How To Make A Waste Stacking, Handling Pad

UNIVERSITY PARK (Centre Co.) — An agricultural waste stacking and handling pad is a low-cost storage or composting facility.

This low-cost stabilized surface is used for temporary storage and handling of solid and semi-solid animal manures or other organic wastes.

An agricultural waste stacking and handling pad provides a solid all-weather working surface for storage and/or composting of manure, equipment operation, and a method for controlling surface water flow onto and off the storage.

The type of base used for the surface will depend on usage and site conditions.

While this system is lower cost, it requires higher management. There is a direct trade-off between the dollars saved and the higher management requirement.

Construction, maintenance, and management of the pad must include:

1. establishment and maintenance of a permanent working surface where the product will be stored or handled and equipment operated,
2. diversion of clean surface water away from the pad,
3. control and/or collection of the runoff from the pad, and
4. utilization or disposal of pad runoff in an environmentally sound manner.

This report provides a brief overview and does not contain all design, construction, management, and maintenance information. For complete information on design and construction of an agricultural waste stacking and handling pad, seek assistance from the USDA Soil Conservation Service or a qualified design engineer.

Location

Identification of a suitable location for a pad is an important early step in the process.

The location should provide protection of air and water resources, be accessible under all but extreme weather, and minimize the distance from the storage to the spreading destination. There needs to be an area below or within conveyance that is suitable to receive or collect the runoff.

The pad needs to be out of any flood plain or watercourse, and off-site surface water must be diverted away from the pad if more than 50 feet below the top of slope.

Site selection should also consider visibility by others. If there is a concern, locate the pad out of view or screen with shrubs or trees.

Layout

There are three things to consider in the layout of the pad: site grade, cut area, and orientation.

The site grade should be from 2- to 4-percent for positive drainage, while the cross slope should be no more than 1 percent to minimize the chance of water running off the end of the pad.

Any cut or fill slopes should not exceed 3:1, to allow for mowing.

The orientation of the pad depends on its purpose, and should minimize the number of cuts and fills. If the pad is to be for composting, the orientation generally is longer up and down the slope to allow the windrows to run parallel to the slope to prevent ponding of water behind the windrows.

The orientation of a stacking pad is not as important. To minimize ponding, load the pad from the upper side to the lower.

Sizing

There are two general requirements for the sizing of a pad.

Size the pad based on the amount of manure to be stored and the amount of land available for spreading. It must be large enough to store the accumulation of manure as required by the Waste Management Plan or Nutrient Management Plan, and not over the utilization capability of the area within economic hauling distance.

For a composting pad, the number of windrows, windrow width and spacing, and any stockpiling area also needs to be considered. These values are dependent on the equipment that will be used in the composting.

Typical dimensions for windrows turned with a loader are 6- to 12-feet high, 10- to 20-feet wide, with 10- to 20-feet distance between the windrows, depending on the size and maneuverability of the loader.

(Turn to Page D10)

Delaware Honors Achievements

NEWARK, Del. — On May 6, the University of Delaware held its annual Honors Day program to acknowledge the achievements of outstanding students. Many students from the College of Agricultural Sciences were recognized.

The Delaware Collegiate Future Farmers of America recognized those members of the Chapter who earned a 3.0 index or better; Kimberly A. Alexander, Kathryn D. Baxter, Colleen P. Modesto, Kathryn J. Palmer, Deborah L. Short, Forrest L. Sprague. The outstanding Collegiate FFA Member Award went to Kimberly A. Alexander, and a $200 Collegiate FFA Scholarship went to Stacey L. Bonvetti.

Scott E. Wright was named the outstanding Animal Science Club senior member. Catherine J. Calvelli and Anisa B. Haideri were selected as outstanding Equestrian Club members. Outstanding Food Science Club members were Laura E. Towers and Elizabeth Locke Styer.

American Society of Animal Science Scholarship awards went to the following students: (seniors) Marcy D. Auletta, Marina R. Haynes, Ryan D. Ranck, Tracy L. Soisson and Phaedra I. Tavlarides; (juniors) Kimberly A. Alexander, Beth H. Gutowski, Claudia P.D. Ockert, Christopher G. Randla and Roberta A. Smith.

Alpha Zeta, a national agricultural honor fraternity, elected the following students from the upper two-fifths of their respective classes for demonstrated superior scholarship, leadership and service: Eric R. Benson, Stacey L. Bonvetti, Mary K. Dellostritto, Amy M. Denny, Lisa R. Emele, Gregory M. Greene, Erin S. Gries, Scott E. Hevner, Stuart W. Horlacher, Heather Lomberk, Marie E. Meyer, Jennifer A. Midiri, Samantha C. Murray, Linda V. Pill, Michael S. Price, Christopher G. Randla, Robert R. Rice Jr., Isaac R. Rodriguez, Robert D. Rohrer, Nicole S. Sklarz, Shannon I. Tilmon, Lori Z. Unruh, Yancy S. Velasquez, Jean E. White and Bethany K. Zeleski.

Mortar Board is a national honor society for seniors from all colleges that recognize outstanding scholarship and service. Grace E. Edmonds was elected from this college.

Phi Kappa Phi, a national honor society electing university students who demonstrate scholarship, selected Sally L. Goodman, Christopher G. Randla and Craigie E. Succop.

The Agricultural College Council recognized the following students in the college for demonstrating an outstanding amount of dedication, interest, and enthusiasm; Braden G. Cammauf, Catherine J. Cavelli, Wendy A. Cutler, Lynn A. Doty, Anisa B. Haideri, Linda V. Pill, Daniel D. Severson, Deborah L. Short, Scott R. Webb, Scott E. Wright and Elaine E. Zeitler.

The Alpha Zeta Annual Freshman Award is a certificate of merit awarded to freshman

(Turn to Page D10)