

МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ
УМАНСЬКИЙ НАЦІОНАЛЬНИЙ УНІВЕРСИТЕТ САДІВНИЦТВА

Кафедра української та іноземних мов

**МЕТОДИЧНІ ВКАЗІВКИ ДЛЯ САМОСТІЙНОЇ РОБОТИ
З ДИСЦИПЛІНИ «ІНОЗЕМНА МОВА (АНГЛІЙСЬКА)»**

для здобувачів вищої освіти спеціальності **193 Геодезія та землеустрій**
освітньої програми Геодезія та землеустрій
першого рівня вищої освіти (бакалавр)

УМАНЬ 2022

Методичні вказівки для самостійної роботи з дисципліни «Іноземна мова (англійська)» для здобувачів вищої освіти спеціальності 193 «Геодезія та землеустрій» освітньої програми Геодезія та землеустрій першого рівня вищої освіти (бакалавр). Умань: Уманський НУС. 2022. 40 с.

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Рекомендовано до використання у навчальному процесі на засіданні методичної комісії факультету менеджменту Уманського НУС (протокол №1 від 31.08.2022 р.).

Підготовка фахівців у вищому навчальному закладі передбачає широке використання різноманітних форм самостійної роботи як одного з основних засобів оволодіння навчальним матеріалом у час, вільний від аудиторних занять. Навчально-методичний посібник для самостійної роботи студентів складений відповідно до навчальної програми дисципліни «Іноземна мова (англійська)» і передбачає опрацювання навчального матеріалу на основі виконання різних видів завдань: вивчення нових лексичних одиниць, виконання граматичних вправ, читання, переклад, лексико-граматичний аналіз текстів тощо, що сприятиме виробленню навичок практичного оволодіння іноземною мовою у сфері комунікативної професійної діяльності.

Посібник призначений для студентів аграрних закладів вищої освіти.

№ з/п	Назва теми	Стор.
1.	Опрацювання зі словником та вивчення нових лексичних одиниць [1, с. 12, 18, 24, 31, 51, 57], текст "Soil" [3, с. 6].	4
2.	Артикль [1, с.179-181]; займенник [1, с. 187, 188]; дієслово <i>to be</i> [1, с. 194].	8
3.	Присвійні займенники [1, с. 187], прикметник, числівник [1, с. 184-186], вивчення форм неправильних дієслів [1, с. 222].	10
4.	Прислівник [1, с. 206], безособові речення [1, с. 215-216], дієслово в пасивному стані [1, с. 193, 191], текст "Plant Foods in the Soil" [3, с. 12].	11
5.	Опрацювання зі словником та вивчення нових лексичних одиниць. [1, с. 62, 68, 75, 82, 89, 95], текст "Chemical Properties of Soils" [3, с. 10].	14
6.	Правила читання голосних [1, с. 156-159], правила читання приголосних [1, с. 160-163], правила читання буквосполучень <i>qu, ch</i> [1, с. 160-163], опрацювання зі словником та вивчення нових лексичних одиниць [1, с. 104, 113, 121,129, 136, 144], текст "Chemical Properties of Soils" [3, с. 10].	17
7.	Опрацювання граматичного матеріалу: сполучник [1, с. 211], прийменники [1, с. 208-211], фразеологічні словосполучення та ідіоматичні вирази [1, с. 221], текст "Organic Matter and Essential Elements" [3, с. 14].	20
8.	Опрацювання матеріалу словотворення: суфікси різних частин мови [1, с. 172-173], пароніми [1, с. 218-219], омоніми [1, с. 219], текст "Maize" [3, с. 22].	22
9.	Опрацювання граматичного матеріалу: зворотні та підсилювальні займенники [1, с. 188], багатозначність слів [1, с. 217-218], текст "Factors of Soil Formation" [2, с. 9].	25
10.	Опрацювання матеріалу словотворення: псевдо інтернаціональна лексика [1, с. 220], суфікси та префікси різних частин мови [1, с. 169-173], складні слова [1, с. 175].	27
11.	Опрацювання граматичного матеріалу: особливості перекладу складних речень [1, с. 216-217], умовний спосіб [1, с. 190-191], текст "Agricultural Operations" [1, с. 85 -86].	30
12.	Опрацювання тексту "Factors Influencing Erosion" [2, с. 32].	33
13.	Опрацювання тексту "Crop Rotation" [1, с. 78].	35
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Тема 1. Опрацювання зі словником та вивчення нових лексичних одиниць; текст "Soil".

Cereal, wheat, barley, oats, rye, maize, rice, agriculture, cultivation, crop, crop growing, land. soil, animal breeding, branch, economy, yield, implement, science, achievement, research, variety, spade, rake, to grow, to breed, to dig, to loosen, to gather, to weed, to water, to develop, modern, early, to increase, to sow, seeds, to discover, requirement, need, to appear, to improve, tool, to till soil, plough, to invent, a device, self-binding reaper, petrol, engine, range, to vary;

surface, earth, portion, rock, percentage, compactness, purpose, source, content, success, heavy, clay, loam, silt, sand, poor, tilth, clod, texture, particle, subject, layer, to leach, shade, shape, quantity, nitrogen, phosphorus, potassium, calcium, magnesium, sulphur, iron, manganese, copper, zinc, boron, trace, bulk, density, aggregate, capable, term, superficial, essential, coarse, fine, uppermost, thorough, grey, pale, primary, to mix, to sustain, to break, to integrate, to crumble, to judge, to consider, to hold, to indicate, to refer, to define, to distinguish, to remove, to deposit, to decay, to obtain, to lack, to retard, to affect, to penetrate;

remain, seedbed, stubble, to discover, sweeper, tine harrow, disc harrow, drill, cluster-pocket, checkrow, shoot, row, hay, distance, view, ripe, rural, to refine, to level, to roll, to extract, to employ.

Вправа 1. Поєднайте англійський та український еквіваленти.

- | | |
|---------------------|----------------------------|
| 1. Crop growing | a) випаровування |
| 2. Variety | b) молотити |
| 3. Cereal | c) підтримувати, підпирати |
| 4. A device | d) азот |
| 5. Transpiration | e) жирна глина |
| 6. Nutrient | f) кришити(ся) |
| 7. To fertilize | g) діяти (на), уражати |
| 8. Mature | h) рослинництво |
| 9. To thrash | i) каткувати |
| 10. Animal breeding | j) вилуговувати |
| 11. Surface | k) проникати |

12. To sustain	l) паросток, пагін
13. Nitrogen	m) злак
14. Loam	n) сорт
15. To crumble	o) поверхня
16. To affect	p) тваринництво
17. To roll	q) зрілий
18. To leach	r) удобрювати
19. To penetrate	s) поживна речовина
20. Shoot	t) пристрій

Вправа 2. Утворіть якомога більше словосполучень, об'єднуючи слова з лівого та правого стовпчиків.

to develop	animals
to loosen	technologies
to get	implements
to water	variety
to breed	achievements
to produce	soil
to cultivate	yield
to provide	crops
to train	clothing
to fertilize	specialists
important	materials
to thrash	seedbed
raw	part
cultural	practices
useful	seeds
basic	characteristics

Вправа 3. Визначте по суфіксах частину мови слів та перекладіть їх рідною мовою.

