

**VELEUČILIŠTE U RIJECI
POLYTECHNIC OF RIJEKA**

English for Agronomic Studies

STUDENT'S HANDBOOK

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Predgovor

Ovaj priručnik namijenjen je studentima preddiplomskoga stručnoga studija Vinarstva, Mediteranske poljoprivrede i Održivog agroturizma, a mogu ga koristiti i studenti srodnih stručnih i sveučilišnih studija.

Priručnik se sastoji od deset cjelina (*Units*) koje su vezane temom uz sadržaje koji se obrađuju na gore navedenim studijima. Nastavni tekstovi, temeljeni na tekstovima iz stručnih knjiga i časopisa, skraćeni su i prilagođeni očekivanoj razini znanja engleskoga jezika s kojom studenti dolaze na studij (razina B2 prema Zajedničkom europskom referentnom okviru za jezike).

Svaka se cjelina sastoji od uvodnih vježbi čiji je cilj aktivirati predznanje studenata o temi koja se u toj cjelini obrađuje (*Getting ready*), uvodnog teksta, vježbi razumijevanja pročitano (*Reading comprehension*) te vježbi čiji je cilj usvajanje i utvrđivanje stručnog vokabulara (*Vocabulary work*). Na kraju svake cjeline nalaze se i zadatci kojima se studente potiče na daljnje istraživanje povezano s temom cjeline (*Webquest*). Na svaku tematsku cjelinu nadovezuje se gramatička jedinica (*Grammar spot*) u kojoj se uvodi i uvježbava određena gramatička kategorija.

Priručnik sadrži i glosar (*Glossary*) englesko-hrvatskoga stručnoga nazivlja s ciljem da studentima olakša usvajanje vokabulara te rješenja zadataka za vježbu (*Answer key*) kako bi nastavnicima i studentima pojednostavio korištenje priručnika, ali i studentima omogućio samostalno rješavanje zadataka i provjeru rješenja.

Zahvaljujemo recenzenticama, doc. dr. sc. Mirjani Borucinsky i dr. sc. Tatjani Šepić, profesorici visoke škole te lektorici, dr. sc. Jasmini Jelčić Čolakovac, koje su svojim primjedbama i prijedlozima doprinijele kvaliteti ovoga rada. Također, pozivamo sve čitatelje da svojim komentarima i sugestijama pomognu da ovaj priručnik bude što kvalitetniji i korisniji svojim korisnicima.

Autori

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UNIT 1 - Taming the wild: Animal domestication

I. GETTING READY

1. Answer the following questions:

- When did humans start to domesticate animals?
- For which purposes did they use the first domesticated animals?
- In which order were the following animals domesticated:
dog / honey bee / horse / goat?
- Can all animals be domesticated? Why (not)?

2. Read the text and check your predictions.

TAMING THE WILD: ANIMAL DOMESTICATION¹

Domestication of animals is the process of adapting **wild** animals for human use (e.g. for food, work, clothing, medicine). In this process, an entire animal **species** evolves to become naturally accustomed to living among and interacting with humans.

Although today we take **domesticated** animals for granted, animal (and plant) **domestication** marked a major turning point for humans: the beginning of an agricultural way of life and more permanent civilizations.

HISTORY OF ANIMAL DOMESTICATION



Author: Jessica Lear

<https://www.jyi.org/2012-february/2017/9/17/our-furry-friends-the-history-of-animal-domestication>

¹ Taken, abridged and adapted from: Lear, J. (2012.).Our furry friends: the history of animal domestication. Retrieved from <https://www.jyi.org/2012-february/2017/9/17/our-furry-friends-the-history-of-animal-domestication> and Domestication. (2019, January 15). National Geographic. Retrieved from <https://www.nationalgeographic.org/encyclopedia/domestication/> (2019, January 20)

- PET DOMESTICATION

The idea that a dog is man's best friend seems to be a very old concept. In fact, a dog jawbone found in Iraq led scientists to believe that dogs **were domesticated** over 14,000 years ago, probably to assist people in hunting.

Cats are descended from five different types of wildcat, and are thought to have been first domesticated around 7,500 B.C. While they have been used as companions and pets, they have historically also been used for controlling mice and rat infestations.

- FARM DOMESTICATION

People first began to **tame** animals for meat, milk, and hides² about 10,000 years ago, between the Tigris and Euphrates rivers in Mesopotamia (which includes the modern countries of Iran, Iraq, Turkey, and Syria). Goats were probably the first animals to be domesticated, followed closely by sheep. In Southeast Asia, chickens were also domesticated about 10,000 years ago. Later, people began domesticating larger animals, such as oxen or horses, for plowing and transportation. These are known as beasts of burden.

- UNIQUE DOMESTICATIONS

Elephants, unlike other domesticated animals, have never been truly tamed, though it is thought that they were serving humans in India as early as 2,000 B.C. Except for warfare where they were used for intimidation, elephants have been used to provide transportation for people and goods.

Many would not consider honeybees to be a domesticated animal, and while they can be aggressive, humans have found a way to control them. Honey was a sought-after product in ancient Greece and the Roman Empire, and ancient bee keepers have even been depicted in multiple wall paintings in Egyptian pyramids. However, honeybee domestication could date back further still, to 4,000 B.C., since researchers believe honey bee domestication began with indigenous tribes all over the world that would harvest honey from nests for food.

HOW ANIMAL DOMESTICATION WORKS

Domesticating animals can be difficult work and we cannot domesticate every animal. Evolutionary biologist Jared Diamond identified six criteria that an animal must meet in order to be domesticated:

- FLEXIBLE DIET - Because many animals have specific dietary needs and **carnivorous** animals get expensive to **feed**, humans can only domesticate animals that thrive on cheap, accessible food. The easiest animals to domesticate are **herbivorous** animals that graze on vegetation, because they are easiest to feed: They do not need humans to kill other animals to feed them, or to grow special crops. Cows, for instance, are easily domesticated.

²Hides, or the skins of animals, were used for clothing, storage, and to build tent shelters.

- REASONABLY FAST GROWTH RATE - The species must grow at a fast rate for herders and farmers to yield a timely return on the investment of **raising** it.
- ABILITY TO BREED IN CAPTIVITY - If the animal refuses to **breed** under the conditions human captors can provide, then its period under human control is short-lived.
- FRIENDLY DISPOSITION - **Vicious** animals by definition do not usually like it when humans attempt to bring them into captivity and will not let humans handle them.
- TEMPERAMENT THAT MAKES IT UNLIKELY TO PANIC - Many animals panic when they are restrained, kept in fences or perceive a threat and are therefore difficult to domesticate.
- MODIFIABLE SOCIAL HIERARCHY - If the animals form social structures in which they all follow a dominant member in the wild, then humans can establish themselves as leader-of-the-pack.

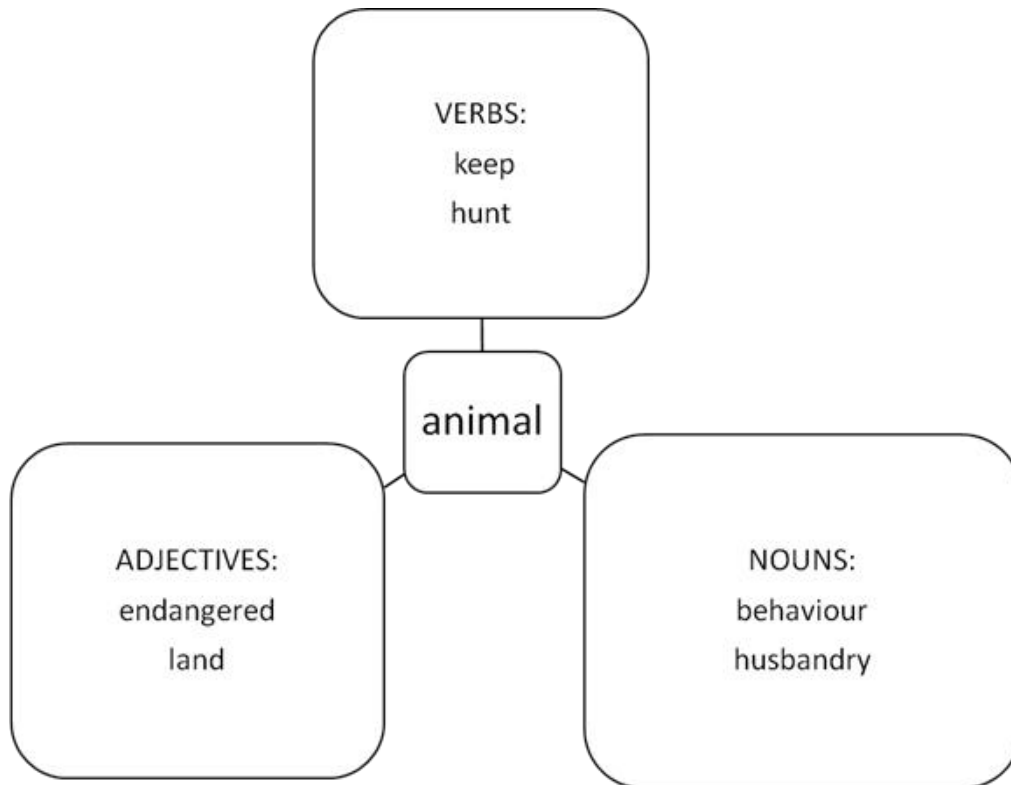
II. READING COMPREHENSION

1. Read the text again and fill in the table with relevant information from the text. Do some parts of the timeline surprise you? Why (not)?

Timeline of animal domestication						
Year	14 000 B.C.	10 000 B.C. (and later)		7 500 B.C.	4000 B.C.	2000 B.C.
Animal						
Reason for domestication						

III. VOCABULARY WORK

1. **COLLOCATIONS.** Collocations are words that are often used together (e.g. *weather forecast, animal lover*). Form the collocations for the word 'animal' using the words in bold from the text.



2. **Fill in the gaps with words from Exercise 1. Put the words in the correct form.**

- _____ animals are animals that are not domesticated.
- Birds might _____ there, but the reproduction success is not high enough to maintain the population.
- In addition to increasing certain animal populations, the process of _____ has changed the very nature of its subjects.
- It was only after the Mongols _____ horses and camels that they took to a nomadic herding lifestyle.
- These fish are _____ and eat a variety of small animals including insects and worms.
- Thousands of animal _____ are at risk of extinction because of human activities.

**3. VERBS PLUS PREPOSITIONS Which prepositions do the following verbs take?
Find the answers in the text.**

- a) accustomed _____ (doing) something
- b) interact _____ somebody or something
- c) assist (somebody) _____ something
- d) be descended _____ somebody
- e) use something _____ (doing) something
- f) use something _____ do something
- g) thrive _____ something

4. Fill in the gaps with suitable prepositions.

- a) Animals assist _____ our military, customs, and law enforcement efforts as lookouts and detectives.
- b) Horses thrive _____ routine and become unsettled when humans fail to honour their plans.
- c) It is illegal in the UK and Europe to use animals _____ test cosmetics or their ingredients.
- d) Recent molecular evidence shows that dogs are descended _____ the gray wolf.
- e) They were using animals _____ scientific experiments.
- f) We were accustomed _____ working together.
- g) Honey bees are up to five times more efficient in pollinating sunflowers when they interact _____ wild native bees.

IV. WEBQUEST

1. **Can you find the domestication period for other animals not mentioned in the text such as *pig, turkey, goose, duck, camel* or *rabbit*? Add this information to the domestication timeline.**

Grammar spot: Adjectives

1. Study the following sentences. What function do the underlined parts play in the sentence? What is this word class called?

- a) Domestication of animals marked the beginning of an agricultural way of life and permanent civilizations.
- b) The weather got very hot and the horses were exhausted at the end of the day.

ADJECTIVES

Adjectives are words that describe nouns. They usually appear in front of the noun they describe (study the sentence under *a*) – these adjectives are called *attributive adjectives*. They can, however, be separated from the noun and come after the verb (study the sentence under *b*) – we call these adjectives *predicative adjectives*.

ADJECTIVE FORMATION

Many adjectives are constructed from nouns and verbs with the use of suffixes and prefixes:

- some of the most common suffixes used to form adjectives are:
 - able/-ible** (able to be): modifiable, accessible
 - ful** (full of, having): truthful, beautiful
 - less** (being without, not having): careless, powerless
 - ive** (tending to, having the nature and quality of doing this): attractive, impulsive
- some of the most common negative prefixes used to form adjectives are:
 - dis-** : disagreeable, dishonest
 - un-** : uninteresting, unnecessary
 - il-** : illegal, illogical
 - im-** : impossible, impolite
 - in-** : inconvenient, insignificant
 - ir-** : irresponsible, irrelevant

Many present participles (-ing participles) and past participles (-ed participles) can be used as adjectives:

1. the **-ed form** is used to describe our feelings
 - *My horse is tired.*
2. the **-ing form** to describe things that make us feel like this
 - *Training my horse is tiring.*

2. Form a suitable adjective using the word in brackets.

- a) The airline is legally _____ for the safety of its passengers. (RESPONSE)
- b) That agritourism in Istria seemed very _____.(SUCCESS)
- c) Part-time barman is required. Hours and salary are _____. (NEGOTIATE)
- d) The service here is essentially _____. (FLAW)
- e) Most of us are more _____in the morning. (PRODUCT)
- f) The long climb left Jan feeling _____. (BREATH)

3. Put the adjectives in the box into the correct column.

patient reversible attractive literate flexible regular legal legible
 mature fertile tasteful moral replaceable friendly significant

dis-	un-	il-	im-	in-	ir-

4. Circle the correct adjective:

- a) Harvesting is an exhausting/exhausted activity.
- b) All enologists were exhausting/ exhausted after they had spent an entire day in the vineyard.
- c) Wine tasting turned out to be quite amusing/amused.
- d) Kids were amusing/amused while they were picking strawberries for the first time in their life.
- e) I was very exciting/excited to participate in sheep shearing.
- f) That wine cellar tour last summer was very exciting/excited.
- g) Our tourists were disgusting/disgusted by the waiter’s rude behaviour.
- h) Although I tried really hard, I could not hide that the food was disgusting/disgusted.

5. Study the following picture. Try to describe it using as many adjectives as possible:



Author: Edgar Hunt

<https://www.oilpaintingfactory.com/english/oil-painting-101269.htm>

UNIT 2 - Honey bees

I. GETTING READY

1. Decide whether the following facts are true (T) or false (F). Circle the appropriate letter.

- a) Honey bees carry out less simple tasks in groups. T / F
- b) Worker bees participate in raising of young bees. T / F
- c) What each worker does depends on its strength. T / F
- d) The queen's main goal is to ensure good communication in the hive. T / F
- e) Drones are present during spring and summer. T / F
- f) Drones guard the entrance. T / F
- g) Royal jelly is something only the queen receives. T / F

2. Check your predictions from Exercise 1 against the information in the text to see whether your answers are correct. .

HONEY BEES³

Honey bees are social insects, which means that they live together in large, well-organized family groups. Social insects are highly evolved insects that engage in a variety of complex tasks not practiced by the multitude of solitary insects. Communication, complex nest construction, environmental control, defence, and division of the labour are just some of the behaviours that honey bees have developed to exist successfully in social colonies.

A honey bee colony typically consists of three kinds of adult bees: workers, drones, and a queen. Several thousand worker bees cooperate in nest building, food collection, and brood rearing. Each worker has a definite task to perform, related to its adult age. But surviving and reproducing take the combined efforts of the entire colony. Individual bees (workers, drones, and queens) cannot survive without the support of the colony.

The social structure of the colony is maintained by the presence of the queen and workers and depends on an effective system of communication. The distribution of chemical pheromones among members and communicative "dances" are responsible for controlling the activities necessary for colony survival. Labour activities among worker bees depend primarily on the age of the bee but vary with the needs of the colony. Reproduction and colony strength depend on the queen and the quantity of food.

³ Taken, abridged and adapted from: Mid-Atlantic Apiculture Research and Extension Consortium (2012). The Colony and Its Organization. Retrieved from <https://agdev.anr.udel.edu/maarec/honey-bee-biology/the-colony-and-its-organization> (January 14, 2016)

Each colony has only one queen, except during a varying period following swarming preparations or supersedure. Because she is the only sexually developed female, her primary function is reproduction. Her body is normally much longer than either the drone's or worker's, especially during the egg-laying period when her abdomen is greatly elongated. Her wings cover only about two-thirds of the abdomen. A queen's thorax is slightly larger than that of a worker, and she has neither pollen baskets nor functional wax glands. Her stinger is curved and longer than that of the worker, but it has fewer and shorter barbs. The queen can live for several years—sometimes for as long as 5, but average productive life span is 2 to 3 years.

Drones (male bees) are the largest bees in the colony. They are generally present only during late spring and summer. The drone's head is much larger than that of either the queen or worker, and its compound eyes meet at the top of its head. Drones have no stinger, pollen baskets, or wax glands. Their main function is to fertilize the virgin queen during her mating flight, but only a small number of drones perform this function.

Workers are the smallest bodied adults and constitute the majority of bees occupying the colony. They are sexually undeveloped females and under normal hive conditions do not lay eggs. Workers have specialized structures, such as brood food glands, scent glands, wax glands, and pollen baskets, which allow them to perform all the labours of the hive. They clean and polish the cells, feed the brood, care for the queen, remove debris, handle incoming nectar, build beeswax combs, guard the entrance, and air-condition and ventilate the hive during their initial few weeks as adults. Later as field bees they forage for nectar, pollen, water, and propolis (plant sap).

BEE DEVELOPMENT



<https://pixabay.com/photos/bee-honey-bee-insect-flight-flying-4475324/>

All three types of adult honey bees pass through three developmental stages before emerging as adults: egg, larva, and pupa. The three stages are collectively labelled as brood. Unfertilized eggs become drones, while fertilized eggs become either workers or queens. Nutrition plays an important part in caste development of female bees; larvae

destined to become workers receive less royal jelly and more a mixture of honey and pollen compared to the copious amounts of royal jelly that a queen larva receives.

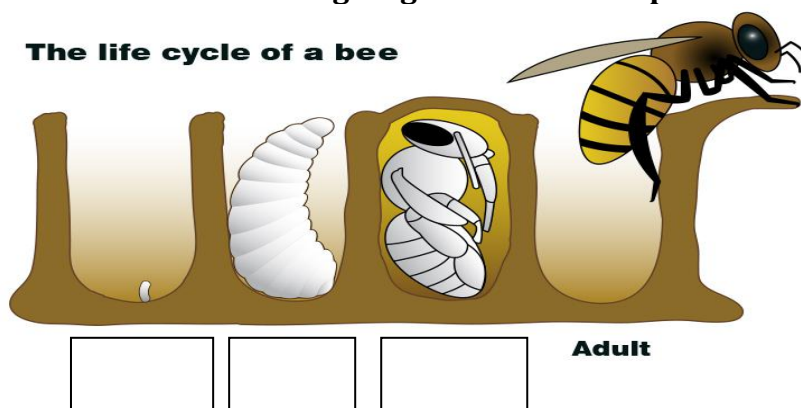
II. READING COMPREHENSION

1. Answer the following questions.

- What do we mean when we say that honey bees are social insects?
- Name the members of the honey bee colony.
- How are activities necessary for colonial survival controlled?
- Describe the queen.
- Describe the drone.
- What is the main function of a drone?
- Describe the worker.
- What are the tasks of a worker bee?
- Why is nutrition important in development of female bees?

