Risk Management for Organic Crop Producers

Preventing Contamination & Seeking Compensation

WORKSHOP HANDOUT

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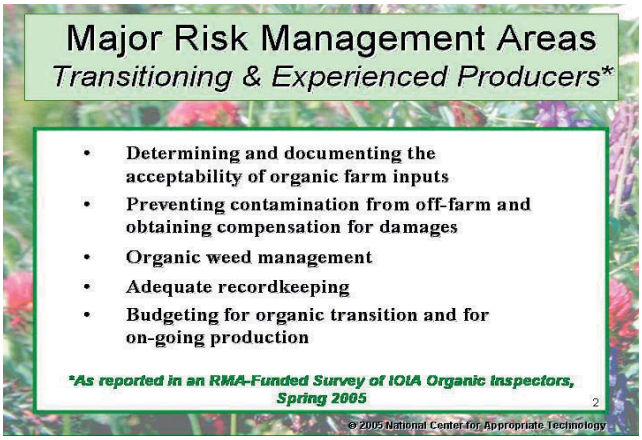
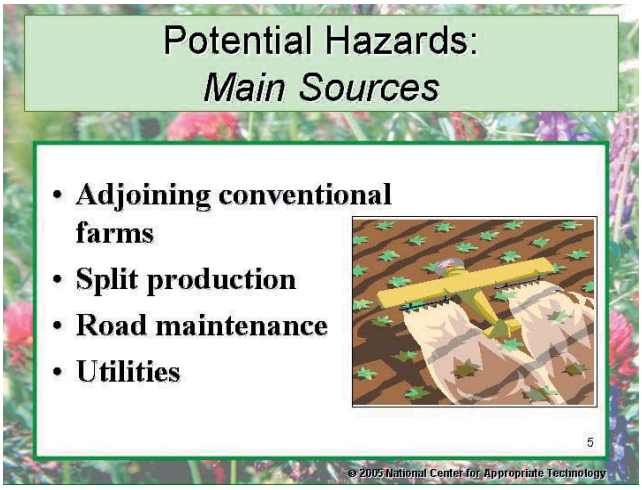
This presentation is part of a brief series on risk management for organic producers. It was produced in 2005 by the National Center for Appropriate Technology, with funding from the USDA's Risk Management Agency.



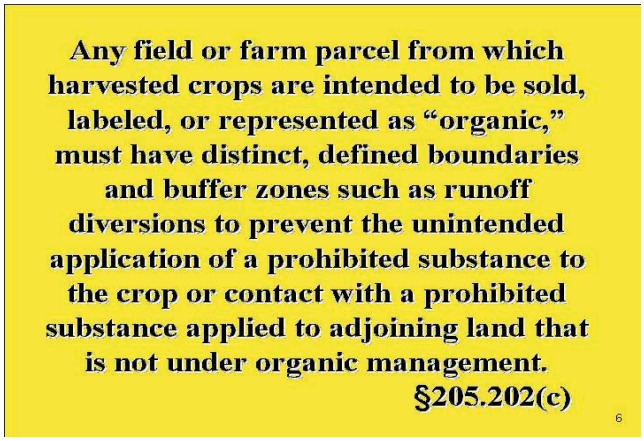
In spring 2005, the USDA's Risk Management Agency funded a survey of organic inspectors to identify the high risk areas for organic producers. The survey, conducted by the Independent Organic Inspectors Association, identified five high risk areas that both novice and experienced producers had in common. One of those risk areas is preventing contamination from off-farm sources and obtaining compensation for damages. This is the topic of this presentation.

The consequences of chemical contamination of crops can be costly. Crops that are directly contaminated cannot be sold as organic, and producers lose any market premiums they would otherwise have earned. The land affected can also be decertified for a full three years.

Let's look first at the hazards. There are a number of types.
-The most common is spray drift. Even under calm conditions, spray droplets can drift off-target and onto organic crops.
-Contaminated run-off or backflooding. This is most often caused by natural precipitation, but may also result from poorly managed irrigation.
-Inadvertant chemical application. Prohibited pesticides and fertilizers can be directly sprayed on organic fields because they are not clearly marked or because the applicator is confused or not paying attention.
-And then there are spills that can occur on-farm. Accidents can happen!



