obtain information about their condition. When you have higher NDVI values, you have healthier vegetation, since the more chlorophyll available to the plant, the healthier it is.

Another important feature of Crop Monitoring is a Scouting app. It is both a mobile and desktop app that employs digital field maps. While using this app, a farmer is able to assign multiple tasks to scouts in few clicks. Add a field, drop a pin, set a task. Once the task is assigned, a scout moves directly to the selected location and checks problem areas at the site, inspects pest activity, performs weed management activities etc., immediately making records in the app. This allows inspection of the problem areas only when needed, thereby saving ample time to take necessary preventative actions.

Weather analytics. By analyzing weather data in-line with the data on plant condition obtained from satellite imagery, farmers can precisely apply irrigation and

prevent frost or heat damage. For example, one of the best methods to avoid drought issues is drip irrigation with automatic or manual valve control, thus the farmer can apply the required amount of water to dry areas.

The strongest benefit of Crop Monitoring is the fact that it is based on satellite imagery. It helps to analyze field conditions or the state of specific areas and extract valuable information on-the-fly, thereby speeding up optimal reaction time as well as making reliable decisions – what crops to plant, when to harvest, how to effectively plan for the next season, what amount of nutrients and fertilizers apply, and many more.

#### **Farmland Preservation/Protection [7].**

The irreplaceable land that produces our food and provides us with scenic open space, wildlife habitat and clean water is increasingly at risk from urban sprawl and rural subdivisions... According to a 1997 American Farmland Trust study, every state in the nation is sacrificing irreplaceable agricultural resources to urban sprawl. We are converting a total of 1 million acres a year, and while the quantity of top-quality agricultural land being lost varies from state to state, the process of conversion increases the pressures on agriculture even beyond the acres that are actually taken out of production.

Actions to reverse this trend are being taken on many levels. Tactics include focusing on policies related to property tax relief and protection from nuisance lawsuits for farmers, purchase of agricultural conservation easement (PACE) programs, special agricultural districts where commercial agriculture is encouraged and protected, comprehensive land use planning, and farm-friendly zoning ordinances.

#### **GIS-Based Agriculture [8].**

Since fields are location-based, GIS software becomes an incredibly useful tool in terms of precision farming. While using GIS software, farmers are able to map current and future changes in precipitation, temperature, crop yields, plant health, and so on. It also enables the use of GPS-based applications in-line with smart machinery to optimize fertilizer and pesticide application; given that farmers don't have to treat the entire field, but only deal with certain areas, they are able to achieve conservation of money, effort, and time. Another great benefit of GIS-based agriculture is the application of satellites and drones to collect valuable data on vegetation, soil conditions, weather, and terrain from a bird's-eye view. Such data significantly improves the accuracy of decision-making.

#### **Good Agricultural Practices (GAP) [7].**

Broadly defined, a GAP approach aims at applying available knowledge to addressing environmental, economic and social sustainability dimensions for on-farm production and post-production processes, resulting in safe and quality food and non-food agricultural products. Based on generic sustainability principles, it aims at supporting locally developed optimal practices for a given production system based on a desired outcome, taking into account market demands and farmers constraints and incentives to apply practices. However, the term "GAP" has different meanings and is used in a variety of contexts. For example, it is a recognized terminology used in international regulatory frameworks as well as in reference to private, voluntary and non-regulatory applications that are being developed and applied by

governments, civil society organizations and the private sector.

### **Grass Farming/Grass-based Farming [7].**

Grass-based production relies on pasture or rangeland to supply the protein and energy requirements of livestock. Grazing and forage feeding replace high grain diets, close confinement and feedlot-finishing during most or all of an animal's lifetime. The producer focuses on pasture plant and soil management, and proper stocking density and rotational grazing. "An acceptable level of production can be attained as the ecological connections between ruminants, the soil, and the pasture plants is naturally maintained... Pasture-based animal agriculture promotes environmental stewardship and community development owing to the following management practices:

- Use of off-farm inputs, such as diesel, fertilizer, and purchased feed, are minimized.
- Use of toxic substances, such as herbicides and soluble fertilizers, is minimized or sometimes eliminated.
- Limited tillage and use of perennial pastures, which store carbon in the soil while building soil organic matter, conserves soil.
- Water and energy resources are conserved through monitoring and appropriate technologies, such as irrigation monitoring, solar and wind technologies, and biofuel development and use, where applicable.
- Proper plant and animal genetics, such as locally-adapted pasture grasses and low-maintenance animals, are selected.
- Planned grazing systems that favor grass growth contribute to biological diversity.
- Marketing food to local communities, reducing the distance food travels from farm to plate, provisions the community with better, fresher food.
- The development of local processing plants is fostered, which adds value to local animal products while providing employment and economic development.
- A management philosophy is developed that values health in people, animals, plants, and soil.