III. VOCABULARY WORK

1. Name the three missing stages of bee development:



<https://www.tes.com/lessons/Wp8HVA4js15yw/complete-metamorphosis>

2. Find the words in the text that match the definitions below:

- to be doing or to become involved in an activity (para 1.) _____
- the young of an animal cared for at one time or produced at one hatching (para. 2)

- the act or process of producing babies, young animals, or plants (para. 3)

- a large group of insects, especially bees, moving together (para 4.)

- sexual behaviour in animals (para. 5) _____
- the remains of something that has been destroyed or broken up (para. 6)

- to go around searching for food or other supplies (para 6.) _____
- a substance secreted by honeybee workers and fed to larvae which are being raised as potential queen bees (para. 7) _____

3. Match the verbs in column A with appropriate nouns in column B. More than one solution is possible.

A	B
a)perform b) divide c)clean/polish d)remove e)guard f)ventilate	hive debris cell entrance labour task

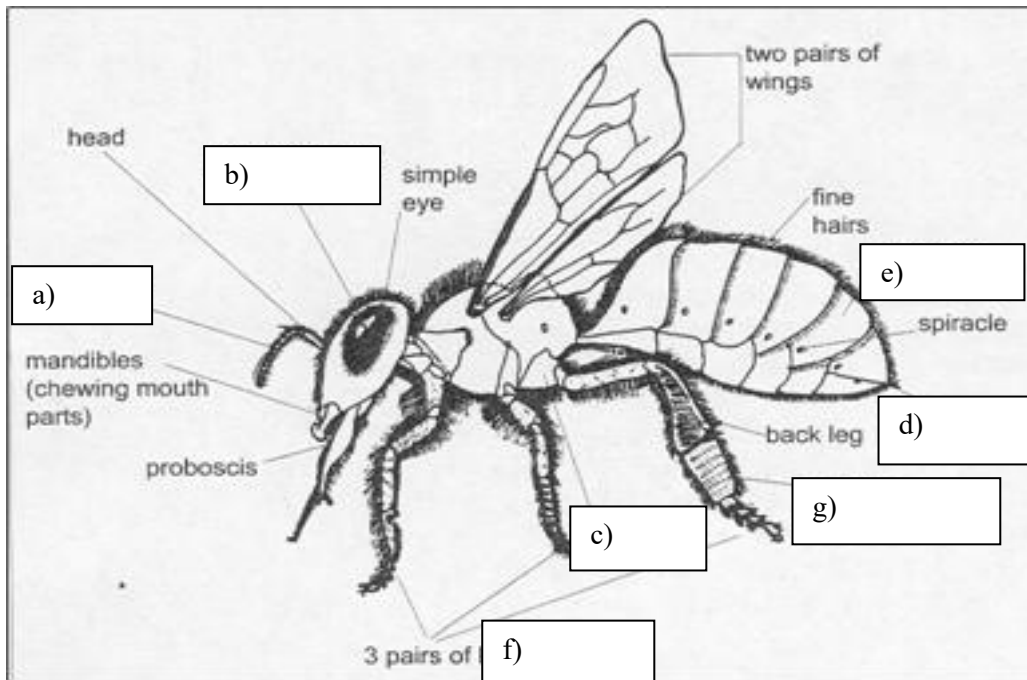
4. Match the words in column A with the appropriate prepositions in column B. More than one solution is possible.

A	B
a) depend b) pass c) responsible d) cooperate e) care f) forage	for for through on for in

5. Match the term with its definition.

1. wax glands	__ a) It contains the heart, reproductive organs, wax glands, and most of the digestive system.
2. thorax	__ b) It is attached to the head of adult bees.
3. sting	__ c) One of two large eyes that are made up of many hexagonal lenses.
4. pollen baskets	__ d) Areas located on the hind legs which are used for carrying pollen back to the hive.
5. compound eye	__ e) Adult bees have six of these and they are attached to the thorax.
6. abdomen	__ f) A sharp organ of offense or defense.
7. antenna	__ g) They are located under the abdomen and are used in the production of wax - used in forming the honeycomb.
8. legs	__ h) The part of an insect's body between the head and abdomen, which bears the wings and legs.

6. Label the bee. Use the names of seven body parts of a worker honeybee from Exercise 6.



http://leemingconsulting.com/SchoolNet/courses/beekeeping1.0/the_external_parts_of_a_worker_honeybee.html

7. Fill in the sentences with the words from Exercises 1 to 6. The first letter of the word is given.

- a) Later as field bees, workers f_____ for nectar, pollen, water and propolis (plant sap).
- b) Only the queen larvae are continually fed r_____ j_____.
- c) The beach was littered with d_____.
- d) The sizes of these w_____ g_____ depend on the age of the worker
- e) Muscles connect the s_____ to a venom sac.
- f) Mary has a whole b_____ of grandchildren.
- g) The p_____ of one flower is transferred to another by means of a fine brush.
- h) Soldiers were guarding the e_____ gate.

IV. WEBQUEST

1. Find out more about swarming and when/why it occurs.

Swarming preparation or supersedure is mentioned in the text: *Each colony has only one queen, except during and a varying period following swarming preparations or supersedure.*

In brief, if bees swarm, they leave a hive (=place where they live) in a large group to look for another home.

Grammar spot: Comparison of adjectives

1. Fill in the gaps using the adjectives from the “Honey Bees” text.

- a) Her body is normally much l_____ than either the drone’s or worker’s.
- b) A queen’s thorax is slightly l_____ than that of a worker. Her stinger has f_____ and s_____ barbs than that of the worker.
- c) Drones (male bees) are t____ l_____ bees in the colony.
- d) Workers are t____ s_____ bodied adults and constitute the majority of bees occupying the colony.

COMPARATIVES

We use *comparative adjectives* to talk about the difference between two or more people, animals or things. In the table below you will find rules for the formation of comparatives:

POSITIVE	COMPARATIVE
- one-syllable adjectives ⁴ (e.g. <i>long, small</i>)	- add -er (e.g. <i>longer, smaller</i>)
- two-syllable adjectives ending in a consonant + y (e.g. <i>busy, dirty</i>)	- drop -y and add -ier (e.g. <i>busier, dirtier</i>)
- two or more syllable adjectives (e.g. <i>important, beautiful</i>)	- add more in front of the adjective (e.g. more important; more beautiful)
- some adjectives can have both short and long comparative forms (e.g. <i>narrow, clever, common, gentle, pleasant, polite, quiet, simple</i>)	- add -er or more (e.g. <i>narrower</i> or more narrow)

When comparing two people, animals or things, use **than**:

- a) *It's cheaper to go by car than by train.*
- b) *Going by train is more expensive than going by car.*

Study the sentences in Exercise 1 for more examples of comparative structures.

⁴ Most one-syllable adjectives ending in a vowel and **-b, -d, -g, -n, -p** or **-t** double the last letter before adding **-er** in the comparative form or **-est** in the superlative form; e.g. *big – bigger – the biggest*,

2. Complete the table with comparative forms of the following adjectives:

POSITIVE	COMPARATIVE
a) boring	b)
c) cute	d)
e) heavy	f)
g) pleasant	h)
i) sad	j)
k) surprised	l)

SUPERLATIVES

We use *superlative adjectives* to say one person, animal or thing is the most/least in a group of three or more. In the table below you will find rules for the formation of superlatives:

POSITIVE	SUPERLATIVE
- one-syllable adjectives (e.g. <i>long, small</i>)	- add -est (e.g. <i>longest, smallest</i>)
- two-syllable adjectives ending in a consonant + y (e.g. <i>busy, dirty</i>)	- drop -y and add -iest (e.g. <i>busiest, dirtiest</i>)
- two or more syllable adjectives (e.g. <i>important, beautiful</i>)	- add most in front of the adjective (e.g. most <i>important</i> ; most <i>beautiful</i>)
- some adjectives can have both short and long superlative forms (e.g. <i>narrow, clever, common, gentle, pleasant, polite, quiet, simple</i>)	- add -est or most (e.g. <i>narrowest</i> or most <i>narrow</i>)

We normally use **the** before a superlative, e.g.:

- a) *Yesterday was **the** hottest day of the year.*
- b) *It was **the** most boring film I've ever seen.*

Study the sentences in Exercise 3 for more examples of superlative structures.

3. Complete the table with superlative forms of the following adjectives:

POSITIVE	SUPERLATIVE
a)common	
b)difficult	
c)easy	
d)expensive	
e)hard	
f)hot	

IRREGULAR COMPARISON OF ADJECTIVES

A few adjectives have irregular comparative and superlative forms that need to be learnt by heart:

POSITIVE	COMPARATIVE	SUPERLATIVE
good	better	the best
bad	worse	the worst
far	farther/further ⁵	the farthest/the furthest

4. Put the following adjectives in the appropriate comparative or superlative form:

- This year's harvest has been _____ in the history of our company. (SUCCESSFUL)
- Our room is _____ on the farm. (BIG)
- This tour is _____ than the last one. (GOOD)
- As you travel _____ afield, you find that none of these things are true. (FAR)
- The waitress is much _____ than the waiter. (POLITE)
- Investing in the nursery turned out to be _____ choice we've ever done. (PROFITABLE)
- That valley is _____ than the land we have at home. (FERTILE)

⁵ *Farther* is typically used for physical distance while *further* is more commonly used for metaphorical or figurative distance.

5. Compare groups of nouns (a - h) using the adjectives from the box.. Use both comparatives and superlatives.

interesting charming exciting important heavy beautiful
playful dangerous great old frightening sunny precious
powerful strange young easy scary populated resilient

- a) a queen / a worker / a drone
- b) carnivore/ herbivore / omnivore
- c) Krk / Pag / Hvar
- d) manual harvesting of grapes / mechanical harvesting of grapes/ berry picking
- e) Mediterranean agriculture / wine-making / sustainable agritourism
- f) Poreč / Rovinj / Umag
- g) royal jelly / pollen / venom
- h) wild animals / domestic animals /beasts of burden

UNIT 3 - Beekeeping

I. GETTING READY

1. What do you know about the following aspects of beekeeping?

- hive location
- beekeeping equipment
- beekeeping products
- different bees

II. READING COMPREHENSION

1. Read the text and label the paragraphs with appropriate headings from the box. There are 4 extra headings you do not need to use.

<i>Protective equipment</i>	<i>MAJOR BEE STRAINS</i>	<i>Primary products</i>
Equipment and Hive	VARIOUS PRODUCTS	LOCATION MATTERS
BEEKEEPING IS IMPORTANT	Characteristics of Bee Races	

BEEKEEPING⁶⁷



Author: Thomas Volcker

<https://pixabay.com/photos/beekeeper-bees-beehive-hive-2650663/>

⁶ Taken, abridged and adapted from: Krell, R. (1996.). Value-added products from beekeeping. Retrieved from <http://www.fao.org/3/w0076e/w0076e03.htm> (February, 2016)

⁷ Taken, abridged and adapted from: Mid-Atlantic Apiculture Research and Extension Consortium (1999.) Beekeeping equipment <https://agdev.anr.udel.edu/maarec/beginning-beekeeping-2/beekeeping-equipment/> (February, 2016)

a) _____

Beekeeping or apiculture is the science and art of keeping honey bees. The best known primary products of beekeeping are honey and wax, but pollen, propolis, royal jelly, venom, queens, bees, and their larvae are also marketable primary bee products. While most of these products may be consumed or used in the state in which they were produced by the bees, there are many additional products where these products form only a part of all the ingredients of another product. The secondary products, which are partially, or wholly, made up of primary bee products can be referred to as "value added" products from beekeeping.

b) _____

Equipment needs to vary with the size of your operation, number of colonies, and the type of honey you plan to produce. The basic equipment you need are the components of the hive, protective gear, smoker and hive tool, and the equipment you need for handling the honey crop.

The hive is the man-made structure in which the honey bee colony lives. A typical hive consists of a hive stand, a bottom board with entrance cleat or reducer, a series of boxes or hive bodies with suspended frames containing foundation or comb, and inner and outer covers. Beekeepers should wear a bee veil at all times to protect their face and neck from stings. Three basic types of veils are available: those that are open at the top to fit over a hat, completely hatless veils, and veils that form part of a bee suit.

c) _____

New beekeepers face the sometimes difficult decision of which strain or race of bee to order, and from whom to order them, when obtaining packages and queens. Currently, there are three major races: Italians, Caucasians, and Carniolans.

The Italian bee is light yellowish or brown with alternating stripes of brown and black on the abdomen. Italian bees tend to start brood rearing early in the spring and continue until late fall, which results in a large population throughout the active season. Large colonies can collect a considerable amount of nectar in a relatively short period, but they also require more honey for maintenance during the fall/winter than do the dark races. Disadvantages include weaker orientation compared to other races, which results in more bees drifting from one colony to another, and a strong inclination to robbing, which can aid in the spread of disease.

Caucasian bees are sometimes described as the gentlest of all honey bees. They are dark colored to black with grayish bands on the abdomen. They tend to construct burr comb and use large amounts of propolis to fasten combs and reduce the size of the entrance.

Carniolans are dark bees, similar to Caucasians in appearance, except they often have brown spots or bands on the abdomen. These bees overwinter as small clusters but increase rapidly in the spring after the first pollen becomes available. As a result, their major disadvantage is excessive swarming. Due to their small overwintering cluster size,

they are very economical in their food consumption, even under unfavourable climatic conditions, and overwinter well. They are not inclined to robbing, have a good sense of orientation, and are quiet on the combs.

Hybrid bees have been produced by crossing several lines or races of honey bees.

d) _____

Both beginners and established beekeepers should select each apiary site carefully. Throughout the foraging season, nectar and pollen sources must be within a short distance (roughly 1 mile) of the hives. While bees can be kept virtually anywhere, large concentrations of floral sources (and populous colonies) are needed to produce large honey crops.

Bees also need a source of fresh water so they can dilute honey, regulate hive temperature, liquefy crystallized honey, and raise brood. Bees are less irritable and easier to handle when located in the open where they can get plenty of sunshine. The apiary is best situated near natural wind protection such as hills, buildings, or evergreens. Other requirements are dry ground and good air drainage. Avoid windy, exposed hilltops or sites near the bank of a river that might potentially flood.

2. Fill in the chart using the information from the text:

Bee strain	Italian	Caucasian	Carniolan
Appearance	a)	d)	g)
Advantage	b)	e)	h)
Disadvantage	c)	f)	i)

III. VOCABULARY WORK

1. Find expressions in the text that are the same or similar in meaning to:

- a) poison, toxin (para. 1) -
- b) equipment, machine (para. 2) -
- c) cover, mask (para. 3) -
- d) breed, race (para. 4) -
- e) nurture, raising (para. 5) -
- f) hexagonal cell, waxy structure (para. 6) -
- g) too much, extreme (para. 7) -
- h) enclosure, pen (para. 10) -
- i) water down, weaken (para. 10) -

2. Find words in the text that collocate with the word "bee" (e.g. *honey bee*). See Exercise 1 on page 5 for example.



3. Find the English counterparts for the following terms in Croatian:

- a) zaštitna oprema -
- b) kavkavska pčela -
- c) kranjska pčela -
- d) talijanska pčela -
- e) hibridna pčela -
- f) dimilica -
- g) saća -
- h) matična mliječ -

4. Fill in the gaps using the word from Exercises 1 and 3.

- a) Although I am an agronomist, I am not familiar with different _____ of wheat.
- b) A definitive recommended dosage for _____ hasn't been established.
- c) A good beekeeper _____ is essential for manipulating your honey bees.
- d) A _____ provides the most rigid structure with the lightest weight.
- e) Add some red wine to _____ the tomato sauce.
- f) The viper paralyzes its prey by injecting it with _____.
- g) Did you pack my hiking _____?

IV. WEBQUEST

- 1. Three major races of bees are described in the text: Italians, Caucasians, and Carniolans. However, there are other races of bees that are not mentioned. Go online and find at least three additional races of bees and provide basic information about their appearance and behaviour**

Grammar spot: Plural form of nouns

1. Find the plural forms for the following words from the text “Honey Bees”:

- a) larva - _____
- b) colony - _____
- c) race - _____
- d) veil - _____
- e) body - _____

PLURAL FORM OF NOUNS

There are three ways to form plural nouns in English: *regular*, *irregular* and *foreign*. In the table below you can find spelling rules for regular plural:

SINGULAR	PLURAL
- great majority of nouns (e.g. <i>door, farm, animal</i>)	- add -s (e.g. <i>doors, farms, animals</i>)
- nouns ending in -s, -z, -x, -sh, -ch and some in -o (e.g. <i>kiss, bush, witch, potato</i>)	- add -es (e.g. <i>kisses, bushes, witches, potatoes</i> ⁸)
- nouns ending in a consonant + -y (e.g. <i>sky, industry</i>)	- drop -y and add -ies ⁹ (e.g. <i>skies, industries</i>)
- some nouns ending in -f or -fe (e.g. <i>loaf, knife</i>)	- drop -f and add -ves (e.g. <i>loaves, knives</i>) ¹⁰

2. Complete the table with plural forms of the following nouns:

SINGULAR	PLURAL
a) chair	
b) clock	
c) company	

⁸ But: *radio – radios; piano – pianos; photo – photos.*

⁹ But: *-y* stays if it is preceded by a vowel, e.g. *boy – boys; key – keys.*

¹⁰ But: *roof – roofs; chief – chiefs.*

d) couch	
e) day	
f) dish	
g) half	
h) hero	
i) leaf	
j) life	

The second category of plural nouns are irregular plurals. Here are some common examples in the English language:

SINGULAR	PLURAL
child	children
foot	feet
goose	geese
louse	lice
man	men
mouse	mice
ox	oxen
tooth	teeth
woman	women

3. *Larva* is an example of nouns that have foreign plurals. Based on the rules and examples, provide the missing plural forms of nouns.

RULE	EXAMPLES	
<ul style="list-style-type: none"> final -a becomes -ae: 	<i>formula</i> <i>alga</i> <i>antenna</i>	<i>formulae</i> <i>algae</i> a) _____
<ul style="list-style-type: none"> final -ex or -ix becomes -ices: 	<i>index</i> <i>matrix</i> <i>appendix</i>	<i>indices</i> <i>matrices</i> b) _____
<ul style="list-style-type: none"> final -is becomes -es (pronounced /iz/): 	<i>analysis</i> <i>synopsis</i>	<i>analyses</i> <i>synopses</i>

	<i>basis</i>	c) _____
• final -um becomes -a :	<i>spectrum</i> <i>memorandum</i> <i>datum</i>	<i>spectra</i> <i>memoranda</i> d) _____
• final -us becomes -i :	<i>focus</i> <i>stimulus</i> <i>cactus</i>	<i>foci</i> <i>stimuli</i> e) _____
• final -on becomes -a :	<i>criterion</i> <i>automaton</i> <i>phenomenon</i>	<i>criteria</i> <i>automata</i> f) _____
• final -ies remains unchanged:	<i>series</i> <i>means</i> <i>species</i>	<i>series</i> <i>means</i> g) _____

4. Complete the sentences. Use the plural form of the nouns in brackets.

- a) While we were planting wild _____ (POPPY), they were watering other plants.
- b) Detailed _____ (ANALYSIS) were conducted to see why bees behave in that manner.
- c) How many more _____ (CALF) are there in the barn?
- d) Flowers provide resources for bee _____ (COLONY).
- e) Plant _____ (LOUSE) or aphids could be very tiny insects.
- f) Flocks of wild _____ (GOOSE) can be seen in Ohio.
- g) Many different animal _____ (SPECIES) live in that national park.
- h) I am never sure whether _____ (TOMATO) are a fruit or a vegetable.

