

## Mushroom Compost

### **A GUIDE FOR HANDLING, PASSIVE COMPOSTING STORAGE, TEMPORARY STORAGE, AND LAND APPLICATION OF MUSHROOM COMPOST**

*(Information taken from “Best Management for Environmental Protection in the Mushroom Community”)*

The handling, temporary storage and spreading of mushroom compost should be done in accordance with a Mushroom Farm Environmental Management Plan (MFEMP). These Resource Management Plans include a system of best management practices (BMPs) to minimize soil erosion, ground water degradation, and surface water pollution. If a farmer has an implemented conservation plan that reflects their current operation, adhering to the following guidelines will suffice as an MFEMP.

If mushroom compost is land applied to crop or hay land as a soil amendment or spread in accordance to an implemented conservation plan approved by the Conservation District, the activity is considered a normal farming practice.

Contact the Chester County Conservation District (CCCD) or the Natural Resources Conservation Service (NRCS) for more information on MFEMPs, cost incentive program availability, and other information on mushroom farm conservation.

#### **PASSIVE COMPOSTING STORAGE PADS**

1. A compost management plan or a component added to existing soil plan addressing passive composting should be created and approved by the Chester County Conservation District.
2. This plan shall include (but is not limited to) the following Best Management Practices:
  - a. 100-foot wide grass filter strips around the composting area, area below composting site should have specified distance of filter area in place, depending on pad and site.
  - b. Specific designation of a compost area
  - c. Location designation for and design of trucking and access lanes
  - d. Establishment of application area location and maximum size
  - e. Requirement that the composting area go through a resting period of 2 years between composting cycles, exceptions made for impervious stacking pads.
  - f. An initial assessment on the need for groundwater and surface water monitoring.
3. Stacking pads should be determined as impervious or pervious.
  - a. Impervious: water does not infiltrate, made of rolled earthen material or concrete
  - b. Pervious: water can infiltrate, grass or bare soil exposed areas.

4. Waste storage for runoff, whether temporary or permanent, should meet Waste Treatment Standards, and suit the pad site.
5. Storage pads needed to be in operation for 6 or more months to be considered a storage/stacking pad.

### **TEMPORARY STORAGE OF MUSHROOM COMPOST TO BE SPREAD**

1. Store only in grass, hay, or corn fields with a cover crop, on which mushroom compost will be spread prior to the next growing season.
2. Proper location of storage areas
  - a. Stack temporary material in windrows, to allow water to shed
  - b. Locate windrows at least 300 feet from houses, wells or other sources of water supply
  - c. Locate windrows at least 100 feet from property boundaries, springs, seeps, natural watercourses or waterways.
  - d. Locate windrows as near to the top of field slopes as possible, except if there are flatter areas down slope and concentrated flow areas can be avoided.
  - e. Always locate windrows on slopes of less than 8%
  - f. Windrows are to be rotated in stacking areas to prevent too much compaction and wear and tear on fields where stacking occurs.
3. Mushroom compost will never be stacked in piles higher than 6 feet
4. Mushroom compost can only be stored on cropland fields if a site is approved in advance. This site may be included as a part of your MFEMP or conservation plan.

### **SPREADING MUSHROOM COMPOST ON HAYLAND & CROPLAND**

#### **GUIDELINES FOR DETERMINING APPLICATION RATES**

1. The mushroom compost should be analyzed for nutrient content, specifically for N, P, and K in each field.
2. A soil test should be used to determine current levels of N, P, and K
3. The application rate should be based on the crop removal of nutrients and any soil deficiencies of N, P, and K.
4. The application rate should be adjusted if any other source of N, P, or K is used. An example would be starter fertilizer for corn or hay establishment.
5. The application of mushroom compost on legume crops is generally not recommended since these crops do not require nitrogen (they fix their own).
6. In the absence of a nutrient analysis of mushroom compost on hay land, apply no thicker than 1 inch, 130 cubic yards per acre, of fresh spent mushroom compost.
7. In the absence of a nutrient analysis of mushroom compost on cropland apply no thicker than 3 inches, 390 cubic yards per acre, of fresh spent mushroom compost.
8. It is not recommended to apply mushroom compost for more than one year without following the testing procedures outlined above.

#### **GENERAL GUIDELINES FOR APPLICATION OF MUSHROOM COMPOST**

1. The application of mushroom compost to hay land or cropland is based on the removal of nutrients by harvesting or otherwise removing the crop. Mushroom compost cannot be applied if a crop is not being harvested or otherwise removed on a regular basis.
2. Spreaders should be calibrated to apply the calculated rate of mushroom compost.

3. All structural BMPs (diversions, waterways, terraces, basing, etc.) must be installed prior to the application of mushroom compost.
4. It is recommended that a nutrient management plan be developed to provide adequate guidance in determining application rates of mushroom compost. This plan will insure adequate nutrients are available for crop production and that excessive application of nutrients, especially N and P, does not occur.
5. 100' setback or 35' permanent vegetative buffer for permanent & intermittent streams, lakes, ponds, existing open sinkholes
6. 100' setback for private and public wells/springs
7. 100' winter setback, if surface flow towards:
  - a. Intakes to agricultural drainage systems
  - b. National Wetlands Inventory (NWI) wetlands in 100 yr floodplain of EV stream reaches
  - c. Within concentrated water flow areas in which vegetation is maintained, such as ditches, waterways, gullies, and swales, during times when soil is frozen, snow covered, or saturated.

***The owner/operator is responsible for operation and maintenance of their Nutrient Management Plan or Mushroom Farm Environmental Management Plan and must adhere to all Federal, State, and local laws, and regulations. Guidance provided in the manual "Best Management Practices for Environmental Protection in the Mushroom Farm Community" take precedence over this abbreviated quick reference.***