Now let's look at where these hazards originate.
-The most obvious and hardest to control source is conventional farming. This is especially true where heavily sprayed crops like cotton are grown and where aerial application is common, such as in rice production.
-Sometimes that conventional farming is very close to home. If you have a split-operation, where conventional and organic production are being done on adjacent or nearby acreages, the hazard of contamination can be very high if you are not careful.
-Road maintenance is another source of possible contamination. Many counties and townships are now using herbicides rather than mowing roadside vegetation.
-Likewise, utility crews often use herbicides to control vegetation. This can be another source of contamination.



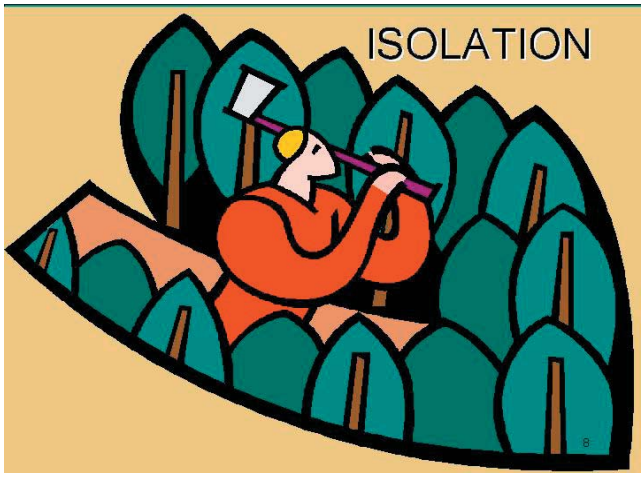
Whether fair or not, the organic producer bears the first line of responsibility for ensuring that field contamination with prohibited chemicals not occur.

Section 205.202(c) of the National Standard says:

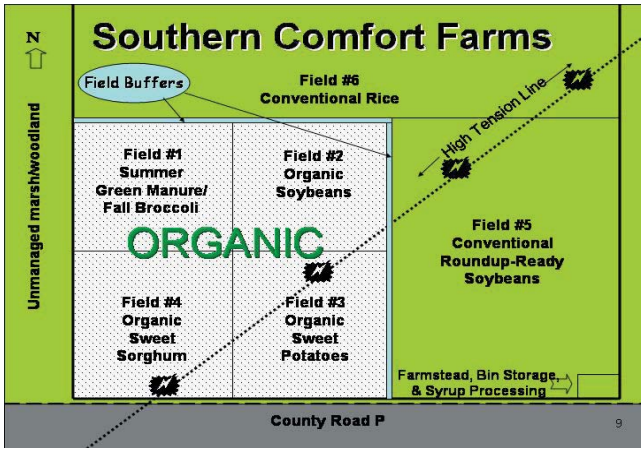
"Any field or farm parcel from which harvested crops are intended to be sold, labeled, or represented as "organic," must [h]ave distinct, defined boundaries and buffer zones such as runoff diversions to prevent the unintended application of a prohibited substance to the crop or contact with a prohibited substance applied to adjoining land that is not under organic management."

The wording is non-specific, but the goal is clear. You are to take measures to prevent your crops from being contaminated.

There are a number of tools and strategies for dealing with the hazards of chemical contamination. They include isolation, buffers, drainage diversion, signage, notification and accommodation, protocols, and good equipment maintenance. We'll talk briefly about each one.



If this were a perfect world, every organic farm would be surrounded either by other organic farms or National Forest land where no pesticides were being used. It seems idealistic to talk about, but it illustrates the desirability of land that is well-removed from sources of contamination. So if you are in the position to buy a farm for organic production, this should be a consideration.



