Five keys to safer aquaculture products to protect public health

**Practice good personal hygiene**

Why? Dangerous microorganisms and chemicals are found in human, animal and plant waste and infected wounds. Chemicals and dangerous microorganisms can be transferred by hands and clothing spreading contamination. Washing hands and changing clothes helps prevent the spread of contamination and decreases illness.

- Use toilet or latrine to urinate and defecate
- Wash and dry hands with a clean, dry towel after toileting, diapering a child and contact with animals
- Cover cuts and sores when working around fish ponds
- Wash hands and change clothes after working around the ponds and harvesting fish

**Clean the pond site**

Why? Dangerous microorganisms in faecal waste from people and animals can also contaminate soil, aquatic animals and fish. Heavy metal and other harmful chemicals found in soil can cause illness in fish or in people who eat the fish.

- Locate ponds away from latrines, livestock, and poultry
- Choose a pond site where the chance of contamination with heavy metals or other harmful chemicals is low
- Remove weeds, rubbish chemical containers and old equipment from pond site
- Keep livestock and poultry in an area that prevents access to the fish pond

**Manage water quality**

Why? Chemicals and harmful microorganisms from manufacturing activities and in faecal waste from humans, animals, including wild birds can contaminate water. These chemicals and dangerous microorganisms can then be transferred to the fish causing illness in the fish or contamination of the fish meat.

- Select a water source that has a very low chance of contamination with heavy metals, other chemicals and harmful microorganisms
- Prevent people and animals, including ducks, geese and pets, from flying over, wading or swimming in ponds
- Keep rubbish, food and faecal waste removed from the home away of the pond
- Do not pen animals over the pond

**Keep fish healthy**

Why? Healthy fish require healthy seed, proper stocking density and good post-stocking management practices including managing stress and disease. Adding chemicals to ponds may harm the fish, hide a disease problem and leave residues in fish meat that can be unsafe for consumers.

- Stock ponds to the proper density with healthy fish seed stock from a certified hatchery or reliable supplier
- Maintain stock at the proper density in the growing pond
- Remove and dispose sick and dead fish daily
- Avoid using unapproved chemicals to maintain fish health

**Use clean harvest equipment and containers**

Why? During harvest, fish can become contaminated by contact with sick workers or water, ice, hands, harvest equipment and containers that are not clean. Containers made of smooth, non absorbant material are easy to clean and provide fewer places for microorganisms to grow.

- Wash harvest containers and equipment with clean water quickly
- Harvest fish early in the day and transport live or cool quickly
- Use clean water to wash harvested fish
- Keep harvested fish in clean containers on non porous material

©2016, World Health Organization

in collaboration with the Food and Agriculture Organization of the United Nations (FAO)