



Market Access

Communication and planning
FSA73

Food safety and quality of your products
FSA74, 75, 76

Food traceability
FSA76





Best practice :

- Communicate with the buyer to plan:
 - preferred varieties
 - timing of harvest
 - post-harvest storage and delivery

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Do you discuss with customers the best timing for crop deliveries to ensure good prices and to maintain quality?



Background



How to answer YES



Further information



Communication And Planning

The relationships between you and others in the supply chain should be managed to ensure the flow of information in both directions with:

- All links in the chain addressing complaints and striving for continuous improvement
- The buyer communicating customer needs and the requirements of markets and consumers.

In many cases, contract agreements on pricing and other aspects of the business relationship are made at the start of a growing season and give the platform for the relationship. Such arrangements should provide mutual benefit and security to both parties by including:

- A clear indication of the price to be paid;
 - If linked to quality, you must be confident that the mechanism for calculating quality is reasonable
 - If linked to international prices, you should be confident the source of data is either in the public domain or from a reputable source
- A mutual understanding of how and when produce will be shipped to the factory, the required conditions for transport and agreement on who pays the cost and/or provides the service
- Arrangements for payments to be on time and at the agreed price
- The degree of flexibility in the arrangements (e.g. for processors to purchase elsewhere or for you to sell to another market)
- Clarity on how complaints will be resolved.

A fair price should reflect the cost of efficient production, including the short- and long-term investment that farmers must make to produce the raw material sustainably.



Communication is vital and is one of the biggest challenges to the buyer-supplier relationship.



Communication And Planning

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- A contractual agreement may be used to establish the basis of the relationship between you and the buyer on which the price, delivery, variety and quality specifications can be made.
- Ensure that there are regular meetings with the buyer, and others in the supply chain, to discuss quality, price, time of harvest and delivery dates.
- All risks that may threaten the payment and supply of goods or materials, on time and at the agreed price, must be identified as early as possible and communicated with the affected parties.
- Records of communications with the supply chain should show:
 - Context: The date and time, the participants and the purpose of the meeting.
 - Content: What was communicated or decided or the action taken. The record should provide enough information so that it is easily understood.
 - Meaning: It should be linked to other documents (such as delivery notes, quality agreements, contracts etc.) or information to which it relates.
- Evidence of communication with the buyer could include:
 - Delivery notes
 - Quality agreements
 - Contracts
 - Correspondence.
- This may be part of your HACCP management system.

How to answer YES

Ensure the flow of information along the supply chain, especially with respect to the timing of harvest, crop storage and crop delivery with the aim of producing higher volumes of better quality product (FSA73).

Maintain records to show you keep open channels of communication with the buyer and others in the supply chain (FSA73).



Communication And Planning

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A communication log will enable you to track telephone calls from your buyer and others in the supply chain.

Communication Log				
Date and Time	Contact Name	Phone Number	Details of Call	Follow Up Details

Further reading and examples:



Food safety and quality of your products

Best practice :

Have a trained staff member responsible for food safety and quality.

Have a record of potential food safety and quality hazards, how you monitor and manage them.

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Do you have a trained or knowledgeable staff member, or access to an advisor that ensures food safety and quality of your products?

FSA75

Do you have a documented system for ensuring food safety and quality of your products?



