

Five keys to growing safer fruits and vegetables

Promoting health by decreasing microbial contamination

Practice good personal hygiene

- ◆ Wash and dry hands with a clean, dry towel after toileting, diapering a child and contact with animals
- ◆ Change clothes and bathe regularly
- ◆ Cover cuts, lesions and wounds
- ◆ Use a toilet or latrine to urinate and defaecate

Why? Dangerous microorganisms are found in human and animal faecal waste, and infected wounds, and can be transferred to fruits and vegetables by hands, clothing and other surfaces. Good personal hygiene practices help prevent the transfer of dangerous microorganisms to fruits and vegetables and decrease the risk of foodborne diseases.

Protect fields from animal faecal contamination

- ◆ Keep animals from roaming in growing fields
- ◆ House livestock downhill from growing fields in a fenced area
- ◆ Remove trash from in and around growing fields

Why? Dangerous microorganisms in animal faeces can contaminate crops directly when animal defecate in fields - or indirectly when rainwater becomes contaminated with dangerous microorganisms and runs downhill into the growing fields. Trash, food and water in and around growing fields attract animals including wild birds.

Use treated faecal waste

- ◆ Use faecal waste (manure and human excreta) that is properly treated
- ◆ Apply treated faecal waste to fields prior to planting
- ◆ Maximize the time between the application of treated faecal waste and harvest

Why? Properly treated faecal waste (manure and human excreta) is an effective and safe fertilizer. Dangerous microorganisms in human and animal faecal waste can survive for long period of time and contaminate fruits and vegetables. Faecal waste must be treated to kill the microorganisms.

Evaluate and manage risks from irrigation water

- ◆ Identify all water sources relevant to your growing field
- ◆ Be aware of the risk of microbial contamination of water
- ◆ Protect water from faecal contamination
- ◆ Apply control measures when using water contaminated or of unknown quality

Why? Water is needed for humans, animals and agriculture. The risk of microbial contamination of different water sources varies. Dangerous microorganisms in faecal waste can contaminate water and then be transferred to soil and crops via irrigation. Water used for irrigation of fruits and vegetables must not introduce dangerous microorganisms.

Keep harvest and storage equipment clean and dry

- ◆ Wash harvest and storage equipment with clean water and dry before use
- ◆ Keep containers off the ground before, during and after harvesting
- ◆ Remove visible dirt and debris from fruits and vegetables in the field
- ◆ Cool fruits and vegetables quickly
- ◆ Limit access of animals, children and other non-workers to the harvest and storage areas

Why? Fruits and vegetables can become contaminated with dangerous microorganisms during harvest by contact with contaminated hands, soil, harvest equipment and storage facilities. Wet or damp surfaces promote the growth of dangerous microorganisms.



World Health Organization