



Fraser Valley  
Strawberry  
Growers  
Association



Investment  
Agriculture  
Foundation  
of British Columbia

## Agricultural Water Quality Fact Sheet



Water is used for numerous purposes throughout the growing season, including irrigation, spraying and washing, and may be a source of biological contamination depending on the origin and method of application. Required quality of water may vary based on method of application and timing. Water that

is in direct contact with berries should be of higher quality than water that does not directly contact berries. Growers should test all agricultural water sources for E.coli and fecal coliforms, particularly those that are in direct contact with berries.



It is essential to consider your practices and understand how they may impact the production of safe berries. Some questions to help assess the level of risk water quality presents include:

- What is the source(s) of the water being used for irrigating, spraying and washing - Consider surface water (upstream contamination) and wells (deep and shallow wells).
- Are there methods/procedures in place to minimize the risk of contamination of the water source(s) from runoff or spills from chemicals, fuels, or manure
- Does livestock have direct access to water source(s)?
- Are septic systems well maintained and functioning properly?
- What method of irrigation is being utilized? – Drip irrigation, if emitters are placed at soil level, will considerably reduce the risk of contaminating berries.



Each water source should be tested. Some options to help minimize potential food safety risks associated with agricultural water may include:

- Converting from overhead irrigation to drip irrigation to minimize contact between the berries and water
- Using an alternate (higher quality) water source for

chemical applications made during or close to harvest season

- Maximizing the number of days between irrigation and harvest (consider irrigating shortly after harvest)
- Testing any surface water that will come into contact with berries at the beginning of the season, mid-season, and late season
- Using a water treatment to reduce biological contamination



Water quality can play a role in fruit quality as well as food safety. It is good practice to keep records or documentation with respect to each water source used for agricultural purposes, including the intended use, and any water test performed on the source(s).

The following are some local laboratories that perform standard water tests for biological contamination:

*Cantest Ltd.*  
4606 Canada Way  
Burnaby, BC  
604-734-7276

*Norwest Labs*  
#102 – 19575 55A Ave  
Surrey, BC  
604-514-3322

*JR Laboratories*  
#12 – 3871 N. Fraser Way  
Burnaby, BC  
604-432-9311

*Vanderpol's Lab*  
3911 Mt. Lehman Road  
Abbotsford, BC  
604-856-6724



### References:

BC Approved Water Quality Guidelines 1998 edition:

[http://www.env.gov.bc.ca/wat/wq/BCguidelines/approv\\_wq\\_guide/approved.html](http://www.env.gov.bc.ca/wat/wq/BCguidelines/approv_wq_guide/approved.html)

Improving On-Farm Food Safety Through Good Irrigation Practices:

<http://www.omafra.gov.on.ca/english/crops/facts/05-059.htm>

Canadian Environmental Water Quality Guidelines:

[http://www.ccme.ca/assets/pdf/e1\\_06.pdf](http://www.ccme.ca/assets/pdf/e1_06.pdf)

Treating Irrigation and Crop Wash Water for Pathogens:

<http://www.agf.gov.bc.ca/resmgmt/publist/500series/512000-3.pdf>

For further information please contact:

BC Blueberry Council	604-864-2117
Fraser Valley Strawberry Growers Association	604-864-0565
Raspberry Industry Development Council	604-854-8010