

Indiana Fertilizer Advisory Board

Meeting Minutes



FAB meeting minutes 7/26/18

Members in attendance were: Jeffery Cummins, Joe Miller, Amy Cornell, Bob Avenius, Dr. Amy Gregg, Doug Anderson, John Freeland, Joe Russell, Matt Pearson & Julia Wickard.

Others in attendance were: Justin Schneider, Ben Wicker, Dr. Robert Waltz, Trish Dunn & Danny Starke

Meeting called to order by Russell at 9:35am

IC 15-16-2-25

Introductions were made around the room

Motion to approve the agenda made by Cornell, seconded by Anderson; motion passed

Motion to approve the minutes from the 12/19/17 meeting made by Freeland, seconded by Gregg; motion passed

OISC Fertilizer Update:

Pearson provided an overview of products registration & sampling activities:

- 1,410 fertilizer samples were collected and analyzed for the Spring 2018 season.
- Sample deficiency rate was 9.79%
- Sample deficiency rate for packaged products was over 25%
- Attached is a summary sheet

Pearson provided a rule revision update:

- Changes to the revised Ag Ammonia rules are waiting for exemption from the legislative moratorium. Request was submitted in October 2017 and as of this meeting date we are still waiting for approval.
 - Indiana Office of Management and Budget did a thorough review of the rules and compared them to the ANSI standards
 - Starke explained that the sticking point was OISC requirement for Emergency Shutoff Valves (ESV's) to be failsafe with electric or pneumatic. OMB thought that requiring ESV's to be failsafe was overly burdensome and that OISC could only require that a facility has an ESV and not the type of controls
 - Ag Ammonia Specialist Starke commented that during his inspections that only 25% of the cable ESV systems actually worked.
 - 75% failure rate for an Emergency Shutoff Valve did not seem like a performance standard OISC wanted to follow.
 - There are other ways to skin that cat to get compliance via inspections and enforcement actions.
 - Cornell suggests that ISDA ask OMB to keep the ball rolling.

- Proposed rule for processed manure is also waiting for exemption from the legislative moratorium.
- Other rules that OISC are working on:
 - Amend fertilizer civil penalty (355 IAC 9) to include violations of the Ag Ammonia rules will start once the ammonia rules are finalized.
 - o Include
 - Revise Lawn Care Service Law or add rules that better reflect labeling and consumer protection.

Dunn provided an update on her complaints and activities as the Fertilizer Control Specialist:

- Investigating fertilizer complaints
 - \circ 2018 to date = 62
 - o 2017 = 54
 - o 2016 = 80
 - o 2015 = 81
- Complaints concerning staging, application & licensing
- Complaints from all around the state North East and East Central having nearly twice as many as the other areas.
- Summary is attached

Ben Wicker with the Indiana Agriculture Nutrient Alliance (IANA) provided an overview of what IANA is and what they do.

- <u>www.inagnutrients.org</u>
- Ben's presentation is attached
- Justin Schneider added some conversations and observation he had with EPA concerning nutrient reduction strategies
- Dr. Waltz discussed the value of riparian corridors

Industry update from around the table:

- Freeland: Less starter fertilizer is being used and more nutritional in crop fertilizers.
- Anderson: Economics won't allow over fertilizations. Seeing more "split shot" applications
- Avenius: Labor and trucking are obstacles for lawn care. Some lawns are showing signs of Phosphorous deficiency.
- Cornell: 4R advisory committee met earlier in July and will continue; Chemical Facility Anti-Terrorism Standards needs to be reauthorized as it expires in January 2019.

Members of the FAB were reappointed on January 5, 2018 by Dr. Waltz. Thank you for your continued service. We are in need of filling one vacancy for the "One (1) representative of fertilizer manufacturing, distributing, or manufacturing and distributing." position and finding a replacement for John Freeland once he retires in December.