What is the difference between grass fed and grass finished? Grass fed means the animal was fed solely on grass and hay. Grass finished is a term used to indicate that a beef animal has grown fast enough on the pasture to create inter-muscular marbling. This marbling makes the meat more juicy and flavorful but not more tender. Grass finished animals will typically grade High Select or Low Choice under the USDA Grading System. This finish can be determined with an ultra-sound scan while the animal is still alive.

### **Intensive/Controlled Grazing Systems [7].**

The term "Intensive Grazing" is meant to describe livestock and grass management practices that focus on increased levels of manager involvement, increased forage quality, increased meat production per unit area, and more uniform forage utilization. Managers practising intensive grazing closely follow the interactions between plant, animal, soil and water. They determine where, when and what livestock graze, and control animal distribution and movement. They plan with

these factors in mind, and this attention encourages positive attitudes toward the land.

Controlled grazing is a flexible management method that balances plant and animal requirements. Controlled grazing relies on management, not technology. It uses variable rest periods, short graze periods, high stock densities, and a minimal number of relatively large herds. It requires changing the stocking rate to match annual and seasonal changes in carrying capacity.

#### **Natural Farming [7].**

Natural Farming reflects the experiences and philosophy of Japanese farmer Masanobu Fukuoka. His books *The One-Straw Revolution: An Introduction to Natural Farming* describe what he calls "do-nothing farming" and a lifetime of nature study. "His farming method involves no tillage, no fertilizer, no pesticides, no weeding, no pruning, and remarkably little labor! He accomplishes all this (and high yields) by careful timing of his seeding and careful combinations of plants (polyculture). In short, he has brought the practical art of working with nature to a high level of refinement." [Robert and Diane Gilman].

#### **Organic Farming [7].**

The term 'organic farming' did not refer solely to the use of living materials (organic manures, etc) in agriculture although obviously it included them, but with its emphasis on 'wholeness' is encompassed best by the definition 'of, pertaining to, or characterized by systematic connexion or coordination of parts of the one whole' [Oxford English Dictionary, 1971].

#### **Precise Agriculture [8].**

Promising agricultural technologies are moving into the future by leaps and bounds. They offer substantial help for farmers in their endeavour for optimizing inputs, simplifying farm management, and increasing productivity. Increased yields, as well as reduced maintenance costs, help boost profit margins. In the context of smart solutions, precision agriculture offers a Swiss army knife of farming techniques for today's, and tomorrow's farmers.

#### **Precision Farming/Agriculture [7].**

Precision agriculture is a "management strategy that employs detailed, site-specific information to precisely manage production inputs. This concept is sometimes called Precision Agriculture, Prescription Farming, Site-specific Management. The idea is to know the soil and crop characteristics unique to each part of the field, and to optimize the production inputs within small portions of the field. The philosophy behind precision agriculture is that production inputs (seed, fertilizer, chemicals, etc.) should be applied only as needed and where needed for the most economic production.

This system requires the utilization of sophisticated technology including personal computers, telecommunications, global positioning systems (GPS), geographic information systems (GIS), variable rate controllers, and infield and remote sensing. Although precision agriculture promises reduced use of chemical inputs, there are several factors that make it controversial in the sustainable agriculture community, including the requirements of large capital outlay and advanced technical expertise.

### **Regenerative Agriculture [7].**

Robert Rodale coined this term, and it subsequently was expanded to "regenerative/sustainable agriculture" by the Rodale Institute and Rodale Research Center. Two reasons given for the emphasis on "regenerative" are (1) "enhanced regeneration of renewable resources is essential to the achievement of a sustainable form of agriculture," and (2) the concept of regeneration would be relevant to many economic sectors and social concerns.

### **Satellite-Derived Data in Agriculture [8].**

Predicting yields, as well as conducting almost real-time field monitoring, with a view to detect a variety of threats with satellite data in service has never been so easy. The sensors are able to give imagery in various spectra, allowing for the application of numerous spectral indices, such as the Normalized Difference Vegetation Index (NDVI). NDVI allows for the detection of vegetation content, the amount of wilting plants, and overall plant health. Next is the Canopy Chlorophyll Content Index (CCCI) that helps with nutrient application. Then, the Normalized Difference RedEdge (NDRE) detects Nitrogen content. And lastly, the Modified Soil-Adjusted Vegetation Index (MSAVI) is designed to minimize soil background impact at the earliest developmental stages of plants; the list goes on.

