

International course

Lost harvest and wasted food



Managing the crop supply chain for increased food security

Wageningen, The Netherlands, 17 – 28 September 2018

Feeding the world in 2050? Estimates indicate that 30-40% of the food produced globally is lost post-harvest or wasted because it is never consumed. Without these losses sufficient food is produced to feed the world population, even when it reaches 9 billion people. Science fiction? Maybe but not completely. In this course we will look at ways to minimise losses, reduce food waste and explore alternative uses. Ultimately this should contribute to food security.

Missing food Large contrasts exist in how we manage the food we have available. While in parts of our societies there is a shortage of food, in the more urban, wealthier communities good food that is beyond the sell-by date is thrown away. For example, grain losses in sub-Saharan Africa could total 20%, an estimated \$4 billion (FAO/WB, 2011). UK estimates of food never consumed are 19% (WRAP, 2011). Households, retail such as wet or supermarkets, and food outlets all contribute to this waste. Optimising the farm to fork principle through appropriate storage, chain logistics, and managing stocks, can contribute to food security.

Where does it go wrong and what to do

Although technologies to prevent post-harvest losses, logistics and minimising food waste exist, they are often not used. A conducive policy environment, public services along with an actively involved private sector reduces the amount of 'missing food'. The re-utilisation of wasted food as feed or organic waste to produce compost or energy is still in its infancy. In this course we will explore the crop supply chain and the way efficiency can be optimised through looking at requirements for primary production, storage from intermediate technology to cold chains and warehousing,

Fee:	3,500 Euro
Deadline subscription:	06 August 2018
Deadline OKP/MENA fellowships:	20 March 2018

safeguarding food safety and how to optimise logistics from farm to fork.



Are you in the position to make a change

Managers, policy makers, specialists and senior technical staff who are professionally involved in the crop supply chain and deal with post-harvest and food waste management are invited to enrol for this course.

Strengthening your insights to reduce the food lost

The course will analyse critically the crop supply chain and design sustainable alternatives with special attention to harvest practices, storage, spoilage, food waste management etc. After completion you are expected to:

- understand the link between primary production, post-harvest management, the supply chain and food security;
- gain insights on alternative uses of food waste;
- have obtained insight in the public and private responsibilities in the crop supply-chain for post-harvest handling and food waste management;
- be able to design solutions for minimising the amount of 'missing food', from smallholders to multi-national retailers.



Learning through experience The course will use a mix of lectures, discussions, group work and field trips with the aim to expose you, as far as possible, to all aspects of post-harvest and waste management. Meeting course colleagues from other countries but similar interests leads to exchange of experiences and mutual learning. The programme is flexible to suit participants' needs and participants' case studies are the basis of the group work.

Further practical information

Application, the procedure is:

- 1) **Apply at the website of Wageningen Centre for Development Innovation** www.wur.eu/cdi
You will receive a confirmation and more information within a week. Candidates approved by our selection committee will receive an admission letter.
- 2) **Wageningen Centre for Development Innovation** is unable to assist you in obtaining financial support, however if you want to apply for a **OKP/MENA Fellowship**, Wageningen Centre for Development Innovation will provide you with the full instructions and the web address for registration in **ATLAS**. ATLAS is the online application form for an OKP/MENA Fellowship. You can check the eligibility at www.nuffic.nl/okp or www.nuffic.nl/mena. A limited number of scholarships is available. As this application process takes time and requires several documents, we recommend that you **start as soon as possible**.
 - **Location:** The Netherlands. For prices, see the cost estimate on our website. **OKP / MENA Fellowships include** travel and full board and lodging.
 - **Fee** includes all course related costs (materials, excursions, administration).
 - Participants will be awarded with a **Certificate of attendance**. The programme of the course might be changed to incorporate new insights.