



# 2018 Nutrient Management Annual Implementation Report (AIR) for CAFO and MAFO Operations

Due March 1, 2019



Maryland  
Department of  
the Environment

For Office Use

## Farmer/Operator Information

- County \_\_\_\_\_
- MDA Operator Number \_\_\_\_\_ MDE AI Number: \_\_\_\_\_
- Operator/Owner **Legal** Name Last \_\_\_\_\_ Suffix \_\_\_\_\_  
First \_\_\_\_\_ Middle \_\_\_\_\_
- Farm/Operation Name \_\_\_\_\_
- Mailing Address \_\_\_\_\_
- City \_\_\_\_\_ 7. State \_\_\_\_\_ 8. Zip \_\_\_\_\_
- E-Mail address \_\_\_\_\_
- Telephone Number(s) Office \_\_\_\_\_ Home \_\_\_\_\_  
Cell \_\_\_\_\_

## Farm/Operation Information

11. \_\_\_\_\_ Total Farmed Acres including Pastures

12. Operation Type (Check all that apply)

- Crop Production
- Hay / Pasture
- Nursery/Greenhouse
- Organic
- Animal
- No-Land (0 Managed Acres)
- Other \_\_\_\_\_

13. Nutrient Sources (Check all that apply)

- Commercial Fertilizers  No-Land
- Biosolids/Sewage Sludge
- Animal Manure
- Other \_\_\_\_\_

14. Animals - Number of head during 2018.

- \_\_\_\_\_ Beef, cows and bulls
- \_\_\_\_\_ Beef, feeder cattle, 500 lbs and over
- \_\_\_\_\_ Beef, young stock, less than 500 lbs
- \_\_\_\_\_ Dairy, cows
- \_\_\_\_\_ Dairy, heifers
- \_\_\_\_\_ Dairy, calves
- \_\_\_\_\_ Swine, sows and boars
- \_\_\_\_\_ Swine, growers
- \_\_\_\_\_ Sheep
- \_\_\_\_\_ Goats
- \_\_\_\_\_ Horses
- \_\_\_\_\_ Other \_\_\_\_\_

## Poultry

15. Poultry (in 1,000s per flock)

- \_\_\_\_\_ Broilers/Roasters \_\_\_\_\_ Pullets
- \_\_\_\_\_ Layers \_\_\_\_\_ Turkeys

16. \_\_\_\_\_ Number of Flocks per year

## Poultry (continued)

17. Poultry Company Name: \_\_\_\_\_

18. \_\_\_\_\_ Number of Poultry Houses

19. \_\_\_\_\_ Total square feet of all poultry houses

20. \_\_\_\_\_ Poultry litter in tons removed during crust outs in 2018.  Check if Windrowed

21. \_\_\_\_\_ Poultry litter in tons removed during partial or total cleanout(s) in 2018.

22. Account ID updates - List changes to Account ID's, and check if added or deleted from operation since your 2017 AIR report. Attach additional pages if needed.

No change of account ID(s)

Added Deleted

- |                          |                          |       |
|--------------------------|--------------------------|-------|
| <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | _____ |

## Manure/Organics

23. \_\_\_\_\_ tons Solid manure collected (other than poultry)

24. \_\_\_\_\_ gals. Liquid manure/waste collected

25. Manure or Organics, all sources, imported or exported within the State of Maryland.

**Imported**  Check if None

Tons

Gallons

- \_\_\_\_\_ Manure/Poultry Litter
- \_\_\_\_\_ Biosolids/Sewage Sludge
- \_\_\_\_\_ Other Organics

**Exported**  Check if None

Tons

Gallons

- \_\_\_\_\_ Manure/Poultry Litter
- \_\_\_\_\_ Biosolids/Sewage Sludge
- \_\_\_\_\_ Other Organics

**Imported**  Check if None

<u>State</u>	<u>Tons</u>	<u>Gallons</u>	
_____	_____	_____	Manure/Poultry Litter
_____	_____	_____	Biosolids/Sewage Sludge
_____	_____	_____	Other Organics

**Exported**  Check if None

<u>State</u>	<u>Tons</u>	<u>Gallons</u>	
_____	_____	_____	Manure/Poultry Litter
_____	_____	_____	Biosolids/Sewage Sludge
_____	_____	_____	Other Organics

27. \_\_\_\_\_ Tons \_\_\_\_\_ Gals. Total manure used, including imported from all animal types.

