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Term Paper

**Peculiarities of translating English agricultural vocabulary into  
Ukrainian (based on agricultural literature)**

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## CONTENTS

INTRODUCTION .....	1
CHAPTER 1	
SPECIALIZED VOCABULARY OF AGRICULTURE AS A LINGUISTIC AND TRANSLATION ISSUE .....	3
1.1 Specialized vocabulary as a component of language for specific purposes .....	3
1.2 Basic peculiarities of specialized vocabulary from the point of view of Translation Studies .....	8
1.3 Specialized vocabulary as a component of agrarian discourse .....	13
CHAPTER 2	
AGRARIAN DISCOURSE SPECIALIZED VOCABULARY OF AGRICULTURE: DISCOURSE FEATURES, TRANSLATION OPTIONS.....	19
2.1 Equivalents in the translation of agrarian discourse specialized vocabulary of agriculture.....	19
2.2 Lexical transformations in the translation of agrarian discourse specialized vocabulary of agriculture .....	21
2.3 Lexical and semantic transformations in the translation of agrarian discourse specialized vocabulary of agriculture.....	26
2.4 Grammatical transformations in the translation of agrarian discourse specialized vocabulary of agriculture .....	30
CONCLUSIONS.....	38
BIBLIOGRAPHY .....	40
LIST OF REFERENCE SOURCES .....	44
LIST OF DATA SOURCES .....	44
ANNEX .....	45
PE3IOME .....	56

## INTRODUCTION

The term paper is focused on the peculiarities of rendering English specialized vocabulary of agriculture into Ukrainian based on the material of agrarian literature.

**The theoretical background** of the problem lies upon the research on specialized vocabulary by K. V. Drahanchuk, P. Faber, T. R. Kyiak, I. K. Nagy, O. O. Romanova, O. V. Sliusarenko, L. Tomilenko. The specifics of rendering specialized vocabulary in translation is presented in the works by B. E. Antia, I.-P. Armăsar, A. L. Artsyshevska, T. V. Avramenko, I. A. Balas, O. H. Berestenko, O. S. Katsan, T. R. Kyiak, I. O. Lysychkina, S. Manhura, I. V. Tsiutsman, S. A. Vyskushenko. Agrarian discourse as a specific kind of institutional discourse was described in the works by N. A. Aristova, N. S. Olkhovska, Y. O. Ulianchenko.

However, there is still lack of research on the specifics of the means of the translation of agrarian discourse specialized vocabulary of agriculture as the agrarian discourse and the specifics of its translation are not studied enough.

The research **topicality** lies in both the importance of the agrarian sphere for the development of contemporary Ukrainian economics which leads enriching the specialists with knowledge obtained, among others, through translation of the texts created by the specialists from other countries; as well as in the lack of research on this issue.

**The aim** of the research is to analyze the means of rendering English specialized vocabulary of agriculture into Ukrainian based on the material of agrarian literature.

There are the following research **objectives**:

- 1) to characterize specialized vocabulary as a component of language for specific purposes;
- 2) to describe the basic peculiarities of specialized vocabulary from the point of view of Translation Studies;
- 3) to present specialized vocabulary as a component of agrarian discourse;

4) to highlight equivalents in the translation of agrarian discourse specialized vocabulary of agriculture;

5) to reveal the specifics of applying lexical transformations in the translation of agrarian discourse specialized vocabulary of agriculture;

6) to analyze the use of lexical and semantic transformations in the translation of agrarian discourse specialized vocabulary of agriculture;

7) to perform the analysis of grammatical transformations used in the translation of agrarian discourse specialized vocabulary of agriculture.

**The subject** of the research is equivalents and translation transformations as the means of rendering English agrarian discourse specialized vocabulary of agriculture in Ukrainian translation.

**The object** of the research is English agrarian discourse specialized vocabulary of agriculture and its representation in Ukrainian translation.

**The data sources** of the research are 50 text fragments from the book “A holistic perspective of scientific agriculture: A joint initiative to impart farmers with technical knowledge on basic agriculture” by Dr. P. Chandra Shekara of National Institute of Agricultural Extension Management (MANAGE) in India. These text fragments include 50 units of agrarian discourse specialized vocabulary of agriculture, respectively.

**The theoretical value** of the research lies in the fact that the obtained information enriches knowledge on specialized vocabulary and its translation being thus a contribution to disciplines studying languages for specific purposes, specialized translation, discourse analysis.

**The practical value** of the study is determined by the ability to use them in teaching the above-mentioned disciplines as well as be translators-practitioners for translating the texts dealing with agrarian issues.

**Brief outline of the research paper structure.** The paper consists of Introduction, two Chapters, Conclusions, Bibliography, List of Reference Sources, List of Data Sources, Annex and Summary.

# CHAPTER 1

## SPECIALIZED VOCABULARY OF AGRICULTURE AS A LINGUISTIC AND TRANSLATION ISSUE

### 1.1 Specialized vocabulary as a component of language for specific purposes

Communication is an integral condition of human activity. This is a complex process of establishing and developing contacts between people, which is generated by the need for joint activities and includes the exchange of information, its perception and understanding between people, and the development of a single strategy of interaction [6: 15]. Properly organized communication ensures an effective exchange of information, makes it possible to understand the interlocutor more deeply, predict the specifics of further business interaction with a partner [26: 150], and professional communication allows accurate and comprehensive transfer of knowledge and experience. A language for special purposes appears as a means of professional communication.

The term “**language for specific purposes**” is used in linguistic research to denote all forms of verbal and non-verbal professional communication within the scientific and technical field. In addition, different definitions of the term “language for specific purposes” emphasize the relevant properties of professional languages in view of the range of scientific interests of the researcher [20: 448].

The history of the specialized languages (or Languages for Specific Purposes) movement can be traced back to the 1960s, though several books and materials designed to teaching English for specialists in different fields (especially business and economics) were published even in the first decades of the XX century. There are four important phases in the history and development of the specialized languages studying. The first phase covers the 1960s and 1970s, when teaching specialized languages focused on the sentence-level. The needs analyses that were carried out concentrated on the lexical and grammatical features of professional registers, such as

the language of engineering or the language of law. The late 1970s and early 1980s brought about the second phase in the specialized languages' analysis, in which the sentence level analysis and the focus on grammatical forms started to integrate rhetorical functions as well. The third phase of the evolution of specialized languages integrated the discoveries of the previous two phases (linguistic features and rhetorical elements), as the focus was on the target situation and the oral communication students may need in different professional contexts, which led to the implementation of the so-called notional-functional curriculum. The fourth phase started in the second half of the 1980s. If earlier the focus had been on the discourse and its grammatical features, on the communicative situation or the communicative purpose, now the attention shifted to the strategies used by learners to acquire the language (the contribution of psycholinguistics). More recently, lexicographers and terminologists have started to focus less on the didactic aspects and more on the problem of specialized languages, this time the main question being not necessarily how to teach specialized languages, but what such languages look like [39: 262–264].

According to Zh. V. Krasnozhan, language for specific purposes is a collection of all lexical nominations of the communicative and professional sphere. It is the basis of any professional speech. Language for specific purposes is productively used in non-specialist texts: artistic, journalistic, conversational, enriching and diversifying the stylistic possibilities of the language. Special lexemes included in an artistic or journalistic text, used figuratively, perform a completely different function [15: 10].

I. K. Nagy states, that special languages have many features in common with the general language, so that a definition of special languages must include the following characteristics: 1) the distinctive elements of special languages are not isolated phenomena, but rather interrelated sets of characteristics; 2) the purpose of communication is more important than other, complementary functions; 3) the special nature consists of differences in subject field, user knowledge, and area of usage [39: 266].

The most extensive and relevant coverage of the concept of “language for specific purposes” is proposed by the German linguist L. Hoffmann, who puts forward the thesis that language for specific purposes is a set of all language means used in a certain specialized field of communication for ensuring mutual understanding between specialists employed in this field [37: 53]. By the set of language means, the author understands not only phonetic, morphological and lexical elements and rules of syntax, but also their interaction. The author distinguishes: a) language means that are presented in all sublanguages, b) language means that are presented in all specialized languages, and c) language means that are present only in one specialized language [37: 53].

According to the most general **classification**, languages for specific purposes are divided into scientific (languages of astronomy, genetics) and those that approach the practical needs of modern society. In addition, all languages for specific purposes can be classified “horizontally” and “vertically”. Horizontal division includes the division of languages for specific purposes by subject areas. Thus, within languages for specific purposes, it is customary to distinguish between languages of social sciences and technical fields, which have differences not only at the level of the term system, but also at the level of text organization and language structure. Vertical division involves the differentiation of languages for specific purposes according to the level of abstraction, the type of language from the point of view of naturalness / artificiality, the composition of communication participants, the sphere of functioning. It is important to note that, although vertical classifications are considered auxiliary, their importance cannot be denied [8: 142].

The specifics of languages for specific purposes, as it was rightly noted by T. R. Kyiak, is the presence of a special set of lexical units oriented to the needs of a certain profession, which nevertheless have smooth and flexible connections with the commonly used vocabulary also presented in the language for specific purposes. On the other hand, the latter is distinguished by the specific frequency of use of certain grammatical, syntactic, and stylistic means [12: 22].



**Specialized vocabulary** is words or phrases that name objects and concepts that belong to different spheres of human labor and are not commonly used. In other words, specialized vocabulary is words or phrases that denote scientific concepts and are stable, reproducible elements in the system of special knowledge, occupying certain classification places in it [22: 43].

In general, the specialized vocabulary is characterized by the following important features: 1) secondary use of lexical units, which develops on the basis of their original general use; 2) special formation of artificial markings; 3) limited scope of use; 4) impossibility of direct translation into other languages; 5) impossibility of arbitrary replacement of individual elements without coordination with the industry tradition; 6) specific attitude to such linguistic phenomena as polysemy, antonymy; 7) increased denotative connection [23: 181].

At the **stylistic level**, specialized vocabulary includes three subclasses of lexical units:

1) special terms (terms proper) – lexical units of term systems included in the vocabulary of one or another language for specific purposes, as well as general scientific, general technical and interdisciplinary terms common for most languages for specific purposes;

2) terminoids – a wide class of lexical units that do not meet the requirements for a term for various reasons;

3) pseudo-terms – lexical units of the language for specific purposes denoting theories that are recognized as false [14: 139].

