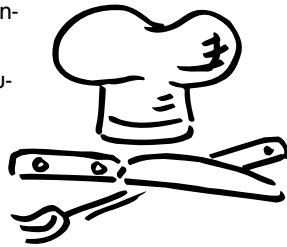


# CATERING AND FOOD PROCESSING

## WHY BE CONCERNED?

Most wastes associated with food products may not be considered hazardous; however, food-related businesses can contribute to environmental pollution. Waste such as food oil or grease can harm the environment if placed in leaking trash bins or if poured down drains. Pipes leading to sanitary sewers can become clogged with grease. Pouring improper substances down the drain may damage microbial activities of on-site sewage systems. Compostable kitchen scraps can unnecessarily take up sanitary landfill space or create vector problems. Kitchen cleaners and sanitizers may contain products hazardous to both humans and to the environment, for example, waste food oil dumped in a stream caused a fish kill in Kansas.



If animals are processed, their by-products, if not properly disposed, could harm the environment. Other areas of concern include the following:

- Water use
- Wastewater and biochemical-oxygen-demand (BOD) generation
- Supplier environmental stewardship (livestock producers)

## IDENTIFY ENVIRONMENTAL RISKS

Processes and potential wastes associated with catering and food processing that could harm the environment are listed below. Check  the activities that apply to your business.

- Food storage – outdated inventory, damaged pallets, and damaged containers
- Food preparation – compostable waste, solid waste, and wastewater
- Food display and service – paper, plastic, and other solid waste
- Food transportation – aluminum foil, aluminum and plastic containers, and other solid waste
- Food processing, cooking off-spec product, waste oils, spent and dirty filters, and empty raw material containers
- Food processing, butchering – animal by-products and wastewater
- Food processing, canning – sludge, off-spec product, spent and dirty filters, empty raw material containers, and outdated inventory

## IDENTIFY METHODS OF WASTE DISPOSAL

Check  the waste disposal methods that you use.

- Municipal sanitary sewer
- Septic system or lagoon
- Ground, storm sewer, or surface water
- Licensed hazardous waste disposal option
- Licensed sanitary landfill/transfer station
- Compost
- Recycle
- On-site landfill (prohibited in most cases)
- Incineration/on-site burning (see Solid Waste section)

**If your home-based business discharges its non-domestic waste to a septic system, then your business is required to complete and submit an inventory form to KDHE. For inventory forms, call KDHE at 785-296-5560. Some wastes associated with a home business are considered “industrial waste” and may not be disposed of in a septic tank or domestic lagoon. Non-domestic waste from your home-based occupation should not be disposed of in a sanitary sewer without written permission from the municipality. Never put wastes in a storm drain or dump on the ground! See Wastewater section in the front of this publication.**

## BEST MANAGEMENT PRACTICES

- Reuse or recycle excess, off-specification materials; outdated inventory; and quality control samples by using as an animal feed or by composting, when allowed by law.
- Compost food scraps that don't contain fat.
- Recycle cardboard, paper, aluminum foil, aluminum cans, tin cans, plastic, and glass. Make sure these items are cleaned.
- Keep waste streams separate for reuse, recycling, or treatment. Keep non-hazardous materials from becoming contaminated.
- Use “dry cleanup” methods. Scrape and scoop before washing down.
- Send used vegetable oil and grease to a renderer or periodically transport to a restaurant that has a grease bin for recycling.
- Small animals like chickens can be composted. For more information, obtain Bulletin W • 211, *Composting Layer Mortalities: Agri-Foods*

*Composter*, published by University Extension, University of Missouri-Columbia.

- Food-related wastewater is considered domestic and can be disposed in septic systems, if not loaded with grease or chemicals. However, increased volume puts a burden on your septic system. The septic tank will need to be pumped more frequently. The additional water can overload the septic field and cause system failure if the system is not sized correctly to handle the additional volume.