Important, primitive, civilization, useful, cultural, function, structure, requirement, growth, plant breeder, variety, selection, farmer, reaper, appearance, mechanical, corn planter, invention, agriculture, basic, early.

Вправа 4. Перекладіть "ланцюжки іменників" рідною мовою.

Steel plough, petrol engine, corn planter, food crops, plant science, plant breeder, moldboard plough, disc plough, farm tractor, tractor makes, soil science, soil scientist, parent material, organic material, mineral material, animal matter, vegetable matter, organic matter content, plant life, food elements, storage place, soil structure, soil particle, soil-protective system, soil-protective measures, crop-farming system, green biomass, crop rotation system, livestock farming, advanced technologies, grain crop varieties, water and wind erosion.

Вправа 5. Прочитайте та здогадайтеся про значення інтернаціональних слів.

Organic, mineral, mixture, term, portion, proportion, form, formation, period, compact, process, activity, human, biology, structure, microscope, microelement, productivity, production, productive, aeration, to cultivate, humus, composition, chemical, physical, condition, drainage, horizon, nature, deposit, element.

Вправа 6. Прочитайте нижче поданий текст та передайте його зміст рідною мовою.

Soil

Soil plays a vital and important role in the life of the world and mankind. It is in fact a highly organized physical, chemical and biological complex all of us are dependent on. As the supporter of vegetable life, soil plays the most fundamental of roles in providing food for all animals and men.

Soils develop under the influences of climate, vegetation, slope and drainage, time, the nature of the parent material, and the culture. Climate influences plants, animals and soil directly. Plants influence the soil, the animals and the climate near the ground. Animals play a considerable role in soil development; the type of soil often influences the animals which are present in it, while the animals also influence the vegetation which is growing in the soil. Finally climate, through weathering, influences the rocks, which in time become part of the soil through the

processes of soil formation.

Man has done much to adapt crops to the soil and to provide various kinds of fertilizers for plant growth and development.

From season to season conditions of temperature and moisture change, so the farmer must change the management to produce better drainage, improve tilth, prevent erosion, and test the soil to identify the proper kind and the correct proportion of fertilizer needed. Only by careful study of the soil, resulting in an understanding of the complexity of its nature and uses, will man be able to provide food for all the people who will inhabit the earth. The soil cannot reproduce itself.

Therefore, men should improve it through good management and treatment so that future generations can farm more efficiently than their fathers and grandfathers have done. Man can improve the soil now in use and even discover how more kinds of soils can be utilized more productively.

So, the results obtained in soil science can be applied to practical problems in agriculture, horticulture, forestry, engineering, and in planning the future use of land.

Вправа 7. Знайдіть у тексті синоніми до поданих слів та словосполучень:

to supply, soil, requirement, correct, vegetable life, to absorb, food elements.

Вправа 8. Визначте, які речення не відповідають змісту тексту.

1. Soil science is only of theoretical value.
2. Different soils have the same utility.
3. To improve the soil one should study it thoroughly.
4. Soil requirements are always the same.
5. Soils that are not valuable for grain crops may be very good for some other purpose.
6. Climate is influenced by soil.

Тема 2. Артикль; займенник; дієслово to be.

Вправа 1. Перепишіть речення, вставляючи артикли(a, an, the, no article).

a) ...word “ager” is ... Latin word. It means ... field. ... agriculture is ... important sector of ... economy. ... its aim is to provide ... people with...food and ... industry with ... raw materials. There are ... two main branches of ... agriculture. ... people use ... new implements, ... progressive technologies and ... other modern achievements of ... science and ... engineering. ... agriculture is also ... science of farming.

b) Soil is ... upper layer of ... earth which may be tilled and cultivated. More specifically, soils are ... unconsolidated inorganic and organic materials on ... urface of ... earth which support ... growth of ... plants. Weathered rocks and minerals make up ... inorganic fraction of ... soil and can supply all essential plant nutrients except nitrogen. Virtually all of ... nitrogen, as well as ... portion of ... several other essential plant nutrients, is stored in ... organic matter.

Вправа 2. Виберіть правильний варіант займенника.

1. We study at Uman National University of Horticulture. Our / my University is big.
2. I live with my grandmother and grandfather. I love their/them very much.
3. We have a sister. We like to play with her/him and she likes to play with me/us.
4. Ann is glad to see her/his friends again.
5. I have a nice puppy. I always give him/it milk to eat.

Вправа 3. Вставте особові займенники у потрібному відмінку.

1. On my way home I met Peter and told ... about the trip.
2. I need this book badly. I can't prepare my report without
3. I don't know the way to the railway station. Couldn't you show it to ...?
4. We are going to spend the summer in the country? Will you join ...?
5. If you give me your address, ... will write to

6. I know this woman. ... works at the factory with my mother.
7. If I see Helen, I'll ask ... to ring ... up tomorrow.
8. I like this radio set very much. Where did you buy ...?
9. You are to be here at 7. We'll be waiting for
10. Wait for ... at the bus stop. We'll be back in no time.

Вправа 4. Поставте дієслово "to be" в потрібну форму Present Simple (am, is are).

1. Good weather ... good for high yields.
2. The two branches of agriculture ... crop growing and animal breeding.
3. Minimum temperatures for growth of maize ... around 50° F (10° C).
4. Maize ... quite unique in its mode of growth.
5. I ... sure all soils do not have the same utility.
6. Soil science ... not only of theoretical value.
7. Soil requirements ... not always the same.
8. The two main types of soil ... light soils and heavy soils.
9. Heavy soils ... more difficult to work.
10. When there ... not enough potassium in the soil, we say the soil ... poor in potassium.

Вправа 5. Прочитайте текст, придумайте йому назву та перекажіть англійською мовою.

In practical farming, the two main types of soil are light soils and heavy soils. Light soils are easy to work, need less power to cultivate, can be worked at most times of the year, and do not hold water so much. Sands and gravels belong to this group. Heavy soils are more difficult to work, need much more power to cultivate, can only be worked at certain times when they are in the proper condition, and hold water. They are usually more productive and grow heavier crops. Heavy soils usually contain much clay.

Тема 3. Присвійні займенники; прикметник; числівник; вивчення форм неправильних дієслів.

Вправа 1. Дайте відповідь на запитання, користуючись словами у дужках.

1. Whose book is this? (my brother)
2. Whose house is that? (the farmer)
3. Whose articles are these? (young researchers)
4. Whose hostel is that? (our students)
5. Whose notebooks are those? (Kate)
6. Whose farm is that? (the Browns)

Вправа 2. Утворіть вищий та найвищий ступінь порівняння від таких прикметників:

important, good, great, wide, early, useful, new, little, bad, interesting.

Вправа 3. Порівняйте якість двох предметів за таким зразком:

Your house - high - our house.

Your house is higher than our house. Your house is as high as our house.

Your house is not so high as our house.

1. Fresh vegetables - useful - canned vegetables.
2. This variety - good - that variety.
3. This year yield - high - last year yield.
4. Water - important - air.
5. To cultivate tomatoes - difficult - cucumbers.
6. His work - interesting - her work.
7. Their needs - little - our needs.