The words in the general language texts are much easier to understand for most speakers of the language than those in the special texts. There are three groups of lexemes in special language texts: 1) general language lexical items; 2) specific lexical items that can be attributed to a borderline area between general language and special language; 3) lexical items specific to special texts, the so-called *terminus technicus* items [39: 267].

So, at the **semantic level**, specialized vocabulary can be divided into:

1) terms of this field, which have their own definition;

2) interdisciplinary general scientific terminological units (including terms of related sciences);

3) professionalisms, which can also include nomenclature units (special types of terms that correlate with single concepts and actualize subject relationships);

4) professional jargonisms [13: 140].

Specialized language units are generally represented by compound nominal forms. They are used within a scientific or technical field, and have meanings specific of this field. The heavy concentration of such units in these texts points to the specific activation of sectors of domain-specific knowledge. As a result, understanding a terminology-rich text requires knowledge of the domain, the concepts within it, the propositional relations within the text, as well as the conceptual relations between concepts within the domain [33: 3].

Specialized vocabulary performs two main **functions**:

1) function of marking and naming narrowly professional special concepts and systems of concepts (subjects, signs, actions, processes);

2) function of special nomination for well-known concepts, which gives this concept increased expressiveness and emotionality [3: 5].

Specialized vocabulary is often contrasted with commonly used vocabulary on the basis that it differs, firstly, in its content related to the objects of a certain field, secondly, in the fact that, within the limits of professional communication, it has a high frequency, and from the point of view of the vocabulary in general, it is included in the sphere of sufficient frequency only to a small extent. However, it is impossible to clearly contrast specialized vocabulary with commonly used (non-terminological) one. Between them lies a wide band, in which the terms exist as if in constant fluctuation between ideal requirements (unambiguity, neutrality, lack of synonyms) and real laws of a living and dynamic lexical system [23: 184]. It is in this “transitional” lane that there is an active interaction between terms and non-terms, so users use them equally in their own speech activity. As a result of such interactions, there are systematic transitions of vocabulary from one realm to another: terms into the realm of general vocabulary (determinologization) and vice versa – replenishment

of the scope of terms at the expense of general vocabulary resources (terminologization) [24: 17].

Thus, specialized vocabulary is words or phrases that name objects and concepts that belong to different spheres of human labor and are not commonly used. It has smooth and flexible connections with the commonly used vocabulary. There are several approaches to classifying specialized vocabulary, in particular, stylistic and semantic.

## **1.2 Basic peculiarities of specialized vocabulary from the point of view of Translation Studies**

As specialized texts are challenging from the translator's point of view, Translators or linguists trained in specialized translation usually have one or two specialty fields they work in, however, they are not experts in every subject. For example, legal translators usually are not good at translating marketing texts as they require creative writing. Technical translators may deal with manuals well, but they rarely are the best choice when it comes to translation of financial statements [41: URL].

**Specialized translation** and its corollaries – general translation, scientific translation, technical translation, legal translation, medical translation, and so on – are well-established denominations in the field of translation, according to which many professional aspects have been organized: professional fees and standing, calls for employment, courses and degrees, academic events, etc. They are the result of attempts to classify the activity of translation (classifications, typologies or categorizations) and, as such, they should make thinking, communicating and acting on translation easier [40: URL].

So, specialized translation refers to every translation that has to do with a specific area of knowledge, for example, marketing or law. It does not only include such fields as medicine or technology, as some people wrongly believe [41: URL].

According to M. Gotti, “broadly speaking, specialized translation covers the specialist subject fields falling under non-literary translation, the best known of which include science and technology, economics, marketing, law, politics, medicine and mass media, as well as lesser researched areas such as maritime navigation, archaeology, geography and nutrigenomics” [35: 9]. So, specialized texts reveal a number of grammatical, lexical, and stylistic features, which are particularly difficult for the translator, since these texts are intended mainly for certain professional groups that have mastered specific extralinguistic knowledge, and therefore require particularly careful analysis [19: 116].

It means that, in order to create a specialized text, translators and technical writers must have an excellent grasp of the language in the conceptual domain, the content that must be transmitted, and the knowledge level of the addressees or text receivers. In order to translate a specialized language text, translators must go beyond correspondences at the level of individual terms, and be able to establish interlinguistic references to entire knowledge structures. Only then can they achieve the level of understanding necessary to create an equivalent text in the target language [33: 10].

Thus, the main issue connected to translating from and into a specialized language, irrespective of the field, regards **the competences** translators should have. Should such a translation be performed by specialists in the field, having good knowledge both of the source and of the target language, or is this the task of linguists or professional translators? In this respect, translators have the triple advantage of mastering phrases, of being used to formulating sentences and familiar to the way language functions. It is their duty to keep a sharp look at the coherence of the terminology at the level of synchronizing notions associating denominations and concepts in each language in order to check the possible direct equivalence or the existence of peculiarities coming from the language or scientific culture under consideration [30: 251–252].

During translating specialized texts, the translator needs to take into account the following:

1) that in a number of so-called specialized fields, knowledge and expression would reveal varying degrees of continuity with general knowledge and expression, and that between the two spheres there would occasionally be false cognates at the expression level;

2) that however specialized the domain in which a translator has to work at any given moment, s/he would a) seldom come to the task with a clean knowledge slate, and b) s/he would, at some point at least, balance off previous knowledge with information in a dictionary [29: 20].

In the process of rendering specialized vocabulary, the following **difficulties** may arise:

1) ambiguity (only after acquiring knowledge in certain field, one can choose the necessary version of the translation of the language unit among many others);

2) multicomponentity (each specialized vocabulary unit can be either single-component or multi-component, and, in the process of working with the text, it is necessary to check the translation of the concept separately and in combination with the neighboring word);

3) not knowing Ukrainian specialized vocabulary of certain field (the translator can find a suitable translation of the specialized vocabulary unit in Ukrainian, but will not know its exact meaning; in such situations, knowledge of the field in which the translation occurs will also be needed);

4) realia (names and their translation must be checked, as they mostly already have their translation in different languages) [19: 120].

Moreover, when translating specialized vocabulary from English into Ukrainian, it is important to take into account the difficulties caused by differences in the grammatical composition of languages, the heterogeneity of modern specialized languages systems, as well as the difficulties connected with the developed system of abbreviations and shortening of specialized language units [17: 191].

In the process of translating the specialized vocabulary units, two **stages** are defined:

1) finding out the meaning of the specialized language unit in the context;

2) translation of the meaning into the target language [9: 217].

In specialized translation, the problem of **linguistic equivalents** is crucial. In such texts, the linguistic equivalents are often represented by words or combinations of words. In most cases, these elements are the translation units of a text. Only rarely are the latter represented by more complicated elements.

The selection of linguistic equivalents depends on the semantic context of the units to be translated and on the way in which their meaning is explained in another language. As for specialized texts, the problem of linguistic equivalents may be tackled by replacing the words and combinations of words of one language with those of another. In order to select the equivalents of many linguistic units, the translator should know the exact meaning and usage of each specialized word. Regardless of his/her knowledge and experience, translation choices are often extremely difficult [42: 247].

Apart from linguistic equivalents, V. V. Zirka and N. V. Zinukova determine the following **ways** of representing specialized vocabulary in translation:

1) the most common means for translating specialized vocabulary units is translation using the analogue. This method is appropriate because, as a rule, English-language specialized vocabulary units has the corresponding analogs in the target language which are understandable to the person receiving the message;

2) the second way of translating the specialized vocabulary units is a descriptive translation used when there are no analogs or equivalents in the target language. Such a tool cannot convey the complete emotional color that the lexical unit carries but it reveals the content of the specialized vocabulary unit. It is appropriate when it is necessary to convey the content of the specialized vocabulary unit, and the recipient of the information is not familiar with the specialized language of one or another sphere;

3) the third way of translating specialized vocabulary units is literal translation. This way of translation can be used when searching for analogues or using descriptive translation for phenomena that are well understandable to the recipient is not appropriate [10: 60].

Actually, when translating specialized vocabulary units, variants of extended translation – description, translation comment – are more often used, as this allows to more clearly explain the semantic content of a word or expression specific to a certain field of activity, which is not understandable for a wide audience. An exact translation is inappropriate here. Sometimes transcription and transliteration can be used for the translation of fundamentally new specialized vocabulary units denoting a technical device or process, however, it can be supplemented with a translation comment or a short description of a given object or process. In some cases, a commonly used word in a certain context is used to denote a subject that it does not mean in a broad sense, then such a word can also be attributed to specialized vocabulary unit [4: 35].

The most important factors related to the violation of the adequacy of the specialized vocabulary units' translation are the following:

1) the use of little-known counterparts that cannot be considered as adequate options; therefore, the translator is required to possess the knowledge of the field, correction, disclosure of the denotative meaning of the word, descriptive translation and additional explanations;

2) improper representation of the content of the source language text;

3) ignoring the expressive and emotional nature of professionalism;

4) discrepancy of the chosen means of linguistic expression in the socio-practical sphere which is intended to serve the text [27: 274].

As V. V. Zirka and N. V. Zinukova state, the general strategy of translators here is to reduce the sound or complete replacement of specialized vocabulary unit by the vocabulary of the neutral register. It is not censorship considerations take effect, but the absence of the vocabulary with the corresponding characteristics in the target language [10: 59].

So, translation of specialized vocabulary falls into the domain of specialized translation. Translation of such texts requires certain competences translators should have, and ambiguity, multicomponentity, presence of realia may raise additional difficulties.

### 1.3 Specialized vocabulary as a component of agrarian discourse

The transition of modern linguistics to the discursive paradigm determines the consideration of texts as elements of discourse. It is the discourse that absorbs all the diversity of the historical era, individual and social characteristics of the communicator and the communicative situation in which the communication occurs. Therefore, the mentality and culture are reflected in the discourse, both national, general, and individual, private. Nevertheless, the widespread use of the term “discourse” in modern linguistics does not at all mean that it already has a fixed meaning that could be considered commonly used [32: URL].

The origins of the theory of discourse should be sought in the research of linguistic means, in the sociolinguistic analysis of communication, in the modeling of the generation of language, in the description of the ethnography of communication, and in anthropological studies [16: 30]. The word “discourse” as a linguistic term was first used in the title of an article by the American linguist Z. Harris back in 1952 [36]. This term was fully demanded in linguistics about two decades later [28: 294–295].