With nothing further to discuss meeting was adjourned at 12:22pm

Future meeting will be December 21st at the Purdue University Turf Center in West Lafayette. Page 2 of 38

OISC Fertilizer Sample Summary 7-26-18 Fertilizer Advisory Board meeting

		Totals	Ν	P2O5	K2O	Са	Mg	S	В	CI	Со	Cu	Fe	Mn	Мо	Na	Zn
07-18		29,040	25,286	14,473	6,909	745	1,028	5,595	989	-	13	958	1,506	1,389	417	14	2,229
	Fail	2,647	828	1,235	381	-	38	260	34	-	-	9	86	49	-	1	80
	% Fail	9.12%	3.27%	8.53%	5.51%	0.00%	3.70%	4.65%	3.44%		0.00%	0.94%	5.71%	3.53%	0.00%	7.14%	3.59%
Spring '18		1,410	1,294	666	228	39	50	387	50	-	-	48	55	72	13	-	133
	Fail	138	42	64	20	3	-	19	2	-	-	1	-	2	-	-	4
	% Fail	9.79%	3.25%	9.61%	8.77%	7.69%	0.00%	4.91%	4.00%			2.08%	0.00%	2.78%	0.00%		3.01%
												-					
Package '1		165	116	95	100	26	22	50	30	-	-	26	34	41	11	-	53
	Fail	43	14	12	10	2	-	3	2	-	-	1	-	2	-	-	2
	% Fail	26.06%	12.07%	12.63%	10.00%	7.69%	0.00%	6.00%	6.67%			3.85%	0.00%	4.88%	0.00%		3.77%
Small Pack		51	44	51	44	21	18	10	9	-	-	12	17	14	8	-	13
	Fail	9	2	5	1	2	-	-	-	-	-	-	-	-	-	-	-
	% Fail	<mark>17.65%</mark>	4.55%	9.80%	2.27%	9.52%	0.00%	0.00%	0.00%			0.00%	0.00%	0.00%	0.00%		0.00%
	14.0		=0		= (_							1-				
Large Pack		114	72	44	56	5	4	40	21	-	-	14	17	27	3	-	40
	Fail	34	12	7	9	-	-	3	2	-	-	1	-	2	-	-	2
	% Fail	29.82%	16.67%	15.91%	16.07%	0.00%	0.00%	7.50%	9.52%			7.14%	0.00%	7.41%	0.00%		5.00%
Bulk '18		1,245	1,178	571	128	13	28	337	20		_	22	21	31	2		80
DUIK TO	Fail	95	28	52	120	13	- 20	16	20	-	-		21	-	2	-	2
	% Fail	7.63%	2.38%	9.11%	7.81%	7.69%	0.00%	4.75%	0.00%	-	_	0.00%	0.00%	0.00%	0.00%		2.50%
	70 T UII	7.0070	2.5070	7.1170	7.0170	1.0770	0.0070	4.7070	0.0070			0.0070	0.0070	0.0070	0.0070		2.0070
History Pac	ck	3,889	3,301	2,721	3,075	656	583	1,311	763	-	11	731	1,355	1,042	405	14	1,084
	Fail	1,018	345	341	247	-	17	82	23	-	-	5	83	25	-	1	32
	% Fail	26.18%	10.45%	12.53%	8.03%	0.00%	2.92%	6.25%	3.01%		0.00%	0.68%	6.13%	2.40%	0.00%	7.14%	2.95%
Hist Small		1,840	1,699	1,661	1,642	498	466	536	447	-	10	507	817	669	341	11	628
	Fail	440	108	206	118	-	14	33	-	-	-	-	22	6	-	1	4
	% Fail	23.91%	6.36%	12.40%	7.19%	0.00%	3.00%	6.16%	0.00%		0.00%	0.00%	2.69%	0.90%	0.00%	9.09%	0.64%
Hist Large		2,057	1,609	1,067	1,440	159	120	779	317	-	1	226	542	376	65	3	458
	Fail	581	237	136	132	-	3	49	23	-	-	5	61	19	-	-	28
	% Fail	28.25%	14.73%	12.75%	9.17%	0.00%	2.50%	6.29%	7.26%		0.00%	2.21%	11.25%	5.05%	0.00%	0.00%	6.11%

Trish's Dish:

What's on her plate?