Вправа 4. Утворіть і запишіть форму минулого простого часу від

дієслів, звертаючи увагу на правильну орфографію:

to begin, to grow, to play, to need, to increase, to build, to eat, to live, to make, to change, to see, to be, to sow, to develop, to discover, to gather, to use, to get, to continue, to study, to appear, to combine, to take, to learn, to remain, to invent, to come, to have.

Вправа 5. Утворіть три форми таких дієслів:

To breed	to forget	to meet
To grow	to cut	to fall
To dig	to spend	to throw

Вправа 5. Прочитайте текст, придумайте йому назву та перекажіть англійською мовою.

The best rate of seeding for any particular field is determined by the amount of moisture likely to be available (especially during critical periods in the development of the crop) by the fertility of the soil and by the size of the seed used. The average rate of seeding barley is 1 to 2 bushels per acre. A lower rate should be employed on rich soils well supplied with moisture than on poorer upland fields, because there will be less trouble from lodging on the poorer lands.

Reductions in rate of seeding will lead to the development of stronger straw that is better able to support the weight of the heads.

Тема 4. Прислівник; безособові речення; дієслово в пасивному стані; текст “Plant Foods in the Soil”.

Вправа 1. Від поданих прикметників утворіть прислівники за допомогою суфікса -ly та використайте їх у реченнях.

Loud, bright, quick, slow, happy, sweet, gay.

1. I had to speak very ... because John was standing far from me.

2. The squirrels climbed the tree so
3. There were no clouds, and the moon shone
4. The birds sing
5. Sam and Angela danced ... round the room.
6. Some animals are very fast and some move very
7. The children had a wonderful time at the party, and they were laughing

Вправа 2. Утворіть прислівники за допомогою суфіксів -ly, -ward та префікса a-. Перекладіть їх українською мовою:

- a) bright, hard, certain, first, natural, great, late, quick, part, definite, careful, economical, scientific, botanical;
- b) up, to, east, back, for;
- c) long, side, head, part, round.

Вправа 3. Утворіть ступені порівняння від таких прислівників: fast, late, hard, early, correctly, attentively, brightly, carefully, often, slowly, quickly, well, badly, much, little, far.

Вправа 4. Із слів у дужках виберіть потрібну форму. Перекладіть речення українською мовою.

1. Wheat grows (good, well) on this soil.
2. It is (good, well) that you helped your parents in the orchard.
3. Students work (hard, hardly) on the experimental-training farm.
4. It is not (easy, easily) to study at our University.

Вправа 5. Перекладіть речення рідною мовою.

1. It often rains in autumn.
2. It rained all day long yesterday.
3. It is raining now.
4. It was raining at 5 o'clock yesterday.

5. It is harvest time now.
6. It is always hot at this time.
7. It was easy to harvest wheat.
8. Now it is necessary to thrash it.
9. It will be important to finish the work in time.
10. It gets light early in summer and it gets dark late.
11. It took us long to sort the tomatoes.
12. It was difficult to work in such weather.
13. It is too early to pick apples.

Вправа 6. Прочитайте та перекладіть речення українською мовою, звертаючи увагу на переклад дієслів у пасивному стані.

1. In the USA about 140 million tons of hay are produced and stored every year.
2. A great amount of new knowledge about forage quality and animal feeding has been gained in recent years.
3. Grass as a silage crop is especially suited to the areas of high rainfall. 4. For early cabbage the seeds are sown under glass.
5. Seedlings are transplanted to the field in about 2 months.
6. Tomatoes are planted deeply.
7. Manure has long been considered to be the ideal fertilizer for potatoes.
8. Various varieties of beets have been developed which are classified according to the shape of the root and the time of maturity.
9. When the food material is being transported to the fruit rapidly, a nutrient deficiency can sometimes occur.

Вправа 7. Прочитайте текст, перекладіть його та перекажіть англійською мовою.

Plant Foods in the Soil

All the main plant foods are found in a normal soil. Some of each plant food there is in such a form that the plant can use it. This is known as available plant

food. Some more of it is in a form which the plant cannot use at the moment. Such plant food is said to be unavailable. To become available it may need to be changed chemically in some way.

Trace elements, the other plant foods which are needed in very small quantities, are found naturally in most soils. Sometimes one particular plant food is short and this deficiency can cause damage to crops, livestock or both.

Тема 5. Опрацювання зі словником та вивчення нових лексичних одиниць; текст “Chemical Properties of Soils”.

Field husbandry, swede, growth habit, annual, biennial, perennial, season, heat, germination, malt, circulation, locality, depth, rate, method, hectare, per cent, horticulture, holding, valley, arable, normal, favourable, sufficient, moist, fine, mellow, free, rich, proper, general, to deal (with), to classify, to die, to collect, to allow, to retain, to secure, to conserve, according, of late;

legume, sorghum, soybean, cowpea, mangel, by-product, pulp, top, manure, object, honour, goddess, offering, tiller, crown, node, cover, domestic, original, separate, immense, dent com, flint com, soft corn, waxy corn, pod corn, popcorn, ancient, to forget, to distribute, to recognize, to flood, to improve, to succeed, to worship, to adapt itself, throughout;

crop rotation, order, monoculture, treatment, disease, sod crop, commercial fertilizer, loss, hunting, gene, species, environment, survival, behavior, diet, record, health, meat, explosion, erosion, population, opposite, available, rapid, unique, suitable, global, complicated, to deplete, to result in, to utilize, to convert, to cause, to incorporate, to control weeds, to adjust, to realize, to damage;

art, landscape, viticulture, cauliflower, celery, brussels sprouts, glasshouse, county, beehive, juice, smell, pie, dish, cook, to propagate, to select, to perform, to pollinate, to carry, to remember, particular, pleasant, ornamental, arboriculture, turf, lawn;

pomology, pome, sense, bananas, parthenocarpy, quince, stone, berry, strawberry, bramble, currant, cranberry, nut, almond, walnut, hazelnut, citrus,

lemon, grapefruit, practice, variation, aroma, odour, taste, volatile ester, layout, grub, gooseberry, bush, bud, advice, hoe, site, raspberry, to connect, to take place, exception, to exist, to drop, to go through, to spray, to train, to prune, to graft, to burst into blossom, ought, deciduous, dormant, evergreen, tidy, severely;

truck, seedling, hole, broadcast, frame, greenhouse, hothouse, parsnip, head, heart, borecole, sprout, broccoli, rhubarb, celery, leek, asparagus, chicory, space, tulip, sucker, occupation, tapering, round, latter, former, true, distinct, succulent, solid, delicious, astringent, tender, loose, to throw, to introduce, to transplant, to force, to consume, to furnish, to possess. to expand. to blanch, to exclude, to owe, to rear, indoors, entirely.

Вправа 1. Перекладіть “ланицюжки іменників” українською мовою.

Field crop, grain crop, pulse crop, root crop, special purpose crop, grass family, wheat field, barley field, spring type, winter oats, dent com, flint corn, pod corn, pop corn, root vegetable, sugar beet, sunflower oil, textile industry, soil conditions, cover crop, harvest time, dairy farm, kitchen garden, vegetable garden, garden vegetables, truck field, field crop, checkrow method, winter cultivation, cabbage family, leaf plants, cauliflower suckers.

Вправа 2. Утворіть словосполучення, поєднуючи слова за допомогою прийменника of. Перекладіть їх рідною мовою.