Discourse theory, despite the ambiguity of the main concept, is one of the most actively developing areas of modern linguistics. This direction aims at the synthesis of scientific results obtained in various fields of knowledge, primarily in linguistics, psychology, sociology, and ethnography. Despite the multitude of research concepts and scientific schools that develop this theory and often conduct sharp polemics among themselves, discourse researchers are united by the desire to study not an abstract language system, but living language in conditions of real communication [16: 34].

Like any other language units, specialized vocabulary units do not appear in speech in isolation, but as a component of a certain **discourse**, which is defined as a coherent text characterized by certain extralinguistic parameters, considered in the context of events; discourse is speech, considered as a purposeful communicative act of a social nature, a means of interaction between people and the mechanisms of their



consciousness [38: 3]. F. S. Batsevych noted that discourse is an interactive phenomenon, a speech flow that manifests itself in various forms – oral, written, paralingual, is characterized by the presence of a certain channel of communication, regulated strategies and tactics of its participants, a synthesis of cognitive, linguistic and extralinguistic factors that are determined by a certain circle of communication, depending on its subject. Discourse forms various speech genres [5: 138].

The sphere of functioning of specialized vocabulary of agriculture is the agrarian discourse that belongs to the **institutional discourse** – communicative practices that occur in social institutions (politics, religion, medicine, science, etc.), which are a certain set of practically oriented standards of behavior in certain situations [7: 10].

**The agrarian sector of the economy** is characterized by great importance in the social and economic development of the country. The agrarian sector of the economy is a set of branches of the national economy related to the development of agriculture, maintenance of its production and delivery of agricultural products to the consumer [1: 12]. The agrarian sector of the economy is represented by agriculture and fisheries, the food industry and the processing of agricultural products [25: 125].

According to the tasks of the agrarian sector of the economy, **agrarian discourse** is presented as a complex, multifaceted formation, the characteristic features of which are a clearly defined circle of communication participants, specific communication situations, and texts created during such communication. The participants of communication in the agrarian discourse represent the agrarian community, and the texts of the agrarian discourse are characterized by coherence, integrity, unity, completeness, are part of the language flow, fixed speech, the result of speech [2: 176]

Agrarian discourse, according to N. S. Olkhovska and O. I. Kuhar, belongs to the most relevant discourses, which is justified by the importance of the agrarian sector in the world, which determines the economic development of countries. Thus, the agrarian discourse is aimed at different strata of the population [21: 175]. However, more often, the texts of agrarian discourse are aimed at a specific circle of

addressees who are able to actively extract information from the text, since reading such texts is an integral component of their professional activity. Such a situation is caused by the fact that the specialist must solve certain tasks, which also determines the point of view from which he perceives such a text. Therefore, the text becomes a catalyst for solving special professionally-oriented tasks.

The addressee of the agrarian discourse is responsible for developing the goals and objectives of the message – the text of the agrarian discourse. It may have the purpose of informing about certain means of agricultural direction, instructions for using equipment, etc. The author of the agrarian discourse text faces the need to take into account the peculiarities of perceiving by the addressee the information presented, which requires a sense of tact, completeness of information and correctness when creating such messages. The author can express his own attitude to what he informs the addressee, express his own assessment of what is being said.

In turn, the addressee of the communication interprets the text taking into account indirect and hidden information, therefore, the perception of the message and its understanding depend on the personal characteristics of the addressee. Therefore, the factor of the addressee determines the linguo-pragmatic characteristics of the text of the agrarian discourse, and the addressee himself can be subject to intellectual, emotional or aesthetic influence [21: 175].

The following text fragment is suggested for text analysis as an example of the text belonging to agrarian discourse:

### **Seed treatment**

*Seed treatment is usages of specific products and specific techniques to improve the growth environment for the seed, seedlings and young plants. It ranges from a basic dressing to coating and pelleting.*

*Seed dressing: This is the most common method of seed treatment. The seed is dressed with either a dry formulation or wet treated with a slurry or liquid formulation. Dressings can be applied at both, the farm and industries. Low cost earthen pots can be used for mixing pesticides with seed or seed can be spread on a*

polythene sheet. The required quantity of chemical can be sprinkled on the seed lot and mixed mechanically by the farmers.

**Seed coating:** A special binder is used with a formulation to enhance adherence to the seed.

**Seed pelleting:** The most sophisticated Seed Treatment Technology changes the physical shape of a seed to enhance pelletability and handling. Pelleting requires specialized application machinery and techniques and is the most expensive application.

**The farmer must take care of the following while buying the seeds**

- When purchasing the seed farmer should obtain a bill/cash memo wherein the lot number and seed tag number is mentioned.
- After purchasing the seed, empty bag/packet (pouches) and receipt should be kept safely.
- Out of purchased seed, 100 seeds are taken from each purchased variety to test them for germination before sowing in the field. Knowing the germination percentage, the farmer can decide the seed rate when sowing in the field.



Seed Dressing



Pelleted Onion Seed

### **1.8. Cropping systems**

Farmers resort to cultivation of a number of crops and rotate particular crop combinations. More than 250 cropping systems are being followed in India, of which 30 cropping systems are more prevalent.

*Some of the important cropping systems are:*

***1. Sequential cropping system:***

*Growing crops in sequence within a crop year, one crop being sown after the harvest of the other. For example, rice followed by pigeonpea, pigeonpea followed by wheat.*

***2. Intercropping System:***

*Growing more than one crop in the same area in rows of definite proportion and pattern.*

***Alley cropping***

*Is an agroforestry practice in which perennial, preferably leguminous, trees or shrubs are grown simultaneously with an arable crop. The trees, managed as hedgerows, are grown in wide rows and the crop is planted in the interspace or 'alley' between the tree rows.*

*During the cropping phase, the trees are pruned. Prunings are used as green manure or mulch on the crop to improve the organic matter status of the soil and to provide nutrients, particularly nitrogen, to the crop.*

***a. Season based cropping system***

- i. Kharif rice based cropping system*
- ii. Kharif maize based cropping system*
- iii. Kharif sorghum based cropping system*
- iv. Kharif millet based cropping system*
- v. Kharif groundnut based cropping system*
- vi. Winter wheat and chickpea based cropping system*
- vii. Rabi sorghum based cropping system*

***b. Mixed cropping***

*In order to minimise the risk and uncertainty of mono cropping and to have sustainable yield and income, farmers are advised to go for mixed cropping (HPSA: 32).*

The discourse parameters of the text determine it as such belonging to agrarian discourse. The text is an extract from the book of agriculture entitled as "A holistic

perspective of scientific agriculture: A joint initiative to impart farmers with technical knowledge on basic agriculture” and written by Dr. P. Chandra Shekara of National Institute of Agricultural Extension Management (MANAGE) in India.

As it is seen from the presented text fragment, the book includes pictures and photographs related to the sphere of agriculture; moreover, the books includes numerous tables and schemes that summarize various material on the topic. The authors of the text also use fonts of different color and size, as well as different font styles in order to highlight certain blocks of material.

As the text belonging to agrarian discourse on scientific and practical purposes, it includes fewer tropes and figures of speech (stylistic devices and expressive means) such as figurative use of the common vocabulary units to characterize the process described by the author: *The trees, managed as hedgerows, are grown in wide rows and the crop is planted in the interspace or ‘alley’ between the tree rows.*

Special literary and colloquial vocabularies used in the text include the following vocabulary groups: 1) toponyms: *India*; 2) specialized vocabulary of agriculture: *seed treatment, growth environment, seed, seedlings, young plants, dressing, coating, pelleting, pesticides, adherence, Seed Treatment Technology, pelletability, handling, germination, germination percentage, cultivation, cropping systems, sequential cropping system, intercropping system, alley cropping, perennial, arable crop, prunings, organic matter status of the soil, season based cropping system, mixed cropping, mono cropping*, also including borrowings, in particular, from Indian such as *Kharif, Rabi*.

Hence, it can be concluded that agrarian discourse is a complex, multifaceted formation, the characteristic features of which are a clearly defined circle of communication participants, specific communication situations, and texts created during such communication. The texts of agrarian discourse are characterized by a set of discourse parameters such as authorship, topic, graphical design; and lexical and stylistic features, such as lack of tropes and figures of speech as well as wide use of specialized vocabulary of agriculture.

**CHAPTER 2**  
**AGRARIAN DISCOURSE SPECIALIZED VOCABULARY**  
**OF AGRICULTURE: DISCOURSE FEATURES,**  
**TRANSLATION OPTIONS**

**2.1 Equivalents in the translation of agrarian discourse specialized vocabulary of agriculture**

Agriculture is the sphere that was developing together with the human civilization from the earliest ages. That is why it is common for all the cultures of the Earth, and thus specialized vocabulary of agriculture was developed for certain extent in every language leading to the possibility to use equivalents when translating specialized vocabulary of agriculture from one language to another.

**Translation equivalent** is a word or an expression from a target language which has the same meaning as, or can be used in a similar context to, one from source language, and can therefore be used to translate it. It is a permanent lexical counterpart that exactly matches the meaning of the word.

The use of equivalents can be considered as the easiest way to reproduce the term regardless of the context using the regular correspondence in the target language. This way of translation is useful for the one-component specialized vocabulary of agriculture which have appeared long time ago and are well-established in both languages, such as the following ones:

– *farmer* – *фермер* [45: 34]: (6) *Rising quality requirements of export and domestic markets require an up-scaling of the production which is only feasible with educated farmers and skilled workers* (HPSA: 5) – Зростаючі вимоги до якості на експортних і внутрішніх ринках вимагають збільшення масштабів виробництва, що можливо лише із залученням освічених фермерів і кваліфікованих робітників;

– *irrigation* – *зрошення* [44: 180]: (21) *Demand for irrigation to increase with increased temperature and higher amount of evapo-transpiration* (HPSA: 14) –

Попит на зрошення зростає з підвищенням температури та більшою кількістю випаровування.

Moreover, significant part of the English-language semi-component units belonging to specialized vocabulary of agriculture have equivalents in the Ukrainian language, since some of the elements of modern agriculture were developed in English-speaking and Slavic countries almost simultaneously.

