토플 적중 90 READING DAY 16.

Pre-Study

1. 점수 쑥쑥 동의어

1. belch	
2. boon	
3. chancy	
4. contiguous	
5. criterion	
6. transitory	

great benefit	neighboring
standard	consider
suddenly emit	risky

2. 한 눈 쑥쑥 지문 정리

Act 5-3 Agricultural Pest Control

P1 pest control: chemi & biolog → moderate 방법 효과적
P2 chemical control 역사
P3 20c first 합성 chemical DDT → side effect
P4 chemical pesticide 문제 : 천적 죽여 / 저항성 / 수중 생물 영향 → 연쇄 효과
P5 → 자연적 방법 : predatory species 도입
but 외래종의 관리에 엄청난 주의 필요
P6 IPM: 통합 방법 환경&경제 고려, last resort 가 pesticide 사용

Lecture Actual Test 05-3 Agricultural Pest Control

학습목표

- ◆ **지문을 미리 풀어보고, 정답 / 오답의 정확한 단서를 파악한다.**
- ◆ **특히, 오답률이 높은 문제를 철저히 분석한다. (14)**

1. Actual Test 05-3 Agricultural Pest Control

P1. Such massive disruption of nature often leads to the explosion of species that consume those plants. These species that endanger crops are labeled as pests. In order to control pest organisms, farmers typically use chemical or biological controls; **however**, a more moderate approach appears to be the most effective in the long run.

1. The word **however** in paragraph 1 is closest in meaning to
   (A) nevertheless
   (B) definitely
   (C) accordingly
   (D) in other words

P2. Chemical controls are the most widely used method for limiting pest populations today, but **they** have a surprisingly long past. Around 2,500 BCE, ancient Sumerians used elemental sulfur powder to discourage pests, and a text called the Rig Veda, which dates back to around 4,000 years ago, mentions the use of poisonous plants for similar purposes.

2. The word **they** in paragraph 2 refers to
   (A) controls
   (B) populations
   (C) Sumerians
   (D) pests

P2. Chemical controls are the most widely used method for limiting pest populations today, but they have a surprisingly long past. Around 2,500 BCE, ancient 3-A Sumerians used elemental sulfur powder to discourage pests, and 3-B a text called the Rig Veda, which dates back to around 4,000 years ago, mentions 3-C the use of poisonous plants for similar purposes. By the Renaissance, 3-D toxic chemicals like mercury, lead, and arsenic were being widely used to kill pests.

3. According to paragraph 2, all of the following are examples of chemicals for pest control EXCEPT

(A) sulfur powder
(B) Rig Veda
(C) poisonous plants
(D) mercury

P2. At the time, people believed that small doses of poison were good for one's health, and no doubt thought that using them on crops would have little effect on them.

핵심정보: 1. pp believe : small poison 건강에 좋아
2. no doubt : poison → no effect, crop

4. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? Incorrect choices change the meaning in important ways or leave out essential information.

(A) At that time, people thought using a little poison on crops was helpful for their health.
(B) At that time, people took small doses of poison for their health by using them on the crops that they grew.
(C) At that time, the poisons which people used on their crops were not very dangerous, so they took them for their health.
(D) At that time, people thought that using poisons would not affect crops seriously since they were thought to be beneficial when used in small quantities.

P3. Beginning in the 17th century, people began extracting chemicals from plants to use as pesticides: nicotine sulfide from tobacco, ~~. All of these pesticides existed in nature, even the toxic elemental chemicals. However, in the early 20th century, synthesized chemicals became dominant. The first of these was DDT, which was initially used to control human parasites like mosquitoes and lice.

P3. Scientists soon learned to deliver DDT in any physical form, which led to its widespread use in agriculture. Since then, chemical pesticides have become the dominant control for agricultural pests, and their use has revealed many side effects of pest control.

5. According to paragraph 3, all of the following are true about DDT EXCEPT

(A) DDT replaced natural chemicals from plants that had been used to kill pests
(B) DDT was the first synthetic pesticide, which came to be used widely in the 20th century
(C) DDT was originally synthesized to help agriculture by eliminating insects
(D) DDT was adapted to be available in various physical forms

P4. Any attempt at controlling the population of a pest species entails the risk of affecting other species. Initially, this is caused by disrupting the predator-prey system. Even though local predators are unable to control the pest species, they may still depend upon them for food. However, chemical controls introduce additional problems. Firstly, the pesticides often kill organisms other than the intended pests, including their natural predators.

P4. Secondly, **continuously** exposing pests to chemicals will inevitably cause them to develop a resistance. Through natural immunity or repeated low level exposure, some will always survive to reproduce, and their population will rebound. Nearly every pesticide known to man has been used on mosquitoes, and they have always quickly adapted. Thirdly, pesticides spread into the surrounding environment, particularly through the water system. This can have far-reaching effects on organisms with no connection to the farms whatsoever, like birds that eat fish.