Propagation	fruits
Selection	vegetables
Pollination	flowers
Growing	horticulture
Development	viticulture
	varieties

Вправа 3. Прочитайте I частину тексту та перекладіть його рідною мовою.

Chemical Properties of Soils

The physical properties of a soil are determined largely by its texture, or the

size of the particles of which it consists, and its structure, or the arrangement of these particles.

For a soil to be in good physical condition for plant growth, the air, water, and solid particles must be in the right proportions at all times. Every cubic foot of soil that supports plant life must be:

1) well enough aerated to permit all plant root cells to obtain oxygen at all times, but not excessively aerated to the point of preventing a continuous contact of roots with moist soil particles;

2) open enough to permit the right amount of rain-water or irrigation water to enter the soil, but not so open as to allow excessive loss of water and plant nutrients by deep percolation;

3) sufficiently retentive of moisture to supply roots with all needed water, but not so retentive as to create undesirable suspended water-tables.

Soil texture has to do with the fineness or coarseness of soil particles. Mineral particles which make up the bulk of soil vary greatly in size. The four principal size categories are "gravel", "sand", "silt", and "clay". Some soils, for example sand, consist largely of particles of approximately the same size. Most soils, however, have two or more groups, classified by size of particles, usually with one group dominant. Thus, in grouping soils into texture classes, the proportion of particles belonging to different size groups, as well as the particle sizes themselves, are important.

In most soils texture varies greatly from the surface down ward. The subsoil usually contains more clay and other fine material than does the surface soil, although this is not always the case. In soil classification, the texture of the surface soil seems more significant than that of deeper layers. Therefore, soils are usually classified according to the texture of a six- to eight-inch thick surface layer, approximately the "plow layer". Six major texture groups are "sand", "sandy loam", "silt loam", "loam", "clay loam", and "clay". Each of these groups may be subdivided when it is useful to do so.

Many soil qualities are closely related to texture. Since fine-textured soils

have greater pore space and larger surface area than coarse-textured soils, they provide greater storage space for water and better feeding zones for plant roots. Thus, in a broad way, relatively fine-textured soils are more productive agriculturally than are soils with coarse texture. Too fine a texture, however, adversely affects tillage. Sands and sandy loams are more easily tilled than clays and clay loams because the tilling of the former requires less power and is hindered less by wetness.

Тема 6. Правила читання голосних; правила читання приголосних; правила читання буквосполучень *qu, ch*; опрацювання зі словником та вивчення нових лексичних одиниць; текст “Chemical Properties of Soils”.

Protection, pest, pathogen, quality, injury, fungus (fungi), virus, dust, matter, spore, agent, scab, rot, blight, microscope, russet ring, yellows, plant pathology, resistance, entomology, mouth, stage, worm, codling moth, tent caterpillar, leaf roller, leaf hopper, tube;

tissue, epidermis, aphid, scale, red bug, liquid, bee, adult, metamorphosis, egg, larva, pupa, cross, preparation, interference, decisive, ultra, evident, rare, urgent, extensive, excellent, to threaten, to derive, to transport, to prevent, to burn, to infect, to destroy, to establish, to detect, to cure, to reduce, to chew, to suck, to lap, to possess, to bite, to pass through, to reveal, to face, colorado potato beetle, slug;

cattle-breeding, sheep-rearing, pig-raising, poultry, apiculture, milk, wool, fat. leather, down, feather, butter, cream, cheese, whey, curd, beef, hoof, mutton, pork, bacon, lard. ham. sausage, skin, bristle, rabbit, ram, ewe. lamb, hog, sow, piglet, turkey, goat, cow, horse, camel, hen, duck, goose, factory, condensery, slaughter, pursuit, ruminant, return, tannery, ship, silage, hatchery, minor, draft, dairy, pastoral, shy, to skim, to churn, to can, to engage, to corn, to tin, to trade, to suffer, to boast, to fatten, to smoke, to cure, creamery, meat-packing plant, calf, chicken;

landscape, landscape gardening, city, rest, refreshment, stone, wood, park, forest, road, alley, reservoir, architecture, fountain, sculpture, design, terrace, wall,

cascade, avenue, lake, harmony, union, bent, chrysanthemum, peony, camellia, path, regular, middle, serpentine, zoological, geometrical, wild, extraordinary, to build, to imitate, to hang, to support, to boat, to retain, to intensify, to twist, to pour, to compare, to meditate, to adjoin;

floriculture, treasure, scent, hedgerow, seashore, edge, assembly, flower-bed, plot, daisy, forget-me-not, poppy, lily-of-the valley, cornflower, snowdrop, daffodil, primrose, harbinger, rose, peony, dahlia, tulip, pansy, skill, patience, bouquet, garland, wreath, bunch, hawthorn, dawn, orchid, spot, realm, habitat, desertification, thread, generation, eternal, floristic, superb, purple, sustainable, semiarid, vulnerable, tiny, genetic, to tackle;

ecology, contamination, nuclear, disaster, radionuclide, worrisome, cesium, strontium, emission, pollution, pure, crisis, acid, to leach, excess, exhaust, concern, enemy, to combat, safe, alga, pond, stream, aquatic, metabolic, to repel, to eliminate, geothermal, fossil fuel, metabacteria, methane, carbon monoxide, sediment, residue, to recycle, breakdown, strain, permaculture. to perpetuate, to suppress, mulch, mint, mutual, compatible, to heal, to deter, to save.

Вправа 1. Прочитайте однокореневі слова, звертаючи увагу на зміну наголосу в різних частинах мови. Перекладіть слова рідною мовою:

- 1) 'product (n), 'produce (n), pro'duce (v), pro'duction (n), pro'ductive (a), productivity (n);
- 2) cultivate (v), 'cultivator (n), culti'vation (n);
- 3) fer'tility (n), 'fertile (a), 'fertilize (v), 'fertilizer (n), fertili'zation (n);
- 4) 'climate (n), cli'matic (a);
- 5) 'increase (n), in'crease (v), in'creasing (a), in'creasingly (adv.);
- 6) 'necessary (a), 'necessarily (adv.), ne'cessity (n), ne'cessitate (v);
- 7) con'serve (v), con'servatory (n), con'servative (a), conser'vation (n);
- 8) 'favour (n), (v), 'favourable (a), 'favoured (a), 'favourite (a);
- 9) 'local (a), 'locally (adv), lo'cality (n), 'localize (v), locali'zation (n);
- 10) class (n), 'classic (a), 'classical (a), 'classify (v), 'classifi'cation (n).

Вправа 2. Перекладіть слова та згадайте за якими правилами фонетики вони читаються:

mean, deal, seashore, wreath, heavy, threat, treasure, realm, pleasant, great, clear, beauty, tulip, elusive, usual, future, superb, occupation, number, vulnerable, sustainable, flower, down, mountain, our, grow, road, snowdrop, poppy, blossom, common, knowledge, forest, one. other, country, tiny, stripe, kind, identify, climate, reptile, life, wide, scientist, height, eye, call, cause, almost, dawn, hawthorn, adequate, technique, bouquet.

Вправа 3. Прочитайте II частину тексту та перекладіть його рідною мовою.

