

INFORMATION BULLETIN READY-TO-EAT PRODUCE

In the 2001 growing season, a serious outbreak of food poisoning was traced to BC grown spinach. More than 36 people were treated for gastrointestinal illness because contaminated water was used to rinse the spinach prior to cooling and shipping. This incident destroyed the BC spinach market during the peak of the season, and badly affected the entire BC fresh produce industry.

Following this outbreak, a committee of concerned stakeholders* reviewed the ready-to-eat produce industry with the intent of reducing the risk of a similar outbreak in the future. This committee identified three main areas of concern with regard to grower management practices:

- Quality of water used for washing, hydro-cooling and pre-harvest irrigation;
- Livestock manure in or near production fields; and
- Worker sanitary facilities and hygiene.

To ensure that this growing season is successful for everyone, the committee recommends that growers check their management practices by using programs like the BC Vegetable Marketing Commission food safety checklists (<http://www.bcveg.com/prod03.htm>), and reduce the chance of product contamination by following the good production practices listed below.

WATER

- If irrigation water touches any part of the plant that can be eaten fresh (uncooked), have the water tested. The numbers listed in this section are meant to be used as guidelines only and adjustments may be necessary for variations in humidity, rainfall, temperature, product type and management practices. The intent is to ensure conditions are checked regularly and steps are taken to minimize risk. The guideline numbers may be adjusted as more information becomes available.

CONDITIONS	Total Fecal Count (cfu/100ml)
Irrigate Produce Anytime	<100 Canadian Water Quality Guidelines <200 BC Ministry of Water, Land and Air Protection Guidelines
Do Not Irrigate Within 14 Days Of Harvest	200-1000
Do Not Use On Any Part of Plant That Can Be Eaten Raw	>1000

- If guidelines are exceeded, check for septic system or livestock contamination of the water source and take steps to correct the problem. Additional laboratory tests are suggested to track changes in water quality over the growing season. For the 2002 season, a total of three tests at the beginning, middle and end of the irrigation period are suggested.
- Water used for washing fresh produce, making ice, or for the final rinse of root crops must be potable (suitable for drinking). If you are not on a city water system, you must have your well water tested annually for potability before using it for washing fresh produce. Hydro-coolers should be filled with potable water and should be flushed out regularly. Any hydro-cooled produce which may be eaten fresh should be rinsed in potable water prior to packing. Silt on field vegetables can contaminate hydro-coolers, and examples of this were found during water testing in 2001.



MANURE

- Manure and/or produce waste piles must be protected to prevent leaching or ground and water contamination. Storage must be 30 m from producing fields and surface water and 50 m from wells:
- Manure used to fertilize fresh produce must be spread and thoroughly worked into the soil prior to planting. Composted manure or manure which has aged for at least 90 days under warm conditions may be applied up to 60 days of harvest. Fresh manure must not be applied within 90 days of harvest. Excessive applications with manure visible on the soil surface are not to be used for fresh produce. For guidance on appropriate rates of application see the current BCMAFF vegetable or berry production guide.
- Animals, including weeder ducks and geese, must be kept out of fresh produce fields.

SANITARY FACILITIES

- Provide toilets and hand wash stations that are within a five minute walk of any field. Hand washing areas must have potable water, liquid hand soap, individual single-service paper towels and a garbage can to put the used towels.
- It is the job of the grower/manager to see that the toilets are properly maintained and to instruct the field workers in the importance of using the toilets and washing their hands, using the facilities provided.
- Individuals suffering from diarrhea must advise management and not handle ready-to-eat produce.



TRACEBACK AND RECORD MANAGEMENT

- Records should be kept of all farm practices, including water analysis, manure/compost applications, harvest dates, pesticide use, and last irrigation prior to harvest.
- Product should only be marketed in containers that are fully labeled, including the name of the grower or packing facility and identified by lot number or packing date.

EMERGENCY HELP

- If at any time water or produce is suspected to be contaminated: Delay or stop shipment of product until product is tested; advise buyers to hold any prior shipments that might be contaminated.



Contact any of the following for help:

- BC Vegetable Marketing Commission – 604-940-0188
- BC Ministry of Agriculture, Fisheries and Food – 604-556-3001
- BC Centre for Disease Control – 604-660-5357
- Canadian Food Inspection Agency - 604-666-

3350 (24 hour food recall emergency)

Grocery chains, through the Canadian Council of Grocery Distributors, are also initiating a vendor pre-recognition program which will confirm that their suppliers have an on farm food safety program.

Thank you for your attention on this crucial food safety matter.

*Ready-to-Eat Committee

Represented by: producers; retailers; Fraser Health Authority; BC Centre for Disease Control; BC Ministry of Agriculture, Food and Fisheries; BC Vegetable Marketing Commission; BC Ministry of Water, Land and Air Protection; Canadian Council of Grocery Distributors; BC Restaurant Assn.