UNIT 4 - Olive trees (Part I)

I. GETTING READY

1. This is one of the most famous olive trees in the Mediterranean. It is located in the Brijuni National Park. Match the numbers in column A with information in column B to learn more about this very special tree.



https://commons.wikimedia.org/wiki/File:Brijuni,_old_olive_tree.jpg

A	B
a) 30	1) projection of the tree top
b) 1600	2) meters high
c) 4.1	3) years old
d) 22 x 8	4) % of non-saturated fatty acids
e) 6	5) kg of olive oil annually
f) 0.11	6) kg of olives annually

2. Compare your answers with a partner and check your answers online.

II. READING COMPREHENSION

1. Read the text and label the paragraphs with appropriate headings from the box. There is 1 extra heading you do not need to use.

- | |
|--|
| <ul style="list-style-type: none"> a) Severe weather conditions b) The importance of olive trees c) Olive trees in a pot d) The history of olive trees e) Geography and climate f) Different cultivars |
|--|

OLIVE TREES (PART I)¹¹

1 _____

In its native region, the Mediterranean Basin, the olive tree has held a special place in human culture for 8000 years. Ancient Greeks crowned the victors of Olympic Games with wreaths of olive branches. The Romans used them in lustral rites. In the Hebrew and Christian religions, the olive branch has always symbolized peace and brotherhood. There are also many references to the olive in the Koran. The olive tree's beauty has motivated artists through the ages. Olive images are found on ancient Greek vases, Etruscan friezes, Impressionist paintings and modern textiles. Picasso's image of a dove with an olive branch is the international symbol of peace.

2 _____

The olive is the most important oil-producing plant in the world. It is thought that the first agricultural machinery was developed to extract olive oil. Olive wood, hard and tightly-grained, is prized for carving and furniture making. In the Mediterranean Basin, olives have traditionally been grown on the poorest soils, often on the fringes of agricultural viability. Premium lands were reserved for the more demanding fruits, vegetables and grains.

3 _____

Because it originates in a region of little rainfall, many assume that the olive tree will not thrive in other regions. This assumption, though perhaps intuitive, is not supported by the facts. Old groves in Spain have been retrofitted with irrigation, resulting in a significant increase in yield. Olive culture has now been introduced into North and South America, Australia, New Zealand, China and India, as the world's cultures move to secure for themselves the benefits of the world's healthiest food oil. For the gardening enthusiast, it is possible to have olive trees almost anywhere. London's Kew Botanical Garden has an olive tree that ripens a few fruit on occasion. In Paris, France, many hotels and restaurants have potted olive trees near the front entrance. Several people have reported having grown olive trees in New York City and Chicago, where they are wrapped and covered for winter protection or even buried horizontally in the ground for the winter, to be resurrected in the spring. Olive trees can be grown outdoors without winter protection in areas where winter temperatures do not fall below 23 degrees F¹².

4 _____

¹¹ Taken, abridged and adapted from: Florida Department of Agriculture and Consumer Services Certificate of Nursery Registration (2008). Olive Trees, Yesterday and Today. Retrieved from <https://www.olivetreegrowers.com/olivetrees.php> (2017, February 16)

¹² F stands for Fahrenheit

Olives can be grown in pots but growing a containerized tree is far different than growing a "house plant". Olive trees become large plants, 15'¹³ to 30' tall and equally wide. Keeping them contained but healthy in a pot requires advanced gardening techniques. Significant fruit production on olive trees grown in pots is very difficult and requires the highest level of gardening expertise.

5 _____

There are over 800 cultivars of olive developed over thousands of years in the Mediterranean Basin. Most of these remain local to their area of origin but some 150 cultivars have been dispersed to the major olive producing regions.

2. In pairs, complete the following questionnaire and check how much you remember from the text.

- a) How long have olives held a special role in human culture?
- 1) 4 000 years
 - 2) 6 000 years
 - 3) 8 000 years
- b) Who used olive branches in rituals to purify themselves?
- 1) the Greeks
 - 2) the Romans
 - 3) the Egyptians
- c) Who popularized a dove with an olive branch as an international symbol of peace and brotherhood?
- 1) Pablo Picasso
 - 2) Vincent van Gogh
 - 3) Rembrandt
- d) What was the purpose of the first agricultural machinery ever developed?
- 1) to prune olive trees
 - 2) to extract olive oil
 - 3) to harvest olives
- e) Where were olive trees grown traditionally?
- 1) the poorest soils
 - 2) premium land
 - 3) nowhere – olive trees were not considered useful
- f) What is the lowest temperature an olive tree can survive?
- 1) three degrees F
 - 2) twenty-three degrees F
 - 3) a hundred and three degrees F

¹³ Inches

g) How many cultivated varieties of olive trees have been grown over thousands of years in the Mediterranean Sea?

- 1) 80
- 2) 800
- 3) 8000

h) Where is it possible to grow olive trees?

- 1) just in the Mediterranean region
- 2) North America and the Mediterranean region
- 3) almost everywhere

3. Check your answers against the information from the text and report back to the class on how many correct answers you scored.

III. VOCABULARY WORK

1. Find words in the text that have the following meanings:

- a) a shallow natural depression, a valley or hollow - b_____
- b) a flower arrangement consisting of a circular band of flowers or foliage - w_____
- c) to take out (a substance forming part of something else) by crushing or by chemical means - e_____
- d) the outside boundary or surface of something - f_____
- e) an amount of a product - y_____
- f) any of various usually domestic containers made of pottery, metal, or glass - p_____
- g) a race or variety of a plant that has been created or selected intentionally and maintained through cultivation - c_____
- h) to cause to separate and go in various directions -d _____

2. Find the antonyms for the following words:

- a) foreign, strange - _____
- b) not important, petty - _____
- c) collect, gather - _____
- d) vertically - _____
- e) behind, undeveloped - _____
- f) calculated, taught - _____
- g) loosely, freely - _____

3. Fill in the sentences with the vocabulary from Exercises 1 and 2. Change the word form where necessary.

- a) The prime minister laid a _____ at the war memorial.
- b) Oils are _____ from the plants.
- c) The factory has installed _____ machinery at enormous cost.
- d) The clouds _____ as quickly as they had gathered.
- e) Singapore has many _____ species of palm.
- f) I don't think that women are necessarily more _____ than men.

IV. WEBQUEST

Degrees Fahrenheit and inches are mentioned in the text.

1. Find out how to convert these measures into degrees Celsius and centimetres.

- a) "...winter temperatures do not fall below 23 degrees F." ($23\text{ }^{\circ}\text{F} = \text{_____ }^{\circ}\text{C}$)
- b) "Olive trees become large plants, 15' to 30' tall and equally wide." ($15' = \text{_____ cm}$)

2. Which countries use degrees Fahrenheit and which countries use Celsius? Mark these on the map using capitalized F for countries using degrees Fahrenheit and capitalized C for countries using Celsius.



<https://pixabay.com/vectors/world-map-earth-global-continent-146505/>

Olive trees (Part II)

I. GETTING READY

1. Are you familiar with the cultivation of olives? What do you know about the following aspects:

- tree
- fruit
- pruning
- product

II. READING COMPREHENSION

1. Read the text below and label the paragraphs with appropriate headings from the box. There are 3 extra headings you do not need to use.

Olive Products	Pruning	Olive Fruit
Olive Oil	Olive Tree	Olive Oil Production

OLIVE TREES (PART II)¹⁴



<https://pixabay.com/photos/olive-oil-oil-food-carafe-1596417/>

1. _____

The olive tree is an evergreen plant, which belongs to the oleaceous family. It's a hermaphrodite plant and it usually pollinates itself. Blossom always happens on the previous year branches. The tree originally comes from Asia Minor and it is prevalently cultivated in the Mediterranean basin, it is resistant to drought, but it cannot bear too damp soils.

Even though it is a Mediterranean plant, if air is dry, it stands well to winter cold with -5°

¹⁴ Taken, abridged and adapted from: Rosellini, A. (2018) Olive: for learning more; Retrieved from http://www.rosellinivivai.com/english/prodotti_e.htm (2018, February 16)

C/-10°C. It starts growing at +10°C and it blossoms at +18°C/+20°C. This plant is very long-lived and its trunk, as the years go by, begins to writhe forming chambers and roundish swellings.

The olive tree prefers hills and slopes, but it doesn't despise plains, as long as there aren't stagnations. When talking about the root, this plant is very strong and resistant to bad weather; diseases which may occur are few, among them are those that affect leaves, the woody part and plant's fruit during maturity.

There are many varieties of olive trees, it's thought to be at least 140 species, with different characteristics; sometimes even the same variety, if planted very distant one to the other, changes completely its physiognomy. Thanks to its longevity, olive tree wood is often used for woodwork, which highlights its beautiful grains.

2. _____

The olive fruit is a drupe. It has a bitter component (oleuropein), a strikingly low sugar content (2.6-6%) compared with other drupes – stone fruits like peaches and cherries (12% or more) and a sky-high oil content (12-30%) depending on the time of harvest and the variety. These characteristics make it a fruit that cannot be consumed directly from the tree and it has to undergo a series of processes that differ considerably from region to region, and which also depend on the variety. Some olives are, however, an exception to this rule because as they ripen they sweeten right on the tree, in most cases this is due to fermentation. One case in point is the Thrubolea variety in Greece.

Oleuropein, which is distinctive to the olive, has to be removed as it has a strong bitter taste: it is not, however, pernicious to health. Depending on local methods and customs, the fruit is generally treated in sodium or potassium hydroxide, brine or successively rinsed in water.

3. _____

Olive oil is an important source of fat in the Mediterranean diet, which has been associated with a lower incidence of coronary heart disease and the prevention of some cancers. The positive effects of olive oil are due not only to its high monosaturated/saturated fatty acid ration, but also to its antioxidants like vitamin E and phenolic compounds. Olive oil antioxidants are powerful antioxidants both in vitro and in vivo; and they could contribute to the healthy effect of the Mediterranean diet. The phenolic compounds also have a positive effect on oxidative stability and sensory properties because they confer a bitter, pungent and astringent taste in the olive oil. The amount of phenolic compounds in olive oil is variable, depending on several factors such as cultivar, degree of maturation and the infestation by the olive fly *Bactrocera oleae*.

2. Answer the following questions:

- a) What kind of a tree is an olive tree?
- b) What kind of weather is suitable for olive trees?
- c) What happens with the trunk of the olive tree as the years go by?
- d) What parts of the olive tree can be affected by disease?
- e) Describe the fruit of the olive tree.
- f) Why is olive oil important?
- g) What does the amount of phenolic compounds depend on?

III. VOCABULARY WORK

1. Find words in the text that are opposite in meaning to:

- a) deciduous, shedding foliage at the end of the growing season - _____
- b) flood, downpour - _____
- c) activity, movement - _____
- d) to make sour, embitter - _____
- e) helpful, useful - _____
- f) diseased, unhealthy - _____
- g) in vivo, within a living organism - _____

2. Find in the text the English translations for the following terms in Croatian:

- a) deblo - _____
- b) cvat - _____
- c) izbočina, oteklina - _____
- d) fizionomija, vanjski izgled - _____
- e) koštićav plod - _____
- f) fenol - _____
- g) rasol - _____
- h) kalcij - _____
- i) kalij - _____

3. Fill in the gaps using the words from Exercises 1 and 2.

- a) The leaves are e_____ and they cannot be heavily defoliated in severe winters.
- b) The way that the t_____ of a tree divides into smaller and smaller branches and twigs is an approximate fractal pattern.
- c) The apricot is actually what is called a d_____ or “stone fruit”.
- d) The cherry tree was covered in b_____.
- e) S_____ the mixture with a little honey.
- f) That's an egg fertilized in v_____, in an artificial environment outside a living organism.
- g) Soak the walnuts in b_____ for four or five days.

IV. WEBQUEST

- 1. Olive oil is famous for its use in the kitchen. Find 5 recipes you like in which olive oil might be used.**

Grammar spot: Subject-verb agreement

1. Study the following sentences. Only one of the sentences is grammatically correct. Do you know which one? What makes the other sentence incorrect?

- a) *The olive tree has held a special place in human culture for 8000 years.*
- b) *The olive tree have held a special place in human culture for 8000 years.*

SUBJECT - VERB AGREEMENT

Subjects and verbs must agree in number:

— singular subjects use verbs with singular endings

- *The **olive is** the most important oil-producing plant in the world.*

— plural subjects use verbs with plural endings:

- *Olive **images are** found on ancient Greek vases...*

Special care should be taken in the following cases:

1) subject and verb are separated - the subject of the sentence is sometimes separated from the word by a word group - you need to find the subject by asking 'who' or 'what' is performing the action

- *Heavy **snow**, together with high winds, **makes** travelling dangerous.*
- ***Storms** that occur during the winter in this region **cause** a lot of problems.*

2) subject has two or more parts

a) if the subject is joined by 'and', use a plural verb.

- *Wine, olive **and** lavender **are grown** in Croatia.*

b) if singular subjects are joined by 'or', 'nor', 'either...or', 'neither...nor' use a singular verb

- ***Neither** the woman **nor** the child **is** out of danger.*

c) if plural subjects are joined by 'or', 'nor', 'either...or', 'neither...nor' use a plural verb

- ***Neither** the women **nor** the children **are** out of danger.*

d) if one singular subject and one plural subject are joined by 'or', 'nor', 'either...or', 'neither...nor', the verb agrees with the subject nearest to it.

- **Neither** the woman **nor** the children **are** out of danger.
- 3) subject comes after the verb - The same rules apply when the subject follows the verb
- *There **is** a **wine cellar** in the basement.*
 - *Here **are** the farm **facilities**.*
- 4) subject is an indefinite pronoun
- a) with singular indefinite pronouns (*anybody, anyone, nobody, no one, somebody, someone, everybody, everyone, each, every*) use a singular verb
- **Everyone** in the group **has** a job to do.
- b) with plural indefinite pronouns (*both, few, several, many*) use a plural verb
- **Few** of the people in the group **work** consistently.

2. Circle the correct form of the verb in each of the following sentences.

- a) The number of tourists in Croatia is /are growing.
- b) Each of these kinds of harvesting is / are important.
- c) Forty-five minutes or an hour is / are required for the test.
- d) Better diet and better hygiene probably accounts / account for the failing death rates.
- e) A dog or a cat makes/ make a good pet for a child.
- f) There is / are a winery just around the corner.
- g) Neither the individual nor the group has / have a clearly established status.
- h) Childcare centres at the workplace is / are not new.
- i) The decline of producers was / were attributed to low commodity prices.
- j) Lower wages or job losses results / result in larger numbers in need of public assistance.
- k) The cost of cultivation includes / include the cost of labour and plants.
- l) There is / are two tourists waiting for you at the entrance.

3. Correct the mistakes in the following sentences.

- a) Nobody were informed about the arrival of guests.
- b) Many of the houses is renovated and prepared for visitors.
- c) The disease, together with bad weather, affect crop production.
- d) Almond, chestnut and hazelnut is considered healthy.
- e) Everybody were trying to book accommodation at the last minute before the trip.

UNIT 5 - Lavender

I. GETTING READY

1. Decide whether the following sentences are true (T) or false (F). Circle the appropriate letter.

- | | |
|--|-------|
| a) Lavender cannot endure drought easily. | T / F |
| b) Extraction of lavender oil is costly, but effortless. | T / F |
| c) Lavender is an annual bush. | T / F |
| d) Lavender is best planted in spring. | T / F |
| e) Lavender thrives in heavier soils. | T / F |
| f) Lavender should be pruned every two years. | T / F |

2. Now read the text and check your answers.

LAVENDER¹⁵

Lavender is a small, aromatic shrub used in the fragrance, specialty food, and alternative medicine industries. It produces masses of beautifully scented flowers above green or silvery-grey foliage. This drought-tolerant plant thrives in a sunny border, container, herb or gravel gardens. Although family farmers may find large-scale extraction of lavender's valuable oil too expensive and laborious, small-scale lavender production is feasible for some farmers using alternative marketing strategies. Entertainment farming has been a very successful form of alternative marketing for lavender, especially as a focus for annual festivals and product sales.



<https://pixabay.com/photos/bath-oil-oil-lavender-fragrant-oil-2510793/>

Lavender (*Lavandula*) can be a long-lived perennial, with a typical productive life of about 10 years, although plants have been known to live for 20 years. Whole plants in

¹⁵ Taken, abridged and adapted from: Adam,, K. F. (2006). Lavender Production, Markets, and Agritourism. Retrieved from <https://attra.ncat.org/attra-pub/viewhtml.php?id=41> (2015, May 21)

¹⁵ Taken, abridged and adapted from: the Royal Horticultural Society (2015) How to grow lavender. Retrieved from <https://www.rhs.org.uk/advice/profile?pid=127> (2015, May 21)

flower can be used for essential oil production. Buds, flower spikes, and flowering tips—both fresh and dried—have a variety of culinary, fragrance, and decorative uses.

Lavender is best planted between April and May as the soil is warming up. It thrives in any poor or moderately fertile, free-draining soils in full sun, and is ideal for chalky or alkaline soils.

On heavier soils, like clay and clay loam, lavender tends to be fairly short-lived, becoming woody at the base. To prolong the life of your lavender on heavier soil, add organic matter and gravel to improve the drainage and plant on a mound. If growing as a hedge, plant it on a ridge to keep the base of the plants out of wet soil.

Plants should be spaced 90cm (3ft) apart, or if growing a hedge, 30cm (1ft) apart or, 45cm (18in) for larger cultivars. Once established, lavender is fairly drought-tolerant and is suitable for coastal planting and gravel gardens.

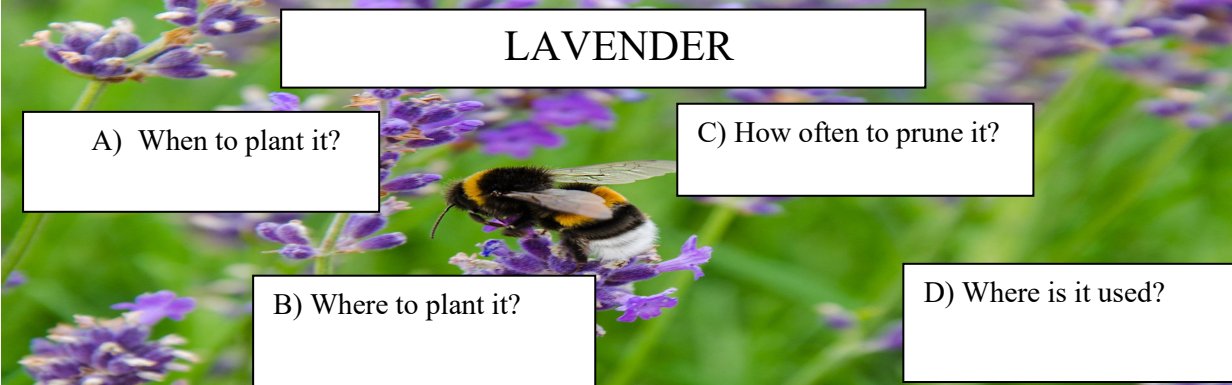
Lavender can be grown in large pots, 30-40cm (1ft-16in) diameter, using a multipurpose or loam-based compost to improve the drainage, and some controlled release fertiliser granules. It must be ensured that the compost is regularly watered in summer, but for improved cold tolerance, keep it on the dry side during winter by standing in a cold greenhouse or in the rain shadow of walls.

Most lavender can be grown in pots, but it is ideal for tender types, which need to be brought undercover during winter and provided with light, well-ventilated conditions.

Lavenders should be pruned every year to keep them compact. On established plants use secateurs to remove flower stalks and about 2.5cm (1in) of the current year's growth, making sure that some green growth remains. In some parts of the world, pruning is undertaken in late summer after flowering, although spring pruning is sometimes recommended. Lavender does not break readily from old wood and neglected specimens are best replaced.