Chemical Properties of Soils

Soil structure refers to the manner in which the individual soil particles are arranged. Structure has much in common with texture, although structure is much more complex. As a property of soil, structure in some instances may be even more important than texture. Physical, chemical, and biological forces in nature work together arranging soil particles into a great variety of structural patterns.

Good structure is valuable in any soil. Some soils have structures that make them difficult to manage and render them practically worthless agriculturally. Because of structural differences, some soils require much more care than others. Preventive measures often check structural breakdowns, and careful management can restore deteriorated structures to normal.

Water is the most variable property of the soil. The functions of soil water are varied. Soil water is vital to plant life, since all nutrients that plants take from the soil are dissolved in it. Water aids in the decomposition of organic and mineral matter and in bringing about chemical changes within the soil.

Soil water is a very significant factor in planting, tilling, and harvesting cultivated crops. It often determines the time and the depth at which seeds should be planted for proper germination. Water may be so abundant in the soil as to restrict machine cultivation, thus making the control of weeds difficult. On the

other hand, scarcity of water may make the soil hard, cloddy, and very difficult to plow. Too much soil water at harvest time often delays or completely prevents the use of harvesting machinery.

Soils range in colour from white to black, but the most common colours are the different shades of red, yellow, and brown. These colours indicate the different degrees of hydration and the concentration of iron and aluminium oxides which stain the soil grains.

Dark-coloured soils are considered to suggest higher productivity than light- coloured ones, though it is not always the case.

Вправа 4. Знайдіть в тексті слова, які відповідають таким визначенням:

1. Very small parts of soil.
2. The size of particles the soil consists of.
3. Soils with greater pore space and larger surface area.
4. Food elements needed for plant growth.
5. The arrangement of soil particles.

Вправа 5. Складіть анотацію до тексту “Chemical Properties of Soils”.

Тема 7. Опрацювання граматичного матеріалу: сполучник, прийменники; фразеологічні словосполучення та ідіоматичні вирази; текст “Organic Matter and Essential Elements”.

Вправа 1. Закрийте правий стовпчик і перекладіть речення із сполучниками українською мовою. Потім закрийте лівий стовпчик і перекладіть речення англійською мовою.

- | | |
|--|---|
| 1. Both beans and peas are legumes. | Як квасоля, так і горох відносяться до бобових культур. |
| 2. Legumes can be used either for human food or for animal feed. | Бобові можна використовувати як в їжу людині, так і для годівлі тварин. |
| 3. When they are used for | Коли горох використовують для годівлі |

animal feed, peas may be grown either pure or in mixture with oats. тварин, його можна вирощувати або в чистому вигляді, або в суміші з вівсом.

4. This farmer grows neither legumes nor root crops. Цей фермер не вирощує ні бобових, ні коренеплодів.

5. Speaking of soil-improving crops we use both “green manure” and “cover crop” terms. Говорячи про ґрунтопокращувальні культури, ми вживаємо як термін “культури на зелене добриво”, так і “покривні культури”.

6. Neither sugar beet nor red beet grows well on this soil. На цьому ґрунті ні цукровий, ні столовий буряки не ростуть добре.

Вправа 2. Вставте прийменники: by, on, for, off, to.

1. Father goes to his office ... foot, because his office is near his house.
2. We go ... our country house ... bus.
3. She goes to the centre ... the city ... metro.
4. They go to the taxi stop and wait ... the taxi.
5. When the bus comes they get ... and go ... school.
6. You must get ... when the bus stops near the theatre.

Вправа 3. Завершіть речення, використавши обставину місця з прийменником in, on, under, near.

1. The apples are
2. Vegetables are....
3. The radishes are
4. The cereals are
5. The pear tree is not in the field. It is
6. Wheat is not... . It is in the field.
7. The peaches are not.... They are on the tree.
8. The field is

Вправа 4. Поєднайте англійські фразеологічні словосполучення з українськими еквівалентами.

- | | |
|-------------------------|---|
| 1. To take | a) до речі, між іншим |
| 2. To take into account | b) днями, нещодавно |
| 3. At least | c) на загальну думку |
| 4. Free of charge | d) про всяк випадок |
| 5. By the way | e) брати участь |
| 6. By all accounts | f) наскільки мені це відомо |
| 7. As far as I know | g) брати до уваги |
| 8. Take it easy | h) безкоштовно |
| 9. Just in case | i) принаймні |
| 10. Every other day | j) не хвилюйтеся, не беріть
близько до серця |

Вправа 5. Прочитайте текст та переладіть його рідною мовою.

Organic Matter and Essential Elements

Since all plants require 16 elements for proper growth, it is logical to conclude that the dead remains of these plants, like manure, contain all essential elements.

Organic matter, in addition to containing elements essential for plants, also contains elements necessary for livestock and man. These are sodium, cobalt, and iodine which are essential for animals but not for plants. Organic matter also contains traces of nickel and gold; in fact most of the elements in nature are found in plants.

Although organic matter contains all of the elements necessary for plant growth, these elements may not always be in the right balance for producing maximum crop yields.

Тема 8. Опрацювання матеріалу словотворення: суфікси різних частин мови; пароніми; омоніми; текст “Maize”.

Вправа 1. По суфіксах визначте, до якої частини мови відносяться

слова, та перекладіть їх рідною мовою.

Evolution, farming, hunter, gatherer, archaeological, explosion, management, different, monoculture, available, cultivation, continuously, physical, condition, rotation, usually, organic, effectively, ability, valuable, particularly, established, treatment, environment, population, commercial, global, realize, utilize, erosion.

Вправа 2. а) Порівняйте пароніми (слова з подібною вимовою і різним написанням та значенням).

flower - flour

whose - who's

so- sow

site - sight - cite

its - it's

pear- pair

than - then

two - too

their - there

one - won

weather - whether

right-write

new - knew

no -know

б) Вставте замість крапок потрібне слово.

1. The fruit is a ripened ovary or the result of a fertilized ... (flower, flour).
2. Proper choice of orchard ... (site, sight, cite) is very important for high-yielding plantations.
3. Last year my apple and ... (pair, pear) trees were very poor but they're all ... (write, right) this year.
4. Grass grows so fast in wet ... (whether, weather).
5. ... (there, their) are different systems of classifying fruits.
6. Deciduous fruit plants drop ... (there, their) leaves in winter months and go through a dormant period.
7. Evergreen fruit plants are those ... (who's, whose) leaves remain on trees at all times, including the dormant season.

Вправа 3. Перекладіть рідною мовою речення, звертаючи увагу на значення паронімів some - same, affect - effect.

1. Wheat and barley belong to the same group of crops.
2. There are some systems of classifying fruits.
3. Sometimes farmers sow and apply fertilizers at the same time.
4. This pesticide did not affect the pest and it had several adverse side effects.
5. Some nutrient elements (iron, manganese, copper and others) are used by plants in very small amounts.
6. They grow the same crop every year here.
7. Some of the physical properties of soils are texture, structure, colour and temperature relations.
8. By disease in plant is meant some disturbance in the normal life processes which affects either a particular organ or the whole plant.

Вправа 4. Виберіть правильний варіант.

1. Wheat and barley belong to the same/some group of crops.
2. This pesticide did not effect/affect the pest and it had several side effects.
3. Different crop rotations very/vary in length from one to five or more years.
4. The cucumber seems to have been known in France since/science the 19th century.
5. Soil science is a very/vary useful subject.
6. It gets light early in summer and it gets dark latter/later.
7. They grow the same/some crop every year here.
8. To make broad/bread we need wheat or rye.

