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全国高等农业院校通用英语教材

# 农科综合英语

COMPREHENSIVE ENGLISH FOR  
STUDENTS OF AGRICULTURE

科学普及出版社

COMPREHENSIVE ENGLISH  
for Students of Agriculture

全国高等农业院校通用英语教材

# 农科综合英语

第三册

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## 内容提要

本教材是由农牧渔业部教育司组织编写的，供全国高等农业院校各专业统一使用。全套教材分四册，共52课，四个学期讲授完毕。第三册凡十二课，包括课文12篇、会话12篇、语法37节、补充读物21篇、注解184条、谚语53句、词的学120条和练习163个大题。

\* \* \*

Comprehensive English for Students of Agriculture

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农科综合英语

第三册

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## 编者说明

本册分十二课，其中包含课文12篇、会话12篇、语法37节、补充读物21篇、注解184条、谚语53条、词的学习20个词、练习163个大题。

本册出现新词约1300个，其中包括编入各课课文中的英汉双解词约500个。三册总词汇量达4500个，其中有课文方面所累积的词约1500个。我们要求学生对课文以外各项中所出现的新词亦尽可能多地吸收与掌握，以便为阅读普通书刊及农科专业书刊打下应有的基础。

我们在本册中对补充读物的阅读速度提出了较具体的要求：一般为每分钟50个词。除翻译、重述等项练习外，我们还为各篇补充读物设计了理解练习，希望学生在课外进行自我训练，以逐渐提高阅读能力。

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## Lesson 31

Text	Plant Breeding
Conversation	A Subject Interesting to Students of Agriculture
Word Study	On (1)
Grammar	1. 简单句 2. 并列句 3. 主从复合句 4. 并列主从复合句 5. 连词的分类
Supplementary Reading	(A) Individual Variations in Species (B) Plants and Their Uses

### Text

## PLANT BREEDING

Early man obtained all his food by hunting animals and gathering wild fruits and vegetables. Then, about 10,000 years ago, he began to sow seeds and grow his food.

As soon as man started to grow crops he became a plant breeder. He knew nothing about heredity, but by choosing the largest seeds for sowing each year he was able to improve the yields from his crops. Accidental improvements happened now and again when a mutation arose, or when crop plants were fertilized by pollen from different species.

In the 18th century, man began to try artificial methods to improve crops. He started to transfer pollen from one flower to another to combine features of different plants into one plant. Such methods had some success, but it was not until genetics became a science around 1900 that man really began to be able to control plant breeding and work towards a definite goal. Today, thousands of people in many countries are trying to produce food crops with better flavours, bigger yields, more resistance to disease and so on, and much effort also goes into producing larger and prettier flowers for the garden.

Suppose a modern plant breeder wants to produce a new type of apple with a red skin, hard flesh and good keeping qualities. First, he examines the many existing kinds of apple and chooses a number of possible "parents", which have one or more of the qualities he wants for his new apple. The breeder then transfers pollen from the flowers of one chosen variety to the flowers of another. This is just what growers did 200 years ago, but his knowledge of genetics gives the modern plant breeder a much better chance of success. He then collects the seeds produced by his experimental flowers, sows them and tends the new trees carefully until they produce fruit. This may well take 15 years or more, and only then will the breeder know if he has produced anything worthwhile. Plants such as cereals give quicker results, but the procedures are just the same.

Plant breeders also try to produce new varieties by treating seeds with radiation or chemicals. This often alters the genes and chromosomes which control the nature of the plant, by producing mutations. Most of these mutations are

harmful, but a few may result in bigger or better plants. Several varieties of wheat now being commercially grown were originally produced in this way.