Background



How to answer YES



Further information

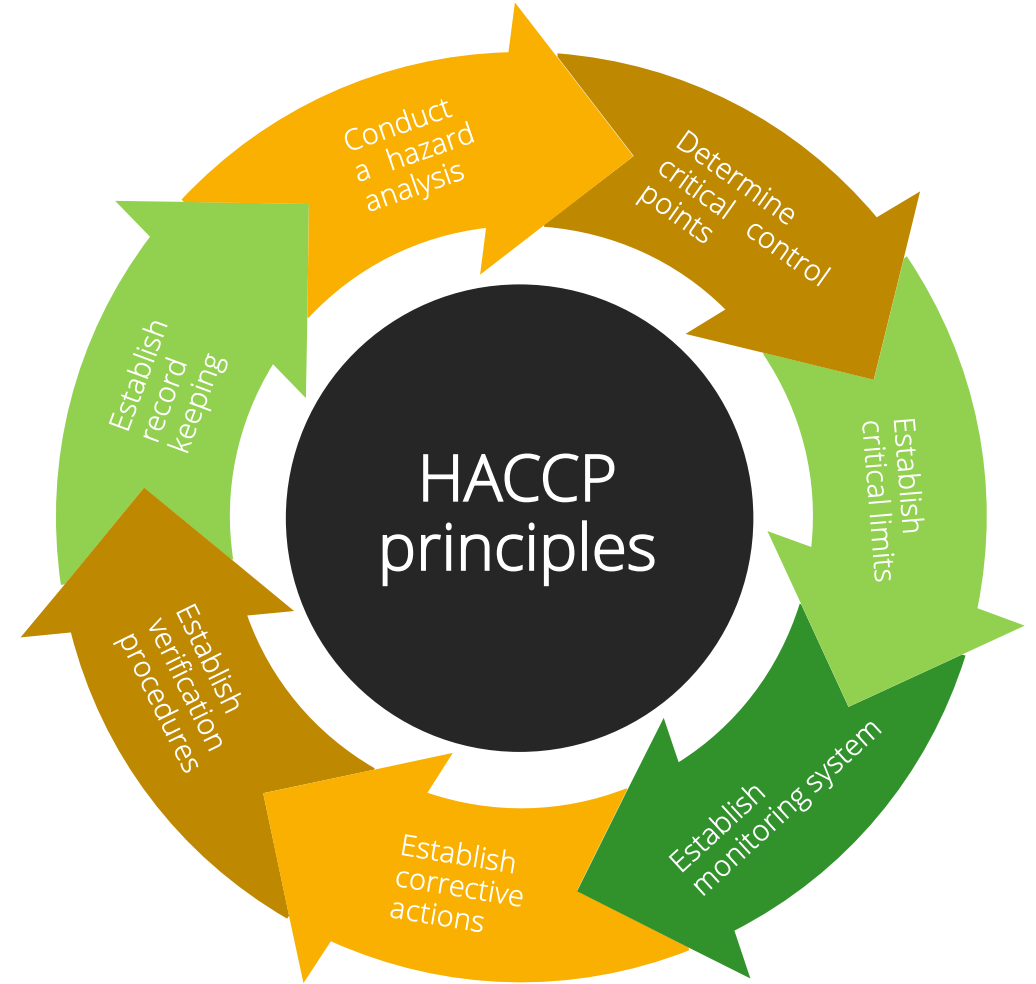


Food safety and quality of your products

Food safety and hygiene means taking the necessary precautions in order to ensure that food is fit for human consumption and does not create an environmental health hazard.

In 2011, an outbreak of Escherichia coli O104:H4 was thought to be responsible for around 4,000 cases of reported illness and 53 deaths in the EU, USA and Canada. The source was Egyptian fenugreek seeds contaminated with waste water used during irrigation¹.

All businesses producing food have a moral and legal obligation to produce and supply safe food and feed, and should develop policies and guidelines to ensure good practice. Many organisations have adopted the internationally- recognised system of food safety management called Hazard Analysis Critical Control Point (HACCP). This system identifies and monitors critical control points (CCPs), at all stages of food production, preparation and processing, to ensure that food is safe for human consumption. Regardless of their size, businesses in food production (including primary production) should implement food safety management procedures based on HACCP principles.



1. European Food Safety Authority, 2011



Food safety and quality of your products

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Adequate procedures must be in place to ensure that products meet quality or safety specifications and that all products are safe for their intended use.

Review the activities on the farm and assess the potential risks adopting procedures to mitigate or control the risk.

Some things for consideration are listed below:

- **irrigation water**
 - where does the water come from?
 - is the water analysed for chemical and biological contaminants?
- **crop protection product residues**
 - harvest interval
 - drift
 - local pollution
- **worker hygiene**
 - illness
 - policy of washing hands, especially after using the toilet
- **contaminants**
 - [click here to see a list of possible contaminants](#)
- **cropping categories**
 - what processing is required before the crop is used by the consumer?
 - no barrier to pathogens
 - eaten raw
 - can be eaten raw, grow off the ground
 - always cooked

How to answer **YES**

Have records of training to show that: you or key members of staff have attended an appropriate training course, or be able to demonstrate a good level of awareness of typical safety and quality risks, or have the details of a qualified advisor (FSA74).

