### LAND APPLICATION OF MANURE

A supplement to Manure Management for Environmental Protection

# MANURE MANAGEMENT PLAN WORKBOOK

To Be Completed, Implemented and Retained By All Farmers that Land Apply Manure



October 29, 2011

### MANURE MANAGEMENT PLAN CHECKLIST

	Manure Management Plan Page No.	Completed or Reviewed	Not Needed
REQUIRED SECTIONS			
Contact Information Page	2		
Operation Information Page	3		
Environmentally Sensitive Areas Worksheet	4		
Winter Application Worksheet	5		
Manure Management Plan Summary	6		
Farm Map	7		
Recordkeeping	11-15		
Managing Manure Storage in Structures and Stockpiling Areas (If the farm has manure storage)	19		
Manure Storage Facilities Worksheet	8		
Manure Stockpiling and Stacking	20 of Instructions		
<b>Managing Manure in Pastures (If the farm has pastures)</b>			
Pasture Management Worksheet	9		
Animal Concentration Areas (If the farm has ACAs) SEE NOTE BELOW			
ACA Worksheet	9-10		
Please note that all farms with crops or ACAs must also have an Agricultural Erosion and Sediment Control Plan meeting the requirements of 25 Pa. Code Chapter 102.  Additional information can be obtained from the county conservation district.			

### MANURE MANAGEMENT PLAN

#### **CONTACT INFORMATION PAGE**

(See Page 3 of Manure Management Guidance Instructions)

Farm Name:	
Name of Owner/Operator:	
Operation Street Address:	
City, State and Zip Code:	
Phone number (Home/Barn):	
(Cell):	
Email Address:	
	n preparing the Manure Management Plan if other than owner/operator)
- (	
Preparer Name:	if other than owner/operator)
Preparer Name: Preparer Organization:	if other than owner/operator)
Preparer Name: Preparer Organization: Street Address:	if other than owner/operator)
Preparer Name: Preparer Organization: Street Address: City, State and Zip Code:	if other than owner/operator)
Preparer Name: Preparer Organization: Street Address: City, State and Zip Code: Phone Number (Business):	if other than owner/operator)

Note that the manure management plan must be evaluated by the owner/operator annually and updated when necessary to keep the plan consistent with farm management practices.

### **OPERATION INFORMATION PAGE**

(See Page 4 of Manure Management Guidance Instructions)

a.	Acres of the	operation available f	or manure application:	Owned	_ Rer	nted		
b.	Animals on	the operation:						
		Animal type	Animal # (normal production day)	Days on farn per year	1			
c.	Crop Rotati	ons used on the Opera	ation (use additional pag	ges if necessary)	 :			
d.	Private or pu Streams, lake Sinkholes Areas of cond	centrated flow including			Yes Yes Yes Yes Yes		No No No No No	
	C		itive areas must complete map of environmentally se		ally Se	ensiti	ve	
e.		-	oplied during the winter? er Application Worksheet	on page 5.	Yes		No	
f.	(concrete tan synthetic line	k, metal tank, under bued pond or lagoon, etc.)	nure stored in a manure storiding structure, earthen, one of the storage Facilities Work	clay, or	Yes		No	
g.	Is manure sto If yes, you m		C	ng Manure	Yes		No	
h.	•	res: Ownedntaining pastures must	Rented complete the Pasture Man	agement	Yes		No	
i.	If yes:	_	CAs):  Rented   omplete the ACA Workshop	eets on	Yes		No	

#### ENVIRONMENTALLY SENSITIVE AREAS WORKSHEET

Use Additional Sheets as Necessary (See Pages 6 and 7 of Manure Management Guidance Instructions)

Field Identification	Environmentally Sensitive Area (stream, lake, pond, sinkhole, drinking water source, concentrated flow area)	Setback or restricted distance	Is this setback restricted area shown on the plan map (yes/no)

#### WINTER APPLICATION WORKSHEET

Use Additional Sheets as Necessary (See Pages 8 and 9 of Manure Management Guidance Instructions)