– *organic fertilizers* – *органічні добрива* [44: 38]: (11) *They were less aware about other organic fertilizers* (HPSA: 9) – Про інші органічні добрива вони знали менше;

– *medicinal plants* – *лікарські рослини* [44: 68]: (20) *Quality of farm products such as fruits, vegetables, tea, coffee, aromatic and medicinal plants may be affected* (HPSA: 14) – Це може погіршити якість сільськогосподарських продуктів, таких як фрукти, овочі, чай, кава, ароматичні та лікарські рослини;

– *soil erosion* – *ерозія ґрунту* [44: 20]: (27) *Change in rainfall volume and frequency as well as wind may alter the severity, frequency and extent of soil erosion* (HPSA: 14) – Зміна обсягу та частоти опадів, а також вітру можуть змінити інтенсивність, частоту та ступінь ерозії ґрунту;

– *row crops* – *просапні культури* [44: 65]: (36) *Crops suitable for basin irrigation include pastures, citrus, banana and crops that are broadcasted such as cereals and to some extent row crops such as tobacco* (HPSA: 21) – Культури, придатні для басейнового зрошення, включають пасовища, цитрусові, банани та культури, які розкидаються, такі як зернові та певною мірою просапні культури, зокрема, тютюн.

Thus, the use of translation equivalents is the method of most precise rendering of agrarian discourse specialized vocabulary of agriculture in translation. However, this method has certain limitations. In particular, there is serious lack of English-Ukrainian dictionaries of agriculture, so the translator needs to search for these specialized vocabulary units in the dictionaries of other sciences. Moreover, only most common units belonging to specialized vocabulary of agriculture are presented

in the dictionaries, so, in most cases the translator needs to use translation transformations rather than established equivalents.

## 2.2 Lexical transformations in the translation of agrarian discourse specialized vocabulary of agriculture

The scope of transformations applied in the process of the translation of agrarian discourse specialized vocabulary of agriculture is presented by transliteration, transcription and loan translation.

**Transliteration** is “substitution of letters of a certain writing by the letters of another writing independently of their pronunciation” [43: 230], i.e., rewriting the text within a different alphabet.

It is used for most of the specialized language units of Greek and Latin origin that are borrowed to the Ukrainian language together with agricultural methods and technologies such as *pesticide* (from Latin *pestis* “deadly contagious disease; a curse, bane” + Latin *-cide* “killer” [OED: URL]) – *нестмуцуд* (-e in the end of the word is omitted regarding the pronunciation rules of English and the rules of gender inflexions in Ukrainian): (50) *Low cost earthen pots can be used for mixing pesticides with seed or seed can be spread on a polythene sheet* (HPSA: 30) – Недорогі глиняні горщики можна використовувати для змішування пестицидів з насінням, або насіння можна розкласти на поліетиленовому листі.

In most cases, however, also adaptation of the suffixes is needed in case of using transliteration, in particular, replacing English *-ation* into Ukrainian *-ація*:

– *fertigation* (from Latin *fertilis* “bearing in abundance, fruitful, productive” [46: URL] and Latin *irrigationem* (nominative *irrigatio*) “a watering, irrigation” [46: URL]) – *фертигація*: (12) *Fertigation as a method of application of fertilizers was not widely practiced by control group* (HPSA: 9) – Фертигація як метод внесення добрив в контрольній групі не набула широкого застосування;

– *denitrification* (from Latin *nitrum*, from Greek *nitron*, which is possibly of Eastern origin (Hebrew *nether* “carbonate of soda”; Egyptian *ntr*) [46: URL]) –



денітрифікація: (26) *Increase in soil temperature may reduce Nitrogen availability due to volatilization and denitrification* (HPSA: 14) – Підвищення температури ґрунту може зменшити доступність азоту через випаровування та денітрифікацію.

In case when borrowed word forming elements are used in forming specialized vocabulary units as notional parts of speech, transliteration is also applicable, for example in *micro irrigation* where *micro* is an adjective coming from Latinized form of *mikros*, Attic form of Greek *smikros* “small, little, petty, trivial, slight” [46: URL] rendered as мікро зрошення: (44) *In order to popularize micro irrigation, the Government of India is implementing the Micro Irrigation Scheme through which interested farmers be supported* (HPSA: 24) – З метою популяризації мікро зрошення уряд Індії впроваджує «схему мікро зрошення», за якою зацікавлені фермери отримують підтримку.

**Transcription** in its broadest sense is “an exact graphical rendering of some language or music sounds by conventional letters or special graphical signs independently according to the graphical and orthographical norms that have been historically shaped in the given language” [43: 230], i.e., record (or rewrite) of information within another notation system. In Translation Studies, transcription is a translation transformation based on representing the sounding of the source language word by the target language alphabet.

The aim of this method, ideally, is to establish one-to-one correspondence between phonemes or sounds (allophones) of the source and destination languages. However, in practice such a goal is completely inaccessible, because there are sounds for which it is basically impossible to select analogues in the target language system. This method allows deviations from both phonetic and phonological principles, including elements of transliteration.

For example: (47) *Seeds fundamentally are a means of reproduction and most seeds are the product of “sexual reproduction”, which remixes genetic material and “phenotype variability” that “natural selection” acts upon* (HPSA: 29) – Насіння в основному є засобом розмноження, і більшість насіння є продуктом «статевого

розмноження», яке реміксує генетичний матеріал і «мінливість фенотипу», на які діє «природний відбір». In this case, the unit *phenotype variability* includes the component *phenotype* which is rendered by transcription combined with transliteration as *фенотип* resulting in the language unit *мінливість фенотипу*.

Another example of transcription is *sprinkler irrigation* rendered as *спринклерне зрошення*: (45) *To increase the area under efficient methods of irrigation viz. drip and sprinkler irrigation as these methods have been recognized as the only alternative for efficient use of surface as well as ground water resources* (HPSA: 24) – Збільшити площі при ефективних методах зрошення шляхом крапельного та спринклерного зрошення, оскільки ці методи були визнані єдиною альтернативою ефективного використання поверхневих і підземних водних ресурсів. *Sprinkler* in this case is mostly transcribed as *спринклер-*, however, there is a need to add suffix and inflexion in order to use it as an adjective in Ukrainian, so, finally, *sprinkler* is rendered as *спринклерне*.

**Loan translation** is a transformation creating a complex lexical unit (either a single word or a fixed phrasal expression) that was created by an item-by-item translation of the (complex) source unit [34: URL].

Rendering by loan translation is most common for two-component language units formed according to the model “Noun + Noun” such as:

– *quality standards* – *стандарти якості*: (2) *Farmers and agricultural enterprises, willing to be part of the new expanding world market, not only have to take into consideration customers’ preferences whom they want to serve, but also adhere to international trade regulations set by WTO and comply with high production and quality standards required by the importing countries* (HPSA: 5) – Фермери та сільськогосподарські підприємства, які бажають бути частиною нового світового ринку, що розширюється, повинні не тільки враховувати переваги клієнтів, яких вони хочуть обслуговувати, але й дотримуватися правил міжнародної торгівлі, встановлених СОТ, і відповідати високим стандартам виробництва та якості, що вимагаються країнами-імпортерами;

– *climate change* – зміна клімату: (16) *Climate change will likely to cause further problems in our crop production and is likely to become the most important environmental issue in the 21st century* (HPSA: 13) – Зміна клімату, ймовірно, спричинить подальші проблеми у нашому рослинництві та, швидше за все, стане найважливішою екологічною проблемою XXI століття;

– *water availability* – доступність води: (22) *The melting of glaciers in the Himalayas will increase water availability in the Ganga, Brahmaputra and their tributaries in the short-run but in the long-run the availability of water will decrease considerably* (HPSA: 14) – Танення льодовиків у Гімалаях збільшить доступність води в Гангу, Брахмапутрі та їхніх притоках у короткостроковій перспективі, але в довгостроковій перспективі доступність води значно зменшиться;

– *growth environment* – середовище росту: (49) *Seed treatment is usages of specific products and specific techniques to improve the growth environment for the seed, seedlings and young plants* (HPSA: 30) – Обробка насіння – це використання спеціальних продуктів і спеціальних методів для поліпшення середовища росту для насіння, розсади та молодих рослин.

It is noticeable that in such cases the word order changes. However, it is caused not by the desire of the translator but by the norms of forming noun word combinations in English and Ukrainian, so no other transformations except loan translation are applied.

Moreover, loan translation is an effective means of rendering two-component word combinations formed according to the model “Adjective + Noun” such as *marine fish* – морська риба: (32) *Impacts of increased temperature and tropical cyclonic activity would affect capture, production and marketing costs of the marine fish* (HPSA: 14) – Вплив підвищеної температури та тропічної циклонічної активності вплине на витрати на вилов, виробництво та просування продажів морської риби.

Some of the three-component specialized language units are also represented by loan translation using the previously mentioned rules:

– “Adjective + Noun + Noun” *organic matter content* rendered as “Noun + Adjective + Noun” *вміст органічної речовини*: (25) *Organic matter content, which is already quite low in Indian soil, would become even lower* (HPSA: 14) – Вміст органічної речовини, який і без того досить низький в індійській землі, стане ще нижчим;

– “Noun + Adjective + Noun” *depth of fertile soil* rendered as “Noun + Adjective + Noun” *глибина родючого ґрунту*: (40) *Three other factors, which may affect basin width, are depth of fertile soil, method of basin construction, agricultural practices* (HPSA: 21) – Три інші фактори, які можуть впливати на ширину басейну, це глибина родючого ґрунту, спосіб будівництва басейну, методи ведення сільського господарства.

There are also cases where loan translation concerns one-word specialized language units formed by blending. For example, *agripreneurs* is a blend of *agricultural* and *entrepreneurs*, and in translation both of these elements are represented resulting in the blend *агропідприємці* (*аграрні* + *підприємці*): (7) *The goal of Partnership Farming India (PFI) is to enable farmers to be self-sufficient decision-makers, “agripreneurs”, which allows for a more flexible production system and highlights farming as profession by choice and not by inheritance* (HPSA: 5) – Мета ініціативи Partnership Farming India (PFI) полягає в тому, щоб дозволити фермерам бути самодостатніми особами, які приймають рішення, «агропідприємцями», що дозволяє створити більш гнучку систему виробництва та висвітлює фермерство як професію за вибором, а не за спадковістю.

Thus, using lexical transformations, the translator is capable of representing in translation the form of the agrarian discourse specialized vocabulary of agriculture which is applicable for language units borrowed from the ancient languages of science such as Greek or Latin or which have transparent form being coined from the language units having equivalents in the language of translation. Lexical transformations hence represent the method of translating the agrarian discourse specialized vocabulary of agriculture with minimal semantic or grammatical changes.