### **Whole Farm Planning [7].**

Whole farm planning strategies share a conservation, family-oriented approach to farm management, although specific components may vary from farm to farm, and from community to community. Whole farm planning provides farmers with the management tools they need to manage biologically complex farming systems in a profitable manner. As a management system, it draws on cutting-edge management theory used by other businesses, industries and even cities. It encourages farmers to set explicit goals for their operation; carefully examine and assess all the resources - cultural, financial, and natural - available for meeting their goals; develop short- and long-term plans to meet their goals; make decisions on a daily basis that support their goals; and monitor their progress toward meeting goals.

Recent research reveals the qualitative swift change in agro glossary. The conceptual sphere of "agricultural technology" is represented by the terms: acaricides, alternative organic feed, arboricides, bactericides, biological plant protection products, grazing aquaculture, high-yielding goat breeding, high-tech beekeeping, restoration and repair of trees, horticulture, horticulture, horticulture genetic labeling in horse breeding, herbicides, fish aquatic organisms, desiccants, extensive aquaculture, extensive grazing livestock, entomopathogens, entomophagous, efficient livestock, zoocides, immunological plant protection, intensive care, inducers of antagonists, intensive intensifiers closed soil, intensive indoor soil, fishery introducers, feed resources of water bodies, metabolites of antagonists, microbes-antagonists, mineral fertilizers, semi-intensive mariculture, nematicides, the latest equipment of nucleus and micronucleus hives, organization of forages of forage agrocenoses, organic fertilizers, perspective resource – saving hop – growing, pesticides, polyesterism in sheep breeding, seed disinfectants, fishery reclamation, rodenticides, LED plant protection, fruit growing, t. no-till, precision farming,

precision irrigation, precision sowing, phytoncides, phytopathogens, fumigants, fungicides, chemical-technological soil science, etc.

Such terminosphere determines the allocation of relevant concepts: "plant protection products", "agroecosystem technologies", "aquaculture technologies", "beekeeping technologies", "viticulture technologies", "agricultural technologies", "fodder production technologies", "onion growing technologies", "technologies mariculture", "reclamation technologies", "vegetable technologies", "fruit growing technologies", "poultry technologies", "fish farming technologies", "farming technologies", "crop technologies", "horticulture technologies", "animal husbandry technologies" etc.

We can observe the totally different approach to term data gathering and processing. Cognitive aspect of studying the term integration processes in the science of the term, the development of sociocognitive terminology have led to something other than the traditional understanding of the nature of the term: the term does not have the properties of a clearly defined canonical unit of language, because it evolves with the development of science. In the real functioning of language, it is a contradictory unit that has "moving peace", i.e. this unit can be generated and reproduced, unambiguous and polysemous, neutral and emotional, dependent and independent in discourse, static and dynamic, and so on. In modern terminology there are various definitions of the term as a mental-linguistic unit that represents the structure of scientific / professional knowledge, contributes to the optimal organization of scientists / specialists.

In this paper we showed the new approach to consider and process terms, particularly, agricultural terms, and proved, that cognitology and sociolinguistics influence the principles of term analysis, offer a methodological, procedural, methodological apparatus related to the problems of cognition and reflection of knowledge structures in terminological units. The most important ideas are as follows:

- Sociocognitive approach in terminology allows to describe terms conceptually (as conceptual structures) and categorically (as categorical networks).
- It structures the terminological sphere as a set of term concepts, a set of primary (universal) and derivative (scientific / professional) categories, as a very complex network of knowledge that can be represented by terminologies, conceptual spheres and sets of categories and so on.
- Problems of sociocognitive terminology are grouped aspectually as cognitive (cognition, epistemology, ontology, categorization and conceptualization in modern terminology), cognitive and sociological (mentality of scientists / experts in terminology; scientific / professional terminology, terminology in social practice, professional communication, terminological planning, management of terminology, social demand for terminological products).
- Sociocognitive terminology puts forward theoretical positions, which state that the main unit of analysis in the new direction is the terminological concept [term concept]; feature of the term and its definition is interpretation of the world; sets of terms make up the terminological sphere, which verbalizes terminological

conceptosphere, categorical network, ontology of knowledge; definition of the term is dynamic in both diachrony and synchrony, it contains various amounts of information; terminological definition consists of modules of understanding; terminological definition is constructed depending on the discursive instruction and the user of terminological information; term concepts are constantly evolving.