II. READING COMPREHENSION

1. Read the text again and fill in the boxes with relevant information from the text.



<https://pixabay.com/illustrations/lavender-hummel-insect-violet-2510045/>

III. VOCABULARY WORK

1. Replace the words in italics with the appropriate words from the text:

- a) Lavender is a small, aromatic s_____ (bush).
- b) This drought-tolerant plant t_____ (flourish) in a sunny border, container, herb or gravel gardens.
- c) Large-scale extraction of lavender's valuable oil is too expensive and l_____ (industrious).
- d) To p_____ (lengthen) the life of your lavender on heavier soil, add organic matter and gravel.
- e) If growing as a hedge, plant on a r_____ (bank) to keep the base of the plants out of wet soil.
- f) Most lavender can be grown in pots, but it is ideal for t_____ (not hardy) types.
- g) N_____ (abandoned) specimens are best replaced.

2. Find the English counterparts in the text for the following words/expressions in Croatian:








- a) škare za rezanje grana - _____
- b) (ugodan) miris, miomiris - _____
- c) lišće - _____
- d) koji traje više od godinu dana, trajnica - _____ (plant)
- e) stabiljka - _____
- f) brežuljak - _____
- g) živica - _____
- h) alkalno, bazično tlo (pH veći od 7,0) - _____
- i) lijeha, gredica - _____

3. Fill in the gaps with words from Exercises 1 and 2.

- a) Jill wants to plant a b_____ of flowers around the lawn.
- b) A small r_____ of sand separated the field from the beach.
- c) Owing to its high a_____ requirement it should only be grown with those plants with the same preference.
- d) In this part of the garden we had t_____ plants that were killed by the harsh winter.
- e) The f_____ became even sweeter, pervading the church and immediate neighbourhood.
- f) I was sitting in the garden when suddenly my neighbour's head bobbed up from behind the h_____.
- g) She trimmed the s_____ of the tulips before putting them in a vase.

GARDEN EQUIPMENT

4. As mentioned in the text, secateurs are used in pruning lavender. There are some other items that might be useful in our garden as well. Match the following equipment in the box with appropriate pictures below:

secateurs hand fork reel trowel fork nozzle spade rose wheelbarrow shovel hoe watering can hose			
			
https://pixabay.com/photos/garden-fork-lawn-lawn-maintenance-1208987/	https://pixabay.com/photos/hand-trowel-garden-tool-soil-2317020/	https://pixabay.com/photos/garden-flower-rose-garden-fork-4010413/	https://pixabay.com/photos/background-isolated-garden-scissors-1744951/
a) _____	b) _____	c) _____	d) _____
			
https://pixabay.com/photos/hoe-wheelbarrow-gardening-faceplate-2448148/	https://pixabay.com/photos/shovel-garden-gardening-tools-spade-1023505/	https://pixabay.com/photos/water-can-watering-can-water-can-2445180/	
e) _____ on the	g) _____	h) _____	
f) _____		i) _____	



<https://pixabay.com/photos/hose-pipe-garden-hose-gardening-1536413/>



<https://pixabay.com/photos/blade-spade-brown-beige-wall-326557/>

j) _____

k) _____

l) _____

m) _____

5. Which pieces of garden equipment are described below? Fill in the gaps with words from Exercise 4:

- a) a small cart with one wheel and two handles that you use outdoors to carry things, especially in the garden _____
- b) a gardening tool with a row of metal teeth at the end of a long handle, used for making soil level, gathering up dead leaves, etc. _____
- c) a container used for pouring water on garden plants _____
- d) a long rubber (plastic) tube which can be moved/bent to put water onto gardens, etc. _____
- e) a tool for digging that has a long handle and a broad metal blade that you push into the ground (designed for breaking ground and cutting through tree roots and other materials¹⁶) _____
- f) a tool with a rounded blade and a long handle used for moving earth, stones etc. (used for scooping and moving loose material¹⁷) _____
- g) strong scissors used for cutting plant stems

IV. WEBQUEST

- 1. **There are many ways in which lavender can be used. Go online and find three ways you can make use of lavender for personal and commercial purposes.**

¹⁶ Taken, abridged and adapted from: Practical Primate (2020) Shovel Vs. Spade – What is the Difference? Retrieved from <https://practicalprimate.com/shovel-vs-spade/> (2020, April 26)

¹⁷ Ibid.

Grammar spot: Adverbs

1. Study the following sentences. What is the function of the underlined parts of the sentences? What is this word class called?

- a) *Lavender produces masses of beautifully scented flowers.*
- b) *This drought-tolerant plant thrives in gravel gardens.*
- c) *Lavender is best planted between April and May.*
- d) *Lavenders should be pruned every year.*

ADVERBS

Adverbs are words or phrases which describe verbs, adjectives or other adverbs. They give us information about manner (how?), place (where?), time (when?), and frequency (how often?). We can thus talk about four types of adverbs:

1) **ADVERBS OF MANNER** - give us information about manner (how?)

- *Lavender produces masses of **beautifully** scented flowers.*
- *The plant spreads **vegetatively** with stolons that root to form new clonal plants.*

2) **ADVERBS OF PLACE** - give us information about place (where?)

- *This drought-tolerant plant thrives **in gravel gardens**.*
- *The farmer and his family live **upstairs**.*

3) **ADVERBS OF TIME** - give us information about time (when?)

- *Lavender is best planted **between April and May**.*
- *I planted the seeds **yesterday**.*

4) **ADVERBS OF FREQUENCY** - give us information about frequency (how often?)

- *Lavenders should be pruned **every year**.*
- *I **rarely** prune a rose before it is well established.*

2. Underline different types of adverbs in the following sentences.

- a) Ancient Egyptians were regularly using lavender during the process of mummification.
- b) Lavender was used medicinally in the Middle Ages.
- c) Lavender was used in art during the period of Renaissance.
- d) Lavender essential oil was used in hospitals during WWI.
- e) Today, essential oils of lavender are often used in aromatherapy because they have a relaxing effect on most people.

FORMATION OF ADVERBS

Most adverbs are formed by adding *-ly* to an adjective according to the following spelling rules:

ADJECTIVE	ADVERB
- ending in a vowel and <i>-l</i> (e.g. <i>beautiful</i>)	- add <i>-ly</i> (e.g. <i>beautifully</i>)
- ending in <i>-y</i> (e.g. <i>busy</i>)	- drop <i>-y</i> and add <i>-ily</i> (e.g. <i>busily</i>)
- ending in <i>-le</i> (e.g. <i>miserable</i>)	- drop <i>-e</i> and add <i>-y</i> (e.g. <i>miserably</i>)
- ending in <i>-e</i> (e.g. <i>extreme</i>)	- keep <i>-e</i> and add <i>-ly</i> (e.g. <i>extremely</i>)

An adjective ending in *-ly* (e.g. *friendly, lonely, silly*) cannot be made into an adverb - we have to use a phrase instead:

- *He said it **in a friendly manner**.*
- *She laughed **in a silly way**.*

Some adjectives and adverbs have the same form - for example *hard, early, fast, far, straight*. Compare:

- *He is a **fast** learner.* ADJ
- *He learns **fast**.* ADV
- *The farmer is a **hard** worker.* ADJ
- *The farmer works **hard**.* ADV

3. Fill in the gaps by forming the adverbs from the adjectives in brackets.

- a) Essential oils extracted from the flowers of lavender are _____ used in the industry of perfumes and cosmetics. (MASSIVE)
- b) Flowers will keep their perfume for months when you harvest just before they are _____ open. (ENTIRE)
- c) Prune the plant _____ to promote branching. (LIGHT)
- d) Lavender sometimes _____ grows better in pots than in a garden. (ACTUAL)
- e) Spring has come _____ this year. (EARLY)
- f) The lavender industry must respond _____ to changing market conditions. (FLEXIBLE)
- g) The scent of lavender is _____ irresistible to many people. (SIMPLE)
- h) You can dry lavender _____ by tying the cut stems in clumps and hanging them upside-down away from direct sunlight. (EASY)

4. Study the following picture. Try to describe what the people/animals are doing using as many adverbs as possible.



Author: Pieter Bruegel the Elder

<https://www.laphamsquarterly.org/lines-work/art/work-harvesters>

UNIT 6 - Citrus

I. GETTING READY

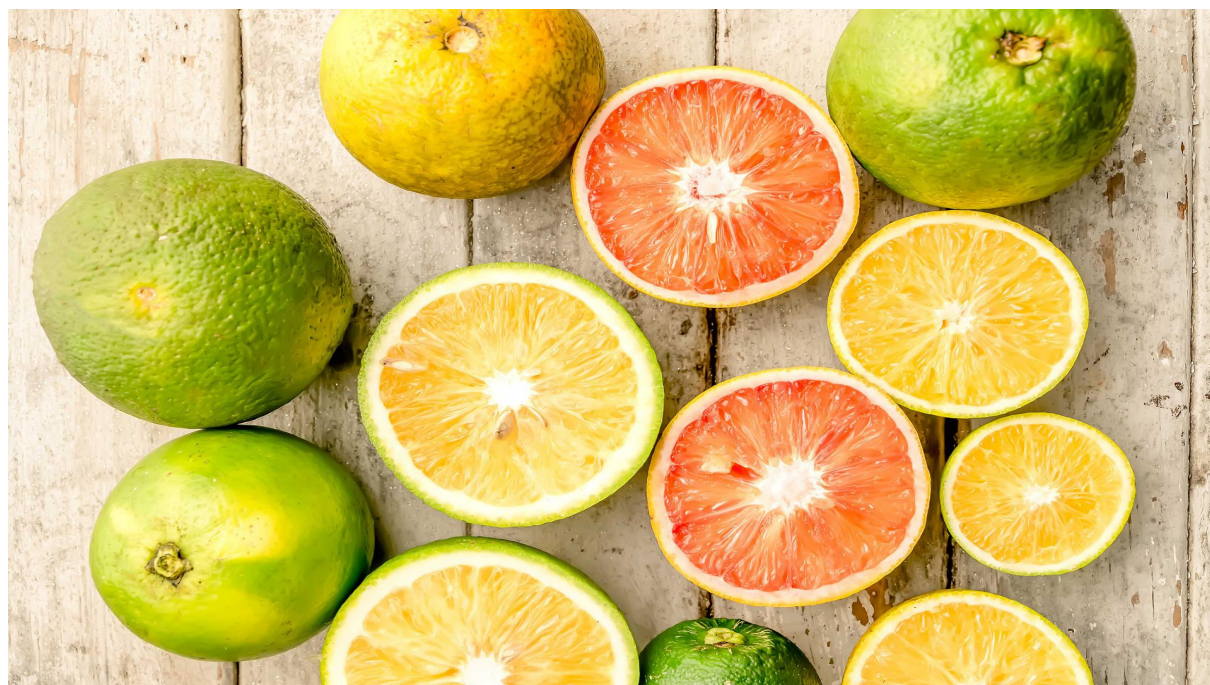
1. What do you know about the following topics related to citrus?

- nutrition and health
- geography
- climate
- cultivation
- pests and diseases
- tree physiognomy
- fruit description

2. Read the text and find the sentences in which the abovementioned topics are discussed.

CITRUS

Citrus fruits, belonging to the genus *Citrus* of the family *Rutaceae*, are well known for their refreshing fragrance, thirst-quenching ability, and providing adequate vitamin C as per recommended dietary allowance (RDA). Citrus is the most widely produced fruit, as a group of several species, and it is grown in more than 80 countries.¹⁸



<https://pixabay.com/photos/orange-citrus-fruit-natural-fruits-4663073/>

¹⁸ Taken, abridged and adapted from: Ladaniya, M. S. (2008) Citrus Fruit: Biology, Technology and Evaluation. Retrieved from: https://books.google.hr/books?id=v5hCqEvR9eEC&printsec=frontcover&hl=hr&source=gbs_ge_summary_r&cad=0#v=onepage&q&f=false (2018, April 15)

Being a tropical and subtropical crop, citrus can be grown in a belt between 40 °N and 40 °S, except at high elevations. Minimum temperature and its duration time are the limiting growth factors. Its sensitivity depends on variety, rootstock, dormancy of the trees and the absolute minimum temperature and its duration.

Most citrus trees consist of two distinct parts. The rootstock, or stock, comprises the root system and lower stem or trunk. It is usually grown from seed. The upper part of the tree, consisting of the limbs, leaves and fruit, is known as the scion. The scion is derived by inserting tissue of the desired cultivar into the rootstock in such a way that it unites with the rootstock and develops the fruiting portion.

Intensive citrus cultivation requires the use of fertilizers, close monitoring and control of pests, diseases and weeds, effective irrigation and control of tree size. The trees begin their productive life on the third year, and peak productivity takes place when the trees are 10-30 years old, average yields under these conditions are 30-60 t/ha.

Extensive citrus cultivation requires the use of fertilizers, but only moderate monitoring and control of pests, diseases and weeds. They are generally rain-fed only. Their productive life starts on the fourth year, and peak productivity takes place when the trees are 8-15 years old, average yields under these conditions are 15-25 t/ha.

Citrus can be grown on a wide variety of soils, from sand to loam and clay. Both acidic and alkaline soils are acceptable. The genus Citrus is an evergreen. It has about 150 genera and 1500 species, all native to the tropical and subtropical regions of Asia and the Malay Archipelago. The principal citrus scions are: orange, mandarin, lemon, lime, grapefruit and pomelo. Both arid and humid climates are acceptable.¹⁹

II. READING COMPREHENSION

1. Decide whether the following statements are true (T) or false (F). Circle the appropriate letter.

- | | |
|--|-------|
| a) The production of citrus is well-spread. | T / F |
| b) All citrus varieties are affected by the temperature equally. | T / F |
| c) The rootstock consists of the lower stem and trunk. | T / F |
| d) Extensive cultivation often includes the irrigation system. | T / F |
| e) The most productive citrus trees are at least 40 years old. | T / F |
| f) Citrus trees are deciduous. | T / F |
| g) Citrus trees flourish only on various different soils. | T / F |
| h) The temperature is the only crucial factor in citrus cultivation. | T / F |

¹⁹ Taken, abridged and adapted from: Teaspoon Feeding. Nutritional recommendations for citrus. Retrieved from: <https://www.scribd.com/document/150085121/Porto-Cale> (2018, April 15)

III. VOCABULARY WORK

1. Look at the text and find the expressions which mean the following:

a) nutrient intake judged proper and healthful in quantity and type (noun, para. 1):

b) usually geographic region that is distinctive in a specific respect (noun, para. 2):

c) the condition of being temporarily inactive (noun, para. 2): _____

d) the highest or most important point or level (noun, para. 2): _____

e) any of the main branches of a tree (noun, para. 3): _____

f) to satisfy ; allay (thirst, desires, passion, etc.) (verb, para. 1): _____

g) not very large or very small, very hot or very cold, very fast or very slow, etc. (adjective, para. 5): _____

h) lacking sufficient water or rainfall (adjective, para 6.): _____

2. Fill in the gaps with words from Exercise 1. Change the word form if necessary.

a) Water from the Great Lakes is pumped to _____ regions.

b) The seeds remain _____ until the spring.

c) The _____ guidelines can be achieved by eating more fruits and vegetables.

d) _____ exercise, such as walking, is recommended.

e) We stopped at a small bar to _____ our thirst.

f) The wide coastal _____ is a flat plain, partially wooded.

g) The road climbs steadily to an _____ of 1,400 feet.

h) If you're trimming heavy tree _____, you have to be extra careful not to damage the bark.

3. DICTIONARY SKILLS:. Study the dictionary entry in the box and answer the following questions:

a) What type of dictionary does it come from? What kind of information does it provide?

b) What do abbreviations (adj., quant., v., n., prep.) stand for?

c) What words would you choose to describe a flower's origin/colour/smell/type/size?

d) Which other types of dictionaries do you know of? Which ones do you use?

Flower (noun)²⁰

- ADJ. alpine, artificial, autumn, beautiful, bright, brilliantly-coloured, closed, colourful, cut, dead, delicate, dried, exotic, fake, fresh, fragrant, garden, huge, lilly-like, lovely, closed, out-of-season, pressed, rare, seasonal, star-shaped, scented, sweet-scented, sweet-smelling, spring, tiny, wild, woodland
What lovely flowers. The flowers were still tightly closed.
- QUANT. bouquet, bunch
- V. + FLOWER have, produce, come into, pollinate, press
It was the first year that the cactus had produced flowers.
- FLOWER + V. go to seed, seed
- FLOWER + N. bud, head, petal, seed, stalk, stem, bed, border, arrangement, arranger, arranging, display, pot (flower-pot), basket, container, vase, garden, festival, show, market, seller, shop, stall, garland, wreath
I'm learning flower arranging.
- PREP. in
It was June and the roses were in flower.
- PHRASES a bank/carpet/mass of flowers
The alleys were adorned with banks of flowers.
The bush was covered in flowers.

“What about those flowers?” (useful phrases when talking about flowers)

- **grow**
Tulips are grown everywhere.
Daffodils grow in the mountains.
- **Breed**
She breeds orchids in her greenhouses.
- **plant, put in**
Autumn is the best time to plant peonies.
- **dig out/up, take out**
Dig up your geraniums before the first frosts.
- **spray, water**
It's a good idea to spray your roses against greenfly.
- **deadhead**
Don't forget to deadhead the pansies.
- **pick (sb)**

²⁰ Taken, abridged and adapted from: Oxford Collocations Dictionary for students of English (2002) Oxford: Oxford University Press.

I picked some daffodils for you.

- **smell**

He stopped to smell the flowers.

- **arrange**

She arranged the tulips in a vase.

- **bring/give/send/take (sb)**

He took her flowers and chocolate.

- **be in flower, be/come out, (be in) bloom, come into flower, come out, flower**

The spring flowers were just coming out.

What time of year do daffodils flower?

- **smell**

Some of these roses smell absolutely wonderful.

- **close/open (up)**

You know it's summer when the first daisies open.

- **droop, wilt, wither**

The petunias were already wilting in the hot sun.

- **be over**

It was April and the snowdrops were long over.

- **a bouquet/bunch/garland/posy/spray/vase of**
a spray of mixed violets and primroses

4. Fill in the sentences using the appropriate words from the box. A synonym is given in brackets.

- The plant needs some water – it's starting to d_____ (wither, wilt).
- Will you w_____ (spray) my houseplants while I'm away?
- The forest was cool and s_____ (fragrant) , and the walk through it calmed my spirits.
- There were some herbs growing in p_____ (containers) on the balcony.
- A b_____ (bouquet) of dried flowers was on the table.
- Although it is July, the house has a Christmas w_____ (garland) hung in its picture window.

IV. WEBQUEST

- 1. Is it possible to grow citrus fruits in Croatia? If it is possible, find out where and which varieties. Report what you have found out back to the class.**

Grammar spot: Position and order of adverbs

1. Study the adverbs in the following sentences. Which positions can they occupy in a sentence?

- a) *Citrus is grown in more than 80 countries.*
- b) *The rootstock is usually grown from seed.*
- c) *Yesterday I fertilized my garden.*

GRAMMAR POSITION AND ORDER OF ADVERBS

Adverbs can occupy different positions in a sentence: **at the beginning, in the middle** or **at the end**. The position depends on the type of adverb and what we want to emphasize in the sentence.

