

Question 28 (10 marks)

- (a) Explain a strategy that farmers use to manage the sustainability of water resources for agricultural production. **3**

A strategy farmers use to manage sustainable water resources is the use of more effective water deployment devices (sprinklers and sprayers). These sprayers are closer to the ground and go directly to the roots so less water evaporates and more water is used by the plant, this saving water in a sustainable manner.

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Question 28 (continued)

- (b) For a soil degradation problem, explain farm management practices that have contributed to the problem and a procedure that can be used to alleviate the problem. 7

The issue of ~~erosion~~ ^{over-cropping a field} is a ^{issue that can lead to a} soil degradation problem ~~that can lead to~~ ^{such as} erosion and making the soil unusable for agriculture and also harm the ecosystem. To avoid this farmers use the farm management practice of crop rotation to give the soil a break and regain nutrients ~~lost~~ ^{lost} during the planting of crops such as wheat and barley. In crop rotation after each harvest or harvests the next crop planted is a legume which aids in the ~~planting~~ ^{nitritication} process and puts essential nitrogen back into the soil. This nitrogen will allow for the next crop to grow to its full potential with minimal damage to the soil. The planting of a legume also means that the farm can still make ~~a~~ ^{an} income with minimal damage to the environment and in a more sustainable long term way.

End of Question 28