**Disposal of any wastes other than domestic wastes to an on-site septic system or lagoon is prohibited. Never dump wastes onto the ground or into a storm drain. This practice can result in the contamination of streams, lakes, or groundwater.**

- Wastes determined to be hazardous, such as from cleaning supplies, must be disposed of in an appropriate manner. If you are a business and considered a small quantity generator (SQG), see the Hazardous Waste section at the front of this module to determine your disposal options. It is best to fully use hazardous products, so there is no waste.
- Practice water conservation to minimize impact to your waste treatment system.
- Plan for increased solid waste pickup, both volume and frequency.
- Unused or abandoned wells should be plugged in accordance with KDHE regulations. Abandoned wells, if not properly sealed, can provide a direct route for contamination to enter the groundwater. In addition, open wells are a safety threat to small children and animals. A record of the plugging should be filed with KDHE. For more information, consult the general Water section of this document or call KDHE at 785-296-3565.

### **POLLUTION PREVENTION AND WASTE MINIMIZATION OPPORTUNITIES**

- Keep storage and work areas clean and well organized, and keep all containers properly labeled.
- Inspect materials upon delivery, and immediately return unacceptable materials to the supplier.
- Keep accurate records/inventory of raw material usage. Mark the purchase date on each container and practice "first in, first out" so that older materials are used up before new ones are opened.



- Make purchases with waste reduction in mind. Purchase products in recyclable containers. Buy concentrated products to reduce number of empties discarded.
- Practice preventative maintenance to avoid future losses. Periodically inspect containers and equipment for leaks.
- Keep all containers covered to prevent evaporation, contamination, spillage, or drying out of contents. Good protection means less product lost and better retention of quality.
- Substitute less toxic or non-toxic substances as cleaning agents.
- Conserve water. Use automatic shutoffs on hoses and at wash stations. Use high-pressure, low-volume washing systems.
- Use non-disposal products (such as ceramic dishware) when possible.
- Add electrical circuits for additional equipment as needed for your business. This will assure refrigeration equipment operates reliably and food does not have to be discarded.

**The Small Business Environmental Assistance Program, SBEAP, is a confidential non-regulatory program funded by the state in an effort to assist small businesses with environmental concerns. Contact the SBEAP at 800-578-8898 or [www.sbeap.org](http://www.sbeap.org) if you have questions.**

- Put thermometers in each refrigeration unit and monitor to be sure it operates properly at 40°F or less. Periodic thermometer checks will reveal failure of equipment in time to take steps to protect the food and avoid waste.
- Control vectors to avoid losses due to insect or rodent contamination. Following are some good practices:
  - Freeze-dry cereal products for at least three days at 0°F. This kills insect eggs so that weevils, etc., don't hatch. Infestation forces discard of the product and unnecessary waste.
  - Store cereal products in tightly closed, insect-proof containers. (Caution: Never store food in reused chemical containers!)
  - Store all foods at least six inches off the floor.
  - Keep outer openings (bottom of doors, pipe penetrations) sealed or screened to exclude rodents.
  - If insect or rodent control measures become necessary, protect food and clean utensils so that poisons do not contact them.
- Abandoned wells should be plugged and reported in accordance with KDHE regulations (see Water section).
- Home\*A\*Syst at K-State Extension at 800-578-8898.
- The Kansas SBEAP has several publications that address these issues of regulatory compliance and pollution prevention. See the list of SBEAP publications at the end of this manual, or go to **www.sbeap.org** to view or download.
- For questions, call 800-578-8898. Services are free and confidential.
- A summary of environmental laws is found in the introduction/preface. The following laws may be applicable to this business:
  - wastewater regulations
  - solid waste regulations
  - storm water regulations
- Regulatory compliance information can be viewed or downloaded from the KDHE Web site at **www.kdhe.state.ks.us**.
- Bulletin W • 211, *Composting Layer Mortalities: Agri-Foods Composter*, published by University Extension, University of Missouri-Columbia.
- See Resources section at the back of this document.

### WHERE TO GET MORE INFORMATION

- Your county K-State Research and Extension office.
- Your county health department.
- Food\*A\*Syst at K-State Research and Extension at 785-532-1213.
- Farm\*A\*Syst at K-State Research and Extension at 785-532-5813.

### SOURCES AND ACKNOWLEDGMENTS

- Minnesota Technical Assistance Program fact sheet, *Source Reduction and Management Alternatives for Commercial Food Producers*.
- Delaware Department of Natural Resources and Environmental Control fact sheet, *A Pollution Prevention Guide for Food Processors*.
- Alabama Small Business Environmental Assistance fact sheet, *Food Businesses*.

### ACTION STEPS

What can you do to reduce wastes or environmental risks?	Set target dates for action.