Ensure the information being used for the HACCP policy is current and up-to-date (e.g. via journals, committees, news, internet, homepages, further training) (FSA74).

Document and record all potential hazards, and the available critical control points, throughout the crop production process to the farm gate (FSA75).

Be able to demonstrate risk assessments are carried out to identify potential sources of physical, chemical, microbiological or allergenic food safety risks. Show that adopted procedures will mitigate or control the risk to an acceptable level (FSA75).

Show appropriate measures have been identified for each control point, together with a documented monitoring system which defines frequency of measurement and records of deviations (FSA75).

Have a traceability plan, and be able to explain how traceability topics have been agreed with the buyer (FSA76).



Physical

- Glass
- Metal
- Stones
- Wood
- Hard plastic
- Soil contamination
- Extraneous vegetable matter (EVM) – contamination with other plant parts
- Foreign EVM – contamination with plant parts not from the crop
- Physical damage and blemishes to crop
- Size/shape of produce
- Colour of produce

Biological

- Variety, genetic contaminants
- Pathogenic bacteria (e.g. E.coli and Salmonella)
- Fungal toxins
- Plant toxins, (e.g. glycoalkaloids from solanaceous weeds)
- Fungal bodies (e.g. ergot)
- Seeds or plant berries (e.g. tree nuts, nightshade berries)
- Genetically modified materials (derived from GMOs)
- Fungal moulds and bacterial rots (spoilage)
- Animal or human matter (e.g. faeces)
- Plant diseases
- Insects

Chemical

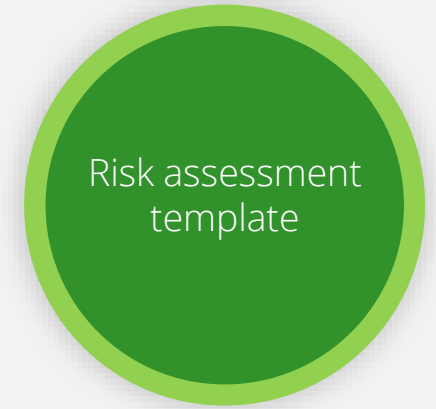
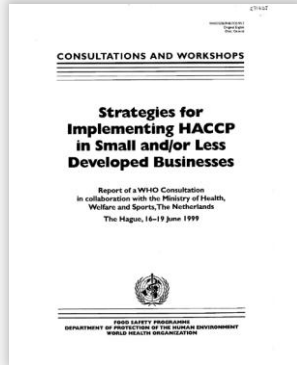
- Crop protection product (CPPs) residues, (e.g. exceeding MRLs (Maximum Residue Limits) or using CPPs not permitted in destination country)
- Nitrate levels – certain leafy crops such as spinach
- Heavy metal levels, (e.g. lead (Pb), cadmium (Cd))
- Mineral oils – lubricants, hydraulic oil, diesel
- Composition of crop, (e.g. protein, sugars, oil content)
- Dry matter content of crop



Food safety and quality of your products

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Cornell University: National GAPS program: fruits, vegetables and food safety: food safety begins on the farm

WHO: Strategies for implementing HACCP

Washington State Department of Agriculture: GAP FSMA and on-farm food safety planning

Further reading and examples:

Red Tractor Assurance: Fresh produce standards

WHO: Food safety

The on-farm food safety project (OFFS)

USDA: Food safety for farmers



Calculating Risk

List all of the hazards that may be reasonably expected in crop production and conduct a hazard risk analysis assessing the likelihood and severity of the adverse health effects and the control measures that can be applied for each hazard

When establishing risk, it is important to know the following:

- What crop are you growing?
- What is the hazard?
- How often does the hazard occur?
- What would the outcome of the hazard occurring be? (severity)



The Risk Assessment Values are determined by multiplying the scores for the Probability and Severity values together.