### 2.3 Lexical and semantic transformations in the translation of agrarian discourse specialized vocabulary of agriculture

In the course of the translation of agrarian discourse specialized vocabulary of agriculture, such lexical and semantic transformations as differentiation, generalization, substantiation and modulation are used. Let us consider the specifics of their application.

**Differentiation** is caused by the fact that many English words with broad semantics do not have direct equivalents in Ukrainian. In such cases dictionaries give a number of meanings that only partially cover the meaning of the source language word and translators have to choose one of the variants, which suits the context best of all [18: 145].

Differentiation in translation of agrarian discourse specialized vocabulary of agriculture is mostly applied to one of the components of semi-component language units in case when this component is polysemantic and has multiply translation versions, and there is a need to clarify its meaning according to the meaning of the whole specialized vocabulary unit, as in the following examples:

– *productivity enhancement* – *підвищення продуктивності* (*enhancement* ‘збільшення’, ‘поліпшення’): (4) *However, to support the impressive Indian economic growth in the coming years, agriculture will have to contribute more towards value addition, productivity enhancement, high quality products and trained manpower to successfully tackle these challenges* (HPSA: 5) – Однак, щоб підтримати вражаюче економічне зростання Індії в найближчі роки та успішно подолати ці виклики, сільському господарству доведеться більше сприяти створенню доданої вартості, підвищенню продуктивності, високоякісній продукції та підготовленій робочій силі;

– *soil testing* – *дослідження ґрунту* (*testing* ‘випробування’, ‘дослідження’, ‘випроба’): (9) *Fifty one percent of sample farmers who were part of partnership farming India had knowledge of soil testing compared to only 28% of control group* (HPSA: 9) – П'ятдесят один відсоток фермерів із вибірки, які

брали участь у партнерстві в Індії, мали знання про дослідження ґрунту порівняно з лише 28% представників контрольної групи;

– *conventional agriculture* – традиційне сільське господарство (*conventional* ‘загальноприйнятий’, ‘звичайний’, ‘традиційний’): (28) *Rise in sea level may lead to salt water entry in the coastal lands turning them less suitable for conventional agriculture* (HPSA: 14) – Підвищення рівня моря може призвести до надходження солоної води в прибережні землі, зробивши їх менш придатними для традиційного сільського господарства;

– *vector-borne diseases* – трансмисивні хвороби (*vector-borne* ‘такий, що передається векторним напрямом’, ‘трансмисивний’): (29) *Major impacts on vector-borne diseases through expansion of vector populations during rainy years, leading to large outbreaks of diseases* (HPSA: 14) – Значний вплив на трансмисивні хвороби через розширення популяцій переносників у дощові роки, що призводить до великих спалахів захворювань;

– *good vigorous seed* – добре життєздатне насіння (*vigorous* ‘міцносилий’, ‘могутній’, ‘енергійний’, ‘життєздатний’): (48) *A good vigorous seed utilizes all the resources and realizes a reasonable output to the grower* (HPSA: 29) – Добре життєздатне насіння використовує всі ресурси та дає виробнику розумний результат.

The next transformation in translation of agrarian discourse specialized vocabulary of agriculture is **generalization** which is substitution of the source language words (phrases) of a narrow meaning by the target language words (phrases) of a general (broader) meaning [18: 145].

It is not widely used in rendering agrarian discourse specialized vocabulary of agriculture, however, it can possibly be applied when representing most common language units that are understandable at intuitive level, so the reader in translation actually do not need precise meaning, as in the following examples:

– *crop production* ‘виробництво продукції рослинництва’ – *рослинництво*: (13) *More than 85% of the farmers wanted basic education on agriculture and crop production and ready to pay for undergoing such basic education and training*

(HPSA: 9) – Понад 85% фермерів хотіли отримати базову освіту в галузі сільського господарства та рослинництва та готові платити за проходження такої базової освіти та навчання;

– *fish breeding* ‘розведення риби (шляхом її розмноження)’ – розмноження риби: (31) *Increased sea and river water temperature is likely to affect fish breeding, migration and harvest* (HPSA: 14) – Підвищення температури морської та річкової води може вплинути на розмноження, міграцію та вилов риби.

The opposite way of rendering agrarian discourse specialized vocabulary of agriculture is **substantiation** being substitution of the source language words (phrases) with a generic meaning by the target language words (phrases) with a more specific (narrow) meaning [18: 145].

It can be used in case when the component of the specialized vocabulary unit has wide meaning, so there is a need in narrowing it in order to specify the object. For example, in the process of rendering *earth movement*, *earth* most common is understood as ‘земля’, ‘суша’, however, in such context it should be understood as ‘грунт’ – переміщення ґрунту: (39) *If the land slope is steep, the basin should be narrow; otherwise too much earth movement will be needed to obtain level basins* (HPSA: 21) – Якщо схил землі крутий, басейн повинен бути вузьким; інакше для отримання рівневих басейнів буде потрібно занадто багато переміщень ґрунту.

There are also quite numerous cases of applying modulation in translation of agrarian discourse specialized vocabulary of agriculture. **Modulation** is the substitution in translation of the dictionary equivalent by the contextual one, which is logically connected with the first. Here belong various metaphoric and metonymic changes performed on the basis of the notion of intersection, i.e., when a part of the content of one notion, is included into the content of another notion and vice versa. To convey the same sense by means of another language there is often no difference what forms of the word express this content. Thus, the object may be replaced by its

feature, the process – by the object, the feature – by the object or a process, etc. [18: 146].

For example, substituting the consequence by the cause is presented when rendering *intercropping* as *змішування культур*, where *inter-* represents the result of mixing (*змішування*) something: (10) *Mulching and intercropping as a practice were not widely adopted by control group of farmers* (HPSA: 9) – Мульчування та *змішування культур* не були широко прийняті контрольною групою фермерів.

Substituting the name of an object by the name of phenomenon connected with such object is observed when rendering *leaf spot diseases* – *захворювання плямистості листя* in the following text fragment: (17) *Pests like bollworm, red hairy caterpillar and leaf spot diseases may increase* (HPSA: 14) – Може збільшитися вплив шкідників, як-от совки, червоні волохаті гусениці, та *захворювань плямистості листя*. *Spot* can be understood as individual spot on the leaf, while *плямистість* is a phenomenon when the leaves are covered by numerous spots.

The means of achieving the goal are substituted by the goal itself when translating *flood irrigation method* as *заливний спосіб зрошення* in the following example: (43) *Flood irrigation method is found to be the most uneconomical irrigation method in terms of water use efficiency when compared to all other methods* (HPSA: 24) – *Заливний спосіб зрошення* визнано найбільш неекономічним способом зрошення з точки зору ефективності використання води порівняно з іншими методами. *Flood* can be understood as ‘злива’, ‘повінь’, ‘потоп’ and it is the means of achieving the goal while *заливний* is already achieved goal when the field is already flooded.

In translation of *modern agricultural practices* as *сучасні методи сільського господарства*, *practices* as a repeated or customary action is substituted by *методи* as certain scientific algorithm of doing something: (8) *Furthermore, PFI strengthens farmers' and farm workers' management skills to adopt modern agricultural practices and concepts and enhance the international competitiveness of smallholders' agricultural produce by giving farmers and workers in Gujarat and*



*Maharashtra access to practical agricultural education* (HPSA: URL) – Крім того, PFI зміцнює управлінські навички фермерів і працівників ферм для впровадження сучасних методів і концепцій сільського господарства та підвищення міжнародної конкурентоспроможності сільськогосподарської продукції дрібних власників, надаючи фермерам і робітникам у Гуджараті та Махараштрі доступ до практичної освіти у сфері сільського господарства.

Hence, using the lexical and semantic transformations, the translator achieves the aim of representing the meaning of the unit belonging to English agrarian discourse specialized vocabulary of agriculture in such way to make it aligned with the Ukrainian agrarian discourse specialized vocabulary of agriculture and thus making it understandable for the reader of the target text.

## **2.4 Grammatical transformations in the translation of agrarian discourse specialized vocabulary of agriculture**

The grammatical translation transformations used when rendering agrarian discourse specialized vocabulary of agriculture include transposition, grammatical replacements, addition and omission.

**Transposition** is a change in the order of words in phrases and sentences, which is often caused by the structural differences in expressing the theme and the rheme in different languages [18: 112].

In particular, it concerns grammatical differences between English and Ukrainian as English word combinations can be formed as the sequence of nouns, while Ukrainian word order requires forming connections between these nouns using preposition, and this order of words in translation can be changed. It means that transposition supposes the change in the word order within noun attributive construction or even within the sentence.

For example, when rendering the unit *soil infiltration capacity* by Ukrainian *здатність ґрунту до інфільтрації*, the order of the component of word combination completely changes as there is a need to create the subordination

connections within word combination: (41) *The latter can be matched to the soil infiltration capacity through emitters or drippers that are located close to the root zone of the plants* (HPSA: 24) – Останній може бути узгоджений із здатністю ґрунту до інфільтрації через випромінювачі або крапельниці, розташовані поблизу кореневої зони рослин.

Widely used means of representing agrarian discourse specialized vocabulary of agriculture in translation are grammatical replacements. **Grammatical replacement** is defined as substitution of the word belonging to one part of speech by a word belonging to another part of speech (morphological replacement) or substitution of one syntactical construction by another one (syntactical replacement) [18: 147].