1) ADVERBS OF MANNER, PLACE AND TIME

Adverbs of manner, place and time usually come at the end of a sentence:

- *The storm came **suddenly**.*
- *We have planted ten new trees **in the park**.*
- *The new fertilizer will arrive **next week**.*

For greater emphasis, however, they can come at the beginning of the sentence (adverbs of manner also in the middle of a sentence):

- ***Slowly**, he opened the door.*
- *He **slowly** opened the door.*

If there is more than one kind of adverb in a sentence, the order is usually **manner - place - time**:

- *I have been working **diligently in the garden the whole morning**.*

2) ADVERBS OF FREQUENCY

Adverbs of frequency usually come before the main verb but after the auxiliary verb or the verb *be*

- *I **often** forget to water the plants.*
- *Citrus is **usually** grown for the fresh market or juice production.*

2. Place the adverbs in the brackets in suitable positions in the sentences.

- a) Can you come? (at six o'clock, to my office)
- b) He works. (all week long, very hard)
- c) I bought some olive oil. (yesterday, in Italy)
- d) I have tried horseback riding. (never)
- e) My boss is late for work. (always)
- f) My grandfather used to take us swimming. (in the summer holidays, in the lake)
- g) She visits her mother. (at the weekend, usually, in hospital)
- h) The horse is sleeping. (soundly, in the barn)
- i) There is a farmer's market. (in town, usually, on Sunday mornings)

3. Complete the sentences with adverbs describing how, when, where or how often the action happens. Add at least two adverbs per sentence. Mind the correct position of adverbs.

- a) I speak English.
- b) We pick apples.
- c) My mother pruned the lavender.
- d) It gets very hot here.
- e) I watch television.
- f) Bees collect nectar.

UNIT 7 - Organic farmer, where art thou?

I. GETTING READY

1. Study the title and the photo. What do you think will be the topic of this article? Read the first two paragraphs to check your predictions.
2. What do you think might be the answer to the question raised in paragraph 2? Read the rest of the article to check your predictions.

ORGANIC FARMER, WHERE ART THOU?²¹



<https://pixabay.com/photos/sheep-shepherd-farmer-ninh-thuan-3023520/>

Organic food sale in the U.S. doubled over the last decade, surpassing \$45 billion in sales last year. Organic farming, however, hasn't kept pace. Although organic acreage increased by 20 percent between 2011 and 2018, and now totals over 5 million acres of land, that **amounts to** less than one percent of the country's total farmland. With demand outpacing domestic supply, the U.S. had to import more than \$2 billion in organic food last year.

In order to find the answer to the question why there aren't enough organic farms and farmers in the U.S. we turn to Casey Bailey in Fort Benton, Montana.

²¹ Taken, abridged and adapted from: Cernansky, R. (2018). We don't have enough organic farms. Why not? Retrieved from: <https://www.nationalgeographic.com/environment/future-of-food/organic-farming-crops-consumers/> (2019, February 18)

Bailey, 38, lives on the farm where he grew up, but he's adding a twist to the family tradition. In place of what he calls the farm's "rigid, chemical-based" practices, he's transitioning his 5,000 acres to organic farming methods. It hasn't been an easy switch. He's navigated challenges through trial and error because—despite the growth of organic agriculture—there isn't a mentor or a playbook to follow. On a conventional farm, he says, "I can hire sprayers to come out and spray our whole farm within a day, and then come and spread the nutrients, the fertilizer. I can't do that with organic."

It's not a matter of simply turning off the chemical sprayers: Farmers must learn to manage soil nutrients without fertilizer and tackle weeds and insects without herbicides and insecticides. It's a steep learning curve.

Bailey decided to try farming without chemicals back in 2008. "When I took those first 50 acres to transition to organic, I was scared to death," he says. "I thought in the back of my head, I'm going to ruin the family farm."

That fear helps illuminate why organic farmland is scarce. The choice to go organic is complicated and risky, and barriers prevent many farmers from switching.

Most fundamental are that organic farming requires different equipment and other costly up-front investments—and it requires more labour, mainly to tackle weeds. Furthermore, organic certification requires crop rotation, which limits the crops farmers can produce in a given year, whereas a conventional producer can select a crop that appears to be most profitable that year and plant it. The country's agricultural infrastructure—grain storage facilities and transportation networks—is designed for conventional crops; organic farmers need **to tap into** a different market structure. And funding for organic research pales in comparison to conventional support, which means organic farmers have fewer tools available to them, as well as fewer experts to consult.

A turning point for Bailey was a partnership he's formed that offers a measure of assurance against some of the risks he is facing. Last year, he sold 1,300 acres of wheat and oats to Annie's, a producer of organic pasta and snacks now part of Minneapolis-based General Mills.

A number of companies with a stake in the organic movement **have stepped up** to help farmers confront the myriad challenges they face. Like Annie's, Costco Wholesale has a similar effort directed at building relationships with farmers. It commits to buying crops from growers before they **embark on** the organic transition.

"The biggest thing for growers going from conventional to organic is knowing that they'll have a place to sell it, and at a fair price, and that's what we give them," says Heather Shavey, general merchandise manager for Costco. The collaboration between farmers and a brand might prove to be the fix the organic market needs to address a fundamental gap: Consumer demand for organic food is growing steadily, but the percentage of organic farmland in the U.S. **is only inching up**. For Bailey, as long as consumer demand continues to grow, so too will organic cropland — along with the supporting infrastructure. He's optimistic about the potential of organic growers **to turn around** the country's farming crisis. "It's not going to be all without bumps and curves and bends in the road, but it's going in the right direction," he concludes.

II. READING COMPREHENSION

1. Read the text again and note down all the problems that organic farmers are facing as well as solutions to these problems suggested in the text. Then fill in the diagram with relevant information.

problems	
solutions	

III. VOCABULARY WORK

1. Match the words on the left (1-6) with their definitions (a-f) on the right.

1. to surpass	___ a) not easy to find or get
2. to keep pace with	___ b) a very large number of something
3. to outpace	___ c) to do or be better than
4. to tackle	___ d) to manage to do things at the same time or speed as someone else
5. scarce	___ e) to move or develop faster than someone or something else
6. myriad	___ f) to try to deal with something or someone

2. Fill in each pair of sentences with a suitable word from Exercise 1. Put the verbs in the correct form.

a) There are _____ ways in which global warming can harm the environment.

We were attacked by a _____ tiny flies.

b) We need to _____ with the latest IT developments.

Slow down! I can't _____ with you.

c) Her cooking was always good, but this time she _____ herself.

He _____ all our expectations.

d) He easily _____ the other runners.

Demand for organic food _____ its production.

e) Food was often _____ in the winter.

During the war, things like clothes and shoes were _____.

f) There is a great deal of indecision over how to _____ the problem.

It took twelve fire engines to _____ the fire.

3. Now try to create your own sentence with words from Exercises 1 and 2. Make sure you use the word appropriately.

a)

b)

c)

d)

e)

f)

4. **PHRASAL VERBS.** Phrasal verb is a phrase that consists of a verb and a preposition, the meaning of which is different from the meaning of its constituents. For example, *to put off* is a phrasal verb which means 'to postpone'.

Look at the phrasal verbs in bold in the text 'Organic farmer, where art thou'. Can you deduce their meaning from the context? Match the phrasal verbs on the left (1-6) with their definitions (a-f) on the right.

1. amount to	___ a) to take action when there is a need or opportunity for it
2. tap into	___ b) to start something new or important
3. step up	___ c) to manage to use something in a way that brings good results
4. embark on	___ d) to change a plan, business, or system that is unsuccessful and make it successful
5. inch up	___ e) to produce (a total) when added together
6. turn around	___ f) to gradually become greater in amount or number

5. **Fill in the gaps with suitable phrasal verbs from Exercise 4. Put the verbs in the correct form.**

- Companies that sell organic products should _____ to help farmers.
- Farmers are encouraged to _____ EU funds for rural development.
- Fertilizer and labour costs _____ 20 % and 29%, respectively, of the total value of production.
- Interest rates have been _____ over the past year and are now 1.5% higher than in January.
- The company _____ from losses of £1.4 million last year to profits of £26,800.
- The company has _____ a risky new project.

IV. WEBQUEST

- Try to find some information about organic farming in Croatia. Which criteria must be met in order for a product to be declared organic? What are the problems organic farmers face in Croatia?

Grammar spot: Comparison of adverbs

1. Recall what you have learnt about the comparison of adjectives. When do we use comparative and superlative adjectives? How are they formed?

COMPARISON OF ADVERBS

- 1) Most adverbs use **more** to make comparatives and **the most** to make superlatives:

- *John speaks English **more fluently** than I do.*
- *Of all the students in the class, Michael speaks English **the most fluently**.*

- 2) Adverbs without *-ly* make comparatives in the same way as short adjectives:

- *I work **hard**, my sister works **harder** than I do but Alex works **the hardest**.*

- 3) Some comparative and superlative adverbs are irregular. Those forms have to be learnt by heart:

- *I think I drive rather **well**, but my husband drives **better**.*

The following table summarizes what has been said about the comparison of adverbs:

	POSITIVE	COMPARATIVE	SUPERLATIVE
adverbs ending in <i>-ly</i>	<i>quickly</i> <i>beautifully</i>	<i>more quickly</i> <i>more beautifully</i>	<i>the most quickly</i> <i>the most beautifully</i>
adverbs with the same form as adjectives	<i>hard</i> <i>early</i>	<i>harder</i> <i>earlier</i>	<i>the hardest</i> <i>the earliest</i>
irregular comparison	<i>badly</i> <i>well</i> <i>far</i> <i>little</i>	<i>worse</i> <i>better</i> <i>farther/further</i> <i>less</i>	<i>the worst</i> <i>the best</i> <i>the farthest/further</i> <i>the least</i>

Adverbs use the same comparative structures as adjectives:

(=)	two things are equal	<i>I can prune the roses as quickly as you can.</i>
(</>)	one thing is more or less	<i>Sarah can prune the roses more quickly than I can.</i>
(min/max)	one thing is the most/the least	<i>Jim can prune the roses the most quickly.</i>

2. Complete the table with comparative and superlative forms of the following adverbs:

POSITIVE	COMPARATIVE	SUPERLATIVE
badly		
busily		
easily		
fast		
simply		
straight		

3. Put the following adverbs in the appropriate comparative or superlative form:

- I sleep much _____ since I moved to the city centre. (HEAVY)
- He has to work a lot _____ since he has been promoted. (HARD)
- He was injured _____ than any of the others. (SERIOUS)
- He studied the route _____ than I did. (CAREFUL)
- She did _____ on the test than all the other students. (WELL)

4. Complete the sentences with the comparative or superlative form of the adjective or adverb in the brackets.

- a) Which foreign language do you consider _____ (BEAUTIFUL) and which _____ (USEFUL)?
- b) Do you think travelling by train is _____ (COMFORTABLE) than travelling by plane? Which type of transport do you find _____ (ENJOYABLE)?
- c) When it comes to studying, are you _____ (PRODUCTIVE) in the morning or in the evening? Which part of the day do you find _____ (RELAXING)?
- d) Do you get on _____ (GOOD) with the members of your family? Who in your family do you _____ (OFTEN) spend time with?
- e) Do you exercise _____ (REGULAR)? Which type of physical activity do you think is _____ (HEALTHY)?
- f) Do you think that buying things online is _____ (EASY) and _____ (CHEAP) than buying things in a shop?

5. After you have completed all the questions, ask your colleague to answer them. Ask for additional information.

UNIT 8 - Sustainable agriculture

I. GETTING READY

1. Which associations come to mind when you hear the phrase 'sustainable agriculture'?



2. You are going to read a text about sustainable agriculture. Before reading, write down 3-5 questions you would like to find the answer to in the text.

1.

a) 2.

b) 3.

c) 4.

d) 5.

3. Read the text. Has the text provided you with all the answers?

SUSTAINABLE AGRICULTURE²²

Ever since World War II, we have produced the majority of our food through industrial agriculture—a system dominated by large farms growing the same crops year after year, using large amounts of chemical pesticides and fertilizers that damage soils, water, air, and climate. This system is not built to last, because it squanders and degrades the resources that it depends on.

But a growing number of innovative farmers and scientists are taking a different path, moving toward a farming system that is more sustainable—environmentally, economically, and socially. This system has room for farms of all sizes, producing a diverse range of foods, fibers, and fuels adapted to local conditions and regional markets.

²² Taken, abridged and adapted from: What Is Sustainable Agriculture?. Union of Concerned Scientists. Retrieved from <https://www.ucsusa.org/food-agriculture/advance-sustainable-agriculture/what-is-sustainable-agriculture>. (2019, February 15)

It uses state-of-the-art, science-based practices that maximize productivity and profit while minimizing environmental damage.

Sustainable agriculture explained

In agriculture, sustainability is a complex idea with many facets, including the economic (a sustainable farm should be a profitable business that contributes to a robust economy), the social (it should deal fairly with its workers and have a mutually beneficial relationship with the surrounding community), and the environmental.

Environmental sustainability in agriculture means good management of the natural systems and resources that farms rely on. Among other things, this involves:

- building and maintaining healthy soil
- managing water wisely
- minimizing air, water, and climate pollution
- promoting biodiversity

There's a whole field of research devoted to achieving these goals: agroecology, the science of managing farms as ecosystems. By working with nature rather than against it, farms using agroecological principles can avoid damaging impacts without sacrificing productivity or profitability.

Sustainable agriculture practices

Over decades of science and practice, several key sustainable farming practices have emerged—for example:

Rotating crops and embracing diversity. Planting a variety of crops can have many benefits, including healthier soil and improved pest control. Crop diversity practices include intercropping (growing a mix of crops in the same area) and complex multi-year crop rotations.

Planting cover crops. Cover crops, like clover, are planted during off-season times when soils might otherwise be left bare. These crops protect and build soil health by preventing erosion, replenishing soil nutrients, and keeping weeds in check, reducing the need for herbicides.

Reducing or eliminating tillage. Traditional plowing (tillage) prepares fields for planting and prevents weed problems, but can cause a lot of soil loss. No-till or reduced till methods, which involve inserting seeds directly into undisturbed soil, can reduce erosion and improve soil health.

Applying integrated pest management (IPM). A range of methods, including mechanical and biological controls, can be applied systematically to keep pest populations under control while minimizing use of chemical pesticides.

Integrating livestock and crops. Industrial agriculture tends to keep plant and animal production separate, with animals living far from the areas where their food is produced, and crops growing far away from abundant manure fertilizers. A growing body of evidence shows that a smart integration of crop and animal production can be a recipe for more efficient, profitable farms.

Adopting agroforestry practices. By mixing trees or shrubs into their operations, farmers can provide shade and shelter to protect plants, animals, and water resources, while also potentially offering additional income.

A key theme connecting many of these practices is diversification. “Keep it simple” is good advice in many situations, but when it comes to agriculture, the most sustainable and productive systems are more diverse and complex—like nature itself.



<https://pixabay.com/illustrations/nature-earth-sustainability-leaf-3294632/>

Does Sustainable = Organic?

Organic food is food produced by methods that comply with the standards of organic farming. Standards vary from country to country, but organic farming, in general, features practices that cycle resources, promote ecological balance, and conserve biodiversity. Farms that comply with the standards can label their produce as

“organic”—a feature that more and more food shoppers are looking for.

“Organic” and “sustainable” aren’t quite synonyms: current organic standards leave room for some practices that are not optimal from a sustainability point of view, and not all farmers who use sustainable practices qualify for organic certification or choose to pursue it.

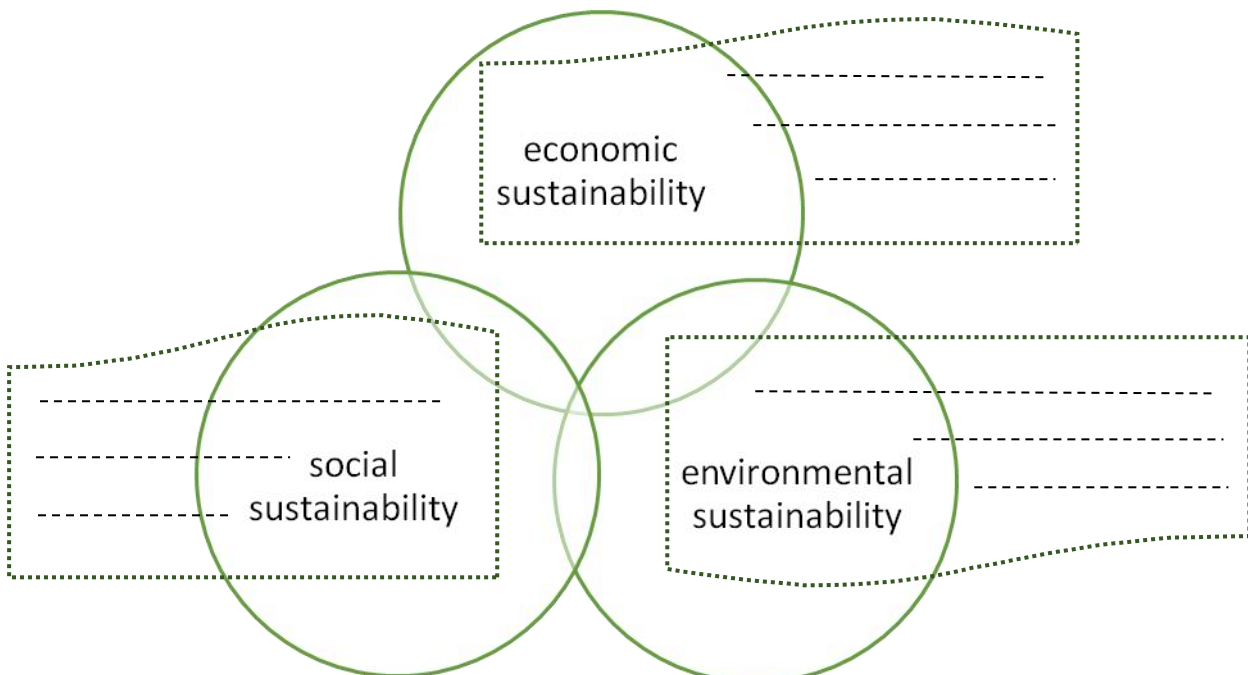
Still, the certified organic fruits and vegetables at your supermarket are highly likely to have been produced more sustainably than their conventionally grown neighbours. So if your rule is “look for the organic label”, you’re unlikely to go wrong.

II. READING COMPREHENSION

1. Read the text again and fill in the table with characteristics of industrial and sustainable agriculture.

Industrial Agriculture vs. Sustainable Agriculture	
➤	➤
➤	➤
➤	➤
➤	➤

2. What have you learnt about the different dimensions of sustainable agriculture? Fill in the diagram with information from the text.



III. VOCABULARY WORK

1. AGRICULTURAL PRACTICES. Match the agricultural practices on the left (1-6) with their definitions (a-f) on the right.

1. chemical pesticides	___ a) the practice of growing two or more crop types on one field
1. cover crops	___ b) the practice of growing different types of crops in the same area over a sequence of seasons
2. intercropping	___ c) chemical substances used in agriculture to protect crops from disease, insects, rodents and other pests as well as weeds.
3. manure	___ d) agricultural preparation of soil by mechanical agitation of various types, such as digging, stirring, and overturning
4. rotating crops	___ e) plants that are used primarily for the benefit of the soil rather than the crop yield
5. tillage	___ f) organic material that is used to fertilize land, usually consisting of waste matter from domestic animals, with or without accompanying litter such as straw or hay

2. Which of the practices in Exercise 1 are typical of industrial agriculture and which of sustainable agriculture?

- a) industrial agriculture:
- b) sustainable agriculture:

3. SYNONYMS AND ANTONYMS. Complete the table with the phrases from the box.

empty fragile to obey to refill to save to stay the same

	SYNONYM	ANTONYM
bare		<i>full</i>
to comply with		<i>to disobey</i>
to diversify	<i>to expand, to change</i>	
to replenish		<i>to use up</i>
robust	<i>strong</i>	
to squander	<i>to spend carelessly</i>	

4. Fill in the gaps with words in bold from Exercise 3. Put the words in the correct form.

- a) Farmers must _____ EU legislation in the fields of environment, animal welfare and food safety.
- b) Food stocks were _____ with imports from abroad.
- c) He _____ all the money he inherited before the end of the year.
- d) In winter, rice fields were _____ and brown, but there was the anticipation of spring planting just around the corner.
- e) The formerly _____ economy has begun to weaken.
- f) We have to _____ our offer to become more competitive.