Field Identification	Type of Manure (from the manure application charts)	Winter Season Application Rate	Percentage of Crop Residue	Type of Cover Crop (if applicable)	Field Slope Percentage

#### MANURE MANAGEMENT PLAN SUMMARY

**Use Additional Sheets as Necessary** 

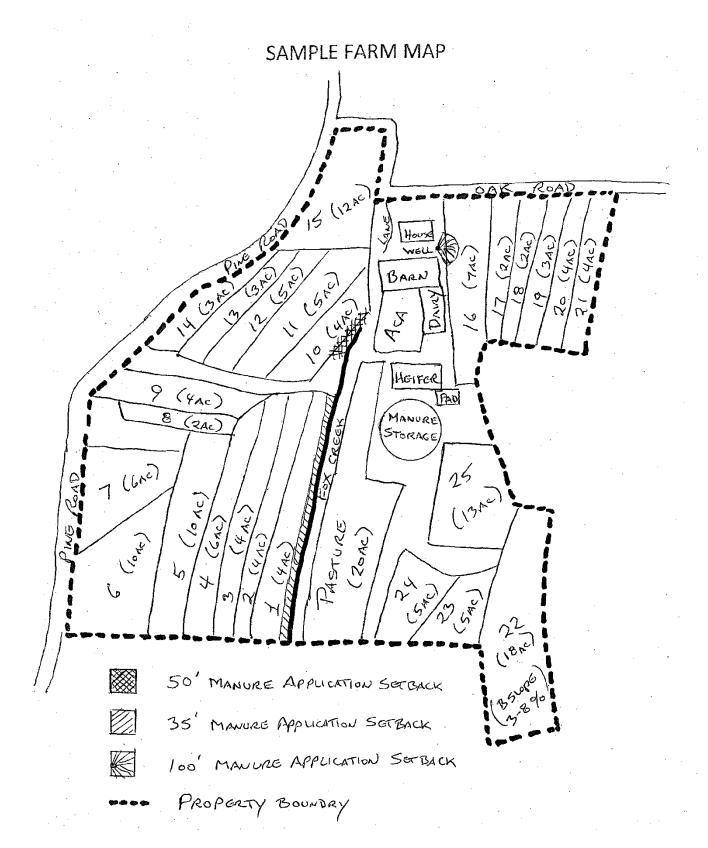
(See Pages 10-12 of Manure Management Guidance Instructions)

Crop Group and Yield (a)	Manure Group (b)	Application Season (c)	Planned Application Rate from C, NBS, PI * (d)	Incorporation Timing (e)	Commercial Fertilizer Application Rate (f)	Fields where this crop group can be used (g)

<sup>\*</sup>C - The application rate was taken from the charts in Appendix 1. Page 2 of Appendix 1 contains an explanation and example of how to use the rate charts when filling out this Manure Management Plan Summary.

- NBS The application rate was calculated using Nutrient Balance Sheet.
- PI The application rate was calculated by a Certified Nutrient Management Planner using the Phosphorus Index.

No single application can exceed 9,000 gallons. For applications rates greater than 9,000 gallons, the application must be split into multiple applications with no evidence of pooling between applications.



#### MANURE STORAGE FACILITIES (PROVIDE FOR EACH FACILITY)

Use Additional Sheets as Necessary (See Page 18 of Manure Management Guidance Instructions)

Type of storage(s) (concrete or metal tank, under building structure, earthen or clay or synthetically lined pond or lagoon, exposed concrete pad, roofed solid manure stacking pad, etc.) and year(s) of construction:
Approximate size and volume (for liquid and semisolid manure) of existing manure storage(s), indicate if exposed to precipitation.
Indicate if any additional materials are added to the manure including bedding, agricultural process wastewater (water system overflow, wash water, milkhouse waste, egg wash water, etc.):
Manure storage(s) related practices that need to be installed on the farm to address identified problems (such as inadequate storage volume, leaking facilities, inadequate maintenance, runoff from a stack that directly reaches a water body, etc.) and an implementation schedule (season and year) for installation of the practices:

**NOTE** - If you generate or import agricultural process wastewater at the farm, this wastewater must be included in your manure management plan. On many farms, this wastewater is mixed with manure within the manure storage facility. In that case, there is no separate planning requirement for the agricultural process wastewater. If the agricultural process wastewater is not mixed with manure in the manure storage facility, you should contact the county conservation district or DEP to discuss the process for managing that wastewater.