Morphological replacements suppose changes from one part of speech to another one or changing the morphological properties of the noun. In particular, these are numerous cases of substituting noun by adjective when rendering the language units formed according to model “Noun + Noun”, while in Ukrainian they are represented by constructions “Adjective + Noun”:

– *water balance* – водний баланс: (24) *The water balance in different parts of India will be disturbed and the quality of ground water along costal track will be more affected due to intrusion of sea water* (HPSA: 14) – Через вторгнення морської води водний баланс у різних частинах Індії буде порушено, а якість ґрунтових вод уздовж узбережжя постраждає ще більше;

– *water erosion* – водна ерозія: (34) *Known as water erosion, is the removal of soil from the lands surface by water in motion* (HPSA: 18) – Відома як водна ерозія, вона полягає у видаленні ґрунту з поверхні землі водою під час її руху;

– *basin irrigation* – басейнове зрошення: (35) *Basin irrigation is commonly used for rice grown on flat lands or in terraces on hillsides* (HPSA: 21) – Басейнове зрошення зазвичай використовується для рису, що вирощується на рівнинних землях або на терасах на схилах пагорбів;

– *level basins* – рівневі басейни: (37) *It is also possible to construct basins on sloping land, even when the slope is quite steep; level basins, called terraces, can be*

*constructed like the steps of a staircase* (HPSA: 21) – Також можна побудувати басейни на схилі, навіть якщо схил досить крутий; рівневі басейни, які називаються терасами, можуть бути побудовані, як сходи;

– *drip irrigation* – крапельне зрошення: (42) *It is clear from the above diagram that drip irrigation is the most efficient irrigation in terms of water use efficiency compared to all other methods* (HPSA: 24) – З наведеної вище діаграми видно, що крапельне зрошення є найефективнішим з точки зору ефективності використання води порівняно з усіма іншими методами;

– *seed coat* – насіннева оболонка: (46) *A “seed” (in some plants, referred to as a “kernel”) is a small embryonic “plant” enclosed in a covering called the seed coat, usually with some “stored food”* (HPSA: 29) – «Насіння» (у деяких рослин його називають «ядром») – це невелика ембріональна «рослина», укладена в оболонку, яка називається насінневою оболонкою, зазвичай із деякою «збереженою їжею».

In some cases, there is opposite situation, i.e., replacing the English construction “Adjective + Noun” by Ukrainian construction “Noun + Noun”. However, such cases are rare and are justified mostly by the tradition of using certain word combinations in both languages such as when rendering *rainy season* by established word combination *сезон дощів*: (23) *A significant increase in runoff is projected in the rainy season, however, may not be very beneficial unless storage infrastructure could be vastly expanded* (HPSA: 14) – Прогнозується значне збільшення стоку в сезон дощів, однак це може бути не надто корисним, якщо не буде значно розширено інфраструктуру сховищ.

Another case of grammatical replacement is changing the category of number because of the grammatical differences between the source and the target language. Mostly these are cases of substituting nouns in singular by nouns in plural form due to the norms of word use in the target language, as in the text fragments presented below:

– *land capability* – можливості земель: (15) *Cropping patterns based on climate and land capability are sustainable but market forces and farmers’*

*aspirations are forcing unsustainable systems* (HPSA: 13) – Моделі землеробства, засновані на кліматі та можливостях земель, є стійкими, але ринкові сили та прагнення фермерів змушують використовувати нежиттєздатні системи;

– *pathogen transmission – передача патогенів*: (18) *Pest and diseases of crops to be altered because of more enhanced pathogen and vector development, rapid pathogen transmission and increased host susceptibility* (HPSA: 14) – Шкідники та хвороби сільськогосподарських культур підлягають зміні через посиленій розвиток патогенів і векторів, швидку передачу патогенів і підвищену чутливість сприймаючих культур.

The category of number of adjectives within word combination also changes as in *cultivated area – оброблювані площі*. Here, replacement is double: Participle II *cultivated* is replaced by adjective *оброблювані*, and the category of number within word combination is changed from singular to plural: (33) *It is estimated that about 50% of the cultivated area in India suffers from severe soil erosion and requires remedial measures* (HPSA: 18) – За оцінками, приблизно 50% оброблюваних площ в Індії страждає від сильної ерозії ґрунту та потребує заходів щодо подолання цього явища.

Nouns in plural can also be substituted as presented in the example *farm products – сільськогосподарська продукція* which is also caused by the grammatical differences between English and Ukrainian as well as by the choice of words by the translator in certain case: (1) *Higher demand for agricultural raw material is now anticipated and agriculture is not any more about producing farm products and selling them exclusively at the local market* (HPSA: 5) – Зараз очікується більш високий попит на сільськогосподарську сировину, і сільське господарство більше не полягає у виробництві сільськогосподарської продукції та продажу її виключно на місцевому ринку.

Moreover, grammatical replacements can concern changing words into word combinations such as in the following example: (19) *Agricultural biodiversity is also threatened by decreased rainfall and increased temperature, sea level rise and increased frequency and severity of drought, cyclone and flood* (HPSA: 14) –

Біорізноманіття сільського господарства також знаходиться під загрозою через зменшення кількості опадів і підвищення температури, підвищення рівня моря та збільшення частоти й серйозності посух, циклонів і повеней. Here, *agricultural biodiversity* is rendered as *біорізноманіття сільського господарства* due to the translator's desire to make the text easy to read and comprehend as the variant *сільськогосподарське біорізноманіття* is quite complicated, especially for pronouncing.

**Addition** is used to compensate for semantic or grammatical losses and often accompanies transposition and grammatical replacement [18: 147].

The application of addition when rendering agrarian discourse specialized vocabulary of agriculture in translation can be the part of explanatory translation as in the following text fragment: (5) *The states of Gujarat and Maharashtra have competitive advantages for the production of several commodities* (HPSA: 5) – Штати Гуджарат і Махараштра мають конкурентні переваги у виробництві кількох видів товарів. Here, *commodities* ‘товари’ is represented as *видів товарів* in order to state that not individual goods are concerned by their groups which are profitable for the region described.

**Omission** is a transformation opposite to addition and is used with the aim to avoid redundant information [18: 113].

In particular, in agrarian discourse specialized vocabulary of agriculture unit *raw materials*, *raw* already includes the meaning represented in *сировина*, so the component *materials* is omitted in the following text fragment: (3) *Apart from delivering the local industries with top quality raw materials for processing, agriculture provides almost 10% of total export earnings* (HPSA: 5) – Окрім забезпечення місцевої промисловості високоякісною сировиною для переробки, сільське господарство забезпечує майже 10% загальних доходів від експорту.

Let us consider the following example: (30) *Climate change is likely to aggravate heat stress in dairy animals, adversely affecting their reproductive performance* (HPSA: 14) – Зміна клімату, ймовірно, посилить тепловий стрес у молочних тварин, негативно вплинувши на їх репродуктивність. In this text

fragment, *reproductive performance* is rendered in translation as *репродуктивність*, the component *performance* is omitted due to the fact that suffix *-ість* in *репродуктивність* adds the meaning of describing the phenomenon in the target language unit.

In some cases, however, omission is caused by the fact that the meaning of certain components of agrarian discourse specialized vocabulary of agriculture unit is obvious from the context, for example: (38) *The land slope, the soil type, the available stream size, the required depth of the irrigation application and farming practices mainly determine the shape and size of basins* (HPSA: 21) – Форму та розмір басейнів в основному визначають нахил землі, тип ґрунту, доступний розмір потоку, необхідна глибина зрошення та методи ведення сільського господарства. Here, in *depth of the irrigation application*, the component *application* is obvious, so in translation the whole unit is rendered as *глибина зрошення* omitting *application*.

Also, there are cases when the unit includes synonymous components, so both of them are represented by one Ukrainian counterpart as in *crop/cropping system* – *система вирощування культур*: (14) *Is the crop/cropping system suitable for local weather parameters such as temperature, rainfall, sun shine hours, relative humidity, wind velocity, wind direction, seasons and agro-ecological situations?* (HPSA: 10) – Чи підходить система вирощування культур для місцевих погодних параметрів, таких як температура, кількість опадів, години сонячного світла, відносна вологість, швидкість вітру, напрямок вітру, пори року та агроекологічні ситуації?

Thus, applying grammatical transformations in the translation of agrarian discourse specialized vocabulary of agriculture, the translator is mostly driven by the presence of differences between lexical and grammatical systems of English and Ukrainian. In most cases, grammatical transformations adapt the grammatical structure of the English agrarian discourse specialized vocabulary unit of agriculture to the norms of the Ukrainian language, as well as to add explanation or omit

redundant information, which is, in turn, aimed at simplifying the perception of the whole text in translation.

The conducted research allowed obtaining information on the frequency of applying certain means of rendering agrarian discourse specialized vocabulary of agriculture in translation as presented in Table 2.1.

*Table 2.1*

The means of rendering agrarian discourse specialized vocabulary of agriculture in translation: quantitative analysis

<b>Means of translation</b>	<b>Number</b>	<b>Share of total</b>
<b>1. Equivalentts</b>	<b>6</b>	<b>12%</b>
<b>2. Lexical transformations</b>	<b>14</b>	<b>28%</b>
transliteration	4	8%
transcription	2	4%
loan translation	8	16%
<b>3. Lexical and semantic transformations</b>	<b>12</b>	<b>24%</b>
differentiation	5	10%
generalization	2	4%
substantiation	1	2%
modulation	4	8%
<b>4. Grammatical transformations</b>	<b>18</b>	<b>36%</b>
transposition	1	2%
grammatical replacements	12	24%
addition	1	2%
omission	4	8%
<b>Total:</b>	<b>50</b>	<b>100%</b>

Thus, agrarian discourse specialized vocabulary of agriculture is mostly rendered in translation by applying translation transformations (88%), the most frequent of which are grammatical ones (36%) due to the wide application of

grammatical replacements (24%) aimed at adapting the language units' structure to the norms of the target language. In this group, omission as a means of simplifying the target text is also quite often used (8%).

Almost equally used are lexical (28%) and lexical and semantic (24%) transformations. The first group is mostly presented by loan translation (16%) and transliteration (8%), the latter – by differentiation (10%) and modulation (8%).

Translation by equivalents is not very frequent (12%) due to lack of standardization of agrarian specialized vocabulary in both languages.



## CONCLUSIONS

Specialized vocabulary is seen as a component of language for specific purposes, the latter defined as a set of all language means used in a certain specialized field of communication for ensuring mutual understanding between specialists employed in this field. Specialized vocabulary is defined as words or phrases that name objects and concepts that belong to different spheres of human labor and are not commonly used. It has smooth and flexible connections with the commonly used vocabulary.

Translation of specialized vocabulary falls into the domain of specialized translation – translation that has to do with a specific area of knowledge and covers the specialist subject fields falling under non-literary translation, the best known of which include science and technology, economics, marketing, law, politics, medicine and mass media, as well as lesser researched areas such as maritime navigation, archaeology, geography and nutrigenomics. Such texts reveal a number of grammatical, lexical, and stylistic features, which are particularly difficult for the translator including specialized vocabulary, so translation of such texts requires, first of all, certain competences translators should have. Moreover, such difficulties as ambiguity, multicomponentity, presence of realia may arise.