Manure Investigation

- Staging Complaints
- Application Complaints
- Licensing Complaints

Staging - Manure

- 100 feet from property line and public road
- 400 feet from residential buildings
- Do not place within 300 feet of surface water, drainage inlets or water wells
- Manure cannot be staged on the side of a hill
- Cannot place in standing water, a waterway or floodway
- After 72 hours, the pile needs to be covered or bermed
- Applied within 90 days



Bermed with Lime



Bermed with Dirt



Covered with a tarp

Violations



8/22/2018

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Berming/Gradient Barrier Education

Is the berm accomplishing the intent of the rule?

Is the berm accomplishing the intent of the rule?



Application Setbacks

	LIQUID Injection or Single-pass Incorporation of LIQUID or SOLID	LIQUID Incorporation (within 24 hr) or Surface- applied SOLID
Public Water Supply	500 feet	500 feet
Surface Waters	25 feet	50 feet
Sinkholes	25 feet	50 feet
Water Wells	50 feet	50 feet
Drainage Inlets	5 feet	50 feet
Property Lines	0 feet	10 feet
Public Roads	0 feet	10 feet

Application Setbacks

	Surface-applied Liquid— no incorporation or injection of manure				
	Less than 6% Slope or Residue Cover	Greater than 6% Slope			
Public Water Wells	500 feet	500 feet			
Surface Waters	100 feet	200 feet			
Sink Holes	100 feet	200 feet			
Water Wells	100 feet	200 feet			
Drainage Inlets	100 feet	200 feet			
Property Lines	50 feet	50 feet			
Public Roads	50 feet	50 feet			

Violations



Licensing

- Fertilizer Business License \$45/year
 - For-hire applicator
 - Hauler to the end user
 - Requires a certified applicator
- Distributor License \$45/year
 - CFO distributing manure off the farm (M&D)
 - Broker of commercial fertilizer
 - No use handling, transporting or application
- Applicator (Private or Commercial)
 - Same Test Category 14
 - Private (farmer) \$20 every 5 years
 - Commercial (for hire) \$45 renewed yearly
 - Recertification
 - Private 3 PARPs in 5 years
 - Commercial 3 CCHs in 5 years



Investigations

Summary from 2015 - Current



- Total: 81 (NV 42, Warning 10, Withdrawn 1, Citation 29)
 Staging 44
 - Application 24
 - Licensing 13
 - Application Plan 7
 - Containment 2

- Total: 80 (NV 34, Warning 3, Citations 21, Withdrawn 2)
 Staging 23
 - Application 34
 - Licensing 18
 - Application Plan 5
 - Containment 2

- Total: 54
 - Staging 13
 - Application 27
 - Licensing 16
 - Application Plan 0
 - Containment 1

- Total: 62 (As of today) • Staging – 23
 - Application 18
 - Licensing 23
 - Application Plan 0
 - Containment 0

2018 Complaints

- Northwest (8)
 - Elkhart 1
 - Fulton 2
 - Jasper 1
 - Marshall 1
 - Pulaski 2
 - St. Joe 1
- West Central (7)
 - Boone 1
 - Carroll 1
 - Cass 1
 - Montgomery 1
 - Vermillion 1
 - Vigo 1
 - White 1
- Southwest (9)
 - Dubois 2
 - Gibson 1
 - Greene 1
 - Knox 1
 - Lawrence 1
 - Martin 1
 - Orange 1
 - Perry 1



- Northeast (16)
 - Adams 4
 - Allen 1
 - DeKalb-1
 - Huntington 1
 - Kosciusko 3
 - Miami 1
 - Steuben 1
 - Wabash 2
 - Wells 1
 - Whitley 1
- East Central (15)
 - Delaware 2
 - Howard 1
 - Jay 3
 - Madison 1
 - Randolph 7
 - Wayne 1
- Southeast (7)
 - Decatur 1
 - Harrison 1
 - Marion 1
 - Rush 2
 - Shelby 1Washington 1