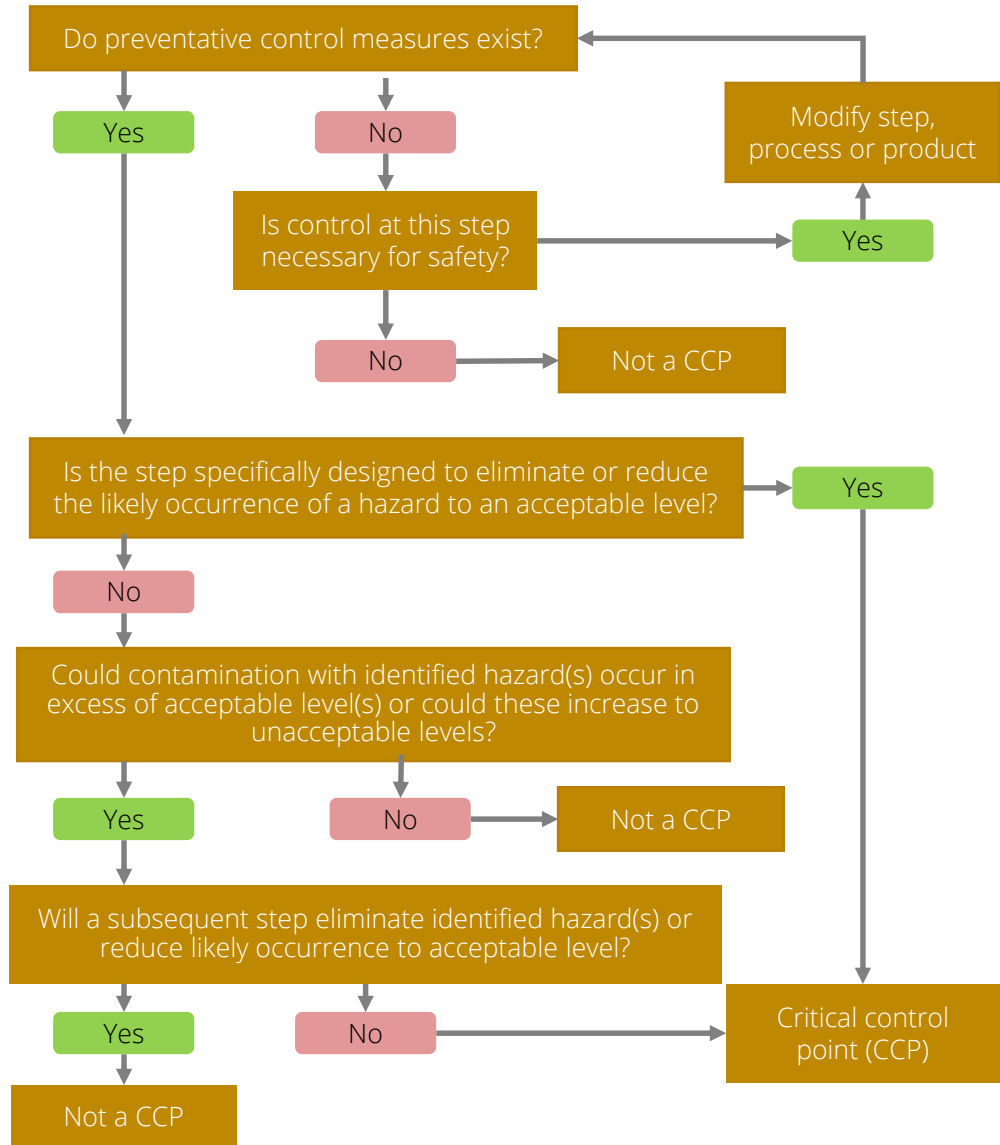
Hazard identified	Severity of hazard occurring	Likelihood of hazard occurring	Risk assessment value	Controls and preventative measures



Decision Tree To Identify Critical Control Points

- The determination of a CCP in the HACCP system can be facilitated by the application of a decision tree, which indicates a logic reasoning approach. Application of a decision tree should be flexible, given the nature of the operation.
- If a hazard has been identified at a step where control is necessary for safety, and no control measure exists at that step, or any other, then the product or process should be modified at that step, or at any earlier or later stage, to include a control measure.
- Monitoring is the scheduled measurement or observation of a CCP relative to its critical limits.
- Specific corrective actions must be developed for each CCP in the HACCP system in order to deal with deviations when they occur. The actions must ensure that the CCP has been brought under control.