Agrarian discourse is understood as institutional discourse, a complex, multifaceted formation, the characteristic features of which are a clearly defined circle of communication participants, specific communication situations, and texts created during such communication. The texts of agrarian discourse are characterized by a set of discourse parameters such as authorship, topic, graphical design; and lexical and stylistic features, such as lack of tropes and figures of speech as well as wide use of specialized vocabulary of agriculture.

Agrarian discourse specialized vocabulary of agriculture is mostly rendered in translation by applying translation transformations (88%), the most frequent of which are grammatical ones (36%). Applying grammatical transformations in the translation of agrarian discourse specialized vocabulary of agriculture, the translator is mostly

driven by the presence of differences between lexical and grammatical systems of English and Ukrainian. In most cases, grammatical transformations adapt the grammatical structure of the English agrarian discourse specialized vocabulary unit of agriculture to the norms of the Ukrainian language, as well as to add explanation or omit redundant information, which is, in turn, aimed at simplifying the perception of the whole text in translation. In this group, there is wide application of grammatical replacements (24%) aimed at adapting the language units' structure to the norms of the target language. In this group, omission as a means of simplifying the target text is also quite often used (8%).

Almost equally used are lexical (28%) and lexical and semantic (24%) transformations. Using lexical transformations, the translator is capable of representing in translation the form of the agrarian discourse specialized vocabulary of agriculture which is applicable for language units borrowed from the ancient languages of science such as Greek or Latin or which have transparent form being coined from the language units having equivalents in the language of translation. This group is mostly presented by loan translation (16%) and transliteration (8%). Using the lexical and semantic transformations, the translator achieves the aim of representing the meaning of the unit belonging to English agrarian discourse specialized vocabulary of agriculture in such way to make it aligned with the Ukrainian agrarian discourse specialized vocabulary of agriculture and thus making it understandable for the reader of the target text. In this group, the most common ones are differentiation (10%) and modulation (8%).

Translation by equivalents is not very frequent (12%) due to lack of English-Ukrainian dictionaries of agriculture and the fact that only most common units belonging to specialized vocabulary of agriculture are presented in the dictionaries, so, in most cases the translator needs to use translation transformations rather than established equivalents.

The conducted research reveals wide prospects for further studies. In particular, there is a need in codification and standardization of agrarian discourse specialized vocabulary of agriculture, as well as creating bilingual dictionaries on the subject.

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## ANNEX

**Specialized vocabulary of agriculture in English agrarian discourse in  
context and its translation into Ukrainian**

No.	Text fragment	Translation
1.	<p><i>Higher demand for agricultural raw material is now anticipated and agriculture is not any more about producing <u>farm products</u> and selling them exclusively at the local market (HPSA: 5).</i></p>	<p>Зараз очікується більш високий попит на сільськогосподарську сировину, і сільське господарство більше не полягає у виробництві <u>сільськогосподарської продукції</u> та продажу її виключно на місцевому ринку.</p>
2.	<p><i>Farmers and agricultural enterprises, willing to be part of the new expanding world market, not only have to take into consideration customers' preferences whom they want to serve, but also adhere to international trade regulations set by WTO and comply with high production and <u>quality standards</u> required by the importing countries (HPSA: 5)</i></p>	<p>Фермери та сільськогосподарські підприємства, які бажають бути частиною нового світового ринку, що розширюється, повинні не тільки враховувати переваги клієнтів, яких вони хочуть обслуговувати, але й дотримуватися правил міжнародної торгівлі, встановлених СОТ, і відповідати високим <u>стандартам</u> виробництва та <u>якості</u>, що вимагаються країнами-імпортерами.</p>
3.	<p><i>Apart from delivering the local industries with top quality <u>raw materials</u> for processing, agriculture provides almost 10% of total export</i></p>	<p>Окрім забезпечення місцевої промисловості високоякісною <u>сировиною</u> для переробки, сільське господарство забезпечує майже</p>



No.	Text fragment	Translation
	<i>earnings (HPSA: 5).</i>	10% загальних доходів від експорту.
4.	<i>However, to support the impressive Indian economic growth in the coming years, agriculture will have to contribute more towards value addition, <u>productivity enhancement</u>, high quality products and trained manpower to successfully tackle these challenges (HPSA: 5).</i>	Однак, щоб підтримати вражаюче економічне зростання Індії в найближчі роки та успішно подолати ці виклики, сільському господарству доведеться більше сприяти створенню доданої вартості, <u>підвищенню продуктивності</u> , високоякісній продукції та підготовленій робочій силі.
5.	<i>The states of Gujarat and Maharashtra have competitive advantages for the production of several <u>commodities</u> (HPSA: 5).</i>	Штати Гуджарат і Махараштра мають конкурентні переваги у виробництві кількох <u>видів товарів</u> .
6.	<i>Rising quality requirements of export and domestic markets require an up-scaling of the production which is only feasible with educated <u>farmers</u> and skilled workers (HPSA: 5).</i>	Зростаючі вимоги до якості на експортних і внутрішніх ринках вимагають збільшення масштабів виробництва, що можливо лише із залученням освічених <u>фермерів</u> і кваліфікованих робітників.
7.	<i>The goal of Partnership Farming India (PFI) is to enable farmers to be self-sufficient decision-makers, “<u>agripreneurs</u>”, which allows for a more flexible production system and highlights farming as profession by</i>	Мета ініціативи Partnership Farming India (PFI) полягає в тому, щоб дозволити фермерам бути самодостатніми особами, які приймають рішення, « <u>агropідприємцями</u> », що дозволяє

No.	Text fragment	Translation
	<i>choice and not by inheritance</i> (HPSA: 5).	створити більш гнучку систему виробництва та висвітлює фермерство як професію за вибором, а не за спадковістю.
8.	<i>Furthermore, PFI strengthens farmers' and farm workers' management skills to adopt <u>modern agricultural practices</u> and concepts and enhance the international competitiveness of smallholders' agricultural produce by giving farmers and workers in Gujarat and Maharashtra access to practical agricultural education</i> (HPSA: URL).	Крім того, PFI зміцнює управлінські навички фермерів і працівників ферм для впровадження <u>сучасних методів</u> і концепцій <u>сільського господарства</u> та підвищення міжнародної конкурентоспроможності сільськогосподарської продукції дрібних власників, надаючи фермерам і робітникам у Гуджараті та Махараштрі доступ до практичної освіти у сфері сільського господарства.
9.	<i>Fifty one percent of sample farmers who were part of partnership farming India had knowledge of <u>soil testing</u> compared to only 28% of control group</i> (HPSA: 9).	П'ятдесят один відсоток фермерів із вибірки, які брали участь у партнерстві в Індії, мали знання про <u>дослідження ґрунту</u> порівняно з лише 28% представників контрольної групи.
10.	<i>Mulching and <u>intercropping</u> as a practice were not widely adopted by control group of farmers</i> (HPSA: 9).	Мульчування та <u>змішування культур</u> не були широко прийняті контрольною групою фермерів.
11.	<i>They were less aware about other <u>organic fertilizers</u></i> (HPSA: 9).	Про інші <u>органічні добрива</u> вони знали менше.

No.	Text fragment	Translation
12.	<i>Fertigation as a method of application of fertilizers was not widely practiced by control group (HPSA: 9).</i>	Фертигація як метод внесення добрив в контрольній групі не набула широкого застосування.
13.	<i>More than 85% of the farmers wanted basic education on agriculture and crop production and ready to pay for undergoing such basic education and training (HPSA: 9).</i>	Понад 85% фермерів хотіли отримати базову освіту в галузі сільського господарства та <u>рослинництва</u> та готові платити за проходження такої базової освіти та навчання.
14.	<i>Is the <u>crop/cropping system</u> suitable for local weather parameters such as temperature, rainfall, sun shine hours, relative humidity, wind velocity, wind direction, seasons and agro-ecological situations? (HPSA: 10).</i>	Чи підходить система <u>вирощування культур</u> для місцевих погодних параметрів, таких як температура, кількість опадів, години сонячного світла, відносна вологість, швидкість вітру, напрямок вітру, пори року та агроекологічні ситуації?
15.	<i>Cropping patterns based on climate and <u>land capability</u> are sustainable but market forces and farmers' aspirations are forcing unsustainable systems (HPSA: 13).</i>	Моделі землеробства, засновані на кліматі та <u>можливостях земель</u> , є стійкими, але ринкові сили та прагнення фермерів змушують використовувати нежиттєздатні системи.
16.	<i><u>Climate change</u> will likely to cause further problems in our crop production and is likely to become the most important environmental issue</i>	<u>Зміна клімату</u> , ймовірно, спричинить подальші проблеми у нашому рослинництві та, швидше за все, стане найважливішою

No.	Text fragment	Translation
	<i>in the 21st century (HPSA: 13).</i>	екологічною проблемою XXI століття.
17.	<i>Pests like bollworm, red hairy caterpillar and <u>leaf spot diseases</u> may increase (HPSA: 14).</i>	Може збільшитися вплив шкідників, як-от совки, червоні волохаті гусениці, та <u>захворювань плямистості листя</u> .
18.	<i>Pest and diseases of crops to be altered because of more enhanced pathogen and vector development, rapid <u>pathogen transmission</u> and increased host susceptibility (HPSA: 14).</i>	Шкідники та хвороби сільськогосподарських культур підлягають зміні через посилений розвиток патогенів і векторів, швидку <u>передачу патогенів</u> і підвищену чутливість сприймаючих культур.
19.	<i><u>Agricultural biodiversity</u> is also threatened by decreased rainfall and increased temperature, sea level rise and increased frequency and severity of drought, cyclone and flood (HPSA: 14).</i>	<u>Біорізноманіття сільського господарства</u> також знаходиться під загрозою через зменшення кількості опадів і підвищення температури, підвищення рівня моря та збільшення частоти й серйозності посух, циклонів і повеней.
20.	<i>Quality of farm products such as fruits, vegetables, tea, coffee, aromatic and <u>medicinal plants</u> may be affected (HPSA: 14).</i>	Це може погіршити якість сільськогосподарських продуктів, таких як фрукти, овочі, чай, кава, ароматичні та <u>лікарські рослини</u> .
21.	<i>Demand for <u>irrigation</u> to increase with increased temperature and higher amount of evapo-transpiration</i>	Попит на <u>зрошення</u> зростає з підвищенням температури та більшою кількістю випаровування.

