

Exercise walk-through

Consequences of Agricultural Practices ■ 5.10

eXercise

You must be able to

- explain how farming causes **soil degradation** 土壤退化 and erosion
- explain how fertilizers cause water **pollution** 污染
- link agriculture to **deforestation** 森林砍伐 and land-cover change
- state one way to farm more sustainably

Method — Soil and water impacts

Intensive farming can strip nutrients and cause **soil degradation** and erosion. Excess fertilizer washes into rivers, causing **pollution** and algal blooms.

Method — Land-cover change

Clearing land for farms drives **deforestation** and loss of habitat, changing land cover and releasing carbon.

Method — Sustainable responses

Crop rotation, terracing, cover crops, and reduced chemical use protect soil and water while keeping land productive.

Practice 2.1 ■ 2 marks

Explain how excess fertilizer harms rivers.

Solution 2.1

Method: Soil and water impacts

Worked steps

fertilizer washes into waterways **B1**; it causes algal blooms/pollution that harm aquatic life **B1**.

Practice 2.2 ■ 2 marks

State how expanding farmland causes deforestation.

Solution 2.2

Worked steps

forests are cleared to create fields/pasture **B1**; this destroys habitat and changes land cover **B1**.

Practice 2.3 ■ 1 mark

A region's overworked fields are losing topsoil.

- (a) Name this environmental consequence.
- (b) State one practice that would reduce it.

Solution 2.3

Worked steps

(a) soil degradation/erosion **B1**. (b) crop rotation, terracing, cover crops, or reduced tillage **B1**.

Exam-style 3.1 ■ 1 mark

Fertilizer runoff causing algal blooms in a lake is an example of

- A** soil erosion
- B** water pollution
- C** deforestation
- D** desertification only

Solution 3.1

Method: Soil and water impacts

A soil erosion

B water pollution



C deforestation

D desertification only

Worked steps

B. nutrient runoff into water = water pollution.

Exam-style 3.2 ■ 1 mark

Clearing rainforest for cattle pasture is a form of

- A** reforestation
- B** deforestation and land-cover change
- C** crop rotation
- D** fair trade

Solution 3.2

- A reforestation
- B deforestation and land-cover change**
- C crop rotation
- D fair trade



Worked steps

B. removing forest for farming = deforestation/land-cover change.

Exam-style 3.3 ■ 1 mark

A farm switches to crop rotation and cover crops.

- (a) State one environmental benefit.
- (b) Explain why this is more sustainable.

Solution 3.3

Method: Sustainable responses

Worked steps

(a) less soil erosion / restored soil nutrients / less chemical need **B1**. (b) it keeps the land productive long-term without degrading it **B1**.