



Field Contamination

Reduce Damage and Contamination from Wild Animals

- Consider placing electric fencing around fields or crops most heavily affected by animals prior to the emergence of crops.
- Use wildlife deterrents such as owl eyes, scarecrows (move frequently), reflective objects, row covers, and noise makers. Talk to your game warden about hunting or hiring a professional trapper.
- Instruct employees not to harvest or touch produce potentially contaminated by animal feces. Such produce should never be sold or eaten by workers as once attached, pathogens cannot be washed off.



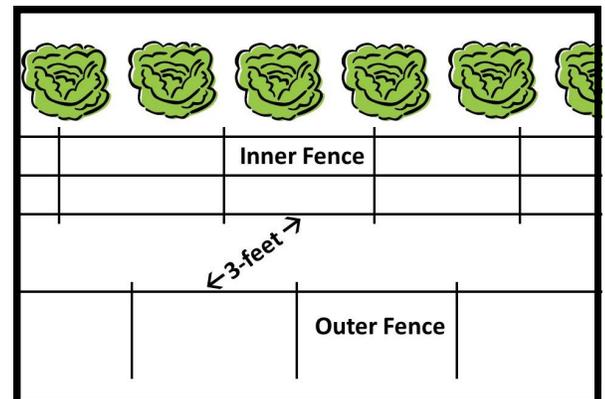
Floating row covers protecting fall crops.

Domestic Animals and Livestock

- Domestic animals can carry human pathogens. To the extent possible, keep farm pets and other domestic animals out of fields that are close to harvest. If you have U-Pick fields, keep customers' pets out of production areas (or create a designated dog area away from crops). If farm work animals are allowed in the field, pick up their manures on a daily basis and dispose of properly.
- Allow at least 120 days between the presence of livestock in fields and harvesting of crops. If using draft animals, remove manure immediately from fields that will be ready for harvest within 120 days. **[Note: this may differ if your farm falls under the Food Safety Modernization Act].**

What is 3D Deer Fencing?

- Two fences placed three feet apart. Deer avoid jumping the fences due to their poor depth perception.
- Design the inner fence to meet other wildlife or livestock control needs.
- The outer fence can be just one electric strand.
- Apply scent caps or peanut butter to the electrical tape or rope of the outer fence to "train" the deer.



Advantages—Low cost of electrical tape / rope, flexibility in design of inner fence, easily movable, effective.

Disadvantages—Requires the use of an energizer and either a solar charger or an electrical supply.

Read more and see examples at: http://www.premier1supplies.com/fencing.php?mode=detail&fence_id=31

Field Workers and Visitors

- Create and implement sick and injured policies for workers. Workers with diarrhea, vomiting or other gastrointestinal symptoms such as stomach cramping should not handle field produce.
- Instruct workers to completely cover fresh or open wounds with a bandage or dressing and change bandages or dressings if they become wet or dirty. Gloves must be worn over bandages on hand wounds. In most cases, workers with bleeding wounds should not have contact with the edible portion of the crop for the remainder of the day.
- Create a plan and train employees how to dispose of produce contaminated or potentially contaminated by body fluids (e.g., blood, urine, vomit). Contaminated produce should never be sold or allowed to go home with workers.
- Require workers and visitors to wash their hands prior to entering fields close to harvest, particularly if they have had contact with animals.

Machinery and equipment

- Create a maintenance schedule for tractors and other farm equipment to reduce the likelihood of oil or other fluid leaks or spills in the field.
- Consider using biodegradable, vegetable-based, or food-grade lubricants for machinery used in fields. See <http://renewablelube.com/>



Chemical Applications

- Everyone handling and applying regulated commercial pesticides should be trained as a certified pesticide applicator (see side box).
- In the event of improper chemical application (dose or timing), assess the risk to the affected crop and discard as appropriate.
- Only potable water should be used in pesticide applications close to harvest.

Weather-related Damage and Contamination

- According to the FDA, if floodwaters touch the edible portion of a crop, the crop is no longer fit for human consumption. Consider an early harvest when flooding is expected, or plant tall crops (e.g., sweet corn), fruit trees, or non-edible crops in areas prone to flooding.
- Hail and other severe weather can leave crops dented or bruised and more susceptible to rotting and contamination (particularly those crops that rest on the ground). Monitor crops close to harvest for damage after inclement weather and discard bruised and damaged produce.

For more information on pesticide application safety, training and certification see:

Pesticide Education and Safety Program: <http://pss.uvm.edu/pep/>

Vermont Agency of Agriculture, Agrichemical Management: <http://www.vermontagriculture.com/ARMES/pest.htm>

January 2013. Center for Sustainable Agriculture, University of Vermont Extension. <http://www.uvm.edu/~susagctr/?Page=gaphome.html>

UVM Extension helps individuals and communities put research-based knowledge to work. Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, in cooperation with the United States Department of Agriculture. University of Vermont Extension, Vermont. University of Vermont Extension, and U.S. Department of Agriculture, cooperating, offer education and employment to everyone without regard to race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or familial status. Any reference to commercial products, trade names, or brand names is for information only, and no endorsement or approval is intended.