



Certificate of Achievement

Damla Ikbal Ceyhan

has completed the following course:

THE FUTURE OF FARMING: EXPLORING CLIMATE SMART AGRICULTURE UNIVERSITY OF READING

This online course explored how agriculture can be adapted in response to a changing climate. The course covered the principles of climate smart agriculture and critically examined how they could be translated into practice, using the examples of dairy farming and wine production in the EU.

3 weeks, 3 hours per week



Dr Marie Dittmann
Research Associate
University of Reading



**University of
Reading**

The person named on this certificate has completed the activities in the attached transcript. For more information about Certificates of Achievement and the effort required to become eligible, visit futurelearn.com/proof-of-learning/certificate-of-achievement.

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STUDY REQUIREMENT

3 weeks, 3 hours per week

LEARNING OUTCOMES

- Investigate the interactions between climate change and agriculture, including basic facts about the effects of climate change and the most important greenhouse gases.
- Describe the principles of climate smart agriculture, in particular the three pillars of mitigation, adaptation and productivity.
- Explore the basics of milk and wine production, possible future problems in these sectors and how they can be subject to adaptation and mitigation.
- Discuss the complexity of food production systems, why it can be difficult to implement climate smart agriculture and other forms of sustainable farming, and how the effects can be measured.
- Reflect on how consumer behaviour, policies and regulations, and financial aspects influence the adoption of climate smart and other sustainable practices.

SYLLABUS

Week 1:

- Climate change and greenhouse gases
- The interactions between climate change and agriculture

- Food security
- Climate smart agriculture; history, principles and examples
- Different views on the food production system

Week 2:

- The basics of milk production, cow husbandry, digestion and herd management
- Greenhouse gas emissions and the possibilities for reducing them, within dairy farming
- The importance of plants for our atmosphere
- Other forms of sustainable farming
- Possible options for reducing energy consumption

Week 3:

- The basics of wine production
- General, sustainable crop management practices
- Problems for the wine industry created by climate change
- Possibilities for adapting the wine industry to climate change
- Examples of how data can be used to help make decisions in agriculture
- Critical views regarding climate smart agriculture