Вправа 5. Прочитайте текст та перекладіть його рідною мовою.

Maize

Maize can be fertilized at three different limes. A corrective broadcast application is done before plowing. Soil deficiencies are corrected with large amounts of fertilizers.

A starter fertilizer is applied with the planting equipment. The purpose of this application is to aid a small maize plant to get a more rapid start. It is best to place fertilizer about 1 inch below and 2 inches at the side of the seed.

When maize follows a good legume crop no additional nitrogen may be required. But when maize follows maize additional nitrogen is usually needed. This may be applied before the crop is planted or between the rows until the crop is 15 to 18 inches tall.

Тема 9. Опрацювання граматичного матеріалу: зворотні та підсилювальні займенники; багатозначність слів; текст “Factors of Soil Formation”.

Вправа 1. Виберіть правильний варіант займенника.

1. We've found themselves/ourselves in a nice place.
2. Help your/yourselves to sandwiches, please.
3. I like working by himself/myself.
4. This kettle switches himself/itself off.
5. Boys hurt themselves when they fell.

Вправа 2. Перекладіть речення рідною мовою, звертаючи увагу на зворотні та підсилювальні займенники.

1. People have been building cities and living in them since very ancient times but they have always been trying not to separate themselves from nature.
2. In our park trees and bushes from different countries adapted themselves to local climatic and soil conditions.
3. Be careful while pruning trees. Don't cut yourselves.
4. He himself dug the whole plot.
5. When planting a tree do not put fertilizer or manure in the hole itself or burning of the roots may result.
6. It's a pleasure to see how plants develop in spring, to watch every leaf as it expands itself and every bud as it rears itself higher and higher in the air.

7. The girl went on and on until she was quite tired, when she found herself at the corner of Hyde Park.

Вправа 3. Перекладіть речення, звертаючи увагу на багатозначність слова "face".

1. It was very important for him to speak face to face to the girl.
2. A strange man had a sad face.
3. Boys were standing in front of a mirror and making faces.
4. On the face of it the house looked like an old, abandoned place.
5. A young man put a new face on and continued his story.

Вправа 4. Перекладіть речення рідною мовою, звертаючи увагу на різне значення підкреслених слів.

1. Different plants such as grasses, grain crops, some vegetables can be successfully used in feeding livestock.
2. Corn grows well in our region.
3. At meat-packing plants they cure, smoke, corn and can meat.
4. It is easier to prevent a disease than to cure it.
5. Do you smoke?
6. Animal husbandry supplies industry with wool, fat, leather, down, feather and other raw materials.
7. Sit down, please.

Вправа 5. Прочитайте та перекладіть текст.

Factors of Soil Formation

Parent material, climate, living organisms, topography, and time are the five factors of soil formation. Some would consider humans to be a sixth factor, for our activities can markedly change the formation of many soils. The type of soil developed depends on the amount of time a parent material in a specific topography is exposed to the effects of climate and vegetation.

Climate is weather as it exists over a long period of time. Climate changes with time, and soils often reflect the effects of past climates.

Precipitation and temperature changes both help form soil. Water from rain and melting snow dissolves some soil minerals. Freezing and thawing break rocks and large soil particles into smaller pieces.

In general, high temperature and high levels of precipitation speed weathering. The effect of climate can be seen best by comparing soils over rather large areas. For instance, the more intensive weathering in south-eastern United States has resulted in the development of extensive areas of soil with a brick-red color which contain relatively low amounts of organic matter and high levels of oxidized iron. In contrast, most soils in the Midwest contain much more organic matter and lower amounts oxidized iron.

Climate also influences the kinds of plants and animals that will grow in and on the soil. For instance, under natural conditions grasses and shrubs grow on soils where the climate is relatively dry while trees tend to grow in the more humid climates.

Вправа 6. Складіть анотацію до тексту.

Тема 10. Опрацювання матеріалу словотворення: псевдоінтернаціональна лексика; суфікси та префікси різних частин мови; складні слова.

Вправа 1. До слів із списку а) підберіть еквіваленти із списку б).

Зверніть увагу на переклад псевдоінтернаціональної лексики.

а) manufacture, data, figure, list, instance, actually, progressively, accurate, technique, principal, subject.

б) актуально, поступово, виробництво, дата, перелік, предмет, прогресивно, мануфактура, суб'єкт, цифра, принципівий, точний, фактично, дані, лист, фігура, головний, інстанція, метод, акуратний, приклад, техніка.

Вправа 2. Перекладіть рідною мовою інтернаціональні та псевдоінтернаціональні слова.

Botanist, region, characteristic, integral, selection, protection, combine, bouquet, garland, favourite, symbol, interesting, orchid, reptile, practice, industrial, climate, bank, project, conservation, international, natural, genetic, information, generation, compact, potential, period, assembly, occupation, patience, technique, prospect, Dutch.

Вправа 3. Прочитайте слова, визначте частину мови та перекладіть їх рідною мовою, звертаючи увагу на значення префіксів:

subsoil, subdivide, increase, decrease, disintegrate, discover, decay, undisturbed, unchanged, unfertile, superficial, biological, reproduction, remove;

untrue, destroy, increase, decrease, unfortunately, extreme, reduce, degradation, excessive, improper, exhaustion, regenerate, deforestation, incorrect, unchecked, undesirable, overuse, interfere, metabolic, biology, geothermal, metabacteria, integrate, disintegrate, biogas, inorganic, recycle, restructuring, subsoil;

improved, longer, discovered, fertilize, peaceful, settlement, weeder, importance, beautiful, sentimental, dweller, rural, distance, probably, production, farmer, different, operation, cleaner, occasionally, fertilizer, preparation;

infrequently, extract, to discover, to refine, to improve.

Вправа 4. Визначте по суфіксах, до якої частини мови належать слова. Перекладіть їх рідною мовою.

Environment, living, relationship, humankind, believed, nature, scientist, politician, radical, damaged, alarming, contamination, dangerous, natural, approximately, pollution, various, emission, industrial, protection, climatic, global.the warming,healthy, ecologically, unfortunately, extremely, production, disastrous, development, possibility, responsible, excessive, exhaustion, fertility, structure, erosion, usually, vegetation, management, activity, location, chemical,

fertilizer, mineral, effective, harmful, threaten, health, drinking, aquatic, various, metabolic, introduction, repellent, biological, measure, progressive, mixture, ecological, resistant, considerable, indication, essential, ecologist, farmer, sustainable, growth, mostly, pesticide, deep-rooting, available, mutually, compatible, pollinating, wasteful, worrisome, wholesome, troublesome.

Вправа 5. Проаналізуйте складні слова і перекладіть їх рідною мовою.

Floriculture, horticulture, hedgerow, countryside, mountain-side, roadside, seashore, flower-bed, cornflower, snowdrop, hawthorn, primrose, forget-me-not, lily-of-the valley, everywhere, anywhere, everyone, best-loved.

Вправа 6. Перекладіть рідною мовою складні слова, звертаючи увагу на значення їх компонентів.

