

## **3.2.3 Agricultural Business: Food Processing**

### *Tip Sheet #1*

**WASTE ORIGIN:** General Operations

**WASTE TYPES:** Waste Food and Food By-products

#### **WASTE REDUCTION AND RECYCLING METHODS:**

- ! Reduce landfill and wastewater treatment costs by **decreasing waste material and by-products** in production processes:
  - ! Use ***brooms and scrapers*** to clean floors while they are dry before washing down with water;
  - ! Use ***high-pressure spray washes*** during cleanup to conserve water;
  - ! ***Dedicate mixing lines*** to certain products to reduce changeover cleanups;
  - ! ***Minimize spills and leaks*** on the production line to prevent raw materials from becoming wastes.
- ! Use food **by-product as an animal feed**:
  - ! ***Advantages*** over composting or landspreading include: fed to livestock in original form (check with local animal health authorities to see if permit is required), fed in both liquid and solid form, and can be fed all year regardless of weather conditions.
- ! **Composting** by-products creates useful soil additive called humus with the following benefits:
  - ! ***Low transportation costs*** from on-site composting; volume and weight of wastes can be reduced up to 40 percent;
  - ! ***Low capital investment*** is required since composting is a batch process using a simple pile and windrow system for biological breakdown;
  - ! Useful for ***seasonal processors*** like canneries whose wastes may be available for only a short period and not acceptable for livestock producers as feed;
  - ! ***Humus can be stored without spoiling***; raw food by-products cannot.
- ! **Landspreading** incorporates by-products directly into the soil with the following benefits:
  - ! A separate on-site ***compost facility is not necessary***;
  - ! The finished product ***does not have to be stored***;
  - ! Finished product ***does not have to be transported***; it becomes a plant nutrient in the soil.

#### **Sources:**

Fact Sheet: *Source Reduction and Management Alternatives for Commercial Food Producers*, Minnesota Technical Assistance Program, Minneapolis, MN, Publ. 12/94-76, December 1994.

Fact Sheet: *Composting and Landspreading Commercial Food Wastes*, Minnesota Technical Assistance Program, Minneapolis, MN, Publ. 12/94-78, December 1994.

*On-Farm Composting Handbook*, Northeast Regional Agricultural Engineering Service, Cooperative Extension, Ithaca, NY, June 1992, NRAES-54.