Property Tax Deductions



Containment Facilities Requesting Deduction

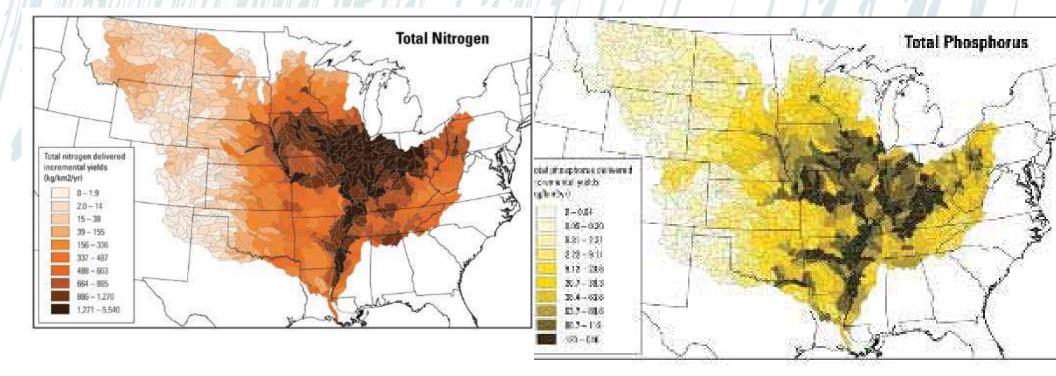
- 2014 1
- 2015 7
- 2016 16
- 2017 12
- 2018 5

Indiana Agriculture Nutrient Alliance

BEN WICKER EXECUTIVE DIRECTOR



Agriculture must be proactive



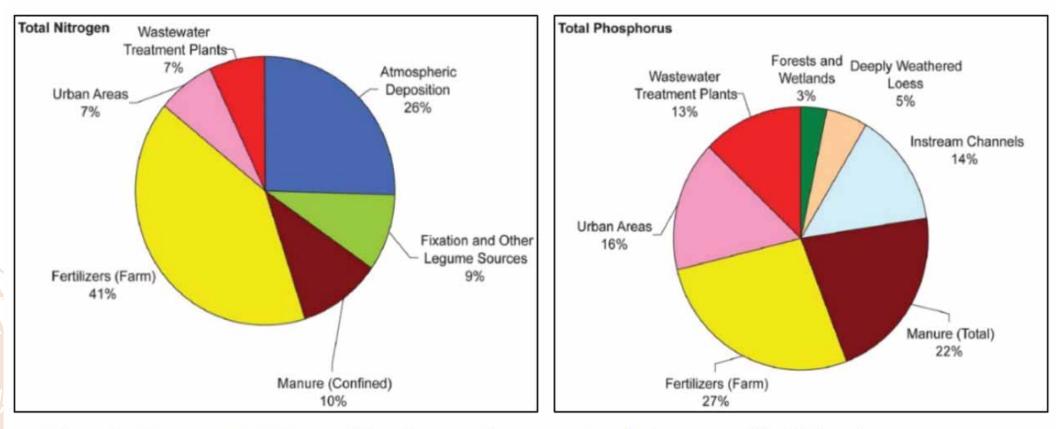
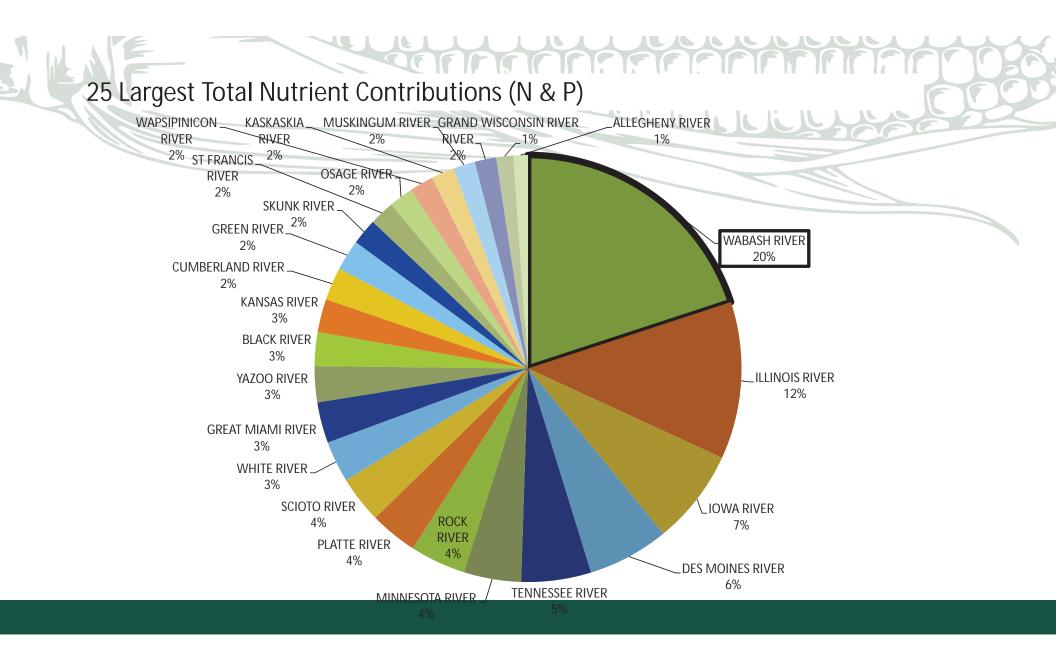


