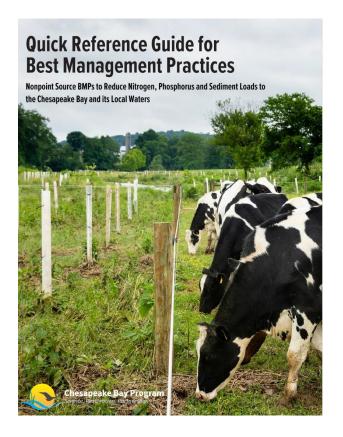


# BMP GUIDE UPDATE & ANIMAL MORTALITY MANAGEMENT EXPERT PANEL

Jeremy Hanson, Virginia Tech Watershed Technical Workgroup September 6, 2018







Chesapeake Bay Program Quick Reference Guide for BMPs

### A-2. Nutrient Management

### **General Information**

Nutrient management planning has been a common practice for decades, as it helps the farmer maximize profits by balancing crop yields and nutrient inputs. Nutrient management has four basic components: nutrient source, rate, placement and timing. Under a Nutrient Management Plan, each of these four components is managed at the field or sub-field scale in a manner that supports crop productivity, achieves high nutrient use efficiency by the crop and

Nutrient Management (NM): The implementation of a site-specific combination of nutrient source, rate, figure A-2-1. A tractor spreads liquid manure on a field. All crops nee timing, and placement into a strategy that seeks to nutrients such as nitrogen and phosphorus to grow, and farmers can optimize agronomic and environmentally efficient
utilization of nitrogen (N) and phosphorus (P).

get those nutrients from animal manure, commercia
fertilizers or both. Source: Chesopeake Bay Program itilization of nitrogen (N) and phosphorus (P). vement in nutrient-use efficiency necessitates documentation of nu



strategies that are suitable for independent verification

The BMPs for Nutrient Management are categorized into Core Nutrient Management and Supplemental Nutrient Management for both N and P. Supplemental NM is further divided by Rate, Placement, and Timing.

Nitrogen Core Nutrient Management: Applications of nitrogen are made i accordance to all of the following elements as applicable:

- · Land-grant university recommendations for nitrogen application Manure analysis and volume, using either test or book values to
- determine nitrogen content
- Calibration of spreader/applicator
- Yield estimates and cropping plan at the field level

· Cropping and manure application history at the field level.

hosphorus Core Nutrient Management: Applications of phosphorus are made in accordance to all of the following elements as applicable:

- Land-grant university recommendations for phosphorus at the field level. This may include recommendations resulting from advanced assessment (i.e. P Index, etc.) that recommend higher P application rates where the risk of P loss is low. Soil test for phosphorus levels at the field level. This
- requirement may be waived if restrictions on manure applications (rate, timing, and placement) are imposed that limit P application rates and management to the same degree as if the soil test result for phosphorus was in
- Manure analysis and volume using either test or book values to determine phosphorus conten

Calibration of spreader/applicator

BMP Reference Sheet A-2: Nutrient Managemen

ample to test nitrogen availability in the soi

# BMP GUIDE NOW AVAILABLE

- "BMP Guide" is online
- Currently includes all Ag practices, except
  - Biofilters, poultry litter amendments, lagoon covers
  - Practices currently under review or soon to be reviewed (e.g., water control structures, mortality composters)
  - Interim practices
- Septic and other remaining BMPs to be added in next update
- Intended as a living document
  - New/revised BMP reference sheets following WQGIT approval of panel reports
  - Errata/corrections periodically as able



# ANIMAL MORTALITY BMP PANEL

Approved by AgWG on Aug. 16

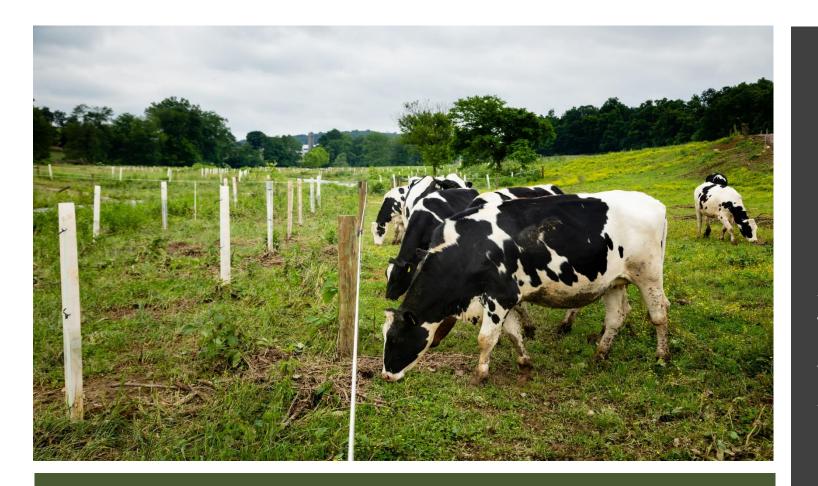
### Panel membership approved by AgWG + panel support roster

Name	Affiliation	Role
Doug Hamilton, PhD, PE	Oklahoma State University	Panel Chair
Thomas Bass	Montana State University	Panel Member
Amanda Abnee Gumbert, PhD	University of Kentucky	Panel Member
Ernest Hovingh, PhD	Pennsylvania State University	Panel Member
Mark Hutchinson	University of Maine	Panel Member
Teng Teeh Lim, PhD, PE	University of Missouri	Panel Member
Sandra Means, PE	USDA NRCS, East Nat'l Tech Support	Panel Member
	Center	
George "Bud" Malone	Malone Poultry Consulting; University	Panel Member
	of Delaware Extension (retired)	
<u>Panel Support</u>		
Jeremy Hanson	Virginia Tech	Panel Coordinator
Brian Benham	Virginia Tech	VT Principal Investigator
Jeff Sweeney	EPA CBPO	CBPO Modeling Team and Watershed
		Technical Workgroup rep
Mark Zolandz	EPA Region 3	EPA Region 3 regulatory rep
Loretta Collins	University of Maryland, CBPO	AgWG Coordinator
Mark Dubin	University of Maryland, CBPO	Senior Ag Advisor



### **NEXT STEPS**

- Aug 16: Approved by AgWG
- Currently: Finalize agreement b/w Va Tech and OK State; will begin to schedule and plan first set of calls, public stakeholder session and face-to-face meeting
- Can provide periodic updates to WTWG as requested/needed



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QUESTIONS?