(after FAO: Hazard analysis and critical control point system and guidelines for its application)





Best practice :

Using a properly designed and verified traceability plan to enable tracking of production back to the farm or field of origin

FSA76

production areas to farmgate, and have you discussed and agreed this with your buyer?



Background



How to answer YES



Further information



Food traceability

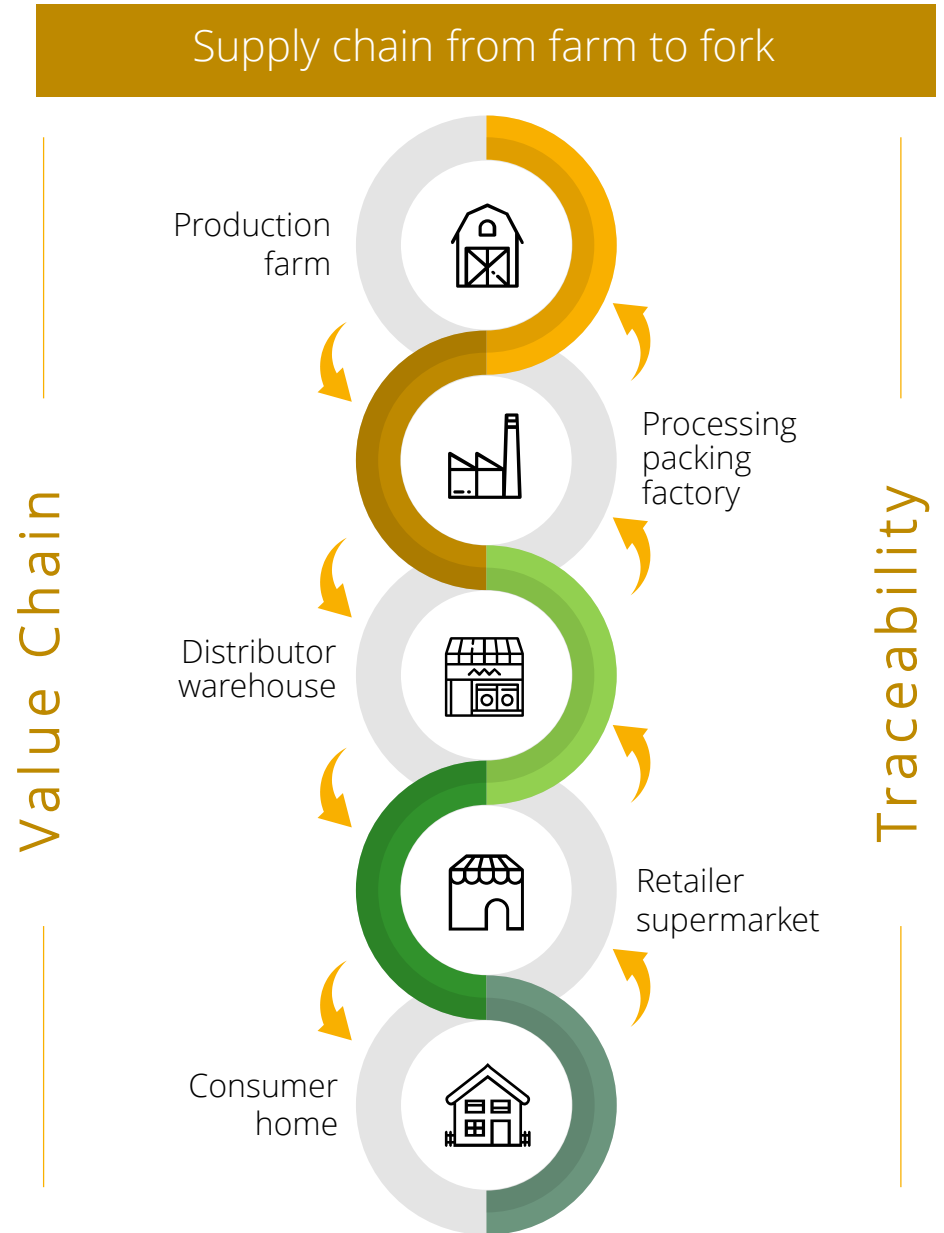
Consumers are increasingly interested in where their food originates and how it is produced. Food traceability refers to the ability to identify and follow raw materials, components and products through all stages from field-to-fork.