Figure 9. USGS SPARROW model estimates of sources of total nitrogen and total phosphorus transported from Mississippi River Basin to Gulf of Mexico (Robertson and Saad 2013).



Expectations Have Been Established

 Gulf Hypoxia Taskforce

Western Lake
 Erie Basin

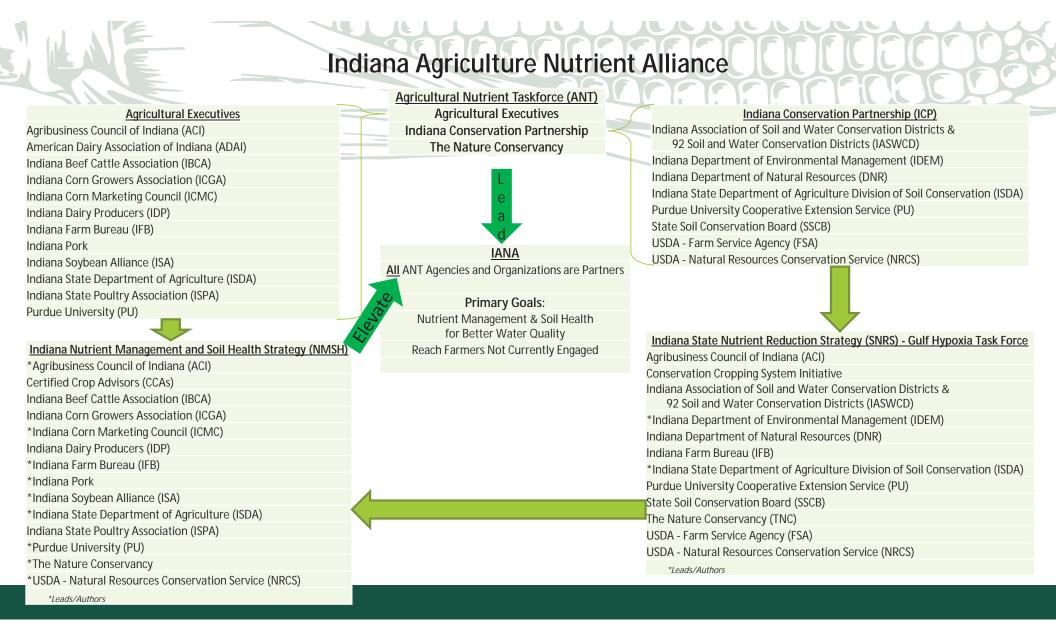
- 20% Nitrogen Loading Reduction by 2025
- 40% Phosphorus and Sediment Loading Reduction by 2025