IV. WEBQUEST

- 1. Find more information about the advantages and disadvantages of both industrial and sustainable agriculture. Create a pros-and-cons list. Compare your results with your colleagues.**

Industrial agriculture		Sustainable agriculture	
FOR	AGAINST	FOR	AGAINST

Grammar spot: Word order in affirmative sentences

- 1. Look at the two sentences below. Can you change the word order and still keep the original meaning? How many versions of the same sentence can you create in Croatian and in English? Why?**

Croatian	English
<i>Lovro je Sanji dao ružu.</i>	<i>Lovro gave Sanja a rose.</i>
e.g. <i>Lovro je dao ružu Sanji.</i>	

WORD ORDER IN AFFIRMATIVE SENTENCES

While you were probably able to make at least five different versions of the Croatian sentence, you couldn't change the word order in the English sentence without changing its meaning.

This is because in Croatian we establish the relationships between sentence parts with the help of cases. We know that *Lovro* is the subject of the sentence because this noun is in its nominative form, so its position in the sentence does not change the overall meaning. The English language, however, does not have cases, so it has to rely on word order to establish relationships between sentence parts. *Lovro* is the subject in English only if it appears in the first position in the sentence.

Points to remember:

- English has a relatively strict and inflexible word order
- a sentence in English must have a subject and a verb
- a subject and a verb can be followed by object(s) and/or adverb(s)

BASIC WORD ORDER IN ENGLISH SENTENCES – SVOA			
SUBJECT	VERB	OBJECT	ADVERBS
<i>The farmer</i>	<i>is harvesting.</i>		
<i>Tourists</i>	<i>didn't get</i>	<i>the bill.</i>	
<i>Sheep</i>	<i>were taken</i>		<i>to the barn.</i>
<i>They</i>	<i>were pruning</i>	<i>the olive tree</i>	<i>in their backyard.</i>

If a sentence has two objects (direct and indirect), the **indirect object comes before the direct one.**

<i>The Farmers Union</i>	<i>gave</i>	<i>us</i>	<i>some useful advice</i>	<i>about organic farming.</i>
		I object	D object	

If there is more than one kind of adverb in a sentence, the order is usually **manner - place - time** (see Unit 6).

If there are two adverbs of the same kind in a sentence, the more precise one comes first.

<i>I</i>	<i>transitioned</i>	<i>to organic farming</i>	<i>in spring</i>	<i>of 2018.</i>
<i>We</i>	<i>spent</i>	<i>our last holiday</i>	<i>in a small village</i>	<i>in Istria.</i>
			more precise adverb	less precise adverb

2. Analyse the word order in the following sentences and then rewrite them using the table below.

- I have been living and studying in Poreč since last autumn.
- I lent Gary my wheelbarrow yesterday.
- We have been producing organic food on this farm since 2010.
- You can reach Poreč easily from Pula.

SUBJECT	VERB	OBJECT		ADVERB		
		indirect	direct	manner	place	time
a)						
b)						
c)						
d)						

3. Form sentences by placing the words in the correct order:

- a) a beautiful horse/ this afternoon/ I/ in the barn/ saw
- b) have increased / in recent years / sales of organic food / in the USA /
dramatically
- c) have/ tourists/ on their farm/ never/ they
- d) in towns and cities / some farmers/ their products / at farmer's markets / sell
- e) me / my boss / last week / a book about sustainable agriculture / bought
- f) the cows / milk / twice / we / a day
- g) to our rooms/ after wine tasting/ our host/ us / took
- h) usually/the farmer/ in the morning/ wakes up/ at six o'clock

UNIT 9 - Agritourism

I. GETTING READY

1. Answer the following questions:

- a) What would be your definition of agritourism?
- b) Study the photos and discuss what you see. Which of these activities have you tried/would you like to try?



<https://www.johnstoncountync.org/things-to-do/agritourism/>

a) _____



<https://www.gazettenet.com/Grow-Food-Northampton-gets-USDA-grant-for-work-in-schools-28220783>

b) _____



<https://pixabay.com/photos/riding-horses-horse-riding-1935051/>

c) _____



<https://globalnews.ca/news/2863932/okanagan-reaction-to-agri-tourism-regulation-changes/>

d) _____



<https://pixabay.com/photos/market-booth-vegetables-stall-food-601573/>

e) _____

2. The photos show different types of agritourism – read the text and match the photos (a – e) with the type of agritourism discussed in the text.

AGRITOURISM²³

Agritourism is the practice of attracting visitors and travelers to agricultural areas, generally for educational and recreational purposes. Due to economic difficulties and changes in the farming and livestock industries across the globe, many farmers - especially those with small, family-owned farms - have found they must supplement their agricultural business model and explore new ways of generating income.

Likewise, as the distance between the production and consumption of agricultural products grows, so too does consumer interest in how crops and livestock are raised. People want to reconnect with the agricultural practices of the past.

These two needs come together in agritourism which helps rebuild a relationship between producer and consumer that has all but vanished with the rise of heavily-industrialized farming methods.

Why agritourism?

A farm's basic business has always consisted of growing crops or raising livestock that can be sold as goods to a consumer or as commodities for further processing - like cattle sold to slaughter or grapes sold to a winery. However, in recent years, the input costs for raising livestock and crops have risen, and commodity prices have fallen. This fact, together with advent of a global market and large industrialized farming companies contributed to some farmers being forced to find new ways of **making a living on the side**. This is where agritourism comes in. An added appeal is that, in many situations, very little additional investment is needed for farmers to begin reaping the benefits.

Forms of Agritourism

- 1. Direct-market agritourism:** If you've ever seen a roadside produce stand, you've seen direct-market agritourism in action. Farmers sell goods like produce, canned items and other organic products directly to consumers either at markets and fairs or on the farm itself, often alongside other agritourism offerings. Farmers may be selling an organic product similar to

²³Taken, abridged and adapted from: Lamb, R. (2008). How agroturism works. Retrieved from <https://adventure.howstuffworks.com/agritourism.htm/printable> (2019, May 15)

what consumers could find at a grocery store, but their product has the added appeal of coming directly from a local farm.

2. **Education and experience agritourism:** This form of agritourism includes pick-your-own apple groves, farm tours, bed-and-breakfasts and packages aimed at giving guests a hands-on education in farm life. The farm itself is marketed as a tourist destination. Whether agritourists pay to pick their own produce, attend wine tastings at a vineyard or simply enjoy the farm atmosphere, the draw is first-hand experience. Once visitors are acquainted with the farm more closely, they may also be more inclined to buy its agricultural products.
3. **Recreation and event agritourism:** While still considered agritourism, these offerings tend to involve using farm land for other marketable uses. Harvest festivals, corn mazes, haunted hay rides and country weddings held on farm land may draw heavily on the farm's atmosphere. Other activities like camping, archery and horseback riding are often less dependent on the farm itself. However, such forms of agritourism still draw in guests who may be tempted to buy goods.

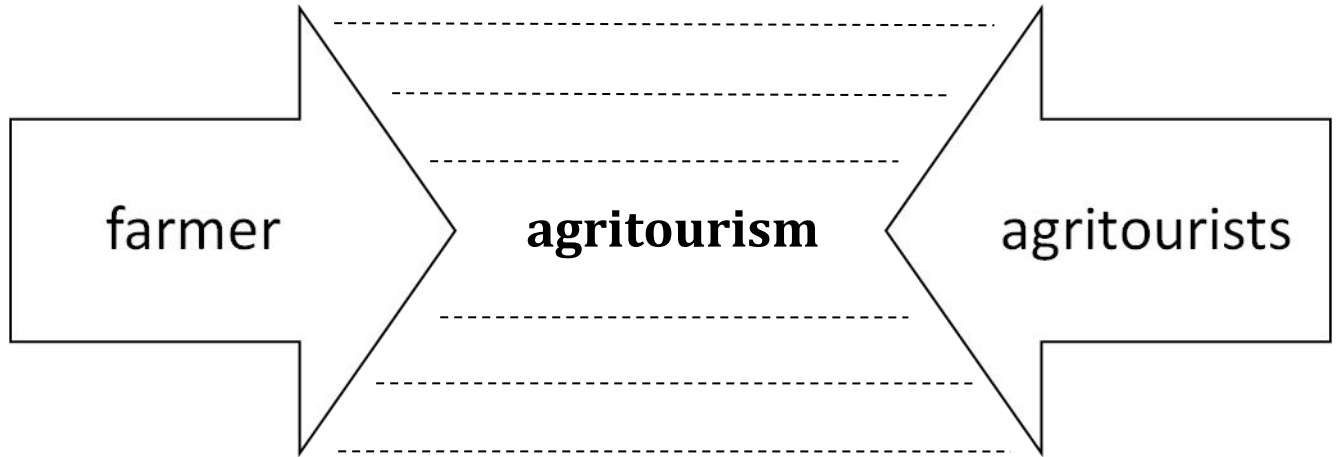
Who are the agritourists?

Agritourism can take on many different forms but who signs up for a weekend of touring a farm or picking crops? Once you **get past the idea** that agritourism is more than just city dwellers paying to **try their hand at** farm work, it gets a lot easier to understand.

Just like an art museum or historic landmark, agritourism tends to offer visitors an educational experience. But instead of providing insight into art or history, the educational material deals with farming methods and rural farming culture. Additionally, just as sightseers and ecotourists seek out natural wonders and beauty, so too do agritourists seek out a chance to discover where some of their favorite foods come from or see people **living off the land**.

II. READING COMPREHENSION

1. Read the text again and write down the benefits of agritourism for farmers and agritourists.



III. VOCABULARY WORK

1. WORD FORMATION. Fill in the table with the correct forms. Consult the text if necessary.

VERB	NOUN	ADJECTIVE
attract		
-	recreation	
	supplement	
consumer		-
		productive
appeal		
		marketable
	temptation	

2. Pick one word in each row from Exercise 1 (verb, noun, or adjective) and create a sentence using your choice of word. Make sure you use the word appropriately.

- a)
- b)
- c)
- d)
- e)
- f)
- g)
- h)
- i)

3. **IDIOMS.** Idioms are expressions whose meaning differs from the meanings of each of its individual constituents. For example, *under the weather* is an idiom meaning 'ill'.

Look at the idioms in bold in the text 'Agritourism'. Can you deduce their meaning from the context? Match the idioms on the left (1-5) with their definitions (a-e) on the right.

1. make a living	___ a) to be able to overcome or overlook something
2. on the side	___ b) to get your income or food from farming, hunting or gathering
3. get past (the idea)	___ c) used to say that someone does work in addition to their regular job
4. try your hand at something	___ d) to earn enough money to support oneself
5. live off the land	___ e) to try doing something for the first time

4. AGRICULTURAL IDIOMS. Below is a short list of idioms involving agricultural vocabulary? Try to connect the idioms (1-10) to their meanings (a-j).

1. hard row to hoe	___ a) in a luxurious style
2. beat a dead horse	___ b) from the original source
3. (straight) from the horse's mouth	___ c) used to say that one thinks that something will never happen
4. talk the hind leg off a donkey	___ d) something that is difficult to do or deal with
5. high on the hog	___ e) to earn the money that is needed to live
6. pigs might fly	___ f) to risk all one has on the success or failure of one thing
7. bring home the bacon	___ g) to keep talking about a subject that has already been discussed or decided
8. put all one's egg in one basket	___ h) to talk for a long time
9. until the cows come home	___ i) to force (someone) to leave a job because of old age
10. put somebody out to pasture	___ j) for a very long time

5. Fill in the gaps with suitable idioms from Exercises 3 and 4.

- a) "This time I think he'll ask me to marry him!" "Yeah, and _____", he said ironically.
- b) He decided to _____ farming and discovered he was good at it.
- c) He _____ by working as a cook.
- d) He makes a little money _____ by cleaning windows in his spare time.
- e) I can't _____ that he has been lying to us the whole time.
- f) I could sit here and argue with you _____, but it wouldn't solve anything.
- g) I hope that when I begin to suffer from Alzheimer's disease (preferably at a very advanced age) that whatever employer I am working for has the good sense to _____.
- h) I know it's true, because I got it _____ - Katie told me herself.
- i) I'm applying for several jobs because I don't really want to _____.
- j) Men were once solely responsible for _____.
- k) Most people in the countryside _____.
- l) She rarely spoke, but her brother could _____.
- m) Those movie stars live pretty _____.

IV. WEBQUEST

- 1. Find some information about agritourism in Croatia. Where is it most popular? Which types of agritourism are on offer?**

Grammar spot: Word order in yes/no questions

1. Answer the following questions:

- a) Do you buy organic products?
- b) Have you ever participated in a country wedding?
- c) Can you ride a horse?

2. What kind of answer is required in the above-mentioned questions?

3. What can you conclude about the structure of these questions?

WORD ORDER IN YES/NO QUESTIONS

Like the word order in affirmative sentences, the word order in questions is very strict in English.

In this unit we are going to talk about the structure of the so-called *yes-no questions*.

Yes/no questions are questions that can be answered with a 'yes' or 'no'.

You can learn more about the structure of these questions from the table below:

WORD ORDER IN YES/NO QUESTIONS			
AUXILIARY/MODAL VERB	SUBJECT	VERB	REST OF THE SENTENCE
<i>Do</i>	<i>You</i>	<i>buy</i>	<i>organic products?</i>
<i>Have</i>	<i>You</i>	<i>been</i>	<i>on a country wedding before?</i>
<i>Can</i>	<i>You</i>	<i>ride</i>	<i>a horse?</i>

4. Make questions to match the answers provided below.

- a) _____?
Yes, I know what agritourism is.
- b) _____?
No, I have never attended a wine tasting.
- c) _____?
Yes, we visited the harvest festival yesterday.
- d) _____?
No, I wouldn't like to try archery.
- e) _____?
Yes, we will go to Bill and Fiona's wedding.

5. Make questions to match the answers provided below.

- a) _____?
Yes, I am.
- b) _____?
No, haven't.
- c) _____?
No, I didn't.
- d) _____?
Of course I do.
- e) _____?
Of course I will.

6. MAKE ME SAY YES. Work in pairs. Think of as many yes/no questions as you can that you think your partner will answer with a 'yes'. Ask each other questions. You get one point for each time your partner answered 'yes'. Who has collected more points? Now do the same thing but try to get only 'no' for an answer. Who was more successful this time?

UNIT 10 - Down on the farm with your sleeves rolled up

I. GETTING READY

1. Answer the following questions:

- a) What do you see in the photograph? Describe the photo.
- b) What might be their reason for visiting the orchard?
- c) What other activities can people do in the orchard?
- d) Do you enjoy doing things in nature? Why (not)?
- e) Take a look at the title. What does it mean to roll up your sleeves?
- f) What might the text be about?

2. Now read the text and check your predictions.

DOWN ON THE FARM WITH YOUR SLEEVES ROLLED UP²⁴



<https://www.arbordayfarm.org/fall/>

At an early morning hour most vacationers would spend unconscious, a few intrepid city dwellers outfitted in borrowed boots hunch over a creek full of watercress, carefully cutting the plants with kitchen scissors.

For their hosts, farmers in the Blue Ridge Mountains of western North Carolina, it's the start of a regular workday. But for the visitors, it's a delicate balance between learning on the fly and trying to be of use on a working farm.

²⁴ Taken, abridged and adapted from: Biuso, E. (2007) Down on the Farm With Your Sleeves Rolled Up. *The New York Times*. <https://www.nytimes.com/2007/11/23/travel/escapes/23agritourism.html> (2019, February 13)

Hoing, seeding and picking may not sound like a holiday, yet the appeal of agritourism is gaining in the United States. More and more people want to see where their food comes from, and the same drive that leads them to visit farmers' markets or join community-supported agriculture farm-share programs draws them to the farm itself.

"I shop at the farmers' market, but I didn't really know how these people operate or how a farm functions," said Elizabeth Schafer, who works for a visual-effects company in Los Angeles and decided to visit Maverick Farms in Valle Crucis, N.C., after a year of working 50-to-60-hour weeks. "It definitely made me appreciate what needs to be accomplished to put food on the table."

The arrangement at Maverick Farms is simple: vacationers pay \$120 a night to stay in a room in the hosts' beautiful two-story, 125-year-old farmhouse, and they are also invited to work at harvesting, seeding and other chores. For each hour of labour, \$7 is deducted from the bill. Up to 25 percent of the bill can be worked off. At night, the farmers cook dinner from food they grew, and the guests/labourers are encouraged to join them. At the end of the stay, visitors can, if they like, leave a donation for the food they've eaten.

Agritourism includes a wide variety of farm activities. Though most visitors simply spend an afternoon picking fruit or feeding animals, others remain several days, contributing labour to tasks ranging from planting crops to building greenhouses.

In Vermont, income from agritourism totalled \$19.5 million in 2002, nearly twice the amount in 2000, according to the United States Department of Agriculture. Though there are no similar statistics for more recent years, agritourism leaders in the state say the figures continue to rise. In North Carolina, 46 percent of agritourism operators surveyed by the state Department of Agriculture reported an increase in income in 2004 from 2003. And in Tennessee, agritourism enterprises directly added about \$17 million to the economy in 2006 and bring in more than three million visitors a year, according to the state agritourism coordinator.

"It's grown because more farmers are finding out it's an important avenue to bring in revenue and stay on the farm," said Rich Pirog, associate director of the Leopold Center for Sustainable Agriculture at Iowa State University in Ames. "Secondarily, it's increasing because we've moved to an experience economy. People want to have a farm experience."

Melissa Gunderson is a chef and caterer in Norcross, Ga. She, her husband, Eric, and their two young sons, Sam and Benjamin, visited Maverick in September. Since their stay, Ms. Gunderson has noticed a new appreciation of eggs by 3-year-old Sam. When she cracks one open for a recipe, he remembers seeing them up close in Maverick's chicken coop. "I'm so shocked he remembers that experience," she said.

Maverick Farms is a working farm that was started by five novices in 2004, all friends in their 20s and 30s. Three had grown up on farms, but none had experience running one. They began it to help preserve family land from development, and important components of the farm's daily practices are reducing waste, saving energy and fostering

local involvement whenever possible. Boarding tourists who want to learn about farming has always been part of the business model.

“Agritourism is an incredible education tool,” said Tom Philpott, a co-founder and co-director of Maverick who also writes about food and farming for the environmental web site Grist.org. “This is a way to come and do a typical afternoon on a farm. Maybe somebody does this, and it sparks something.”

II. READING COMPREHENSION

1. Read the text again and decide whether the following statements are true (T) or false (F). Circle the appropriate letter.