No.	Text fragment	Translation
	(HPSA: 14).	
22.	<i>The melting of glaciers in the Himalayas will increase <u>water availability</u> in the Ganga, Brahmaputra and their tributaries in the short-run but in the long-run the availability of water will decrease considerably (HPSA: 14).</i>	Танення льодовиків у Гімалаях збільшить <u>доступність води</u> в Гангу, Брахмапутрі та їхніх притоках у короткостроковій перспективі, але в довгостроковій перспективі доступність води значно зменшиться.
23.	<i>A significant increase in runoff is projected in <u>the rainy season</u>, however, may not be very beneficial unless storage infrastructure could be vastly expanded (HPSA: 14).</i>	Прогнозується значне збільшення стоку в <u>сезон дощів</u> , однак це може бути не надто корисним, якщо не буде значно розширено інфраструктуру сховищ.
24.	<i><u>The water balance</u> in different parts of India will be disturbed and the quality of ground water along costal track will be more affected due to intrusion of sea water (HPSA: 14).</i>	Через вторгнення морської води <u>водний баланс</u> у різних частинах Індії буде порушено, а якість ґрунтових вод уздовж узбережжя постраждає ще більше.
25.	<i><u>Organic matter content</u>, which is already quite low in Indian soil, would become even lower (HPSA: 14).</i>	<u>Вміст органічної речовини</u> , який і без того досить низький в індійській землі, стане ще нижчим.
26.	<i>Increase in soil temperature may reduce Nitrogen availability due to volatilization and <u>denitrification</u> (HPSA: 14).</i>	Підвищення температури ґрунту може зменшити доступність азоту через випаровування та <u>денітрифікацію</u> .
27.	<i>Change in rainfall volume and frequency as well as wind may alter</i>	Зміна обсягу та частоти опадів, а також вітру можуть змінити

No.	Text fragment	Translation
	<i>the severity, frequency and extent of <u>soil erosion</u> (HPSA: 14).</i>	інтенсивність, частоту та ступінь <u>ерозії ґрунту</u> .
28.	<i>Rise in sea level may lead to salt water entry in the coastal lands turning them less suitable for <u>conventional agriculture</u> (HPSA: 14).</i>	Підвищення рівня моря може призвести до надходження солоної води в прибережні землі, зробивши їх менш придатними для <u>традиційного сільського господарства</u> .
29.	<i>Major impacts on <u>vector-borne diseases</u> through expansion of vector populations during rainy years, leading to large outbreaks of diseases (HPSA: 14).</i>	Значний вплив на <u>трансмисивні хвороби</u> через розширення популяцій переносників у дощові роки, що призводить до великих спалахів захворювань.
30.	<i>Climate change is likely to aggravate heat stress in dairy animals, adversely affecting their <u>reproductive performance</u> (HPSA: 14).</i>	Зміна клімату, ймовірно, посилить тепловий стрес у молочних тварин, негативно вплинувши на їх <u>репродуктивність</u> .
31.	<i>Increased sea and river water temperature is likely to affect <u>fish breeding, migration and harvest</u> (HPSA: 14).</i>	Підвищення температури морської та річкової води може вплинути на <u>розмноження, міграцію та вилов риби</u> .
32.	<i>Impacts of increased temperature and tropical cyclonic activity would affect capture, production and marketing costs of <u>the marine fish</u> (HPSA: 14).</i>	Вплив підвищеної температури та тропічної циклонічної активності вплине на витрати на вилов, виробництво та просування продажів <u>морської риби</u> .
33.	<i>It is estimated that about 50% of the <u>cultivated area in India</u> suffers from</i>	За оцінками, приблизно 50% <u>оброблюваних площ</u> в Індії

No.	Text fragment	Translation
	<i>severe soil erosion and requires remedial measures (HPSA: 18).</i>	страждає від сильної ерозії ґрунту та потребує заходів щодо подолання цього явища.
34.	<i>Known as <u>water erosion</u>, is the removal of soil from the lands surface by water in motion (HPSA: 18).</i>	Відома як <u>водна ерозія</u> , вона полягає у видаленні ґрунту з поверхні землі водою під час її руху.
35.	<i><u>Basin irrigation</u> is commonly used for rice grown on flat lands or in terraces on hillsides (HPSA: 21).</i>	<u>Басейнове зрошення</u> зазвичай використовується для рису, що вирощується на рівнинних землях або на терасах на схилах пагорбів.
36.	<i>Crops suitable for basin irrigation include pastures, citrus, banana and crops that are broadcasted such as cereals and to some extent <u>row crops</u> such as tobacco (HPSA: 21).</i>	Культури, придатні для басейнового зрошення, включають пасовища, цитрусові, банани та культури, які розкидаються, такі як зернові та певною мірою <u>просапні культури</u> , зокрема, тютюн.
37.	<i>It is also possible to construct basins on sloping land, even when the slope is quite steep; <u>level basins</u>, called terraces, can be constructed like the steps of a staircase (HPSA: 21).</i>	Також можна побудувати басейни на схилі, навіть якщо схил досить крутий; <u>рівневі басейни</u> , які називаються терасами, можуть бути побудовані, як сходи.
38.	<i>The land slope, the soil type, the available stream size, the required <u>depth of the irrigation application</u> and farming practices mainly determine the shape and size of basins (HPSA: 21).</i>	Форму та розмір басейнів в основному визначають нахил землі, тип ґрунту, доступний розмір потоку, необхідна <u>глибина зрошення</u> та методи ведення сільського господарства.

No.	Text fragment	Translation
39.	<i>If the land slope is steep, the basin should be narrow; otherwise too much <u>earth movement</u> will be needed to obtain level basins (HPSA: 21).</i>	Якщо схил землі крутий, басейн повинен бути вузьким; інакше для отримання рівневих басейнів буде потрібно <u>занадто багато переміщень ґрунту</u> .
40.	<i>Three other factors, which may affect basin width, are <u>depth of fertile soil</u>, method of basin construction, agricultural practices (HPSA: 21).</i>	Три інші фактори, які можуть впливати на ширину басейну, це <u>глибина родючого ґрунту</u> , спосіб будівництва басейну, методи ведення сільського господарства.
41.	<i>The latter can be matched to <u>the soil infiltration capacity</u> through emitters or drippers that are located close to the root zone of the plants (HPSA: 24).</i>	Останній може бути узгоджений із <u>здатністю ґрунту до інфільтрації</u> через випромінювачі або крапельниці, розташовані поблизу кореневої зони рослин.
42.	<i>It is clear from the above diagram that <u>drip irrigation</u> is the most efficient irrigation in terms of water use efficiency compared to all other methods (HPSA: 24).</i>	З наведеної вище діаграми видно, що <u>крапельне зрошення</u> є найефективнішим з точки зору ефективності використання води порівняно з усіма іншими методами.
43.	<i><u>Flood irrigation method</u> is found to be the most uneconomical irrigation method in terms of water use efficiency when compared to all other methods (HPSA: 24).</i>	<u>Заливний спосіб зрошення</u> визнано найбільш неекономічним способом зрошення з точки зору ефективності використання води порівняно з іншими методами.
44.	<i>In order to popularize <u>micro irrigation</u>, the Government of India is</i>	З метою популяризації <u>мікрозрошення</u> уряд Індії



No.	Text fragment	Translation
	<i>implementing the Micro Irrigation Scheme through which interested farmers be supported (HPSA: 24).</i>	впроваджує «схему мікрозрошення», за якою зацікавлені фермери отримують підтримку.
45.	<i>To increase the area under efficient methods of irrigation viz. drip and <u>sprinkler irrigation</u> as these methods have been recognized as the only alternative for efficient use of surface as well as ground water resources (HPSA: 24).</i>	Збільшити площі при ефективних методах зрошення шляхом крапельного та <u>спринклерного зрошення</u> , оскільки ці методи були визнані єдиною альтернативою ефективного використання поверхневих і підземних водних ресурсів.
46.	<i>A “seed” (in some plants, referred to as a “kernel”) is a small embryonic “plant” enclosed in a covering called <u>the seed coat</u>, usually with some “stored food” (HPSA: 29).</i>	«Насіння» (у деяких рослин його називають «ядром») – це невелика ембріональна «рослина», укладена в оболонку, яка називається <u>насіннєвою оболонкою</u> , зазвичай із деякою «збереженою їжею».
47.	<i>Seeds fundamentally are a means of reproduction and most seeds are the product of “sexual reproduction”, which remixes genetic material and “<u>phenotype variability</u>” that “natural selection” acts upon (HPSA: 29).</i>	Насіння в основному є засобом розмноження, і більшість насіння є продуктом «статевого розмноження», яке реміксує генетичний матеріал і « <u>мінливість фенотипу</u> », на які діє «природний відбір».
48.	<i><u>A good vigorous seed</u> utilizes all the resources and realizes a reasonable output to the grower (HPSA: 29).</i>	<u>Добре життєздатне насіння</u> використовує всі ресурси та дає виробнику розумний результат.

No.	Text fragment	Translation
49.	<i>Seed treatment is usages of specific products and specific techniques to improve <u>the growth environment</u> for the seed, seedlings and young plants (HPSA: 30).</i>	Обробка насіння – це використання спеціальних продуктів і спеціальних методів для поліпшення <u>середовища росту</u> для насіння, розсади та молодих рослин.
50.	<i>Low cost earthen pots can be used for mixing <u>pesticides</u> with seed or seed can be spread on a polythene sheet (HPSA: 30).</i>	Недорогі глиняні горщики можна використовувати для змішування <u>пестицидів</u> з насінням, або насіння можна розкласти на поліетиленовому листі.

## РЕЗЮМЕ

Курсову роботу присвячено дослідженню особливостей перекладу українською мовою англійської лексики сільського господарства на матеріалі аграрної літератури. У ході роботи висвітлено основні етапи наукової думки в галузі вивчення спеціальної лексики, описано існуючі способи перекладу спеціальної лексики, проаналізовано зразок тексту аграрного дискурсу і здійснено перекладацький аналіз фактичного матеріалу дослідження (спеціальної лексики сільського господарства у текстах аграрного дискурсу, усього 50 одиниць). Крім того, у курсовій роботі складено таблицю, що містить можливі способи перекладу спеціальної лексики сільського господарства у текстах аграрного дискурсу.

**Ключові слова:** переклад, перекладацький аналіз, мова для спеціальних цілей, спеціальна лексика, сільське господарство, аграрний дискурс.