6. The word **continuously** in paragraph 4 is closest in meaning to

(A) conversely
(B) sharply
(C) intricately
(D) constantly

7. According to paragraph 4, how does intentional control of the pest population hinder the predator-prey system?

(A) Pesticides make it unnecessary for natural predators to depend upon pests for food.
(B) The use of pesticides may kill natural predators as well as pest species.
(C) Pesticides affect the whole ecosystem by causing mutations in natural predators.
(D) Pesticides often weaken the immunity of predators, thus damaging the local food chain.

P5. Thus, many farmers have decided to return to nature by introducing predatory species. Again, this is hardly a new idea as the Chinese are credited with deliberately introducing ant hives to their fruit orchards. After noticing that a particular species of ants attacked insects on their citrus trees, they began **collecting** and transplanting the ants' nests into their trees. Today, many farmers introduce spiders, wasps and other predatory animals to their fields.

8. According to paragraph 5, the Chinese introduced ant hives to

(A) identify their natural predators
(B) remove undesired plants from their fruit orchards
(C) keep their citrus trees safe from fruit-damaging insects
(D) make their citrus trees more resistant to insects and disease

9. The word **collecting** in paragraph 5 is closest in meaning to
   (A) demanding
   (B) processing
   (C) gathering
   (D) extracting

P5. However, they must take great care with the organisms which they select. The introduction of any non-indigenous species can have serious unforeseen side effects. These organisms often have no natural predators in their new environment, so their population can grow unchecked. In addition, there is no guarantee that they will eat the correct organisms, or even remain in the desired area. This has occurred widely with the cane toad, which often fled farmers' fields due to insufficient ground cover. Since the toads are poisonous, they have had a disastrous impact on local predatory animals with no immunity to their toxin.

10. Why does the author mention cane toad in paragraph 5?
   (A) To give an example of a species with great adaptability
   (B) To explain how to domesticate introduced species effectively
   (C) To claim that any attempt to control a pest population is fruitless
   (D) To show the danger of introducing foreign species indiscriminately

P6. In order to avoid such problems and still maintain maximum possible crop yield, many experts recommend an approach called Integrated Pest Management (IPM). IPM involves many **tactics**, but it begins with determining the threat level to the crops. Merely sighting a possible pest is not sufficient cause to begin using pesticides. The situation should be carefully monitored until an identified pest becomes an economic threat to the farm. At that point, preventative measures like removing the affected plants, rotating crops, or selecting more resistant varieties of a plant are recommended. If these are ineffective, then introducing reliable predator species may be an option, but spraying of broad-spectrum pesticides should only be used as a last resort.

11. The word **tactics** in paragraph 6 is closest in meaning to
   (A) alliances
   (B) strategies
   (C) standards
   (D) advantages

12. What can be inferred about IPM from paragraph 6?

(A) It was designed to guarantee both ecological safety and productivity improvement.
(B) It aims to eradicate any kind of pest by introducing predator species.
(C) It puts the highest priority on environmental value and the protection of species.
(D) It was intended to expand agricultural fields and maximize crop yields.

13. Where would the sentence best fit?

→ **These species that endanger crops are labeled as pests.**

P1. Without the adoption and subsequent development of agriculture, human society would never have been able to develop ~~~. In order to farm, humans deliberately disrupt natural ecosystems ~~~. [■A] They remove large numbers of the native species, alter the distribution of water, and enrich the soil with fertilizers. In addition, most farms practice monoculture to a certain extent, which means that one section to all of their land is used to grow the same plants. [■B] Such massive disruption of nature often leads to the explosion of species that consume those plants. [■C] In order to control pest organisms, farmers typically use chemical or biological controls; however, a more moderate approach appears to be the most effective in the long run. [■D]

14. **There have been various efforts to raise agricultural productivity by controlling pest organisms throughout human history.**

● ● ●

P1 pest control:
chemi & biolog →moderate 방법 효과적
P2 chemical control 역사
P3 20c first 합성 chemi.
DDT → side effect
P4 pest control 문제 :
천적 죽여,저항성,수중 생물 영향 → 연쇄 효과
P5 → 자연적 방법 :포식종 도입 but 외래종의 부작용
P6 IPM: 환경&경제 고려

(A) Thanks to the development of agriculture, mankind could flourish and build civilizations.
(B) In the past, a variety of chemicals from nature were generally used as pesticides.
(C) To avoid the adverse effects of chemical pesticides on the ecosystem, some farmers began to make use of the predator-prey system.
(D) Before the advent of DDT, people had mainly depended upon specific predator species to discourage pests.
(E) These days, the introduction of non-indigenous species is recommended for pest eradication since it has few side effects.
(F) IPM is an approach which requires care for the balance between economic values and the ecosystem.

Tip!

Problem : Sentence Simple. 오답률 높아?

Solution :

1. 문법적인 문제
2. 정답 골라? 오답 제거?
   ➔ 오답 유형 : (1) 틀렸어 (2) 빠졌어
3. 지속적인 오답률 ➔ Note-Taking 활용