Farm Environment - Water and Soil

Soil and water used for crop production should be free from contaminants.

1. Water and soil for crop production should be free from chemical and biological (pathogens) contamination. Farmers should have the soil and water of their farms checked regularly against contamination, and take necessary preventive and improvement measures.

2. Farmers have to particularly watch out for contamination of soil and water by heavy metals which tend to accumulate in crops causing harm to consumers. Soil and water for crop production should be sampled and analyzed regularly on heavy metal level and/ pathogens, which must not exceed the safety reference standards.

Heavy Metal/Pathogen Parameter	Soil Reference Standard* (mg/kg)	Water Reference Standard# (mg/L)
Arsenic (As)	55	0.05
Cadmium (Cd)	12	0.005
Chromium (Cr)	380	0.1
Copper (Cu)	190	1.0
Nickel (Ni)	210	--
Lead (Pb)	530	0.1
Antimony (Sb)	15	--
Selenium (Se)	--	0.02
Zinc (Zn)	720	2.0
Mercury (Hg)	10	0.001
Fecal Coliform Group Count	--	10000 MPN//L
Ascaris Egg Count	--	2 MPN/L

* Dutch Standard for Agricultural Soil - Intervention Value
\# China GP 5084-02 Standard for Irrigation Water

About "GAP- CROP"

The GAP-CROP provides guidelines on local sustainable production of safe, healthy vegetables and fruits. It focuses on reducing the risk of chemical contamination (e.g. by pesticide and heavy metal) at farm level. This article is the second of a series of 12 Codes of Practice (COP) making up the GAP-CROP. Farmers may voluntarily follow this COP, identify potential problems in their farms, take appropriate control/mitigation measures, and monitor the effectiveness of such measures.

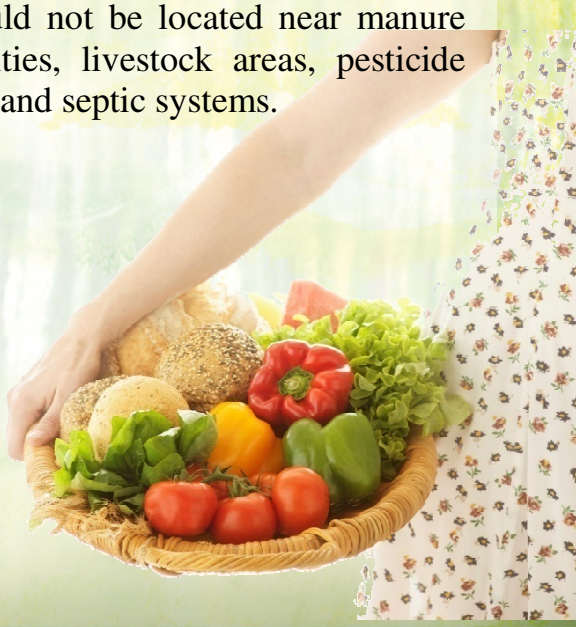
3. Farmers should avoid applying any pesticides, fertilizers or soil conditioners containing heavy metal residues to their fields.

4. Ponds or streams providing water for irrigation or washing produce should be maintained to ensure good water quality as follows -

- the ponds or streams should be free from pollution, litter or excessive weeds;
- animals, except fish, should be kept away from the ponds or streams; and
- no agricultural runoff and sewage water should be allowed to get into the ponds or streams.

5. Wells should be properly designed, located, constructed and maintained in such a way as to avoid contamination.

6. Water source for irrigation and washing produce should not be located near manure storage facilities, livestock areas, pesticide storage areas and septic systems.



Next COP:
Farm Operation - Seed and Seedling

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