28. \_\_\_\_\_ Number of manure storage structures?  Check if None

29. \_\_\_\_\_ Cu. Ft \_\_\_\_\_ Gals \_\_\_\_\_ Tons Total available storage

30. Yes  No  Temporary stockpiling of manure/organics?

**Innovative Management Practices** Total Number of Acres for each question. Put "0" if not applicable.

- 31. \_\_\_\_\_ Liquid manure applied with injector or other sub-surface applicator.
- 32. \_\_\_\_\_ Liquid manure incorporated within 48 hrs with vertical tillage equipment (Ex: "Turbo Till").
- 33. \_\_\_\_\_ Poultry litter incorporated within 48 hrs with vertical tillage equipment (Ex: "Turbo Till").
- 34. \_\_\_\_\_ Container nursery/greenhouse irrigation runoff and leachate capture and reuse.
- 35. \_\_\_\_\_ Acres under conservation tillage with 30%-59% residue coverage at planting.
- 36. \_\_\_\_\_ Acres under conservation tillage with 60% or more residue coverage at planting.
- 37. \_\_\_\_\_ Acres using variable rate fertilizer application or split application.
- 38. \_\_\_\_\_ Acres where Nitrogen was applied based on the recommendations of the Pre-Sidress Nitrogen Test (PSNT).
- 39. \_\_\_\_\_ Crop land under irrigation.
- 40. \_\_\_\_\_ Commercial fertilizer Nitrogen that was incorporated within 24 hours.
- 41. \_\_\_\_\_ Commercial fertilizer Phosphorus that was incorporated within 24 hours.
- 42. \_\_\_\_\_ Acres of manure application that were applied at the crops phosphorus removal rate.

**Nutrient Management Consultant and Plan Information**

- 43. Name of Nutrient Management Plan Writer: \_\_\_\_\_
- 44. Certificate # \_\_\_\_\_
- 45. License # \_\_\_\_\_
- 46. Date Nutrient Management Plan Written: \_\_\_\_\_
- 47. Date Nutrient Management Plan Expires: \_\_\_\_\_

**Report Certification :** The information contained within this 2018 Nutrient Management Annual Implementation Report (AIR) is true to the best of my knowledge. A valid nutrient management plan for my operation(s) for calendar year 2019 will be developed and implemented.

48. Operator's Signature \_\_\_\_\_

49. Printed Name: \_\_\_\_\_

50. Date signed: \_\_\_\_\_

**51. Summary of Nutrient Applications by Crop** See Instructions for help with this table.

**TOTAL pounds of AVAILABLE nutrients applied.** If you did not apply nutrients, list the crop, the crop acreage and write “none applied” across the row.

CROP Include Pastures	Acres	Commercial Fertilizer in pounds			Manure in pounds			Sewage Sludge in pounds			Other Organic Sources in pounds		
		N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O
Corn grain, dry land													
Corn grain, irrigated													
Corn silage													
Soybeans, full season													
Soybeans, double crop													
Small grains, Spring 2018													
Small grains, Fall 2018													
Hay, grass													
Hay, legume													
Pasture													
Vegetables													
Tobacco													
List other crops:													



**53. Manure Nutrient Content. Attach Lab Sheets.** Samples must reflect **2018 manure** used or exported.

Lab Name	Sample ID	Sample Date	% Moisture	Total N% dry basis	Total P <sub>2</sub> O <sub>5</sub> % dry	Total N% as is basis	Total P <sub>2</sub> O <sub>5</sub> % as is basis

**Land Application of Animal Waste**

54. \_\_\_\_\_ Total acres for land application covered by the nutrient management plan  
 55. \_\_\_\_\_ Total crop acres under operator's control on which animal waste is applied  
 56. \_\_\_\_\_ Total tons of solid manure land applied  
 57. \_\_\_\_\_ Total gallons of liquid manure land applied  
 58. \_\_\_\_\_ Total tons of poultry litter land applied

**59. Recipients of Exported Manure or Poultry Litter.** Use additional sheets if necessary.

Receiver's Name	Receiver's Complete Address	Manure Broker (Y/N)?

**60. Unpermitted Discharges.** List all times during **2018** that unpermitted discharges of contaminated water occurred from the production area to waters of the State (surface and ground water), along with date, time, quantity of discharge and the source, ex: chicken house, manure shed, swale between chicken houses, etc.

Check if no known discharge(s) occurred.

Date	Time	Quantity (gallons)	Source of Discharge