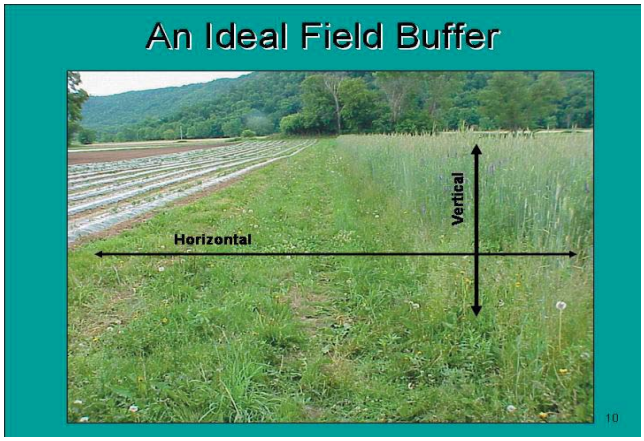
However, most organic farmers face situations like those shown on this map. The farm shown has multiple hazards for contamination from neighboring conventional production, from County road crews and from utility maintenance.

Buffer zones or strips are a very common means of preventing drift, especially when the source of contamination is conventional crop production. The buffer strips themselves can be un-cropped ground and can serve as a field access road. Some producers use the buffer strips for beneficial insect or wildlife habitat. Buffers can also be used as cropland. However, any crop harvested from a buffer zone cannot be sold as organic or fed to organic livestock. It must be used or sold as conventional. You must demonstrate to your certifier that you are able to segregate and track any buffer harvest, so it doesn't commingle with organic products. ATTRA has forms that can assist you in audit control. Information on these will be provided later.

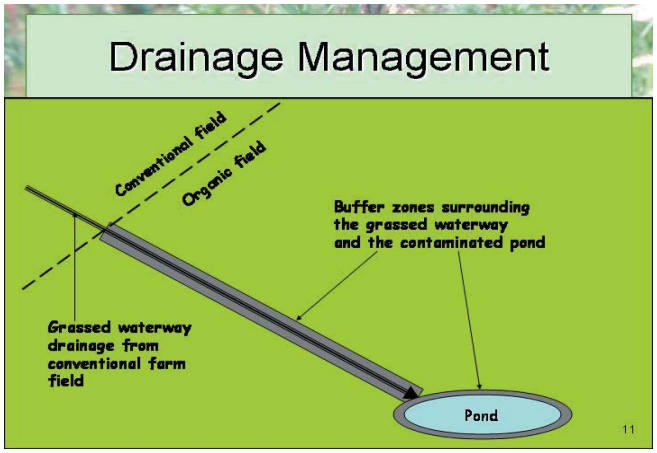
If you look at this map, you'll see a split operation, where the grower has both organic and conventional crops. Actually, this is a split operation with "parallel production." Parallel production is the term we use for farms that produce the same type of crop both organically and conventionally. In this case, it's soybeans.

The buffers are located between the organic and conventional fields here. Note that there is no buffer on the West. This is unmanaged land and not a source for contamination. No buffer is needed. How about the South border? It doesn't show a buffer. That might be a problem or it might not. Shortly we'll talk about the other means for ensuring integrity.

How wide do buffer strips need to be? It depends. Customarily, it is common for certifiers to require a 25-ft buffer zone. That would probably work fine on the eastern border, where it is likely that pesticides are being ground-applied. However, on the north side, we'd expect many, if not most, of the chemicals to be applied by aircraft, making the drift potential much higher. Unless some other extraordinary steps are being taken along this border, 25 feet is not likely to be an acceptable buffer in the eyes of a certifier. A wider buffer will likely be needed.



The photo shows an example of an excellent buffer between organic and intensive conventional production. The buffer is wide and also features tall-growing small grains that aid in blocking drift.