- | | |
|---|-------|
| a) Visitors on the farm only join in activities they have done before. | T / F |
| b) Vacationers have to participate in activities on the farm. | T / F |
| c) Agritourism helps farmers keep their farms. | T / F |
| d) Agritourism is becoming less popular in the United States. | T / F |
| e) Visitors get to keep everything they have harvested. | T / F |
| f) Participating in the global community is very important for agritourism. | T / F |

2. Read the text again. Why are these numbers important?

- a) 7 b) 19.5 c) 46 d) 3 e) 20

III. VOCABULARY WORK

1. What do the bolded phrasal verbs/expressions from the text mean?

- 1) “...it’s an important avenue to **bring in** revenue...”
- 2) “.... it’s a delicate balance between learning **on the fly**...”
- 3) Up to 25 percent of the bill can be **worked off**.”
- 4) “...dwellers outfitted in borrowed boots **hunch over** a creek...”
- 5) “...trying **to be of use** on a working farm...”
- 6) “When she **cracks** one **open** for a recipe...”

2. Match the phrases above with the appropriate definitions below:

- a) to break open
- b) to earn a particular amount or produce a particular amount of profit
- c) while dealing with a situation, rather than before dealing with it
- d) to do a job for someone else because you owe them money or because they have helped you in the past
- e) to bend down and forwards so that your back forms a curve
- f) helping you to do or get what you want

3. Use the expressions from Exercise 1 to fill in the gaps:

- a) He had to _____ the steering wheel to see anything.
- b) The earthquake _____ the highway wide _____.
- c) The sale of the house only _____ about £45,000.
- d) So far, policy is being made on _____ .
- e) She hasn't _____ her debts to me yet.
- f) To be _____, the photos must be up to date.

4. Translate the following agritourism activities from the text:

- a) hoeing - _____
- b) harvesting - _____
- c) seeding - _____
- d) reducing (waste) - _____
- e) saving (energy) - _____
- f) fostering (involvement) - _____

IV. WEBQUEST

- 1. Some activities visitors can take part in during their time on the farm are mentioned in the text. Could you find five more activities you would personally like to experience on the farm?**
- 2. In pairs, discuss which of these could be profitable for farmers. At Maverick Farms, 7\$ is deducted from the bill for each hour of labour. Could you come up with a similar model which both farmers and tourists might benefit from?**

Grammar Spot: Word order in information questions

1. Answer the following questions:

- a) Would you like to visit the Maverick Farms?
- b) When do you think is the best time to visit the Maverick Farms?
- c) What kind of activities would you like to do on the farm?
- d) How long would you stay?

In what way does the first question differ from the rest of the questions? What kind of answer can you provide for question a), and what kind of answer would be suitable for questions b)-d)? How does the structure of the first question differ from that of the other three?

WORD ORDER IN INFORMATION QUESTIONS

In the previous unit we have discussed yes/no questions and in this unit we shall talk about *information questions* - questions that ask for information by using a question word.

Unlike the yes/no questions, which start with an auxiliary verb, information questions begin with a question word. You can find the most common question words in English in the table below:

MOST COMMON QUESTION WORDS			
WHEN?	time	WHO?	subject/object - people
WHERE?	place	WHOSE?	possession
WHY?	reason	WHAT?	subject/object - things
HOW?	manner	WHICH?	used instead of what when a question concerns choosing from a definite, known quantity or group
HOW MANY/ HOW MUCH?	quantity		

2. Fill in the gaps with a suitable question word. In some cases, more than one question word is possible.

- a) _____ is the youngest person in class?
- b) _____ of the following animals do you think is the most useful: honey bee, horse or a cat?
- c) _____ do you study Mediterranean agriculture?
- d) _____ do you go to the cinema?
- e) _____ birthday is it today?

Except for the fact that information questions begin with a question word, their structure is very similar to the structure of yes/no questions, as you can see in the following table:

WORD ORDER IN INFORMATION QUESTIONS				
QUESTION WORD	AUXILIARY/MODAL VERB	SUBJECT	VERB	REST OF THE SENTENCE
When	would	you	visit	the Maverick Farms?
What kind of activities	would	you	like to do	on the farm?
How long	would	you	stay?	

It is important to mention another group of information questions, the so-called *subject questions*. Subject questions are questions which ask about the subject – we use them in situations when the subject is unknown.

The structure of subject questions differs to an extent from other information questions, because their form excludes an auxiliary verb. Study the structure of subject questions in the table below:

WORD ORDER IN SUBJECT QUESTIONS		
QUESTION WORD	VERB	REST OF THE SENTENCE
Who	owns	this farm?
What	went	wrong?

3. Write a question about the underlined information in each sentence. Make sure to use the appropriate question word.

a) _____?
Dog was the first domesticated animal.

b) _____?
Each honey bee colony has only one queen.

c) _____?
In the United States, there are over 4,000 species of native bees.

d) _____?
The olive tree has always symbolized peace and brotherhood.

e) _____?
Lavender is suitable for coastal planting because it is drought-tolerant.

f) _____?
Citrus fruits naturally grow in tropical climates.

g) _____?
Cover crops are planted to protect and build soil health.

h) _____?
I buy my fruits and vegetables at a farmer's market.

i) _____?
I usually prune the roses with a pair of secateurs.

j) _____?
The new group of tourists will arrive on Monday.

3. Work in small groups. Make 10 questions about the topics covered in this handbook (try to make one question for each unit in the handbook). Then test the knowledge of your colleagues. Which group scored the highest number of well-formed questions?

GLOSSARY

The following abbreviations are used in the glossary:

<i>adj.</i>	adjective /'ædʒəktɪv/	pridjev
<i>n.</i>	noun /naʊn/	imenica
<i>v.</i>	verb /vɜːrb/	glagol

A

acreage /'eɪkərɪdʒ/ *n.* površina u ralima

acquainted /ə'kweɪntɪd/ *adj.* upoznat, obavješten

abdomen /'æbdəmən/ *n.* zadak

allowance /ə'laʊəns/ *n.* džeparac, dopuštenje

dietary allowance /'daɪətəri ə'laʊəns/ dnevna količina unosa

antenna /æn'tenə/ *n.* ticalo

apiculture /'eɪpɪ,kʌltʃə/ *n.* pčelarstvo

B

basket /'bɑːskɪt/ *n.* košarica

beast /biːst/ *n.* zvijer, životinja

beast of burden /biːst əv 'bɜːrdn/ teretna životinja

belt /belt/ *n.* pojas

blossom /'blɒsəm/ *n.* cvat

border /'bɔːrdər/ *n.* 1. lijeha, gredica 2. granica

breed /briːd/ *v.* razmnožavati se, rasplodivati

brine /braɪn/ *n.* rasol, slana voda

brood /bruːd/ *n.* leglo, potomstvo

C

carnivorous /kɑː'nɪvərəs/ *adj.* mesožderski, onaj koji jede meso

caterer /'keɪtərə/ *n.* ugostitelj

cattle /'kætl/ *n.* govedo, stoka

Caucasian bee /kɔː'keɪziən biː/ *n.* kavkavska pčela

clover /'kloʊvər/ *n.* djetelina

chore /tʃɔːr/ *n.* zadatak, obaveza

colony /'kɒləni/ *n.* kolonija

commodity /kə'mɑːdətɪ/ *n.* roba, proizvod

comply /kəm'plaɪ/ *v.* pristati, pridržavati se

compound /'kɒmpaʊnd/ *n.* spoj, složenica, sjedinjenje

compound eye /'kɒmpaʊnd aɪ/ složeno oko

coop /kuːp/ *n.* kokošinjac

creek /kriːk/ *n.* potok

crop /krɒp/ *n.* prinosa, usjev

crop rotation /krɒp rəʊ'teɪʃən/ plodored (rotacija usjeva)

cover crop /'kʌvər krɒp/ zaštitni pokrovni sloj

D

deciduous /dɪ'sɪdʒuəs/ *adj.* listopadni, kratkotrajni, mliječni

degrade /dɪ'greɪd/ *v.* degradirati, poniziti

descend /dɪ'send/ *v.* 1. potjecati, vući podrijetlo od 2. spustiti se

dietary /'daɪətəri/ *adj.* prehrambeni, dijetni

domestication /də'mestɪ'keɪʃən/ *n.* pripitomljavanje, kroćenje

dormancy /dɔːr mən si/ *n.* mirovanje, dormantnost

disperse /dɪ'spɜːs/ *v.* raspršiti, disperzirati

drainage /'dreɪnɪdʒ/ *n.* odvodnja, dreniranje

drought /draʊt/ *n.* suša

dweller /'dwelər/ *n.* stanovnik, žitelj

E

elevation /,elə'veɪʃən/ *n.* visina, uzdignuće

embark /ɪm'bɑːrk/ *v.* 1. ukrcati se 2. upustiti se

entrepreneur /,ɑːntrəprə'nɜːr/ *n.* poduzetnik

evergreen /'evəɡriːn/ *adj.* zimzelen

evolve /ɪ'vɒlv/ *v.* razvijati se, evolvirati

extract /ɪk'strækt/ *v.* izdvojiti, istisnuti

F

facet /'fæsɪt/ *n.* aspekt, strana

foliage /'fəʊli-ɪdʒ/ *n.* lišće

forage /'fɔːrɪdʒ/ *v.* poharati

fragrance /'freɪgrəns/ *n.* miris, aroma

fringe /frɪndʒ/ *n.* granica, rub

G

gear /gɪr/ *n.* oprema, alat

generate /'dʒenəreɪt/ *v.* stvoriti, proizvesti

gland /glænd/ *n.* žlijezda

gravel /'grævəl/ *n.* šljunak, pijesak

grove /grouv/ *n.* voćnjak, plantaža

H

hands-on /,hænd'zɑ:n/ *adj.* praktičan, iskustven

hedge /hedʒ/ *n.* živica

hive /haɪv/*n.* košnica

hive tool /haɪv tu:l/ pčelarski nož

herbivorous /hɜ:'bɪvərəs/ *adj.* biljožderski, onaj koji jede biljke

hoe /hou/*v.* okopati, okapati

honey /'hʌni/ *n.* med

host /houst/ *n.* domaćin, gazda

I

illuminate /ɪ'lu:məneɪt/ *n.* razjasniti, rasvijetliti

inclined /ɪn'klaɪnd/ *adj.* sklon

infestation /,ɪnfe'steɪʃən/*n.* zaraženost, zagađenost

intercropping /ɪn'tər-krɒpɪŋ/ *n.* međuredna kultivacija

intrepid /ɪn'trepɪd/ *adj.* neustrašiv, hrabar

in vitro /ɪn 'vi trou/ *n.* izvan živog organizma

in vivo /ɪn 'vi:vəʊ/ *n.* u živom organizmu

Italian bee /ɪ'tæliən bi:/ *n.* talijanska pčela

J

jawbone /'dʒɔ:bəʊn/ *n.* vilica, čeljust

L

laborious /lə'beɪəriəs/ *adj.* marljiv, radin

larva /lɑ:rvə/ *n.* ličinka

limb /lɪm/ *n.* grana, ud

livestock /'laɪvstɑ:k/ *n.* stoka, stočarstvo

lustral /lʌstrəl/ *adj.* koji čisti, purgativan

M

mound /maʊnd/ *n.* brežuljak, nasip

myriad /'mɪriəd/ *n.* mnoštvo, bezbroj

N

nutrition /nu:'trɪʃən/ *n.* ishrana, prehrana

O

ox /ɒks/ *n.* vol, govedo

outfit /'aʊtfɪt/ *v.* opremiti, opskrbiti

P

pale /peɪl/ *v.* blijedjeti

pest /pest/ *n.* štetočina

permanent /'pɜ:mənənt/ *adj.* trajan, neprekidan, stalan

pollen /'pɒlən/ *n.* pelud

pollen basket /'pɒlən 'bɑ:skɪt/ peludna košarica

plow /pləʊ/ *v.* orati

pot /pɒt/ *n.* lonac, vaza

potassium /pə'tæsiəm/ *n.* kalij

prolong /prə'lɒŋ/ *v.* produljiti, otezati

propolis /'prɒpəlɪs/ *n.* propolis, pčelinje ljepilo

physiognomy /fɪzi'ɒnəmi/ *n.* fizionomija

phenol /'fi:nɒl/ *n.* fenol

pupa /'pju:pə/ *n.* kukuljica

Q

queen /kwi:n/ *n.* matica

quench /kwentʃ/ *v.* utažiti, ugasiti

quench one's thirst – utažiti nečiju žeđ

R

rainfall /reɪn,fɔ:l/ *n.* padaline, oborine

reap /ri:p/ *v.* skupljati, požnjati

replenish /rɪ'plenɪʃ/ *v.* napuniti, dodati

reproduce /ri:prə'dju:s/ *v.* reproducirati, rađati

retrofit /'rɛtrəʊ,fit/ *v.* opremiti, osvježiti, modificirati

ridge /rɪdʒ/ *n.* brazda, neravnina

robust /rə'bʌst/ *adj.* robustan, snažan

rootstock /'ru:t,stɒk/ *n.* podloga

royal jelly /rɔɪəl 'dʒeli/ *n.* matična mliječ

rite /raɪt/ *n.* obred, ritual

S

scion /'saɪən/ *n.* izdanak, mladica biljke

scarce /skɜ:s/ *adj.* oskudan, nedovoljan

secateurs /sekə'tɜ:rz/ *n.* škare za rezidbu

shrub /ʃrʌb/ *n.* grm, žbun

slaughter /'slɔ:tər/ *n.* klanje, masakr

sleeve /sli:v/ *n.* rukav

smoker /'sməʊkər/ *n.* dimilica

sodium /'səʊdiəm/ *n.* natrij

species /'spi:ʃi:z/ *n.* vrsta, sorta, rod

squander /'skwɑ:ndər/ *v.* rasipati, tratiti

stake /steɪk/ *n.* udio, udjel

stand /stænd/ *n.* kiosk, štand

sting(er) /'stɪŋər/ *n.* žalac

stagnation /stæg'neɪʃən/ *n.* stagnacija, zastoj

stalk /stɔ:k/ *n.* stabljika

story /'stɔ:ri/ *n.* 1. priča, 2. kat

state-of-the-art /steɪt əv ði ɑ:rt/ *adj.* najsuvremeniji, najsavršeniji

strain /streɪn/ *n.* soj, vrsta

sustainable /sə'steɪnəbəl/ *adj.* održiv

surpass /sər'pæs/ *v.* nadmašiti, nadvisiti

survey /'sɜ:veɪ/ *n.* anketa, ispitivanje

swelling /'swelɪŋ/ *n.* oteklina, nadimanje

T

tackle /'tækəl/ *v.* suočiti se, prionuti

tame /teɪm/ *v.* pripitomiti, krotiti

thirst /θɜ:st/ *n.* žeđ

thorax /'θɔ:ræks/ *n.* prsište, prsa

thrive /θraɪv/ *n.* napredovati, uspijevati

trunk /trʌŋk/ *n.* deblo, trup

U

up-front /,ʌp'frʌnt/ *adj.* unaprijed

V

vacationer /veɪ'keɪʃənər/ *n.* turist, osoba na odmoru

vanish /'væɪʃ/ *v.* isčeznuti, nestati

venom /'venəm/ *n.* otrov

viability /vaɪə'bɪlɪtɪ/ *n.* održivost

W

warfare /'wɔ:feə/ *n.* rat, ratovanje

wax /wæks/ *n.* vosak

wax gland /wæks glænd/ *n.* voštana žlijezda

wreath /ri:θ/ *n.* vijenac

watercress /'wɑ:təkres/ *n.* ljekovita potočarka

ANSWER KEY

UNIT 1

I.

1.

a) 14, 000 years ago

b) meat, milk and hides

c) dogs, goats, horses, honey bees

d) No. This depends on six criteria: flexible diet, growth rate, breeding in captivity, friendly disposition, temperament, modifiable social hierarchy.

II.

1.

Year	14 000 B.C.	10 000 B.C. (and later)		7 500 B.C.	4000 B.C.	2000 B.C.
animal	dog	goat sheep chicken	oxen horses	cats	honey bees	elephants
reason for domestication	assisting people in hunting	meat, milk and hides	plowing and transportation	companions, pets, controlling mice and rats	honey	warfare, intimidation and transportation

III.

1. ADJECTIVES: **wild** animal; **domesticated** animal; **carnivorous** animals; **herbivorous** animals; **vicious** animal

NOUNS: animal **species**; animal **domestication**; animal **breeding** ; animal **raising**

VERBS: **tame** animals; **feed** animals; **raise** animals + domesticate animals, breed animals

2. a) wild b) breed c) domestication d) tamed e) carnivorous f) species

3. a) to b) with c) in d) from e) for f) to g) on

4. a) in b) on c)to d) from e) for f)to g) with

Grammar spot: ADJECTIVES

2. a) responsible b) successful c) negotiable d) flawless e) productive f) breathless

3.

dis-	un-	il-	im-	in-	ir-
distasteful	unattractive	Illiterate	impatient	infertile	irreversible
	unfriendly	Illegal	immature	insignificant	irregular
		Illegible	immoral	inflexible	irreplaceable

4. a) exhausting b) exhausted c) amusing d) amused e) excited f) exciting g) disgusted h) disgusting

UNIT 2

I.

1. a) T b) T c) F d) F e) T f) F g) F

II.

1.

a) Social insects live together in family groups.

b) Workers, drones and a queen.

c) The distribution of chemical pheromones and communicative “dances” are necessary for colonial survival.

d) A queen's body is larger than that of a worker or drone, especially during the egg-laying period.

e) Drones are the largest bees in the colony, present only during spring and summer.

f) The main function of the drone is to fertilize the virgin queen.

g) A queen larva receives more royal jelly than a worker.

h) Workers clean and polish the cells, feed the brood, care for the queen, remove debris, handle incoming nectar, build beeswax combs, guard the entrance, and air-condition and ventilate the hive during their initial few weeks as adults.

i) A queen larva receives more royal jelly than a worker.

III.

1. a) egg b) larva c) pupa

2. a) engage b) brood c) reproduction d) swarm e) fertilize f) debris g) forage h) royal jelly

3. a) perform tasks/labours b) divide labour c) clean/polish cell/entrance/hive

d) remove debris e) guard the entrance/cell/hive f) ventilate cell/entrance/hive

4. a) depend on b) pass through/on c) responsible for d) cooperate in e) care for f) forage for

5. 1. g) 2. h) 3. f) 4. d) 5. c) 6. a) 7. b) 8. e)

6. a) antenna b) compound eye c) thorax d) sting(er) e) abdomen f) leg g) pollen baskets

7. a) forage b) royal jelly c) debris d) wax glands e) sting(er) f) brood g) pollen h) entrance

Grammar spot: Comparison of adjectives

1. a) longer b) larger c) the largest d) the smallest

2. a) more boring b) cuter c) heavier d) more pleasant e) sadder f) more surprised

3. a) the most common b) the most difficult c) the easiest d) the most expensive e) the hardest f) the hottest

4. a) the most successful b) the biggest c) better d) farther e) more polite/politer f) the most profitable g) more fertile

5. a) A queen is the most important in the beehive. Workers seem more important than drones.

b) Carnivores are the most dangerous for humans. Omnivores are more dangerous for people's safety than herbivores.

c) Hvar is the sunniest island in Croatia. Pag is sunnier than Krk.

- d) Manual harvesting of grapes is more difficult than mechanical harvesting. Berry picking is the most difficult.
- e) Mediterranean agriculture is more interesting than winemaking, however, sustainable agritourism is the most interesting.
- f) Poreč is more beautiful than Umag. Rovinj is the most beautiful town in Istria.
- g) I think royal jelly is the most precious product of bees. I believe that venom is more precious than pollen.
- h) Beasts of burden are scarier than other domestic animals. Wild animals are the scariest though.

UNIT 3

II.