## Words and Expressions

obtain [əb'tein] *vt.*

gain / get 获得

breeder ['bri:də] *n.*

[C] person who breeds animals or plants 饲养动物或  
培育植物者; 育种者

accidental [,æksi'dentl] *a.*

happening by chance 意外的; 偶然的

mutation [mju:'teifən] *n.*

[U] [biol.] sudden variation in a plant or animal [生  
物](动植物的)突变, 变异

[C] instance of this 变种

arise [ə'raiz] (arose [ə'rəuz], arisen [ə'rɪzn]) *vi.*

come into being / appear 出现 / happen 发生

fertilize ['fɜ:tilaiz] *vt.*

start the development of young in (a female creature or  
plant) by sexual or other means 使...受精 / make fer-  
tile 使...肥沃

pollen ['pɒlən] *n.*

[U] fine powder (usu. yellow) formed on flowers  
which fertilizes other flowers when carried to them  
by the wind, insects, men, etc. 花粉

artificial [,ɑ:ti'fiʃəl] *a.*

made by the art of man 人工的, 人造的 / not natural  
非天然的

transfer [træns'fɜ:]

*vt.* move from one place or person to another 转移

*vi.* move or change from one vehicle to another 转乘车、船等

combine [kəm'baɪn] *vt. & vi.*

(cause to) join together (使)结合

feature ['fi:tʃə] *n.*

[C] characteristic or striking part 特征, 特色

definite ['defɪnɪt] *a.*

clear 明白的, 清楚的 / not doubtful or uncertain 明确的

goal [gəʊl] *n.*

[C] object aimed at 目标

flavour ['fleɪvə] *n.*

[C] distinctive taste 特殊的味道 / special quality or characteristic 风味

resistance [rɪ'zɪstəns] *n.*

[U] (power of) resisting 抵抗(力)

effort ['efət] *n.*

[U] trying hard / use of strength and energy (to do sth.) 努力

[C] vigorous attempt 努力

flesh [fleʃ] *n.*

[U] soft substance between the skin and bones of the animal body 肉 / soft part of fruits or vegetables. 果肉(指水果、蔬菜的可食部分)

quality ['kwɒləti] *n.*

[U & C] (degree of) goodness 质, 质量

[C] anything that distinguishes a person or thing / a characteristic element 特性, 特质

examine [ɪg'zæmɪn] *vt.*

look at or study carefully 检查 / test the knowledge of (sb.) 对(某人)进行考试

exist [ig'zɪst] *vi.*

be 存在 / live 生存

collect [kə'lekt] *vt.*

bring together / gather 收集; 采集 / go for and bring back (sb. or sth.) 接回; 取回

well [wel] *ad.*

fully 充分地/reasonably 合理地/quite possibly 很可能地

worthwhile ['wə:θ'wɪl] *a.*

being worth the time or trouble spent 值得的

procedure [prə'si:dʒə] *n.*

[U & C] (the regular) order of doing things 过程; 步骤; 程序

radiation [ˌreɪdɪ'eɪʃən] *n.*

[U] radiating / the sending out of energy, heat, etc. in rays 辐射

[C] sth. radiated 放射物; 射线

alter ['ɔ:lteɪ] *vt. & vi.*

change 改变; 变化

chromosome ['krəʊməsəʊm] *n.*

[C] [biol.] one of the minute threads in every nucleus in animal or plant cells, carrying genes [生物] 染色体

commercially [kə'mɜ:ʃəli] *ad.*

related to commerce 商业上

originally [ə'ridʒnəli] *ad.*

by origin 本来, 原来 / at first 最初

now and again sometimes / occasionally 不时, 时而

combine ... into ...	把...结合为...	
and so on	and so forth / et cetera (etc.)	等等
result in	have as a result	造成

## Notes to the Text

**N31.01(T)** (every) now and again 不时, 时而

上一成语 = (every) now and then 或 every so often 或 (every) once in a while. 如:

I don't think about my old home very much, only now and again. 我并不是非常想念老家, 只是偶尔想到。