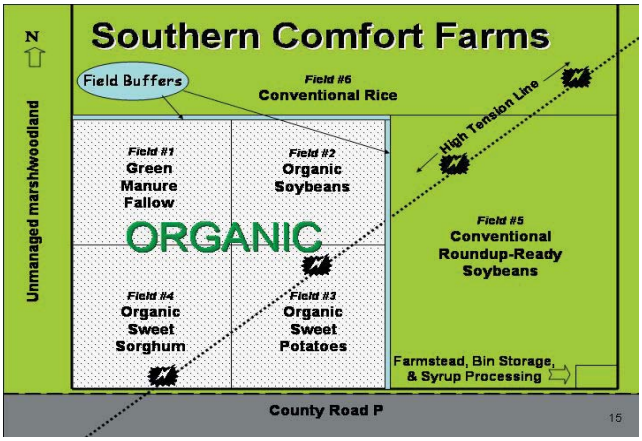
When there is the threat of drainage water running from a conventional operation onto an organic farm, diverting the flow is the best option, but that is not always possible or realistic. Here is a theoretical example of how runoff water might be managed to reduce contamination hazards. The diagram presents a situation where rain runoff flows from a heavily-sprayed conventional farm across an organic operation. The land slopes from left to right towards a pond on the organic farm. A grassed waterway has been established at the lowest point of the drainage to prevent erosion and funnel the contaminated water to the pond. In this way, the waterway maintains the integrity of the surrounding organic crop land. Because the runoff water bears a significant load of prohibited chemicals, the grass growing on the waterway is considered conventional and cannot be grazed or harvested for organic feed. The width of the waterway needs to be wide enough to carry run-off water from storms common to the area in wet years, with additional buffer width to allow for the spread of roots from organic crops. The buffer zone should continue around the pond as shown. If 50- or 100-year flood events occur and overflow the buffer zone, several feet of organic land along the waterway and the around the pond might need to be de-certified for three years.

Be certain to designate all flood-prone areas on the map you submit with your organic system plan. Explain to your certifier any steps you take to prevent contamination. Fields that flood annually might not be certifiable if the floodwater is likely to be contaminated.

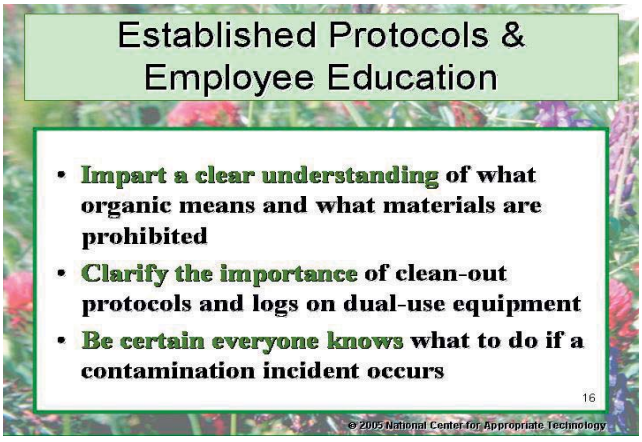
ATTRA has published a number of useful tools that can aid in documenting inputs and activities on the organic farm, including the disposition of buffer harvests. These publications are available on the Web site, or you can get a print copy by calling 1-800-346-9140.

Putting up "do not spray signs" along roadsides, utility corridors, and other hazardous borders is a recommended practice. Some certifiers insist on their use, though a few producers feel the signs antagonize neighbors and invite vandalism. ATTRA has a publication listing sources for these signs.

Approaching your neighbors and utility providers through some combination of notification and communication is one of the best things you can do to reduce the possibility of spray contamination. People can be remarkably cooperative if treated fairly and appropriately. In the case of utilities and roadside maintenance, you might arrange to mow the weeds and other vegetation where it crosses or borders your land. Certifiers will require documentation that you are making such arrangements. Sample letter forms are available in an ATTRA publication package entitled **Forms, Documents, and Sample Letters for Organic Producers**.



If we go back to our farm example, through use of documented accommodation with the utility and the road crews, the need for buffers along the road or under the utility lines might be eliminated, especially if the grower also used signage as a stop gap. Signs can be an important backup. Sometimes you have temporary workers on road crews—college students in summer, for example—and signs can help prevent an accidental spraying if the crew supervisor is not on the scene.



As we've made clear, not all hazards of contamination come from off-farm sources. This is especially true if you have a split-operation. The hazard is worsened when your labor force is poorly educated about organic farming.

Be certain to provide workers with a clear understanding of what organic production is about and explain what materials are allowed and prohibited.

Be clear about the importance of clean-out protocols and logs for dual-use equipment.

And make certain everyone knows what to do if a spill or some other form of contamination occurs.