Whatever, radioactive, radionuclide, halflife, high-tech, nowadays, pest-resistant, greenpeace, permaculture, high-energy, breakdown, wide-spread, long-term, greenhouse, eco-agriculture, eco-system, self-perpetuating, self-fertilizing, deep-rooting, self-watering, spring-vein, self-mulching, self-weed-suppressing, self-pollinating, self-fertile, self-healing, labour-saving.

Вправа 7. Знайдіть у реченнях складні слова та визначте, від яких слів вони утворилися.

1. The overuse of synthetic chemical fertilizers affects nature.
2. High-tech agriculture is also responsible for numerous environmental problems.
3. Flower-bed is a plot of land in which flowers are grown.
4. After cattle-rearing, sheep-breeding ranks perhaps first among various pursuits of pastoral farming.
5. Animal husbandry comprises cattle-breeding, sheep-rearing and pig-raising, to say nothing of some minor branches including poultry-breeding, rabbit-breeding, apiculture, etc.

Тема 11. Опрацювання граматичного матеріалу: особливості перекладу складних речень; умовний спосіб; текст “Agricultural Operations”.

Вправа 1. Знайдіть українські еквіваленти речень до поданих англійських.

1. Never use rhubarb leaves for food, for they contain injurious substances.
2. We begin planting winter rye at the time when winter wheat is planted.
3. You’ll get a good crop of cabbage from this plot of land, for the soil is just the right kind for it.
4. When they are used for animal feed, peas may be grown either pure or in mixture with oats.
5. When grown properly peach trees can give high yield even in our region.

A. Коли горох використовують для годівлі тварин, його

можна вирощувати або в чистому вигляді, або в суміші з вівсом.

B. Ніколи не вживайте в їжу листя ревеня, тому що вони містять шкідливі речовини.

C. Якщо правильно вирощувати персикові дерева, вони можуть давати високий урожай навіть у нашому регіоні.

D. Ми починаємо сіяти озиме жито тоді, коли сіють озиму пшеницю.

E. Ти отримаєш гарний урожай капусти з цієї ділянки, тому що це земля потрібного типу.

Вправа 2. Проаналізуйте та перекладіть рідною мовою складні речення.

1. Flowers which grow in the fields, woods or by the roadside are called wild flowers, those which grow in our gardens are called cultivated or garden flowers.
2. Flower-bed is a plot of land in which flowers are grown.

3. It is interesting to know that daisy's name means Day's Eye: the flower opens its eye to the day or when the day dawns, it opens widest when the sun is at its height and shuts when the sun goes down.
4. Orchids are remarkable for the unusual shape of their flowers which are so varied in form that there is hardly a reptile or insect to which some of them have not been compared.
5. Scientists believe that up to 25% of the world's 250,000 species of flowering plants face the prospect of extinction the next 50 years.
6. Although the Millennium Seed Bank is based in the UK it is a truly international conservation project, and aims to conserve seeds of some 10% of the world's flowering plants by 2010, concentrating on the world's semiarid lands whose natural habitats - and the species that grow in them -are especially vulnerable.
7. Seed banks were developed by plant breeders who wanted to store seeds of crops and then wild relatives.
8. Because seeds are so compact and because many kinds have the potential to grow even after long periods of storage, a seed bank is one of the most efficient ways of conserving large numbers of species for the future.

Вправа 3. Перекладіть рідною мовою речення, звертаючи увагу на умовний спосіб.

1. If the cauliflower plants were started indoors they would be ready for use after 6-8 weeks.
2. It is highly important that the temperature of pears after picking be reduced as quickly as possible.
3. If all garden vegetables were of one nature or kind they would yield only a very limited range of food.
4. Asparagus would lack flavour unless the stems were blanched by excluding light from them.
5. If they had applied more fertilisers they would have got a better crop.
6. But for the rain we should harvest potatoes in time.

7 If potatoes had been kept in the dark they would not have turned green.

8 To harden the plants it is necessary that the seedlings should be subjected gradually to lower temperatures.

9 If he had raked the soil up carefully about the shoots we should have had white asparagus.

10. Had we known about it, we would have done it.

11. If I were free tomorrow. I should help you about the garden.

Вправа 4. Прочитайте текст та перекладіть його рідною мовою.

Відпрацюйте правильне читання тексту.

Agricultural Operations

Various agricultural operations – manuring, draining, seeding, weeding, tilling, etc. are called “cultivation”. The primary reasons for cultivation are: to prepare a suitable place for the growing of crops, to control and destroy competing weeds, to destroy insects and diseases, to improve the fertility and physical condition of the soil.

Tillage is one branch of cultivation. Correct mechanical tillage of the soil is very important. Various forms of mechanical tillage of the soil bring about a turning over of the upper layers of the soil and its breaking up. The first is achieved by ploughing, the second by harrowing. These two processes prepare the soil for the development of the roots of cultivated crops. At the same time the soil becomes more accessible for atmospheric moisture and air necessary for the nutrition of plants as well as for the activities of useful soil bacteria. The implements used for ploughing are numerous and varied but the most popular ploughs are the moldboard ploughs. The disc type of plough is convenient for use in hard or dry soils that are not easily penetrated by the moldboard plough.

Harrowing is a mechanical form of raking and is done to cover seeds, prepare seedbeds, loosen the surface when it is set too hard, destroy and collect weeds and to surface-work pastures. Harrows are mainly surface implements. Irrigation

diminishes one of the greatest damages in crop production, namely, inadequate water supply. Choice of the various methods of applying irrigation water depends on seasonal rainfall, slope and general character of the soil surface, supply of water and how it is delivered, crop rotation and permeability to water of the soil and subsoil.

Artificial draining is carried out to facilitate the draining of water from land which would otherwise become waterlogged. There are several systems of draining such as surface draining which provides for the removal of water above ground with the aid of open channels, the system of trapping the underground water, the underdraining system by which artificial underground channels are provided for collecting and transporting the water below ground.

Applying fertilizers and manures is another agricultural operation: the purpose of which is to improve the soil as a medium for plant growth or to supply the plant with essential foods. The effect of fertilizer on plant growth depends on the stage of plant growth, the quantity of fertilizers given and other conditions of growth such as temperature, water supply, reaction of the soil. A sound recommendation of proper fertilizers for every particular case is the most practical method of changing a season into a good one.

Вправа 5. Складіть план тексту. Перекажіть текст згідно цього плану.

Тема 12. Опрацювання тексту “Factors Influencing Erosion”

Вправа 1. Прочитайте текст та перекладіть його рідною мовою.

Factors Influencing Erosion

The most important factors influencing erosion are the intensity and duration of rainfall, the erodibility of the soil, length of slope, slope angle, soil cover, and erosion control practices.

A slow steady rain that falls slower than it is absorbed by the soil causes very little erosion. Most erosion is caused by heavy rains and by rapid melting of snow

when the soil begins to thaw. Erosive rain storms occur most often in late spring or summer. Erosion control practices must be designed for these intense storms and rapid snow melts. An inch of rain over an acre weighs 226,000 lb. A raindrop strikes the soil surface at a velocity of 20 mph. This is enough force to splash soil as much as two feet high and five feet away from the point of impact.

Some soils erode more easily than others. The composition of the soil, particularly the soil structure, makes a big difference in the ease with which rainfall can detach particles and get them moving with running water. Organic matter is very important in holding aggregates together and stabilizing them against erosion.

