

Flooding and Organic Certification

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http://www.extension.org/organic_production





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Flooding and Organic Certification



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Flooding and Organic Certification

- Source of Flood Waters
- Potential Contaminants
- FDA Position – Adulterated Foods
- Applicable NOP Regulations
- Remediation
- Government Assistance
- Resources

Rain or Snowmelt Pooling



Creek or River Overflow



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Hurricane



Tsunami



Variables Affecting Impact

- Type of Crop (food, feed, forage, cover crop)
- Stage of Crop Growth/Development
- Length of Exposure
- Flooded vs Non-flooded Fields on Same Farm
- Source of Flood Waters
- Time of Year
- Potential Contaminants

FDA: Direct Contact = Adulterated



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Applies to Underground and Cooked Crops



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Work with Buyers and Certifiers



Some Crops May be Unadulterated



Don't Drive
Through Flooded
Areas

Maintain 30
Foot Buffer

Let Crop "cure"
Before Shipping

Potential Contaminants



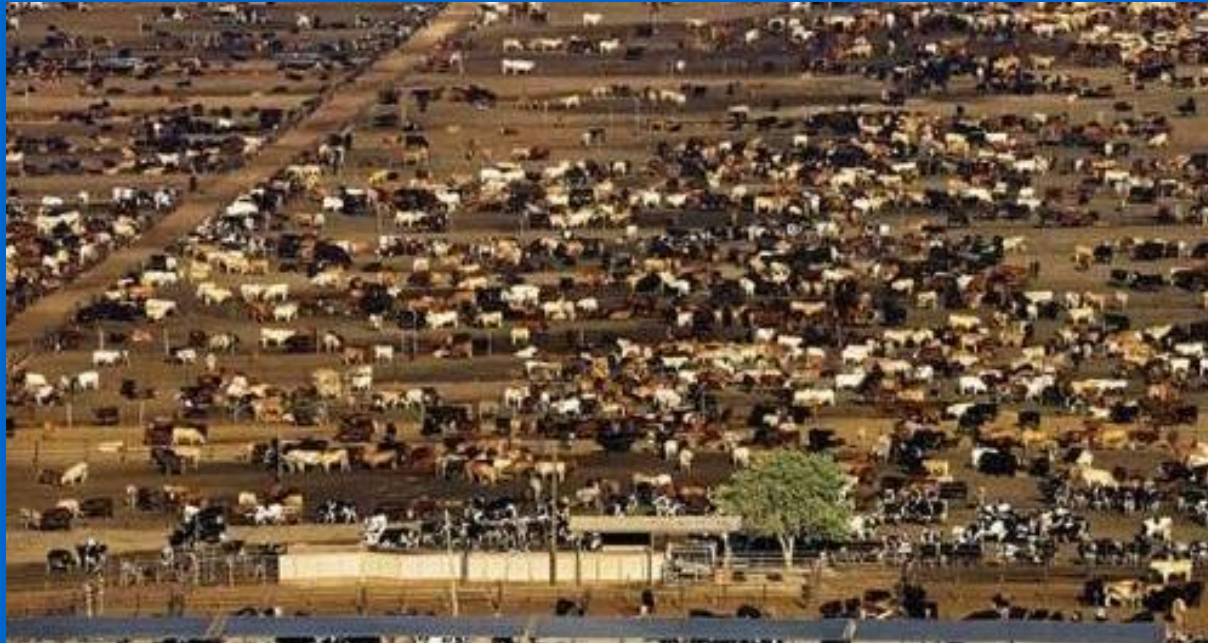
Petroleum

Pesticides

Fertilizers

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Potential Contaminants



Septic Systems; Feedlots; Animal Waste =
Pathogens

Additional Concerns



Flood waters and high moisture conditions can introduce:

Molds

Fungus spores

Mycotoxins

Bacteria

Plant Pathogens

Silt

Know Your Watershed



Even Appealing Brooks



Can Contain Pathogens



We Can't All Live Upstream



Applicable NOP Regulations

- § 205.202(b) - Land requirements - Any field or farm parcel from which harvested crops are intended to be sold, labeled, or represented as “organic,” must have had no prohibited substances applied to it for a period of 3 years immediately preceding harvest of the crop.

Applicable NOP Regulations

- § 205.202(c) - Land requirements – Have distinct, defined boundaries and buffer zones such as runoff diversions to prevent the unintended application of a prohibited substance to the crop or contact with a prohibited substance applied to adjoining land that is not under organic management.

Applicable NOP Regulations

- § 205.201 - The operation's organic system plan must contain a description of the monitoring practices to be performed and maintained to verify that the plan is effectively implemented and a description of the management practices and physical barriers established to prevent contact of organic production and handling operations and products with prohibited substances.

Applicable NOP Regulations

- §205.272(a) - Contact with prohibited substances – The handler of an organic handling operation must implement measures to protect organic products from contact with prohibited substances.