- Sociocognitive terminology treats the term in the cognitive aspect as a representative of scientific / professional knowledge, a means of embodiment, acquisition, storage of scientific / professional information, verbalized result of scientific / professional knowledge, thinking, information-cognitive structure that accumulates special knowledge.

- New interpretation of the term in sociological aspect emphasizes its ability to transfer socially significant knowledge, scientific / professional experience, worldview, perception of social reality, ensure the effectiveness of scientific / professional communication by fixing the basic properties of objects or phenomena, disclosing their features; to activate in scientific / professional speech the meanings relevant in special communication; to correct the meaning of terms in various communicative processes, to create a platform of mutual understanding between scientists and specialists.

- Sociocognitive terminology offers a method of conceptual and categorical modeling of the terminosphere, which includes:

- 1) analysis of the organization of the conceptosphere through the discovery of key concepts and subspheres, compiling models of their relationships;

- 2) study of diachronic development of the term concept, etymology of the key concept;

- 3) research of conceptualization of the term concept by discursive choice and logical-rational analysis of definitions, drawing up of model of their interrelations;

- 4) compilation of corpus of definitions, recomposition of the definition of the term concept according to the modular or target principle depending on the needs of the user, compilation of the minimum universal definition of the term for the dictionary;

- 5) study of the terminosphere as a result of conceptualization in scientific / professional discourse by choosing term concepts and building models of their organization;

- 6) analysis of the conceptualization of the term concept in scientific / professional discourse by choosing prototype structures and allocating socio- and cognito- units;

- 7) study of the term concept in the minds of scientists / specialists with the help of psycholinguistic experiment;

- 8) analysis of language categorization of knowledge through sets of naive and derived categories;

- 9) study of terminological representation of lexical - primary (universal) categorization in the terminology;

- 10) research of terminological representation of secondary (scientific and professional) categorization in the terminology of the latest technologies;

- 11) analysis of foreign borrowings, import of term concepts, semantic specialization of concepts, term generation and concept formation in terminology.



## References:

1. Болдырев Н. Н. Языковые категории как формат знания. Вопросы когнитивной лингвистики. 2006. № 2. С. 5–22.
2. Голованова Е. И. Введение в когнитивное терминоведение : учеб. пособие. Москва : Флинта : Наука, 2011. 224 с.
3. Івашенко В. Л. Когнітивне термінознавство: перспективи розвитку. Термінологічний вісник : зб. наук. пр. Київ : ІУМ НАНУ, 2011. Вип.1. С. 47–54.
4. Стасюк Т. В. Терміносфера новітніх технологій: лінгвосоціокогнітивний аспект : монографія. Дніпро : Журфонд, 2019. 360 с.
5. Temmerman R. Sociocognitive terminology theory Terminologia y cognición. Barcelona: Institut Universitari de Lingüística Aplicada (Universitat Pompeu Fabra), 2001. P. 75–92.
6. Temmerman R. Towards New Ways of Terminology Description. The sociocognitive approach. Amsterdam : John Benjamins Publishing company, 2000. 258 p.
7. Sustainable Agriculture: Definitions and Terms. Related Terms. <https://www.nal.usda.gov/legacy/afsic/sustainable-agriculture-definitions-and-terms-related-terms> [дата доступу 2.12.21]
8. Top 5 Newest Technologies In Agriculture <https://eos.com/blog/top-5-newest-technologies-in-agriculture/> [дата доступу 2.12.21]

## 7.2. SOME ASPECTS OF SPECIALISED TEXTS TRANSLATION

*Ekaterina Pantileienko,  
Teacher, of Philology Department,  
Dnipro State University of Agriculture and Economics*

**Summary.** Although it is the most common and frequent type of translation performed nowadays in the world, specialised translation, i.e. the translation of texts produced within or referring to a specialist field of knowledge or activity, has mostly been allotted a second-rate status within the discipline of translation studies. Seen as far less creative, noble, and glamorous than its traditional counterpart, i.e. literary translation, specialised translation has been associated with rather negative features, being directly or indirectly described as an automatic, restricted, and often tedious process.

**Keywords:** specialised translation, terminology, phraseology; translating texts, specialised texts.

Nowadays transactions between countries and cultures of the world necessitate the translation of the texts and the terms from English, primarily. In this framework, professionals often need to work with translators (and vice versa) in the process of writing, re-writing, translating and editing economic texts. Translation techniques (Vinay and Darbelnet, 1995) can assist by providing some methodological tools; yet, translators often find themselves in ‘unchartered waters’, having to employ all their scientific and even artistic resources to come up with the most appropriate terms and structures in the target language. To paraphrase the traders’ motto ‘cash is king’, in