Being able to trace food back to its origin or track the environmental and social impacts of a supply chain requires cooperation across a complex global food system and the options for ensuring traceability vary considerably with the raw material, supply chain and farming systems used.

As an absolute minimum, the expectation is that it is possible to identify the farms, or landscape, where the crop was produced, to minimise:

- The risk of the crop being produced on illegally occupied lands. This is important, as such cases can be associated with slavery or deforestation (or other unacceptable practice)
- Chemical, biological or physical contamination which would impact on food safety

Food traceability also enables the management of supply chain issues, such as contamination, to be traced quickly back to its origin and help in the management of any remedial actions required.





Food traceability

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Assign a lot number to harvested products. Lot numbers are a series of numbers and/or letters representing various parts of the farm's production. Harvested products should be identified according to the:

1. Date of harvest
2. Particular crop harvested
3. Field where the crop was grown.

This number can accompany the product all the way through the various steps of the production/ processing chain.

An example of a phrase to remember how to set up the lot number could be "On **date** and **year**, I harvested **crop** from **field number**."

Including the field number allows you to relate the crop to the production history of the field.

The details and composition of the lot number can be agreed with others in the supply chain in advance of production. For example, the buyer might want to include a reference code that is unique to you as a producer.

Traceability is usually achieved by using labels and any number of technologies, from simple handwritten labels to more sophisticated radio frequency identification (RFID) based technologies. Barcoding is the most common industry best practice.

How to answer YES

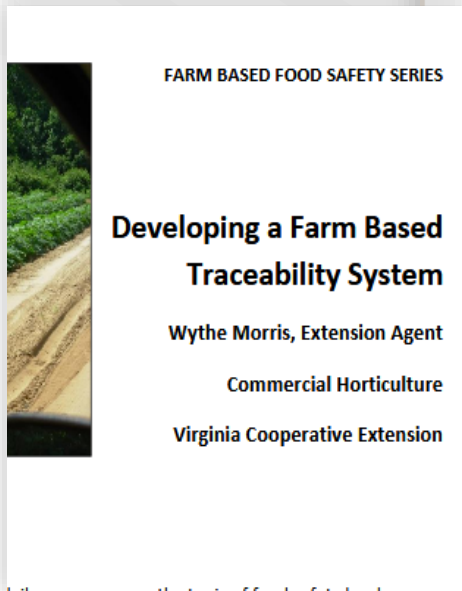
Have a traceability plan to help trace a crop, or part of a crop, back to the field of production (FSA76).

Show that you discuss traceability with the buyer and others in the supply chain, as necessary (FSA76).

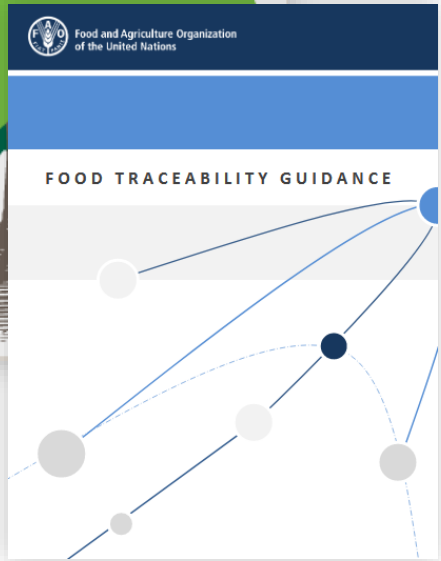


Food traceability

Cornell University:
Traceability



Virginia Cooperative
Extension: Developing a
farm-based
traceability system



FAO: Food traceability
guidance

Further reading and examples:

- [International Trade Centre: Traceability in food and agricultural products](#)
- [Cornell University: Template language for traceability section of a farm food safety plan](#)
- [Food Marketing Research and Information Center \(FMRIC\): Handbook for introduction of food traceability systems](#)