- 1. a) various products b) equipment and hive c) characteristics of bee races d) location matters
- 2.
 - a) light yellowish or brown with alternating stripes of brown and black on the abdomen
 - b) a large population throughout the active season, can collect a considerable amount of nectar in a relatively short period
 - c) more honey for maintenance during the fall/winter than do the dark races, weaker orientation compared to other races, a strong inclination to robbing
 - d) dark colored to black with grayish bands on the abdomen
 - e) not mentioned
 - f) the gentlest of all honey bees, construct burr comb and use large amounts of propolis to fasten combs and reduce the size of the entrance
 - g) dark bees, similar to Caucasians in appearance, except they often have brown spots or bands on the abdomen
 - h) very economical in their food consumption, not inclined to robbing, have a good sense of orientation, and are quiet on the combs
 - i) excessive swarming

III.

- 1. a) venom b) gear c) veil d) strain e) rearing f) comb g) excessive h) site i) dilute
- 2. bee products/veil/suit/colony
- 3. a) protective gear b) Caucasian c) Carniolan d) Italian e) hybrid bee f) smoker g) comb h) royal jelly
- 4. a) strain b) royal jelly c) smoker d) comb e) dilute f) venom g) gear

Grammar spot: Plural form of nouns

- 1. a) larvae b) colonies c) races d) veils e) bodies
- 2. a) chairs b) clocks c) companies d) couches e) days f) dishes g) halves h) heroes
i) leaves j) lives
- 3. a) antennae b) appendices c) bases d) data e) cacti f) phenomena g) species
- 4. a) poppies b) analyses c) calves d) colonies e) lice f) geese g) species h) tomatoes

UNIT 4 – Part I

I.

- 1. a) 6 b) 3 c) 5 d) 1 e) 2 f) 4

II.

1. 1) d 2) b 3) e 4) c 5) f
2. a) 3 b) 2 c) 1 d) 2 e) 1 f) 2 g) 2 h) 2

III.

1. a) basin b) wreath c) extract d) fringe e) yield f) pot g) cultivar h) disperse
2. a) local b) premium c) disperse d) horizontally e) developed f) intuitive g) tightly
3. a) wreath b) extract c) premium d) dispersed e) local f) intuitive

Unit 4 – Part II

II.

1. 1) Olive Tree 2) Olive Fruit 3) Olive Oil
2. a) Olive tree is an evergreen plant that mostly pollinates itself.
- b) Although it is a Mediterranean plant, it endures winter cold till -5/-10 degrees Celsius. It starts growing at 10 degrees Celsius and blossoming at 18/20 degrees Celsius.
- c) It starts to swell and it is full of tangles.
- d) There are very few diseases and these affect leaves, the woody part or the fruit.
- e) It is a drupe, interestingly low in sugar and sky-high in oil.
- f) Olive oil is connected with lower incidence of coronary heart disease and the prevention of some cancers.
- g) The amount of phenolic compounds is variable and it depends on the cultivar, degree of maturation and the infestation by the olive fly.

III.

1. a) evergreen b) drought c) stagnation d) sweeten e) pernicious f) healthy g) in vitro
2. a) trunk b) blossom c) swelling d) physiognomy e) drupe f) phenol g) brine h) sodium i) potassium
3. a) evergreen; b) trunk; c) drupe; d) blossom; e) sweeten; f) in vitro; g) brine

Grammar Spot: Subject-verb agreement

2. a) is b) is c) is d) is e) account f) makes g) is h) has i) are j) was k) result l) includes
3. a) was (instead of were); b) are; c) affects; d) are; e) was

UNIT 5

I.

1. a) F b) F c) F d) T e) F f) F

II.

1. a) between April and May b) chalky or alkaline soils, poor or moderately fertile free-drainage c) once a year d) cuisine, fragrance, decorative uses

III.

1. a) shrub b) thrive c) laborious d) prolong e) ridge f) tender g) neglected
2. a) secateurs b) fragrance c) foliage d) perennial e) stalk f) ridge g) hedge h) alkaline i) border
3. a) border b) ridge c) alkaline d) tender e) fragrance f) hedge g) stalk
4. a) fork b) trowel c) hand fork d) secateurs e) hoe f) wheelbarrow g) shovel h) watering can i) rose j) hose k) nozzle l) reel
5. a) wheelbarrow b) hoe c) watering can d) hose e) spade f) shovel g) secateurs

Grammar spot: Adverbs

1. a) adverb of manner b) adverb of place c) adverb of time d) adverb of frequency
2. a) regularly/during the process of mummification b) medicinally/in the Middle Ages c) in art/during the period of Renaissance d) in hospitals/during WWI e) today/often/ in aromatherapy
3. a) massively b) entirely c) lightly d) actually e) early f) flexibly g) simply h) easily

UNIT 6

II.

1. a) T b) F c) F d) F e) F g) T h) F

III.

1. a) dietary allowance b) belt c) dormancy d) altitude e) limb f) quench g) moderate h) arid

III.

2. a) arid b) dormant c) dietary d) moderate e) quench f) belt g) altitude h) limb

III.

3. a) monolingual/word class, combinations b) quantifier, verb, noun, prepositions c) e.g. exotic, bright, fragrant, lilly-like, tiny

III.

4. a) droop b) water c) scented d) pots e) bunch f) wreath

Grammar spot: Position and order of adverbs

1. any position, depends on the type of adverb
2. a) Can you come to my office at six o'clock?
b) He works very hard all week long.
c) I bought some olive oil in Italy yesterday.
d) I have never tried horseback riding.
e) My boss is always late for work.
f) My grandfather used to take us swimming in the lake in the summer holidays.
g) She usually visits her mother in hospital at the weekend.
h) The horse is sleeping soundly in the barn.
i) There is usually a farmer's market in town on Sunday mornings.

UNIT 7

II.

1.

PROBLEMS: farmers must learn to manage soil without fertilizers, herbicides and insecticides which mean more work; they have to use different equipment which means costly up-front investments; they have to use crop rotation which means they cannot offer all the crops every year on the market; they lack agricultural infrastructure and receive less funding than the traditional agriculturalists

SOLUTIONS: partnership with brands

III.

1. 5a; 6b; 1c; 2d; 3e; 4f

2. a) myriad b) keep pace with c) surpassed d) outpaced/outpaces e) scarce f) tackle

4. 3a; 4b; 2c; 6d; 1e; 5f;

5. a) step up b) tap into c) amount to d) inching up e) turned around f) embarked on

Grammar spot: Comparison of adverbs

2.

POSITIVE	COMPARATIVE	SUPERLATIVE
badly	worse	the worst
busily	more busily	the most busily
easily	more easily	the most easily
fast	faster	the fastest
simply	more simply	the most simply
straight	straighter	the straightest

3. a) more heavily b) harder c) more seriously d) more carefully e) better

4. a) the most beautiful, the most useful b) more comfortable, the most enjoyable

c) more productive, the most relaxing d) well, often e) regularly; the healthiest

f) easier, cheaper

UNIT 8

II.

1.

Industrial Agriculture vs. Sustainable Agriculture	
large farms growing the same crops every year large amount of chemical pesticides and fertilizers pollution	farms of all sizes crop rotation environmentally-friendly fertilizers and pest control

2.

ECONOMIC SUSTAINABILITY: profitable business that contributes to a robust economy

SOCIAL SUSTAINABILITY: deals fairly with workers and contributes to social community

ENVIRONMENTAL SUSTAINABILITY: good management of natural resources

III.

1. 3a; 5b; 1c; 6d; 2e; 4f

2. a) industrial agriculture: chemical pesticides, tillage

sustainable agriculture: cover crops, intercropping, manure, rotating crops

3.

	SYNONYM	ANTONYM
bare	<i>empty</i>	<i>full</i>
to comply with	<i>to obey</i>	<i>to disobey</i>
to diversify	<i>to expand, to change</i>	<i>to stay the same</i>
to replenish	<i>to refill</i>	<i>to use up</i>
robust	<i>Strong</i>	<i>fragile</i>
to squander	<i>to spend carelessly</i>	<i>to save</i>

4. a) comply with b) replenished c) squandered d) bare e) robust f) diversify

Grammar spot: Word order in affirmative sentences

2.

SUBJECT	VERB	OBJECT		ADVERB		
		indirect	Direct	manner	Place	time
a) I	have been living and studying				in Poreč	since last autumn.
b) I	lent	Gary	my wheelbarrow			yesterday.
c) We	have been producing		organic food		on this farm	since 2010.
d) You	can reach		Poreč	easily	from Pula.	

3. a) I saw a beautiful horse in the barn this afternoon.

b) Sales of organic food have increased dramatically in the USA in recent years.

c) They never have tourists on their farm.

d) Some farmers sell their products at farmer's markets in towns and cities.

e) My boss bought me a book about sustainable agriculture last week.

f) We milk the cows twice a day.

g) Our host took us to our rooms after wine tasting.

h) The farmer usually wakes up at 4 o'clock in the morning.

UNIT 9

I.

2. a) education and experience; b) education and experience c) recreation and event agritourism; d) recreation and event agritourism e) direct-market agritourism

II.

1. BENEFITS FOR FARMERS: additional income (with little investment)

BENEFITS FOR AGRITOURISTS: educational experience

III.

1

VERB	NOUN	ADJECTIVE
attract	attraction	attractive
-	Recreation	recreational
supplement	supplement	supplementary
consumer	consumerism	-
produce	production	productive
appeal	appeal	appealing
market	market	marketable
tempt	temptation	tempting

3. 3a; 5b; 2c; 1d; 4e

4. 5a; 3b; 6c; 1d; 7e; 8f; 2g; 4h; 10i; 9j

5 a) pigs might fly b) try his hand at c) makes a living d) on the side e) get past the idea f) until the cows come home g) put me out to pasture h) from the horse's mouth i) put all my eggs in one basket j) bringing home the bacon k) live off the land l) talk the hind leg(s) off a donkey m) high on the hog

Grammar spot: Word order in yes/no questions

4. a) Do you know what agritourism is?;
- b) Have you ever attended wine tasting?;
- c) Did you visit the harvest festival yesterday?;
- d) Would you like to try archery?;
- e) Will you go to Bill and Fiona's wedding?;

UNIT 10

II.

1. a) F b) F c) T d) F e) F f) T

2. a) the bill is decreased by \$7 for each hour of work

b) \$19.5 million income gained from agritourism in Vermont in 2002

c) 46% of agritourism operators who participated in the survey reported an increase in income

d) 3-year old Sam who visited an agritourism in 2004

e) people who founded Maverick Farm were in their 20s and 30s

III.

1. 1) bring in 2) on the fly 3) worked off 4) hunch over 5) be of use

2. a)6 b)1 c)2 d)3 e)4 f)5

3. a)hunch over b)crack open c)brought in d) the fly e)worked off f) of use

4. a)okopavati/okopati b) berba/branje c)sijati d) smanjivanje, reduciranje e) štednja f) potaknuti

Grammar spot: Word order in information questions

2. a) who b) which c)why/where d)when/where/how often e)whose

3. a) Which was the first domesticated animal?

b) How many queens does each bee colony have?

c) How many species of native bees are there in the US?

d) What has the olive tree always symbolized?

e) Why is lavender suitable for coastal planting?

f) Where does the citrus fruit naturally grow?

g) Why are cover crops planted?

h) Where do you buy your fruits and vegetables?

i) How do you usually prune the roses?

j) When will the new group of tourists arrive?

SOURCES

SOURCE TEXTS

Adam, K. F. (2006). Lavender Production, Markets, and Agritourism. Retrieved from <https://attra.ncat.org/attra-pub/viewhtml.php?id=41> (2015, May 21)

Biuso, E. (2007). Down on the Farm With Your Sleeves Rolled Up. *The New York Times*. <https://www.nytimes.com/2007/11/23/travel/escapes/23agritourism.html> (2019, February 13)

Krell, R. (1996). Introduction. *Value-added products from beekeeping*. Retrieved from <http://www.fao.org/3/w0076e/w0076e03.htm> (2016, February 15)

Ladaniya, M. (2008). Introduction. *Citrus Fruit: Biology, Technology and Evaluation* (1-10) Retrieved from:
https://books.google.hr/books?id=v5hCqEvR9eEC&printsec=frontcover&hl=hr&source=gbs_ge_summary_r&cad=0#v=onepage&q&f=false (2018, April 15)

Lamb, R. (2008). How agroturism works. Retrieved from <https://adventure.howstuffworks.com/agritourism.htm/printable> (2019, May 15)

Lear, J. (2012). Our furry friends: the history of animal domestication. Retrieved from <https://www.jyi.org/2012-february/2017/9/17/our-furry-friends-the-history-of-animal-domestication> (2019, January 15).

National Geographic. (2019, January 20). Retrieved from <https://www.nationalgeographic.org/encyclopedia/domestication/> (2019, January 20)

Mid-Atlantic Apiculture Research and Extension Consortium. (2012). The Colony and Its Organization. Retrieved from <https://agdev.anr.udel.edu/maarec/honey-bee-biology/the-colony-and-its-organization> (2016, January 26)

Olive Trees, Yesterday and Today. (n. d.). Retrieved from <https://www.olivetreegrowers.com/olivetrees.php> (2017, February 16)

Practical Primate. (2020). Shovel Vs. Spade – What is the Difference? Retrieved from <https://practicalprimate.com/shovel-vs-spade/> (2020, April 26)

Rosellini, A. (n. d.). Olive: for learning more; Retrieved from http://www.rosellinivivai.com/english/prodotti_e.htm (2018, February 16)

Royal Horticultural Society. (2015). How to grow lavender. Retrieved from <https://www.rhs.org.uk/advice/profile?pid=127> (2015, May 21)

Teaspoon Feeding. Nutritional recommendations for citrus. (n. d.). Retrieved from: <https://www.scribd.com/document/150085121/Porto-Cale> (2018, April 15)

LANGUAGE REFERENCES

Cambridge Dictionary Online. Cambridge Online. Retrieved from <https://dictionary.cambridge.org/> (2018, March 15)

Eastwood, J. (2013). *Oxford Practice Grammar*. Oxford, England: Oxford University Press.

Hashemi, L., Thomas, B. (2003). *Grammar for First Certificate with Answers: Self-Study Grammar Reference and Practice* [With CD], Cambridge University Press

Logman Dictionary of Contemporary English Online. Retrieved from <https://www.ldoceonline.com> (2019, February 13)

Murphy R., (1994). *English Grammar in Use*. Cambridge, England: Cambridge University Press.

Oxford Collocations Dictionary for students of English (2002) Oxford: Oxford University Press. Reproduced by permission of Oxford University Press from Oxford Collocations Dictionary for students of English by Colin McIntosh © Oxford University Press 2002.

Oxford dictionary. Retrieved from <https://en.oxforddictionaries.com/> (2019, February 13)

Powell, D., Walker, E. & Elsworth, S. (2008). *Grammar Practice for Upper Intermediate Students (with key)*. Third Edition. Harlow, Essex: Pearson-Longman.

Quirk R., Sidney G., Leech G. & Svartvik, J. (1985). *A Comprehensive Grammar of the English Language*. Longman.

Schramper Azar, B. (1989). *Understanding and Using English Grammar* (Azar English Grammar) 2nd Edition. Pearson.

PHOTOGRAPHS

Brennan, E. (Photographer). (n. d.). [Photograph]. Retrieved from <https://pixabay.com/photos/garden-fork-lawn-lawn-maintenance-1208987/> (2020, May 11)

Lear, J. (Photographer). (2012). [Photograph]. Retrieved from <https://www.jyi.org/2012-february/2017/9/17/our-furry-friends-the-history-of-animal-domestication> (2019, February 15)

Hunt, E. (n.d.). [Photograph]. *The intruder farm animal*. Retrieved from <https://www.oilpaintingfactory.com/english/oil-painting-101269.htm> (2019, March 1)

Flying Insect (n.d.). [Photograph]. Retrieved from <https://pixabay.com/photos/bee-honey-bee-insect-flight-flying-4475324/> (2020, April 14)

Life cycle of a bee (n. d.). [Photograph]. Retrieved from <https://www.tes.com/lessons/Wp8HVAAn4js15yw/complete-metamorphosis> (2020, April 25)

External Parts of a Worker HoneyBee. (n.d.). [Photograph]. Retrieved from http://leeming-consulting.com/SchoolNet/courses/beekeeping1.0/the_external_parts_of_a_worker_honeybee.html (2020, April 20)

Brijuni, old olive tree. (2015). [Photograph]. Retrieved from https://commons.wikimedia.org/wiki/File:Brijuni,_old_olive_tree.jpg (2020, April 21)

World map. (n. d.). [Photograph]. Retrieved from <https://pixabay.com/vectors/world-map-earth-global-continent-146505/> (2020, April 21)

<https://pixabay.com/photos/olive-oil-oil-food-carafe-1596417/> (2020, April 21, 2020)

Olive oil (n. d.). [Photograph]. Retrieved from <https://pixabay.com/photos/bath-oil-oil-lavender-fragrant-oil-2510793/> (2020, April 22)

Bruegel the Elder, P. (n. d.). [Photograph]. *The Harvesters*. Retrieved from <https://www.laphamsquarterly.org/lines-work/art/work-harvesters> (2020, April 23)

Citrus. (n. d.). [Photograph]. Retrieved from <https://pixabay.com/photos/orange-citrus-fruit-natural-fruits-4663073/> (2020, April 24)

Hand Fork. (n. d.). [Photograph]. Retrieved from <https://pixabay.com/photos/garden-flower-rose-garden-fork-4010413/> (2020, May 11)

Hose. (n.d.). [Photograph]. Retrieved from <https://pixabay.com/photos/hose-pipe-garden-hose-gardening-1536413/> (2020, May 11)

Lavender. (n. d.). [Photograph]. Retrieved from <https://pixabay.com/illustrations/lavender-hummel-insect-violet-2510045> (2020, May 4)

Jochem, G. (2019). [Photograph]. Retrieved from <https://www.gazettenet.com/Grow-Food-Northampton-gets-USDA-grant-for-work-in-schools-28220783> (2020, May 5)

Horseback riding. (n. d.). [Photograph]. Retrieved from <https://pixabay.com/photos/riding-horses-horse-riding-1935051/> (2020, May 5)

Market stall. (n. d.). [Photograph]. Retrieved from <https://pixabay.com/photos/market-booth-vegetables-stall-food-601573/> (2020, May 5)

Pick your own apples in the orchard. (n. d.). [Photograph]. Retrieved from <https://www.arbordayfarm.org/fall/> (2020, May 5)

- Secateurs. (n. d.). [Photograph]. Retrieved from <https://pixabay.com/photos/background-isolated-garden-scissors-1744951/> (2020, May 11)
- Sheep. (n. d.). [Photograph]. Retrieved from <https://pixabay.com/photos/sheep-shepherd-farmer-ninh-thuan-3023520/> (2020, May 4)
- Shovel. (n. d.). [Photograph]. Retrieved from <https://pixabay.com/photos/shovel-garden-gardening-tools-spade-1023505/> (2020, May 11)
- Spade. (n. d.). [Photograph]. Retrieved from <https://pixabay.com/photos/blade-spade-brown-beige-wall-326557/> (2020, May 11)
- Sustainability. (n. d.). [Photograph]. Retrieved from <https://pixabay.com/illustrations/nature-earth-sustainability-leaf-3294632/> (2020, May 4)
- Trowel. (n. d.). [Photograph]. Retrieved from <https://pixabay.com/photos/hand-trowel-garden-tool-soil-2317020/> (2020, May 11)
- Watering Can. (n.d.). [Photograph]. Retrieved from <https://pixabay.com/photos/water-can-watering-can-water-can-2445180/> (2020, May 11)