



Online course

Cold Storage of Fresh Fruits

Do you want to unveil all the facets of storage of fresh fruits? Improve your understanding of the physiological processes but also the technical background of cooling systems and controlled atmosphere (CA) storage? Do you want to distinguish between main and side issues? Then this online course is something for you. It enables you to study the learning materials at your own pace and place.

Target group

This online course is designed for professionals in the fresh fruit industry such as apple and pears fruit growers (and their co-workers) but also trading organisations, fruit auctions, cooling operators and fruit consultants. It is assumed that the participant has applied work background or education.

Results

After successful completion of this course, you will:

- Have insight in basic fruit physiology and fruit quality.
- Better understanding of different storage systems and their application.
- Know the influence of storage conditions on the fruit.
- Know the steps to choose the optimal storage conditions.
- Understand post-harvest quality defects of apples and pears and their causes.
- Have insight in the technical components of a storage systems and their functioning.
- Understand energy uptake and management of a storage system.
- Have insight in basic investments and operating costs for storage technology.
- Know how to work safely in fruit storage facilities.

Location Individual Self Paced
Online

Duration 18 study hours

Course instructor Josianne Cloutier MSc,
Wageningen Food & Biobased Research

Outline and topics

This course is an online self-study course. Participants follow this online course at their own pace. The course learning materials are 24/7 available on the online platform of WUR. As participant you sign in with your personal account and study at your own pace. The learning material consists of practical tutorials, knowledge clips and readings. Quizzes are offered throughout the course. This way you can test and extend your knowledge about specific subjects of the course.

Participants can consult the course instructor by email.

Test and certificate

A certificate is issued at the end of the course after successfully completing the final online test (closing quiz).



Programme

Within 18 hours this course will guide you through the many interesting facets of storing fruits. Practical examples often deal with apples and pears; the underlying principles are applicable for common types of fruits. Quizzes are offered throughout the course to test your knowledge. The following modules are available:

- **Module 1 Introduction to cold storage of fruits** | 1 hour
Overview and basics
- **Module 2 Product** | 6 hours
Fruit biology, relation between preharvest conditions and postharvest behavior, physiological processes
- **Module 3 Technology** | 4 hours
Cooling and storage technology, explanation of functioning
- **Module 4 Product and Technology** | 4 hours
Practical technological applications to achieve storage conditions for preserving fruit quality
- **Module 5 Energy and Economics** | 1 hours
Energy management in storage systems, investment and operations costs
- **Module 6 Closure** | 2 hours
Summary, Online test (closing quiz) to obtain a certificate

Technical requirements

This course is available on the online learning platform of WUR. Participants sign in with their personal account. To follow this online course a current email account is required. Stable broadband internet connection is recommended. Browsers: a current non-beta browser (preferable Chrome or Firefox). Software and computer capabilities: ability to view PDFs, speakers or headphones.

Practical information



The course fee is € 795.- per person. You receive a personal account valid for a 4 months period access to the online course content.



Individual self paced course. You can start at any time.



Upon successful completion of the online test (closing quiz), a personalised certificate is issued. The certificate is designed for the business sector and gives no immediate rights to apply towards a formal degree programme at a university.

Registration

Register via wur.eu/academy.

[Register](#)

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