Call to Action

About half of Indiana's farmers either don't know of or don't see specific water pollutant problems in their area¹

¹Stalker Prokopy, L. and J. Ulrich-Schad. 2014. Understanding Nutrient Management Decisions: Examination of the Agricultural Community in Indiana. Purdue University, Department of Forestry and Natural Resources, Natural Resources Social Science Lab



Indiana Agriculture Nutrient Alliance

Agriculture Organizations

Indiana Conservation Partnership

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Conservation Organizations Keeping Indiana farmers at the forefront of proactive nutrient management and soil health practices that improve farm viability and, ultimately, reduce nutrient loss to water

IANA Board Members

Executive Committee

- Agribusiness
 Council of Indiana
- Indiana Farm Bureau
- National Resources Conservation Services of Indiana
- Indiana Soybean Alliance

- American Dairy Association of Indiana
- Indiana Association of SWCDs
- Indiana Beef Cattle Association
- Indiana Corn Marketing Council
- Indiana Dairy Producers
- Indiana Pork
- Indiana State Department of Agriculture
- Indiana State Poultry Association
- Purdue University
- The Nature Conservancy of Indiana

SHARED SOLUTIONS

Focused efforts for greater success - To further the adoption and implementation of practices that optimize nutrient use efficiency and enhance soil health, IANA will focus on four main areas:



Foundation:

SHARED GOALS

Establish goals for statewide practice adoption that encourage fertilizer and nutrient loss reductions

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Education:

SHARED INFORMATION

Develop best management practice (BMP) educational materials for our farmers and stakeholders to encourage fertilizer and nutrient loss reductions



Collaboration: SHARED OPPORTUNITIES

Communicate IANA partnership organizations' efforts to strengthen synergies and maximize awareness, support and implementation of strategic objectives



Research: SHARED OUTCOMES

Assist partners with pursuing collaborative nutrient-focused research, identifying synergies and compiling outcomes

IANA Goals

	Action	2025*
	Utilization of 4R Principles for Nutrient Management:	Farmer %
Nutrient	Farmers Regularly Performing Soil Sampling	100%
Management	Farmers Planning for Nutrient Management	100%

IANA Goals

	Action	2025*
	Utilization of 4R Principles for Nutrient Management:	Farmer %
Application	Farmers Making Frozen or Snow Covered Ground Application of Nutrients Applied Only as Last Resort Option	100%
•	Farmers Making Application of Nutrients to Crops at Planting or Post Emergence	75%

IANA Goals

	Action	2025*
	Statewide Soil Health Practices:	Acre %
	30% Increase of Green Living Cover Crop Acres	40%
Soil Health	25% Increase of Minimum Tillage Acres	75%
	10% Increase of No-Till and Strip-Till Acres	35%

Healthy Soil, Clean Water, Viable Farms

	Action	2025*
	Utilization of 4R Principles for Nutrient Management:	Farmer %
Nutrient	Farmers Regularly Performing Soil Sampling	100%
Management	Farmers Planning for Nutrient Management	100%
Application Timing	Farmers Making Frozen or Snow Covered Ground Application of Nutrients Applied Only as Last Resort Option	100%
	Farmers Making Application of Nutrients to Crops at Planting or Post Emergence	75%
_	Statewide Soil Health Practices:	Acre %
	30% Increase of Green Living Cover Crop Acres	40%
Soil Health	25% Increase of Minimum Tillage Acres	75%
	10% Increase of No-Till and Strip-Till Acres	35%
	*Base year 2014	





Questions?

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