The steepness and length of slope are extremely important. Water on a level field has much more time to soak in than water on a steep slope. Doubling the steepness more than doubles the amount of soil loss. Soil loss increases rapidly as slope length increases up to about 400 feet, then more gradual increases in erosion occur at longer slope lengths.

Soil cover varies in its effectiveness in reducing raindrop impact and soil loss. Vegetation or residue that covers the soil during intense storms is more effective than land use that leaves the soil exposed during critical times. Forage legumes and grasses are more effective than row crops because part of the soil surface under row crops is bare from the time the soil is tilled until a complete canopy covers the surface. This means the soil is bare when many intense rainstorms occur.

Вправа 2. Визначте, які твердження відповідають змісту тексту.

1. The most important factors influencing erosion are dry weather and soil cover.
2. Most erosion is caused by small light rains and by slow melting of snow.
3. Erosive rain storm occur most often in autumn or early spring.
4. Some soils erode more easily than others.
5. Organic matter is not very important in holding aggregates together and stabilizing them against erosion.

6. Water on a level field soaks in more quickly than water on a steep slope.
7. Soil cover varies in its effectiveness in reducing raindrop impact and soil loss.

Тема 13. Опрацювання тексту "Crop Rotation".

Вправа 1. Прочитайте текст, звертаючи увагу на інтонацію.

Перекладіть українською мовою.

Crop Rotation

Crop rotation is considered to be a part of soil management. It means growing different crops in a more or less definite order on the same land.

The opposite of a rotation is to grow one crop year after year. This is known as monoculture.

Well-planned rotations provide many important benefits that are not available in the case of monoculture. When cultivated crops are grown continuously, they deplete organic matter in the soil at a rapid rate. Such treatment also has a bad effect on the physical condition of the soil. Rotation of crops usually results in increased yields and the supply of organic matter is maintained or increased.

Crop rotations are known to help to utilize soil nutrients more effectively. The supply of nitrogen is increased due to them. Legumes that are included in rotations are not only valuable for the organic matter they add to the soil, but also for their unique ability to gather the nitrogen from the air and convert it into a form that can be used by all growing crops.

We know crop rotations to reduce erosion losses and losses caused by a number of insects and diseases.

Good rotations that help to maintain soil productivity normally consist of

a) a sod crop, particularly one that includes legumes, to add nitrogen and increase the organic matter of the soil;

b) a small grain or other suitable crop in which a new seeding of grasses and legumes is established;

c) a cultivated crop, whereby manure and commercial fertilizer can be most effectively incorporated into the soil and weeds can be controlled.

There are many different kinds of rotations. They vary in length from one to five or more years but the three- or four- year types are considered to be the most common ones.

To develop a good cropping system for any given farm or area it is necessary to be familiar with the characteristics of good rotation.

Вправа 2. Дайте відповіді на запитання.

1. Crop rotation is considered to be a part of soil management, isn't it?
2. What does it mean?
3. What is the opposite of a rotation?
4. Which is more beneficial: crop rotation or monoculture?
5. Do crops deplete organic matter in the soil when they are grown continuously?
6. What does crop rotation usually result in?
7. Does crop rotation help to utilize soil nutrients more effectively?
8. The supply of nitrogen is decreased due to crop rotation, isn't it?
9. Why are legumes valuable?
10. Do crop rotations reduce or increase erosion losses and losses caused by insects and diseases?
11. What do good rotations consist of?
12. There are not many kinds of rotations, are there?
13. How do rotations vary?
14. What is necessary for the development of good cropping system?

14. Опрацювання тексту “Wheat”.

Вправа 1. Прочитайте текст, звертаючи увагу на інтонацію.

Перекладіть українською мовою.

Wheat

Wheat-growing was extensively practiced throughout Europe in prehistoric times and this cereal was of great importance in the ancient civilizations of Persia, Greece and Egypt.

It spread to all the temperate countries where now it plays a major part in the food supply of many nations and it is also widely cultivated in tropical and subtropical areas.

Cultivation. It is often said that winter wheat does best on a well-formed seed-bed. Ploughing should be done as early as possible and the normal depth would be in the region of 6 inches. The type of seed-bed required for winter wheat can be described as one with a reasonable tilth in the top 2-3 inches, with a surface containing a high proportion of clods, the largest of these being about the size of a man's hand. This is to prevent capping, a condition which can easily arise with heavy rain, when the soil surface runs together forming a crust.

Manuring. With all crops it is essential to ensure that adequate supplies of phosphate and potash are available during the first few weeks of growth. Once observed it is not possible to correct properly any deficiency and both of these major elements are required either in advance of drilling or they may be combine-drilled with the seed. Combine-drilling is the most economical way of applying these fertilizers, but with winter wheat time of sowing being of prime importance, the faster method of application using fertilizer spinners is more often preferred. For average conditions 30 units (one unit is equal to 1.12 lb. and is the same as 1 % on analysis) each of phosphate and potash will be sufficient. If the soil is rich in nitrogen, then 30 units/acre of fertilizer nitrogen would suffice, but under average conditions levels up to 60 units are considered economic rising to 80 units in the low rainfall areas. Previous cropping, local environment and some extent cultural techniques can also influence the optimum level of this nutrient. When the soil is

likely to supply some nitrogen for early growth of a winter crop, then it is unlikely that any autumn fertilizer nitrogen would be required.

As far as spring wheat is concerned up to 60 units of nitrogen can be economic. It should be applied prior to drilling or combine-drilled with the seed.

Seeding Rates. The amount of seed required for autumn wheat will vary between 1 and 2.5 cwt/acre. Early sowings need the least since the temperatures for germination are higher than those later on and a larger number of the seeds produce plants. As one goes north the autumn temperatures, become significantly lower and hence to obtain the optimum number of plants it is necessary to sow larger quantities of seed.

Harvest. Winter wheat is normally harvested from August to October (in Britain), depending on the type of summer experienced and also the geographical location. Spring wheat matures much later than winter wheat and later than the other cereals.

Following a hot, dry summer grain may be combine-harvested under very good conditions; and if the moisture does not exceed 14% then it can be stored without drying. Moisture tests can be carried out at harvest and these are often used to indicate the stage of ripeness or readiness for combining.

Most of the wheat being cut by combine harvester, there is still a small, but significant acreage which is bindered to satisfy the demand for long straw. It is said to be binder-ripe when the grain is fairly firm, has a cheesy texture and does not exude any milky fluid when pressed. This stage is usually reached between 1 and 2 weeks before it can be combine-harvested. The actual binding should not take place until the morning dew has disappeared.

Вправа 2. Знайдіть у тексті синоніми до таких слів та словосполучень:

widely, area, to grow best, important, to see, rightly, enough, fertilization, to be high in, before, local conditions, to withstand, to use (fertilizers), as to, to differ, stand, yield, to ripen, to show.

Вправа 3. Заповніть пропуски у реченнях відповідними словами з тексту:

The time and method of ... the land for wheat depends principally on the ... that is followed by it. Unless the rainfall is high it is desirable to have the land prepared ... of seeding to permit settling of the ... and accumulation of When the land is to be plowed after a small grain there should be a month ... plowing and seeding.

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