We dine out now and again. 有时我们在外面吃饭。

**N31.02(T)** transfer (...) from ... to ... (把...)由...转移到...

The head office has been transferred from Wuhan to Guangzhou. 总办事处已由武汉迁至广州。

At Paris we transferred from the train to a bus. 在巴黎我们下火车后改乘公共汽车。

注意: transfer 在第一句中及物, 在第二句中不及物。

**N31.03(T)** It was not until ... that... 一直到...时候...才...

It was not until you told me that I had some idea of it. 直到你告诉了我以后, 我才对此事略有所知。

It was not until he promised to help her that she went away. 直到他答应了帮助她, 她才走开。

又 until 和 till 在很多场合下可互换; 但用于句首或其前有 not 时, 则常用 until 而不用 till。如上列和下列各例便是。

Until her father's death, she had always lived abroad. 在他父亲去世以前, 她一直住在国外。

Until you told me, I had heard nothing of what happened. 在你告诉我以前, 我对所发生之事毫无所闻。

参阅 N15.13(C)。

**N31.04(T)** 介词或副词 **around** 作“大约”解  
表示接近某一时间或数字，可用介词或副词 **around**。  
如：

I'll pick you up around ten-thirty. 我将在十点半左右开车去接你。

China has a population around a billion. 中国有大约十亿人口。

**N31.05(T)** **may well do sth.** 很可能...；有理由...

The drought may well last several months. 干旱很可能要持续几个月。

His appearance has changed so much that you may well not recognize him. 他的模样变化很大，你很可能认不出他了。

You may well say so. 你尽可以这样说。

**N31.06(T)** **...only then will the breeder know if he has produced anything worthwhile**

本句因为要加强 **only then** 这一状语，所以把它放在句首，其结果引起主语和述语动词的第一个组成部分 (will) 的倒置。

以 **only** 开始的句子，常有上述倒置现象。如：

Only five of the men did he see. 他只看见了其中的五个人。

Only in Beijing can you buy such books. 只有在北京你才能买到这样的书。

**N31.07(T)** **result in ...** 产生，造成，导致

The carelessness in feeding resulted in the death of the calf. 饲养上的疏忽造成了这头小牛的死亡。

Acting before thinking always results in failure. 缺少深思熟虑的行动总会导致失败。

## Conversation

### A SUBJECT INTERESTING TO STUDENTS OF AGRICULTURE

Scene: Student A of the Department of Agronomy and student B of the Department of Horticulture are talking.

B: A lot of foreign professors are visiting our university, aren't they? I saw one arrive this morning and I think he was speaking German.

A: Yes, he's going to give a lecture this afternoon on plant breeding.

There are all sorts of interesting work being done in this field and it's so important. We really do need to develop new disease-resistant, high-yielding strains so that we can always get good harvests.

B: Yes, I know. I'm studying horticulture so I'm really interested, too. We want to get bigger and better vegetables, fruits and flowers. Is the lecture only for your department or can anyone go along?

A: Well, I don't know but I'm going to ask my teacher. Want to come, too?

B: Yes, O. K.

## Word Study

### ON (1)

1. on account of: because of 由于



在一个简单句中，其主语或述语都有可能是含两个或两个以上的并列成分。如：

The match was postponed on account of the weather.

She cannot come on account of illness.

2. on no account / not on any account: never / by no means 决不

My name must on no account be mentioned in the news.

On no account will I do such a thing.

Don't give it up on any account.

3. on an average / on (the) average: on a level or standard regarded as usual or ordinary 平均(来说)

On an average rain falls in that district on 182 days in the year.

We teach eight hours a week on average.

4. on behalf of / on sb.'s behalf: as the representative of 代表  
He accepted the championship award on behalf of the team.  
I'm speaking on behalf of my colleagues and myself.  
I wrote several letters on his behalf.

5. on duty: at one's job 值班

Two soldiers are on duty guarding the gates.

She was on night duty then.

6. on earth: in the world 在世界上 / ever 究竟，到底

There is nothing on earth like it.

I could not understand what on earth she meant.

How on earth did you find it?

7. on end: without stopping / continuously 连续地

She spent hours on end writing and re-writing her essay.

It has been raining for three days on end.

8. on foot: by walking 徒步，步行

Her bicycle brokedown and she had to return home on foot.