Among the specific on-farm hazards that can occur are hazardous spills. Fuels and concentrated botanical pesticides are among the concerns on organic operations. There are important steps to follow if a hazardous spill occurs, including advising your certifier. Hazardous spills locations cannot be used for organic production, but de-certification should not extend to land much beyond the spot where the incident occurs.

However, certifiers will want to know what steps you are taking to isolate the contaminated area and ensure that organic crops and livestock are not contaminated. The slide indicates the proper steps to take.

A word should also be said about equipment. If you have a split operation, if you share equipment with a conventional operation, rent equipment, or if you are in the first stages of transitioning to organics, equipment can be a source of contamination, and care needs to be taken.

Good clean-out protocols and a clean-out log are essential for all dual-use equipment that can cause contamination. Of particular concern are sprayers, fertilizer applicators, and fertilizer and insecticide boxes on planters. Generally, certifiers do not like to see spraying equipment go back and forth between organic use and spraying conventional chemicals. Once converted to organic use, they want it to remain free of prohibited materials. Fertilizer spreaders, if they are used for prohibited materials, will require clean-out protocols and a clean-out log. Sample logs are provided in ATTRA's Documentation forms publications, mentioned earlier.

Most planters have boxes for fertilizer and for insecticides. The fertilizer boxes can be used for organic fertilizers if proper protocols are used and a clean-out log is kept. Most certifiers will want to know that the insecticide boxes are fully disconnected when the unit is used for planting organic crops. Clean-out protocols and a log will also extend to the seedbox if treated seeds are used for conventional plantings.

Finally, engine fluids belong in the engine. If you have a leaky oil pan on your tractor and the inspector is worth his or her salt, it will be written in the inspection report as a non-compliance.

In the event your organic farm suffers drift or misapplication of chemicals, there are a number of steps you should take.

How to Respond *continued*

- **Contact the land owner** and other responsible persons as soon as possible to express concerns and the possibility of damage.
- **Advise your certifier** of the situation.
- **Get as much information as possible** about the event, such as who did the application, who ordered it, product used, and its purpose, etc.

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How to Respond *continued*

- **Document** and keep any physical evidence such as plant tissue, water samples, soil samples and any other indicators of spray contact or damage
- **Contact the state department of agriculture** or department of environmental quality — whomever is responsible for handling pesticide use complaints in your state. Have them schedule an on-farm inspection as soon as possible.

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How to Respond *continued*

- **Keep good notes and records** of all communications with the parties involved: land owner, farmer, applicator, certifier, insurance agent, state officials, etc.
- **Prepare an estimate of damages** that takes into account any yield reduction, premium losses for the entire period of de-certification, loss of customer base, etc.

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How to Respond *continued*

- **Consider contacting an attorney**—ideally one that specializes in agricultural or environmental issues—especially if you expect difficulty in recovering damages.
- **Be civil and reasonable** when communicating with the responsible party or insurer, but avoid making statements that might limit your claims.

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How to Respond *continued*

- **Before signing** any settlement or accepting any payment, **ask your attorney** how it will affect any possible future claim

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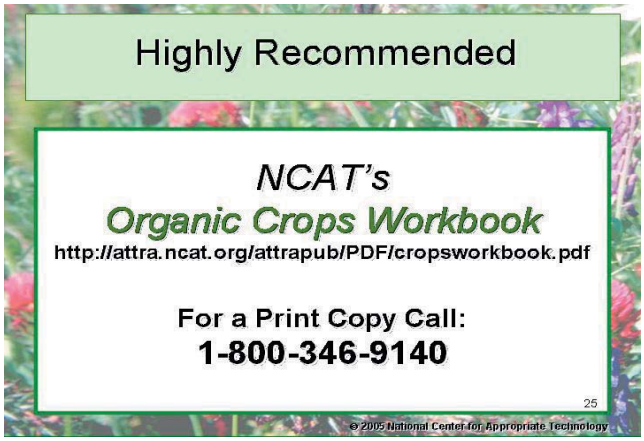

For more detail on maintaining organic integrity in the field, see **NCAT's Organic Crops Workbook**. It provides more background on these and related topics.

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