#### PASTURE MANAGEMENT WORKSHEET

(See Page 21 of Manure Management Guidance Instructions)

All pastures on the farm must be listed in the Manure Management Plan and identified on the farm map. Please identify your pasture management approach below: I have a grazing plan meeting the requirements of the Natural Resources Conservation Service Pennsylvania Technical Guide Practice Standard 528 for Prescribed Grazing. I am managing my pastures by maintaining dense vegetation in the pasture throughout the growing season. Dense vegetation means that the pasture is managed to minimize bare spots and to maintain an average vegetation height across the pasture during the growing season at least 3 inches high. Grazed fields that do not have an NRCS grazing plan which are overgrazed (as defined as not meeting the management requirements described above in check box "2") need either to be managed to restore dense vegetation or these areas will be defined as Animal Concentration Areas ("ACAs") and will need to meet the requirements of Section 5 Animal Concentration Areas of this manual. ANIMAL CONCENTRATION AREAS WORKSHEET Part 1 (See Page 22 of Manure Management Guidance Instructions) Some farms may need technical assistance in order to develop and implement BMPs on ACAs. The farmer has until October 29, 2013, to develop the BMPs and no more than 3 years from the date of developing those BMPs, to implement the BMPs. DEP believes that most farms will be able to begin implementation on a much shorter time frame but recognizes that more time may be needed for costly

## ANIMAL CONCENTRATION AREA WORKSHEET Part 2

# Use Additional Sheets as Necessary (See Page 22 of Manure Management Guidance Instructions)

List Yes if BMP has been implemented and if BMP is planned, list date for installation					
Location of ACA (refer to Farm Map)	Divert clean water around ACA	Direct polluted water to storage or vegetated treatment area	Limit access to streams through stabilized crossings and watering areas	Limit size of denuded areas	Locate area where animals congregate (feed areas, shade, etc.) away from streams

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### **RECORDKEEPING FORMS**

(See Pages 15 through 17 of Manure Management Guidance Instructions)



# MANURE APPLICATION RATE RECORD

JANUARY 1, \_\_\_\_ THROUGH DECEMBER 31, \_\_\_\_ Use Additional Sheets as Necessary (See Page 15 of Manure Management Guidance Instructions)

Date	Field Identification	Acres	Manure Group	Crop Group	Application Rate	Notes

# **CROP YIELD RECORD**

JANUARY 1, \_\_\_\_ THROUGH DECEMBER 31, \_\_\_\_ Use Additional Sheets as Necessary (See Page 16 of Manure Management Guidance Instructions)

Field Identification	Crop Group	Date Harvested	Yield Goal	Actual Yield Harvested	Notes

# MANURE TRANSFER RECORD

JANUARY 1, \_\_\_\_ THROUGH DECEMBER 31, \_\_\_\_ Use Additional Sheets as Necessary (See Page 16 of Manure Management Guidance Instructions)

Date	Name of Importer/Broker	Address and Phone Number Importer/Broker	Manure Group	Amount of Manure Transferred	Crop Group and Application Rate

## MANURE STORAGE FACILITY RECORD MONTHLY INSPECTION FORM

Use Additional Sheets as Necessary (See Page 17 of Manure Management Guidance Instructions)

Storage Name	Inspection Date	Manure Depth (liquid)	Depth from Surface of Manure to Freeboard (liquid)	Leak Detection System Inspections. Are there any leaks, overflows, or seepages? Describe.	Structural Integrity. Are there cracks, erosion, slope failures, liner deterioration, rodent holes, large vegetation, excessive or lush vegetation, fencing issues, loading area issues? Describe.