Applicable NOP Regulations

- §205.400(f) - General requirements for certification – Certified organic operators must immediately notify the certifying agent concerning any application, including drift, of a prohibited substance to any field, production unit, site, facility, livestock, or organic product; and any change in the operation that may affect compliance.

Applicable NOP Regulations

- § 205.670(b) - Inspection and testing of organic agricultural products – The USDA, State official, or certifying agent may require preharvest or postharvest testing of any input or organic product when there is reason to believe that the agricultural input or product has come into contact with a prohibited substance or has been produced using excluded methods.

Applicable NOP Regulations

- § 205.671 - Exclusion from organic sale - When residue testing detects prohibited substances at levels greater than 5 percent of the Environmental Protection Agency's tolerance for the specific residue detected, the agricultural product must not be sold, labeled, or represented as organic.

Applicable NOP Regulations

- § 205.290(a) - Temporary variances - Temporary variances from the requirements in § § 205.203 through 205.207, 205.236 through 205.240 and 205.270 through 205.272 may be established by the USDA for the following reasons:
 - (1) Natural disasters declared by the Secretary;
 - (2) Damage caused by drought, wind, flood, excessive moisture, hail, tornado, earthquake, fire, or other business interruption.

Short Term Impacts



Organic crops which come in direct contact with flood waters are adulterated, unless flooding occurred early in the growing season and crops recovered.

Adulterated crops must be destroyed.

Long Term Impacts



Typically, flooded organic land does not have to undergo 3 year transition again, unless there is evidence of persistent residues of prohibited substances.

Long Term Impacts

If there is evidence, such as:

- Oily residues on soil surface
- Soil that smells of pesticides or petroleum
- Seeds won't sprout, or die after sprouting
- Crops and/or weeds are stunted/misshapen
- Crops appear to be diseased

Then, organic crops may need tested for residues

Long Term Impacts



Organic farmers may need to: install grass waterways; improve riparian buffers; revise Organic System Plan; and/or increase monitoring of flooded fields.

Always Check with Your Certifying Agent!

Drinking Water



If your well head was submerged, re-test your well water to make sure that only safe, potable water comes into direct contact with produce or is used for livestock.

Remediation of Soils



Restore soils by:

- Removing debris
- Improving drainage
- Increasing soil organic matter
- Growing deep rooted cover crops to improve porosity

FSA Disaster Assistance

- Emergency Loans - May be used to restore or replace essential property; pay all or part of production costs associated with the disaster year; pay essential family living expenses; reorganize your farming operation; and/or refinance certain debts.

FSA Disaster Assistance

- Non-Insured Crop Disaster Assistance Program (NAP) - Producers must notify their local offices within 15 days from the disaster date. A Loss Adjuster will be sent to appraise the damaged crops. It's imperative that the crops remain in the fields until they have been adjusted.

FSA Disaster Assistance

- Tree Assistance Program (TAP) - TAP provides financial assistance to qualifying orchardists and nursery tree growers to replant or rehabilitate eligible trees, bushes and vines. To be eligible for TAP, the crop must have been covered by Insurance or NAP.

FSA Disaster Assistance

- **Livestock Indemnity Program (LIP)**
LIP provides benefits to livestock producers for livestock deaths in excess of normal mortality caused by adverse weather.
- **Emergency Conservation Program (ECP)**
ECP provides emergency funding and technical assistance for farmers and ranchers to rehabilitate farmland damaged by natural disasters.

NRCS and SWCD Assistance

- The Natural Resource Conservation Service (federal) and Soil and Water Conservation Districts (local) may have funds available to help stabilize stream banks; repair ponds; install riparian buffers; plant grass waterways; establish native plants; or implement other long-term conservation practices to remediate damage and minimize future flooding.

Resources

- FAQ for Organic Farms -
<http://nofavt.org/flood/organic-faq>
- After the Flood Food Safety Advisory -
<http://www2.uvm.edu/~emergency/?Page=news&storyID=12326&category=uvmemergency>
- Managing Flood-Damaged Crops -
http://www.uvm.edu/extension/agriculture/pdfs/flood_damaged_crops2011.pdf

Resources

- Flood Resources - <http://nofavt.org/flood>
- Managing Flood Damaged Crops and Forage from Tropical Storm Irene -
[http://pss.uvm.edu/vtcrops/articles/Flooded_Crops_Factsheet %20Irene 2011 UVMExtension.pdf](http://pss.uvm.edu/vtcrops/articles/Flooded_Crops_Factsheet_%20Irene_2011_UVMExtension.pdf)
- Post-Flooding Produce Safety for Commercial Produce Growers -
http://www.uvm.edu/extension/grower_postflood_producesafety_20sept11.pdf

Resources

- Impact of Flooding on Organic Food and Fields -
http://swroc.cfans.umn.edu/prod/groups/cfans/@pub/@cfans/@swroc/documents/asset/cfans_asset_229667.pdf
- FEMA Disaster Assistance Information -
<http://www.disasterassistance.gov/disasterinformation/flood.shtm>

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