

# Dear Rochelle

## *To test or not to test?*

Dear Rochelle

I am wondering why there is not more residue testing in the organic certification process. Can you explain this to me?



*Testy in Rutland*

I am not sure if I am speaking on behalf of everyone with the following response, but this is my take on the situation. We all expect organic produce to be free or low in pesticides. While some believe that organic products should have zero residues, in reality that would only be possible if our food was grown in a vacuum!

Studies do show that organic products are overall lower in pesticides (especially more dangerous ones) than conventionally grown produce. But we have to be honest and accept that even an organic product can and may always have traces of prohibited pesticides.

### *Why isn't organic food residue free?*

1. Because spray drift and GMO drift are carried on wind, in the atmosphere and in water.
2. Because there can be pesticides and pesticide breakdown product in the soil that can be picked up by plants.
3. Because some pesticides (primarily short acting biologically & mineral-based pesticides) are allowed for use in organic agriculture.

This concept is captured quite well in the introduction to the Canada Organic Standards: "Neither this standard nor organic products in accordance with this standard represent specific claims about the health, safety and nutrition of such organic products."

So now you are probably asking yourself if there is no chance of growing food without residues, why then should we bother going organic? Well, in my mind, eventually it will



*Credit: moss dance*

## *When is testing usually conducted on organic food?*

1. Random testing is conducted by government agencies as part of their overall monitoring of agricultural products sold.
2. When a certifier has received a complaint or has a specific suspicion. Some certifiers may have random testing programs.
3. When the producer thinks that they have been over-sprayed with a prohibited material the producer and/or the certifier may get tests done.
4. Buyers may test products, such as baby-food manufacturers.

make a difference – don't you think, especially if everyone went organic? Also we can't overlook that organic production has a broader purpose than just producing residue-reduced food.

Quoting from the COABC website "Organic farming promotes the sustainable health and productivity of the ecosystem – soil, plants, animals and people. Organic foods are farmed in an environmentally sustainable and socially responsible way, focusing on soil regeneration, water conservation and animal welfare."

The same idea is captured in the Canadian Organic principles in the following quote: "... [organics] aim to increase the quality and the durability of the environment through specific management and production methods. They also focus on ensuring the humane treatment of animals." And lastly, in the Introduction to the Canada Organic Standards: "Management methods are carefully selected in order to restore and then sustain ecological stability within the enterprise and the surrounding environment."

This illustrates how the "why" of organics is a much bigger picture than just "no pesticide residues."

### ***Why isn't testing part of the standard certification process?***

I think I have to say that ultimately, testing could be one technique used for verification, but no organic standard could be based entirely on test results.

And why is that? Beyond the issues already discussed above, we know of no single comprehensive and inexpensive test that can distinguish between synthetic and non-synthetic fertilizers. There is the possibility of new test complexes on the horizon, but it is unclear how useful they will be. Secondly we also know that certain long lasting and banned pesticides – especially banned chlorinated organic insecticides such as DDT, chlordane & dieldrin can last in soils for many years along with their breakdown components and can be picked up by certain crops and thus would always give false positive tests.

### ***Keeping the bigger picture in mind, why isn't every crop on every farm tested as a matter of course?***

The following questions can help us understand this dilemma:

1. What particular chemicals would be tested for? There are many, so how many would be chosen? And who would be responsible for choosing? To what end?
2. What levels of contamination would trigger an investigation? Testing after cleaning and handling might uncover accidental contamination in the system – for instance contamination from equipment or storage – this could be useful for checking the integrity of the system, but thorough investigation must be made to trace the source of the problem and may not be entirely conclusive.

3. Who would pay the cost of the tester and testing? I think we can agree that organic food already costs enough, and we know that any costs born by producers would inevitably be shared by consumers.
4. What would it prove? What levels would be used to establish whether the product was purposefully applied by the farmer or whether it was there because of environmental contamination? A positive test does not necessarily mean that fraud has occurred.
5. Because residues are inevitable, some organic standards set a maximum residue for organic product. Under US National Organic Program (NOP) the maximum residue in organic product is 5% of the permissible maximum residue tolerances under Environmental Protection Agency, whether or not the organic farmer is responsible for the application. However testing is not part of the certification procedure because the day-to-day American certification process itself is identical to our Canadian system and does not require residue tests. This is just a level of acceptance below which a product can be labelled organic and above it cannot, if unacceptable levels become known. The Canadian Organic Standards does not set a maximum residue for organic products as per the NOP.

### ***What alternatives to testing are used by the organic section to prevent fraud and accidental contamination?***

It is likely there is a percentage of fraud, and as organic production grows, it could be that fraud will grow as well. But every certification body will investigate complaints and every certification body has a policy under what circumstances samples will be collected and tests done. Requirements for audits have increased under the Canadian Organic Regime (COR) and more unannounced inspections will be conducted as minimum numbers have been set by the COR. Ultimately better information sharing between certification bodies, government agencies, and the food chain would improve monitoring and detection.

Thanks to Sarah Davidson (BCARA Administrator) for her contribution to this article.

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